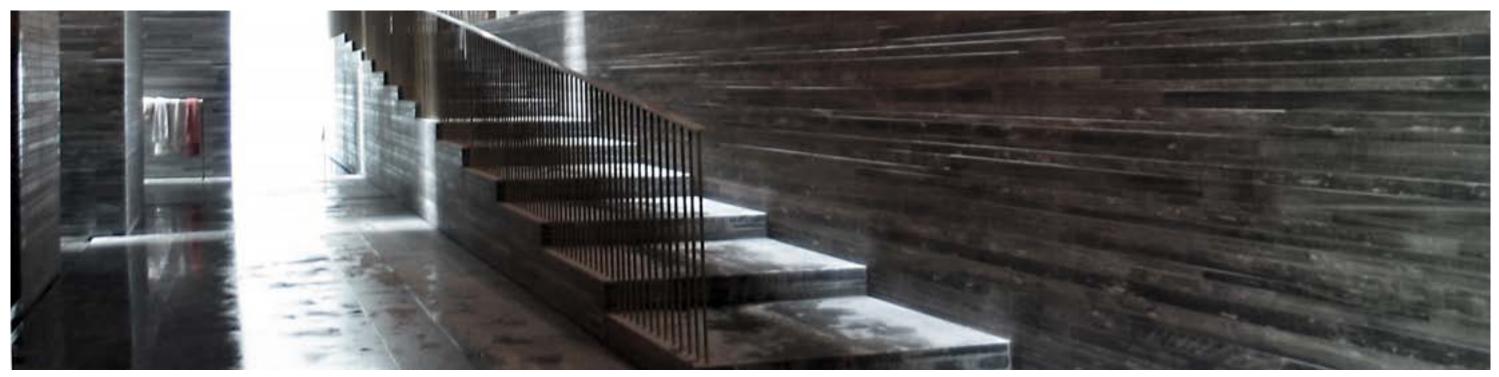
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I am indebted first and foremost to Jane Allan for her time, critical comment and untiring ears. The second important acknowledgement of support must go to my family and friends who have been endlessly badgered into being listening posts for the duration of this PhD (Clair, Tom, Gonnie, Andrew and Daniel thank you...). Thanks also to my collogues and the staff and associates of GSA who have offered their comments, insights and support: Jack Cunningham, Bill Gilham, Bruce Peter, Christian Hermansen, Isi Metztein, Nigel Munroe, Jimmy Sephen-Cran, Helena Britt, Leigh Bagley, Juliet Dearden, and Roger Millar. In the process of this project a number of companies and organisations have kindly given their time and services: David Cloney and James Cambell of the Division of Design and Engineering from The University of Paisley, David Gilbert from The Spark Erosion Centre and Thomas Pink. Lastly an important acknowledgement must go to Carrick for funding this research. *.title* Architectonic Jewellery An interrogation of the translation of ideas from architecture to jewellery through the design and production of contemporary jewellery

I hereby declare that all material in this thesis is my own work and that no material has previously been submitted and approved for the award of a degree by this or any other University.

©Vanessa Ward, PhD, Glasgow School of Art, Department of Jewellery and Silversmithing. April 2005

.abstract



Architectonic Jewellery

This research interrogates the translation of ideas from architecture to jewellery, through the design and production of contemporary jewellery. Necessarily this interdisciplinary focus has two contexts; contemporary jewellery and the architectural world from which ideas are translated. The practitioner comprises the third element, determining the way in which ideas are interpreted and expressed. The aims of this research are to define and locate architectonic jewellery and through practice to contribute to this field.

The *Rationale and contextual review* (chapter2), locates architectonic jewellery as a sub-genre of contemporary or studio jewellery; positioned as a strand of Modernist jewellery emergent from a Constructivist tradition, parallels are drawn to the American Modernist movement. The identification of three strands (*abstract*, *interpretive* and *figurative*), within architectonic jewellery explore this translation of ideas from one discipline to another. The contextual review was instrumental in the identification of the positioning of the practicebased research. The method decided upon for the design of jewellery was through response to a selected architectural exemplar.

The Role of architectural theory (chapter3), details the architectural context and understanding gained of the main exemplar, Therme Vals, Graubunden, Switzerland by architect Peter Zumthor. Associated with the Swiss Essentialists and continuing in a Modernist tradition, the origins and philosophical underpinning of this architecture were established. An investigation into Phenomenology provided a fundamental understanding of architecture, a means to observe and articulate the act of experiencing (in responding to an architectural site) and altered the dimensions of material consideration in the design process.

Idea development (chapter4), documents the development of ideas in the self-reflexive practice. The design process is explained in chronological order. The establishment of selection criteria for architecture initiated this iterative development. The three phases of response to the architectural exemplar are discussed, each phase resulting in the analysis of design and the alteration of the selection criteria. Phase one responded to Juha Leiviska's Myyrmaki Church through secondary sources. Phase two, to the Burrell collection and Phase three to Therme Vals. All three investigations responded purely to the visual language of the architecture. Phase three comprises of two site visits to Therme Vals, the second of which was preceeded by research into the architectural theory and Phenomenology as discussed in Chapter 3. The research process culminated in the design of works in response to the second visit to Therme Vals.

This practice-based research positions architectonic jewellery and through the design process establishes a new paradigm that uses phenomenology as an interpretive tool.

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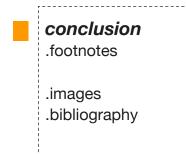
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Architectonic Jewellery.

An interrogation of the translation of ideas from architecture to jewellery through the design and production of contemporary jewellery.

The aims of this research project stem from two primary questions, what is architectonic jewellery and how may I contribute to this field. Necessarily this interdisciplinary subject is comprised of three dynamics: the jewellery (the artefact), the architecture (from which ideas are translated), and the designer (who interprets and creates). This is reflected in the structure of this written thesis. The Rationale and contextual review chapter begins to answer the first questions – what is architectonic jewellery? – with an investigation into the origins of this sub-genre of contemporary jewellery. This chapter

positions architectonic jewellery and its influences, relating it to the American Modernist movement of the 40s. The contextual review explores the ways in which the translation of ideas from architecture to jewellery occur, through a discussion of works and their makers. This review identifies three strands of architectonic jewellery (abstract, interpretive and figurative), which define the types of architectural ideas and their translation. The Rationale and contextual review chapter concludes by locating the practice-based research as: the design and production of contemporary jewellery in response to a selected architectural exemplar. This chapter also crucially serves to position the next primary question: how may I contribute to the field of architectonic jewellery? The two chapters that follow – Role of architectural theory and Idea development – answer this question.

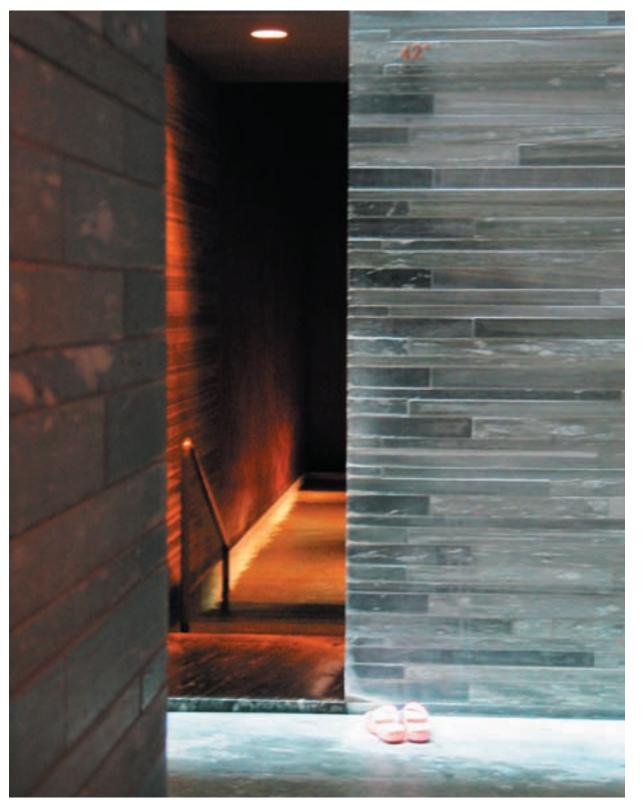
The positioning of the practice-based research as the design of jewellery in response to a selected architectural

exemplar required the establishment of a context within architecture. The Role of architectural theory chapter discusses the research into architectural theory and the understandings arrived at. Beginning at a macro level, phenomenology is introduced as a philosophical basis and interpretive tool for the perception of architecture and later the chosen exemplar. Phenomenology is introduced as a science in the first instance. The perspectives given to illustrate its architectural relevance include those of Christian Norberg-Schulz and Juhani Pallasmaa. This philosophical stance has particular resonance with the chosen architectural exemplar, Therme Vals by Peter Zumthor. The other architectural contexts discussed in this chapter explore the cultural and historical milieu of Therme Vals, and its architect. This research associates Zumthor with the Swiss Essentialists and explains their relationship to Modernism. This chapter details the architectural focus and understandings reached during this research.

The Idea development chapter explains in chronological order the design process that culminated in the production of three jewellery collections responding

1.1. From Displacement series. 2002. Bracelet. Silver

introduction



to Therme Vals. This self-reflexive *practice* evolves initially through the development of architectural selection criteria and then establishes a model of response in conjunction with the selected exemplar. This is followed by the design and production of jewellery in response to the chosen architectural site. The design process occurs in three phases: firstly responding to Juha Leiviska's Myyrmaki Church, then the Burrell Collection in Glasgow, and lastly Therme Vals. Response to these exemplars and the way in which they altered the direction of the research is discussed. The main focus of this chapter details the response to Therme Vals. The theoretical discourse in Chapter 3, the Role of architectural theory, takes place between the first and second visits to Therme Vals.

It can be seen from this introduction to the written thesis how the research project evolved from the posing of two primary questions: 'what is architectonic jewellery?' and 'how may I contribute to this field?' The many secondary research questions¹ that arose in the process reflect the emergent methodology. In this way it was impossible from the outset to foresee the path of development the research project would take. The inclusion of investigations into phenomenology and the number of architectural exemplars chosen reveal the reflexivity necessary to reach the sought level of understanding.

"Theories are based on experience, which helps us understand more complex things. This kind of theorizing involves understanding, which is a cognitive process whereby who we are and what we know shape interactions and transform awareness. In these instances, intuition and intellect, grounded in context-specific circumstances provide an experiential base for constructing new frameworks of understanding."²

This description by Sullivan illustrates the positioning of the 'self' in a reflexive research practice that uses an emergent methodology. In the case of this research, theories are brought together to create an understanding of the interaction between two disciplines. The iterative process of selecting, experiencing, responding, interpreting, designing and adapting creates an experiential base from which a framework is emergent. This demonstrates the implausibility of adhering to a pre-established methodology.

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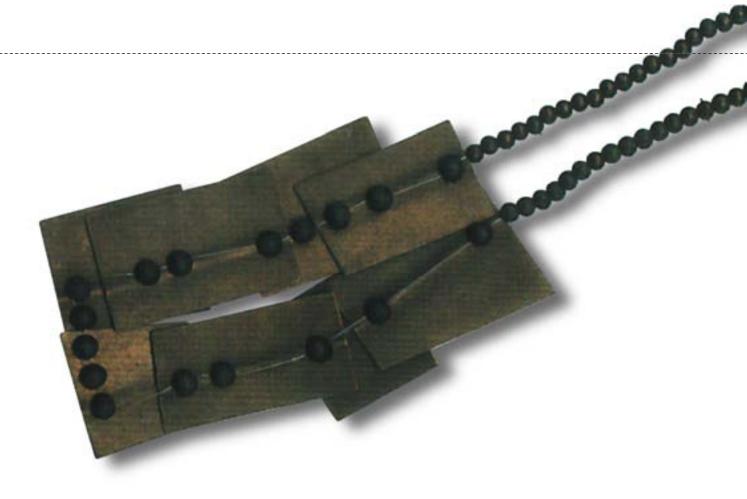
I. A comprehensive discussion of the primary and secondary research questions is provided in the conclusion; the decision to locate the research questions in the conclusion stems from the use of an emergent methodology.

2. Sullivan, Graeme. Art Practice as Research: an enquiry in the visual arts. Sage Publications. California. 2005. p73

2.2. Looking towards the entrance of the 42° bath. Therme Vals. Peter Zumthor.







.introduction

This rationale aims to highlight the key factors that contributed to the development of architectonic jewellery. In order to understand the origins of this sub-genre of jewellery, it is necessary to begin with the emergence of contemporary or studio jewellery as a movement. One of the earliest expressions of contemporary jewellery is through the American

Modernist style. This is touched upon in order to emphasise the appropriation of ideas from other disciplines, particularly architecture into jewellery. Additionally, American Modernist style can be considered as a precursor to architectonic jewellery. The literature review describes the selection of jewellers who feature in the contextual study, and it shows how they have

interpreted and used architecture and its principles in their work. It will be shown how these works explore the relationship between architecture and jewellery, creating an inter-disciplinary dialogue. The contextual study is crucial not only in defining and identifying architectonic jewellery but also in locating the parameters within which the practical research is located.

2.1. (left) Onno Boekhoudt. Room for a finger. 1993. Wood and paint. 2.2 (middle) Anton Cepka. 1967. Brooch. Fine silver, red, pink gemstone, probably tourmaline 2.3 (Above) Beate Eisemann. Neck piece. 2001. Iron, silver, rubber.

*rationale*and*contextual*review



.contemporary jewellery

"The origins of contemporary jewellery have been traced to 1936 when Sam Kramer began to make jewellery influenced by Surrealism."1

Kramer was part of the "non-rational" strand of Modernist jewellery. Contemporary jewellery or "studio" jewellery emerged more fully in the 40s (with Modernist jewellery developing more prolifically in America than Europe and Britain) gaining full recognition and prominence in the early 60s.

There exists some flexibility in the usage of the terms "contemporary" and "Modernist" within literature documenting this period. The two terms are not interchangeable and to clarify meaning for the purposes of this research, "contemporary" is understood to be

the overall genre of jewellery first developing around the 1930s. Contemporary jewellery, sometimes referred to as studio or art jewellery, is usually designed and made by individuals. The value of the jewellery lies in not just the material value of the works but in the ideas expressed therein. Modernist jewellery refers to a specific style of expression, which is a subset of contemporary jewellery.

Contemporary jewellery developed from a change in cultural values. Discussed below are some of the contributing factors. This excerpt from the Cross Currents exhibition catalogue retrospectively evaluates the shift of ideas and values that contributed to the emergence of contemporary jewellery.

"The word, 'jewellery', the noun, the meaning of which has been preserved and nurtured for countless years in a symbolic order which once provided religious ceremony, and heraldry with their material manifestations of meaning, and later was to enhance a new code of recognitions based within a secular world, is in a state of fractured continuance... In very recent years, a number of individuals, intent upon questioning and re-evaluating the traditional values and functional roles previously available to jewellery, have been influential in the bringing about of a fractured state of meaning to the word jewellery... A hybrid 'jewellery' -averb - emerged out of the necessity to speak about the world of experience as it is; not how it was, or even how it should be. Its formal, technical, material and functional aspects are no longer derived solely from other or earlier jewellery. Its strategies are often borne out of other disciplines and areas of knowledge."²

Tom Arthur refers to the change in the symbolic value and role of jewellery. This is reflective of the cultural and social milieu of its time. Arthur echoes Harvey when he speaks of:

'Construction of spatial representations and artefacts out of the flow of human experience".³

The value of jewellery as a cultural artefact as opposed to being exclusively a sign of material wealth distinguishes contemporary jewellery from its historical counterpart.

"Jewelry making is ever evolving in new ways dictated by changes in the physical environment and especially the social climate. Most of the major changes in the evolution of jewelry making, in fact, have been impelled by people's changing ideals, values and attitudes."4

The historically changing role of jewellery can be seen to contribute to the attitudes and values within which contemporary jewellery is understood today. In turn, this can be seen to reflect attitudes towards the body.

"lewelry is firmly grounded in the human condition... inextricable from the presence of a living person: most jewelry is made to be worn, or to be imagined being worn. So like garments, the site of jewelry is the body"⁵

Here Bruce Metcalf refers to jewellery in terms of personal decoration, visual accent and as a compositional device on the body, displaying socially meaningful codes such as status, power and/or sexual appeal.

Indeed all factors that have contributed to the development of jewellery, be it value, social status, identity, ritual and vanity, have been used as cultural capital in contemporary jewellery, to be questioned, played with - and in some cases subverted.

2.4. (left) Merry Renk. 1948. Building. Brooch. Silver, evnamel 2.5 (above) Naum Slutzky. 1929. Necklace. White and fine gold, Chrysopras and Almandin

.beginnings of modernist jewellery

Modernist jewellery developed under the influence of principles originating in fine art and architecture. Two clear strands have been identified: the first are the 'nonrational' works of jewellers who were inspired by Dada and Surrealism, with the second being 'rational' works, which are the focus of this text.⁶ The 'rational' strand of Modernist jewellery exists as a parallel style to that of architectonic jewellery, taking its influences from Constructivism, the then prevailing machine aesthetic as well as from architectural design theory. Significant impetus to the development of contemporary jewellery was borne out of a reaction to the historical imitations produced at the beginning of the 20th century. Chuck Evans writes that these were Baroque, Rococo, or Victorian stamped out pieces, copies of the past that

were available due to the mechanised buffing, precision casting and stamping that had become available.

These mass-produced pieces were in demand by people who had never been able to afford the luxury of jewellery in the past.7 Even so, these pieces were impersonal, machine made pieces of poor quality, as Evans comments:

"The jeweler's reliance on the machine and mass production, and the public's satisfaction with the resulting products, led to a gradual decline in creative expression with jewelry that reflected a cold, machine-like look. The hand was no match for the machine and an economically free society demanding large quantities of inexpensive jewelry... Near the end of the nineteenth century artists began to rebel against the lifeless machine aesthetic. At the same time, more people began asking for jewelry evincing personal effort."⁸

Evans discusses this reaction against the industrialised aesthetic in relation to William Morris and the Arts and Crafts movement - specifically in terms of the role Morris's ideas played in the development of the Art Nouveau style, whose jewellery output was prolific. (2.6.)

The Art Nouveau style is key in the evolution of contemporary studio jewellery not only because it abolished historicism but also because it set precedents for material usage as explained by Erhard Brepohl:

"Numerous progressive artists of the Art Nouveau movement tried to counter the general decline of taste by consciously incorporating the possibilities of the industrial techniques in their designs. At the same time, important one-of-a-kind pieces were also being created. For the first time since prehistory, materials of various kinds were brought together solely for design and creative reasons without regard to their material value. It's possible to trace contemporary attitudes about materials to this period of history."9

2.6. French Art Nouveau carved and tinted horn comb. Horn, black enamel and rose diamonds. Probably by Gaillard made for export.

rationaleandcontextualreview.beginnings of modernist jewellery



Morton makes a clear distinction between reactions to the dominance of the machine: there were those who wished it absent, and those who tried to master it so that it may serve as a tool for artistic expression.¹⁰ Walter Gropius, founder of the Bauhaus, fits into the latter category. Thus it can be seen that the Art Nouveau style set a precedent in its free attitude towards material usage in jewellery, further to this the ideas developed in design at the Bauhaus and the resulting celebration of the machine aesthetic both contributed to the ideas expressed in architectonic jewellery.

Whilst it is simplistic to suggest these were the only factors that contributed to the development of architectonic jewellery today, they more significant shifts in attitudes towards jewellery and design.

Thus architectonic jewellery can be defined as a strand of contemporary studio jewellery which developed from the well documented Modernist movement, whose foundations are crystallised in the manifestoes of the Bauhaus and advanced through its teachings.

The Bauhaus Manifesto of 1919 called for the unity of all the creative arts under the primacy of architecture and for a reconsideration of the crafts by the artist.¹¹ Of importance to the development of architectonic jewellery were the various disciplines that were imparted to staff and students. Howard Dearstyne discusses the hierarchy: the artist was considered an enhanced "craftsman", but the goal of all arts was architecture.

"The Bauhaus had as great an impact on jewellery, as it did on all the visual arts. Ideas conceived at that time are still valid, and in the later forties and fifties it became a great source of inspiration for many jewellers."¹²



Particularly influential on the development of modernist jewellery were the teachings of Ukrainian born Naum Slutzky and Hungarian Constructivist Laszlo Moholy-Nagy.

Slutzky ran the jewellery workshop from 1919–1923 as a private enterprise in conjunction with the Bauhaus. At that time, he was one of the only teachers at the

Bauhaus who was both artist and technician, and was respected for his creative and experimental approach to metalwork.¹³ (2.5. 2.9.) He later emigrated to Britain to continue both as a practioner and as a teacher at the Central School of Arts and Crafts in London.¹⁴

Dr. Christianne Weber-Stöber summarises the impact of Slutzky's work on the language of Modern jewellery in her address to the School for Goldsmithing in Hannau Germany thus:

"Naum Slutzky renewed three important aspects of jewellery creation: the reduction of formal creation without decorative accessories, the technical kinetic stance and the procession with new materials like synthetics, glass and chromium. These became established in the creation of jewellery."¹⁵

Moholy-Nagy began as head of the Metal workshop in 1923:

"His classes [were] concerned with the elementary visual education and perception... thinking regarding construction, static and dynamic factors, balance and space... his students were to demonstrate, for example, suspended equilibrium, the possibility of balancing something that rests on only one point, and similar phenomena."16



2.7. (left) Margrate dePatta. 1948. Brooch. Silver 2.8. (middle) Margrate dePatta. 1950. Brooch. Silver 2.9. (above) Naum Slutzky. 1961. Pendant. Silver bands and blue enamel

The implications and possibilities for architectonic jewellery can be seen clearly in this description, and indeed were endorsed directly by Margaret DePatta. The curriculum set by Moholy-Nagy was developed through his later teaching of jewellery in the United States.These principles were

instrumental in the shaping of the ideas and ideals of influential American Modernist jewellers.

"Before and during WWII, America became a haven for émigré artists from Europe and fertile ground for new modernist ideas to take root. Joseph and Anni Albers set up a Bauhaus-type program at Black Mountain College in North Carolina in the early 1930s, Gropius, Breuer, and Moholy-Nagy immigrated to the US from England in 1937 and Mies van der Rohe and Herbert Bayer came from Germany. These talented designers became teachers at universities in the United States and set up programs of study based on the principles of the Bauhaus."¹⁷

Ralph Turner however comments that despite the of the European avant-garde, who brought their world" to New York, American studio jewellery developed independently of European gold-smith traditions.¹⁸ It very quickly developed its own voi jewellers such as DePatta, Irena Brynner and Alex Calder, who were active and prominent within th both as practioners and later as teachers. Jamie I provides a qualifying perspective here by suggesti the programmes being initiated by designers train the English or Scandinavian tradition grew philoso out of architectural principles rather than from s art practice.¹⁹ The studio art practice of the Ame Modernist jewellers referred to here is work that developed from the making in the studio exclusion through practice, with the modernist kernels of functioning as an attitude towards materials and The alternative view as discussed by Bennett in r to the English or Scandinavian traditions points to theoretical programmatic approach.

The European masters who emigrated from the Bauhaus to the United States had great impact on and influenced the development of studio jewellery, resulting in a generation of practioners who continued on to faithfully work and teach in this style; this process and the effects of this development will be shown through the explanation of Modernist jewellery. This period of American studio jewellery remains resolutely united and cohesive.

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o a more	Originating from the San Franscisco bay area, DePatta's ideas stemmed from the Constructivist teachings of Moholy-Nagy. DePatta was a jeweller key to the
Bauhaus	American Modernist movement. Both in her prolific and influential output and
uenced	through her activity in the development of
a	this scene, founding the Metal Arts Guild in
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2.10. Alexander Calder 1955. Brooch. Silver

*rationale*and*contextual*review



.modernist jewellery

In my view modernist jewellery emerged as one of the first expressions of contemporary jewellery. Examples of jewellery influenced by Modernism can be found across Europe, Britain and America. The American Modernist jewellery movement will be the primary focus, because it exemplifies the translation of ideas and influences from art and architecture to jewellery. Additionally the movement was also remarkably prolific, cohesive and well recorded.

A series of landmark exhibitions between 1940 and 1960 have helped to promote and define the concept of American Modernist jewellery. The first, *Modern Jewelry Design*, held at the Museum of Modern Art in New York, was instrumental in promoting contemporary jewellery, and more specifically Modernist jewellery, "into the realm of art" and the eye of the public.²⁰ In this way jewellery was seen in the context of an 'art' gallery and as such asked that the visitors consider the ideas in the works to be taken seriously. In doing so establishing contemporary jewellery as a significant discipline.

The Walker Art Centre in Minneapolis was also responsible for generating interest in the scene, by holding a series of three exhibitions. The first, *Modern jewelry under fifty dollars*, was to tour for two years around America and was directed by Hilde Reis (a Bauhaus trained architect).²¹

"Official recognition of contemporary American crafts came as early as 1939 with the formation of the American Crafts Council. (In Britain, the Crafts Advisory Committee, later the Crafts Council, was founded in 1971.) By 1946, aesthetic standards in American jewelry prompted the Museum of Modern Art to attempt to dismantle the boundaries separating the fine and applied arts by staging a large exhibition, 'Modern Jewelry Design'. It presented 'a new concept in jewelry: wearable art'. This exhibition brought to New York's attention the philosophy of the wearable, modern, 'miniature sculpture' in which the values of the materials were subordinate to the ideas."²²

Modern Jewelry Design brought together one hundred and thirty-five works. The exhibition provided a forum and point of convergence for jewellers and artists such as Kramer, Calder and DePatta. (2.8. - 2.10.)

Other key exhibitions contributing to the visibility and establishment of Modernist jewellery as a genre were Modernist jewellery under fifty dollars in 1948 mounted by the Walker Art Centre. This exhibition went on to tour motivating jewellers across America.²³ 2.11. (above) Earl Pardon 1952. Bracelet. Silver, rosewood, ebony, tigers-eye, turquoise,feldspar.

8



These landmark exhibitions were instrumental in establishing not only Modernist jewellery as a recognised genre but also served to educate the public about the wider discipline of contemporary jewellery. In 1984, Gallery Fifty/50 in New York curated a retrospective exhibition titled Structure and Ornament: American Modernist Jewelry 1940-1960. One hundred and fifty-nine works were located and brought together for this show. The enthusiastic response from collectors, students and craftsmen further celebrated this as an official style.²⁴ In 2003, the Montreal Museum of Fine Arts opened Messengers of Modernism, American Studio Jewelry 1940-1960, a retrospective touring exhibition bringing together ninety-one definitive works from the period.²⁵ In the publication that accompanied the exhibition, jewellery historian and curator Toni Greenbaum highlights the cultural factors that led to the prolific craft movement of that period:

"Spurred on by the devastation of World War II, the trauma of the Holocaust, the fear of the bomb, the politics of prejudice, the sterility of industrialization, and the crassness of commercialism. A new coterie of American artisans chose to express their frustration with society's conventions through the most intimate art form: jewelry."²⁶

In addition to the stimuli provided by the cultural and political circumstances of this post war period, subsidised craft (and specifically jewellery) programmes were set up to rehabilitate returning war veterans as a form of occupational therapy, as discussed by Mark Foley in the catalogue essay for the *Structure and Ornament* exhibition at Gallery Fifty/50.²⁷

In Britain however, the development of Modernist work is far more fragmented; although as in the United States, pivotal events can be identified as responsible for instituting an environment conducive to the contemporary jewellery scene. "The Government's Coldstream Report into Higher Education of 1961 had a massive impact on art and design education. The recommendations included a nationally recognised degree-level qualification and a new emphasis on design. Change was inevitable even where the old trade courses in jewellery and silver-smithing had become successful art-and-craft hybrids."²⁸

Janet West, in *Made to Wear*, argues that this change in Design Education was a turning point which instigated rapid ideological changes to art schools around Great Britain, resulting in the development of design based as opposed to trade-oriented jewellery courses.

In the same year (1961), London hosted the First International Exhibition of Modern Jewellery at the Goldsmiths' Hall. Curated by Graham Hughes, the exhibition "spanned the period from 1890 to 1961... with over a thousand pieces on display". It was a watershed event, "possibly a conscious effort to raise jewelry on to a higher plane... This exhibition showed that there was no particular trend or movement in jewelry at this time."²⁹

Parallels to the dissemination of Bauhaus theories in the US can be drawn with the emigration of Naum Slutzky to Britain in 1933 and his subsequent teaching positions at Dartington Hall, Devon, Central School of Art in London, The Royal College of Art and at the College of Arts and Crafts in Birmingham.³⁰

Thus although Modernist jewellery was to be found
across Britain and Europe, it occurred sporadically, lacking
the coherent momentum that the American Modernist
movement developed.2.12. Earl Pardon, The Hippo.
1952. Brooch. Silver, brass, copper,
ebony, ivory, coral.





.architectonic jewellery

For the purposes of this research, architectonic jewellery is categorised as a strand or subset of Modernist jewellery. I have defined architectonic jewellery as jewellery that considers or interprets the qualities or principles of architecture in relation to the body.

Limited texts exist on the subject of architectonic jewellery – this made for a sparse literature review. The three texts reviewed are: Architecture in Jewelry by Barbara Maas, Architectonic Jewelry by Patrick Kapty and a chapter from, Jewelry of Our Time by Helen Drutt and Peter Dormer, entitled Architectural Forms. All three articles touch upon different aspects of architectonic jewellery, the concept of scale and proportion in relation to the body, the Modernist/ Constructivist influence and through citing examples of jewellers, the different manifestations of architectural expression within jewellery.

Of the three texts that survey architectonic jewellery, only one, *Architecture in Jewelry* by Barbra Maas,³¹ attempts to clearly define the genre through carefully selected examples of work. Maas acknowledges the similarities and differences between disciplines through "the central issue of their dimensions." Touching on the differences, Maas observes:

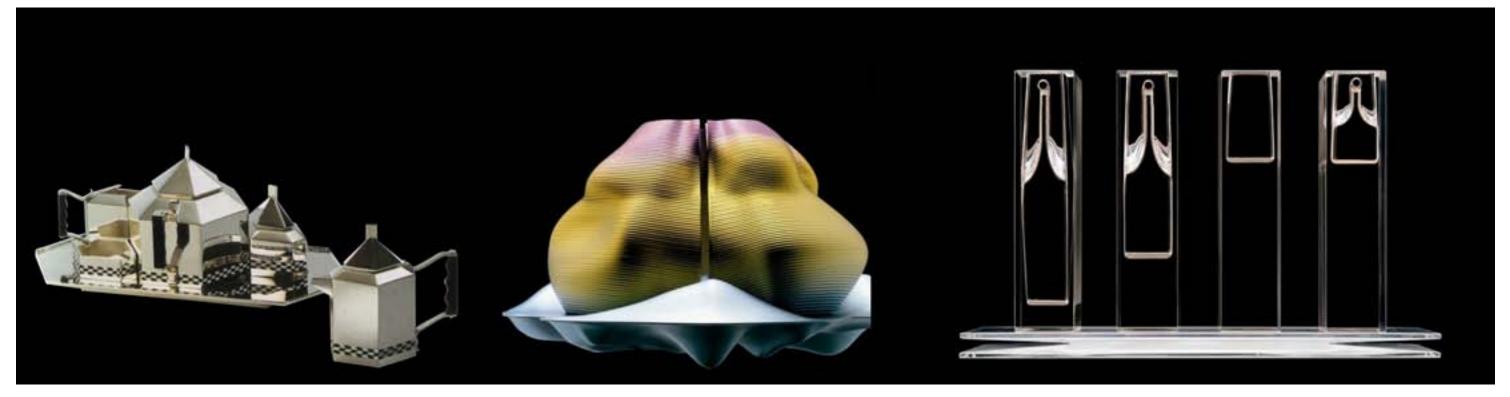
"Jewelry, with its direct relationship to the human body, necessarily involves a more intimate aspect than the art of building, which devotes its attention to free spaces."³²

On the connection between the disciplines Maas comments: "humans and edifices do indeed have a one thing in common: laws of proportion [that] ge the ratios between the parts of both".³³ This com to the body is central in establishing a relationship between architecture and jewellery. The proportion architecture and jewellery, regardless of scale have common their relationship to the body. Whilst de to fit comfortably around the body, create intimate or dominate the body, their proportions remain of in relation to the human form. It is through the body we relate to the world and measure it; it is our me through which the world is understood.

Maas's assessment of the field of architectonic jewellery begins with the Cleto Munari Collectio



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on, a	lazuli, turquoise, black onyx



project established in 1985 by an Italian businessman, "who invited twenty of the world's leading postmodern architects to submit sketches for a collection of jewellery". Maas criticises the results as, "Microarchitecture, ...straying perilously close to the genre of cheap souvenir jewelry and not all equally successful". (2.13.)

Within her critique, Maas makes an important distinction between the works that simply allude to or imitate architecture and those that are composed according to architectural principles. Included in the principles category are designs from Arata Isozaki and Hans Hollein because they are: "substantially derived from architectonic forms."³⁴ (2.14.) The Cleto Munari collection reflects the results of another similar inter-disciplinary Italian project, a commercial initiative, that of the Alessi, *Tea and Coffee Piazzas* under the direction of Alessandro Mendini from 1979 to 1983. (2.16) Eleven international architects were set the project of designing tea and coffee sets. Many of these same architects also took part in the Cleto Munari Collection project, resulting in very similar outcomes.

"The purpose then was to explore possible new paths for Italian design in a historical context in which the parabola of the 'bel design' of the 1960s and 1970s was in decline and Italian design was coming under strong pressure to open up to the world. Since in our history design is the brainchild of architecture, the operation drew explicitly on the origins of Italian design."³⁵

Twenty years later in 2003, Tea and Coffee Towers was

revisited. Twenty-two international architects were invited to 'renew the domestic landscape' with designs. (2.17 and 2.18.) The resulting collection architectural thinking applied to a different disci or product; thus creating a synergy that was no evident in the first collection. Another significan differentiating the two projects was the archited involvement with the workshop and industry in production of the designs. The success of this p shows the potential that absorbing concepts fro discipline and abstracting them into another bri In a similar vein, British jeweller Vicki Ambery-Sr introduced into the Maas survey. Her oeuvre re historical architecture in miniature. Maas criticis Ambery-Smith's work and other examples of 'm architecture', categorising them as the exception

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than the rule in architectonic jewellery. (2.19. - 2.21.)

The analysis of the genre of architectonic jewellery by Maas is successful due to the discerning selection of jewellers used to illustrate the field. In identifying jewellers whose focal point is architectonic principles, Maas selects for critical attention Michael Becker, Ruudt Peters, Giampaolo Babetto, Bernhard Fruh, Eva Eisler, Wilhelm Tasso Mattar, Melanie Kolsch, Juliane Brandes and Susanne Knapp.

Maas illustrates the range of ways in which architectural principles have been interpreted in jewellery; from Becker, whose earlier work is inspired by buildings blueprints and elevation drawings to Peters, who attempts to "rephrase the language of architecture in the form of jewelry".³⁶ Later examples are given, such as Kolsch, who investigates the significance of proportion and measure in Oriental Architecture. Maas describes Knapp's designs that, "call to mind the elaborate tracery that fills the rose windows in the tympanums of Gothic cathedrals."37

Maas finishes the review of works by focusing briefly on the role of architectural allusions in narrative and figurative jewellery; this point is illustrated with the work of jewellers Xavier Domenech, Ulrike Knab and Traudl Kammermeier.

The tone of the Maas article indicates her questioning stance in relation to the validity of architectonic jewellery as an independent genre. Maas comments that, "direct copies of historical buildings or architectural components... are the exception rather than the rule"



suggesting her dismissal of this type of work for its literal imitation. Works of this nature have also been for similar reasons, excluded from the contextual survey that follows, as they do not adequately qualify as architectonic jewellery.

Maas ultimately concludes that architectonic jewe is clearly identifiable as a genre, made up of a rich complexity of variants, as is proved in her overvie of the field. Despite the Maas review being short length in some 1500 words, Mass is able to introd fifteen jewellers who have delved into the subject architectonic jewellery, touching upon the inspira and motivations of these artists and highlighting t successful as well as those works that have some failed in their aims to collaborate with architectu





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overview that introduces the subject to the layman this article successfully communicates the subject succinctly and with an influential critical perspective.

Reservations such as those expressed by Maas are not isolated. In the catalogue that accompanied Artitecture, a recent conference held in Glasgow by Strathclyde University, Professor Brian Edwards, identifies three conditions under which art and architecture collaborate: "The synthesis of art and architecture as a process of production, Architects who employ artists to embellish their buildings in order to give them added meaning and, artists who are directly inspired by buildings and cities."38

Pertinent to this review is the third condition; discussion at the conference touched on the scepticism of architects that art pillages ideas and images from architecture in a superficial manner. Yet no discipline can function in isolation, without drawing from its environment, especially not architecture. Ironically it has traditionally been architecture that has looked towards art for new ideas, it has only been since modernism that architecture's focus turned on itself. The 'pillaging' of ideas from architecture remains only when the art - or in this case jewellery manages only a literal translation. Each discipline brings to its inspiration the dynamics of its own particular medium, thereby interpreting ideas in a new light. The contextual review will demonstrate the way in which successful works (i.e. works that do not operate only on a literal level), involve and interpret architecture, generating a result that surpasses aesthetic borrowing and exists independently.

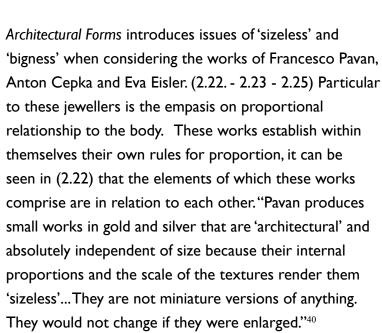
The second text to be reviewed, Architectonic jewellery by Patrick Kapty, appears on the Modern Silver website. This article defines architectonic jewellery as an investigation into pure form in three dimensions, as a subset of constructivist jewellery (and hence Modernist works) and as "micro-architecture". The term architectonic jewellery is clearly defined as not covering architecturalrevival jewellery "where motives of architecture are superimposed on jewellery. And not jewellery designed by architects"³⁹, reiterating the point made earlier by Maas.

Kapty seems to confuse Modernist and architectonic jewellery when citing examples such as Margaret DePatta and Irena Brynner. Both jewellers' work clearly relates to Constructivist principles, exclusively suggesting Modernist classification over architectonic.

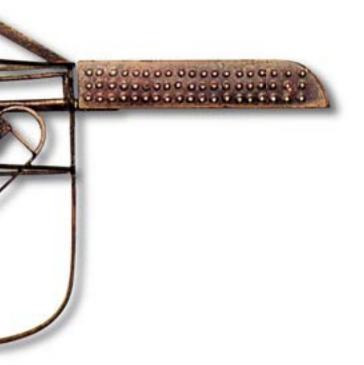
Whilst there is no clear dividing line between the two genres, and, as suggested earlier, architectonic jewellery has much in common with Modernist jewellery and may be seen as a strand or subset of it, this confusion stems in my view, from the absence of definition.

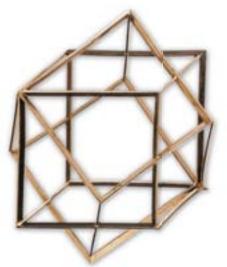
The third text to examine architectonic jewellery is Architectural Forms, a chapter from Jewellery of our time: Art Ornament and Obsession, by Helen Drutt and Peter Dormer.

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'Bigness', on the other hand is defined as a quality that is understood to refer to a larger form.





2.22. (right) Anton Cepka. Brooch. 1980. Silver and saphires 2.23. (above) Franscisco Pavan. Brooch. 1972. White Gold

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The works of Cepka are perceived by Dormer and Drutt to be operating within similar scale range to those of Pavan. Cepka's delicate constructions "incorporate images from 20th century technology... space stations, cranes and utilitarian structures like electricity pylons". The authors relate this to his interest in the Russian Constructivists. Whilst noting that Cepka interprets spatial and architectural aspects of utilitarian structures, organising them so that they "retain the essence of the source material, but are by no means a simple reduction of scale".⁴¹

Reflecting on the work of Eva Eisler, Dormer and Drutt note that Eisler's work makes a very direct link to the built environment, through the composition of geometrical forms, volumes and spaces. (2.25) They acknowledge that Eisler's jewellery provides the opportunity to appreciate these Modernist architectural elements and their interaction, which in the built environment is impossible. Their observation, that this is due to the difference in scale between the buildings and ourselves and our perspective is simple yet often overlooked. Similar perspectives can be seen in threedimensional models or plans of architecture; not unfamilar to Eisler who trained as an architect earlier in her career.⁴²

Dormer and Drutt comment that "the connection between jewellery and architecture is one of the constant strands in the development of the new jewelry".⁴³ This text was written in 1995, and the intervening period has proved this point. Development can be seen in the form of new contributions from jewellers, exploring different ways of expressing the inspiration of architecture in their work. This is further detailed in the contextual review.

In my view these three texts join the dots between those jewellers around the world who share a common fascination and particular relationship with the built environment. Whilst architectonic jewellery is not a driving phenomenon in the jewellery scene, it is cohesive enough to have been recognised as a genre and to posses its own vocabulary, as will be illustrated in the contextual review below.



2.24. (left) Zack Peabody. Split-Lap Bracelet. 1997. Stainless steel and aluminum.
2.25. (above) Eva Eisler. Brooch. 1990. Silver

.contextual review

This review will discuss the ways in which architecture as a subject has inspired and informed the work of jewellers in the context of architectonic jewellery. The works have been selected in order to reflect the range. Due to the scarcity of secondary sources, where possible, interviews with jewellers have been conducted. Secondary sources that have been consulted, include: exhibitions, exhibition reviews, artist monographs and other literature.

As the literature review has shown, no consensus for a clear definition of architectonic jewellery has been arrived at. It has been necessary for the boundaries of this research to define this genre to locate my own practice and to determine the extent of the contextual review identifying key figures and works Following is my definition of architectonic jewellery and an identification of categories within the genre. The ten jewellers reviewed have been grouped into three strands, this serves to structure the review. The three strands that I have identified are abstract, interpretive and figurative. It should be clarified that these are categories that have been imposed upon the works reviewed and do not emerge as distinctions from the artists themselves. In the conclusion, the role this contextual review played in the location and direction of my own research is discussed.

"Art moves towards architecture not when it copies or represents it (which would be extremely banal), but rather when it imitates it structurally – when it integrates the principles that underlie construction"⁴⁴

2.26. Otto Kunzli. Black house. Brooch. 1985. Formica and steel and Golden House. Brooch. 1990. Gold

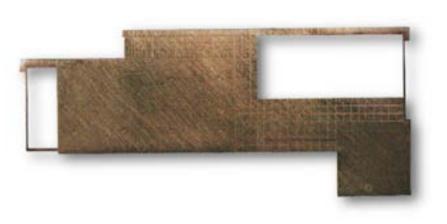


For the purposes of this research, architectonic jewellery that reflects a literal translation of architectural edifices will be excluded. A point reinforced by Nicoletta Trasi, in her introduction to *Interdisciplinary Architecture* and previously discussed in the literature review in relation to Maas and her critique of the Cleto Munari Collection and the work of Vicki Ambery-Smith. Thus a definition of architectonic jewellery emerges as: Jewellery that considers or interprets the qualities or principles of architecture in relation to the body; this may be through concept, architectural space, use of space or symbolically.

In an attempt to break down and further define architectonic jewellery, classification of architectonic expression is necessary. From the overview of this literature three strands were discerned:Abstract, Interpretive and Figurative:

Abstract works deal with architectural principles and qualities on a conceptual level; within this strand are Giampaolo Babetto an Italian jeweller whose interest lies in the numbering and proportioning systems of classicism. Eva Eisler and Anton Cepka both of whom come from former Czechoslovakia, thus the clear influence of the Constructivist aesthetic⁴⁵ visible in their work. The use of the Fibonacci sequence or the Golden Section in the proportioning and design theory of their work is common to Babetto, Eisler, Michael Becker and Claus Bury. Despite Bury's architectonic experiments having led him away from jewellery to sculpture rigorous adherence to the classic numbering system remains a factor in his design.

Interpretive works are responses to a specific architectural site; Michael Becker and Ruudt Peters are located in this strand, their works recalling particular architectural sites, immortalising them on an intimate scale. The work of Zack Peabody (the only non-European in the review, and the only jeweller whose work does not



concern itself with historical elements of architecture) celebrates vernacular industrial structures. Beate Eisemann's work documents the gradual deconstruction of a power station in Germany; Eisemann's project is the closest example in this review to this research on Therme Vals and the resulting practice.

Figurative works use the image of architecture symbolically; this strand has been included, so that its existence is acknowledged, but is not central to this research. The use of the symbol of architecture to communicate indicates jewellery as statement, narrative or identity, not as architectonic. The jewellers selected to illustrate this strand are Otto Kunzli of Swiss origin and Onno Boekhoudt from Holland. It is no coincidence that Swiss and Dutch jewellers are known for their highly conceptual and pointedly intellectual approach to jewellery design.

Of the jewellers in this review whose work falls into the abstract and interpretive strands, the pervading aesthetic

the 2.27. (left) Giampaolo Babetto. Neckpiece. 1997. 750 Gold. 2.28. (right) Michael Becker. Barcelona. Brooch. 1988. Gold and hematite.



passage from lewelry of Our Time Dormer and Drutt, discuss the irony surrounding the modernist aesthetic in jewellery:

"Modernists often had an idealistic vision of the virtues of mass machine-directed manufacture. They thought that machine production would generate not just precision but preciousness - that the machined edge, the machined plane, and the machined form would necessarily include finesse. But in fact, and this is borne out by the technology used for the rapid construction of modern buildings, what machine production generates is an economical form of 'good-enough production'. It does not often deliver the quality of high finesse, that special finish that we want to call precious... Only in art can modernism's perfection usually be afforded and created."46

The following review takes its structure from the defined strands of architectonic jewellery (These strands, Abstract, Interpretive and Figurative allow for further definition within the genre of architectonic jewellery, enabling the clear positioning of my own work.) Predictably, some jewellers' architectonic oeuvre oscillates between the different strands whilst others sit comfortably across all three categories operating on different levels in different ways. An example of this discussed later is Michael Becker whose works at different stages fluctuates across these categories.

Abstract works, as mentioned earlier are works whose expression is concerned with the principles and theories that affect architecture or the ideas that shape buildings. Composed in 30BC by Marcus Vitruvius, De Architectura is the first known attempt to write a systematic and comprehensive theory of architecture; since that

time innumerable formal treatises have been written. expounding on theories of design and structure.47 Critic Fil Hearn points out that only a few of the numerous architectural treatises throughout history have enjoyed wide and lasting influence. Hearn draws attention to the irony that, it is the theoretical writings and ideas not the architecture itself that are the most durable.⁴⁸ It is these architectural theories and less formally articulated ideas, which have stimulated architectonic jewellers to investigate this fertile ground. The translation of both formalised design theory and the abstract qualities of architecture are the focus of investigation for jewellers working within this category.

"Assimilating classical proportions with modernity"⁴⁹ Giampaolo Babetto's design theory is influenced by rules of proportion and perspective that originated in Roman times, the most famous example of these systems in use being the Parthenon in Athens, built around 430BC. These systems of proportion, specifically the Golden Section or Golden Mean⁵⁰ fascinated Renaissance architects in the 15th century and have served to influence and intrigue artists and architects ever since. Babetto identifies these classic systems of proportion as a design theory with a central focus for his works. It should be noted, that many



is one of a modernist, machined, highly crafted precision finish. It is only the work of Eisemann (appropriately reflective of her subject matter), which challenges this. Of the jewellers whose works convey the precision aesthetic of architecture it is only Babetto and Peters whose work does not overtly celebrate technology, rather similarly their architectural interest lies in the Classical period. (2.30. 2.31.) Babetto's work although extremely finely crafted and displaying a minimalist modern aesthetic, establishes its ties to a way of working that stems from the Renaissance, a perspective that values the role of the artisan or master goldsmith. Babetto considers himself to be working in this tradition. The architectural focus of both Babetto and Peters marries the influence of the Classical with the prevailing modernist aesthetic resulting in a finish that exudes machined perfection. In this

2.29. (left) Michael Becker. Brooch. 1997. 750 Gold. 2.30. (right) Giampaolo Babetto. Ring. 1991. 18ct Gold 2.31. (above) Giampaolo Babetto. Bracelet, 1988, 18ct Gold



other jewellers are also influenced by these mathematical principles, which are incorporated into their work but are not however the sole focus for the design. As Ralph Turner succinctly observed, Babetto assimilates classic systems of proportion with principles of modernity; the works are produced with exacting craftsmanship in 18ct gold. Their delicate abstraction of Euclidian geometry possess a "chic-ness"⁵¹ that expresses a sensitivity to the interpretation of Modernism in the works. They convey a Modernist aesthetic in their austere reduction of primary forms and their clean lines. Although these works are large, they remain visually 'light' due to the way in which perspective is introduced into the forms. (2.27.) The weight of the mass is broken up, the angles that are introduced, draw the surface area of the work away from the viewer.

Babetto is an Italian jeweller who was born in Padua in 1947 and was educated at the Academy of Art in Venice and the Istituto d'Arte Pietro Selvatico, Padua. The Institute of Art in Padua, where Babetto now teaches, is known for its distinctive use of gold and "research of jewels as an expression of pure art"⁵². The history of the institute dates back to the end of the Second World War and it is acknowledged as the locus of Italian goldsmithing. Babetto's architectonic works shown here were produced from 1970 - 1990 (2.30. 2.31. 2.32.)

Establishing, "deliberate links with the Renaissance tradition. His Jewellery design corresponds to the principles of proportion as observed in the architecture of Palladio. Characteristic, are the simple basic shapes and gently taut surfaces, suggesting depth. A matt gold finish lends his pieces a sinuous elegance, gives them a cool appearance whilst conveying an inner tension. With a great feeling for form and craftsmanship as well as precision for execution, Giampaolo Babetto transforms the rules of classical art in to contemporary jewellery."⁵³



Following this period of work, a series was produced, in response to Pontormo's frescos⁵⁴ in a figurative way (2.32.), in an interview with Anny Nalli Nencioni he speaks of his influence:

"I had heard about Pontormo's frescos at the Certosa of Galluzzo, long ago. I sensed a special stimulus inside me so I tried to discover it through my work. The harmony interested me particularly."⁵⁵

Babetto continues to work in an architectonic style, interpreting and experimenting with harmony, rhythm, contained space and classical proportion.

The second jeweller to be reviewed is Eva Eisler, Eisler originally trained as an architect in Prague, before moving to New York where she studied jewellery at Parsons School of Design. Shortly after her graduation from Parsons School of Design in New York, Eisler began exhibiting her work in galleries in and around New York, where she currently lives and works. 2.32. (left) Giampaolo Babetto. From Pontormo. 1990. 18ct Gold 2.33. (right) Eva Eisler. Bracelet. Ring. Brooch. 1998. Stainless steel

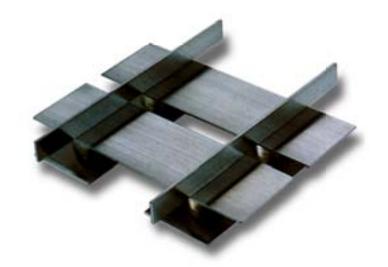
In an interview Eisler describes how as a child she had an informal approach to jewellery or "putting whatever you could find on the body"⁵⁶, this established a very natural attitude towards being a jeweller. These early experiences were extremely influential, in shaping the direction that Eisler would take later in life. In the same interview, Eisler recalls from being very young wanting to be an architect, imagining the utopian ideals of the time, that projected the modernist future as towers and elevated passageways in the sky and pollution free transport.⁵⁷

Influenced by the ideas and concerns of architects as opposed to a specific type of architecture, Eisler's work is more Modernist in sentiment than aesthetic, the emphasis being on her use of a culturally relevant language.⁵⁸

In an article written in 1994 (the years immediately following Eisler's graduation from Parsons), Susan Grant Lewin, picks up on the modernist sentiment portrayed in Eisler's work and comments:

"Relying on the truth that people find comfort in order, Eisler attempts to lay bare the logic and conceptual order of our world through the order and purity in her work. Its intellectual and structural purity provides a sense of well-being and security that comes from any well-ordered composition"⁵⁹

This sentiment recalls the staunch utopian principles of the modernist era, which reasoned that purity of form led to purity in people. This is described in Modern Movements in Architecture by Charles Jencks as "the belief that architecture could socially transform men as



well as the idea that it should reflect certain ordering principles found throughout nature."⁶⁰

Work produced by Eisler in more recent years displays a development in approach; one that is mirrored in architectural design theory. This perspective is less rigid in the reinterpretation of values found in Modernism, and more fluid in the incorporation of her ideas and philosophies into a more holistic approach.

Eisler speaks of her current interest in 'sacred geometry', in the structures and numbers that underlie forms in nature.⁶¹ When Eisler speaks of patterns, divine numbers and ancient architecture, similarities with Babetto's approach become apparent. It is clear that despite the different terminology and process of arrival the same concepts inspire and hold jewellers' attention.

"Over the past ten years I have been developing two parallel, openended series' of objects titled 'Tension' and 'Repose'. These explore a logical progression of three-dimensional modular structures held together by tension. As a purist, I have always believed that simplicity is the tool for capturing the essence of form. Simplicity is defined by the logic of geometry, the dimension of time, which signifies movement, and consistency of material. Multiple variations and interaction between objects are crucial. An open configuration in space also reflects the provisional character, the open-ended approach, of my state of mind."⁶²

In this statement describing her design theory Eisler communicates a rational architectonic approach, this is countered by a conversation from an interview conducted with her where Eisler describes the role of the body by considering the body as a landscape as a fertile ground that changes with emotions and moods. Eisler believes the body can change the expression of a piece of jewellery by the way in which it is worn. For Eisler jewellery relates to the inner condition of the wearer, thus creating an intimate relationship with the work.⁶³



2.34. (left) Eva Eisler. Brooch. 1992. Stainless steel 2.35. (right) Eva Eisler. Tension series. Brooch. 1987. Slate, sterling silver, steel wire

Eisler's design approach and work show a fusion of architect and jeweller, where the ideas drawn from architectural training are expressed through the intimate medium of jewellery. These works communicate architectural expression on a level that architecture is not able to do. Eisler's perception of her work is as symbolic or as a signature as when it is worn it acts as a personal form of communication/expression that is not possible in architecture, Eisler comments: "I have managed to be part of the architectural movement and use the same ideas in another form."⁶⁴

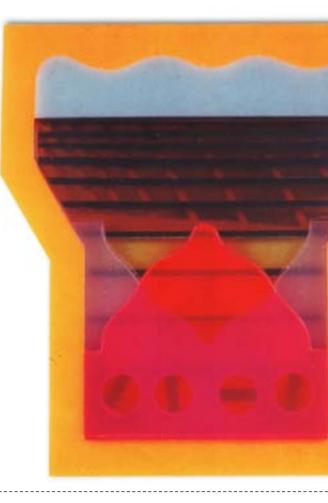
Claus Bury was trained at the Kunst and Werkschule in Pforzheim in West Germany, graduating in 1968. Bury's work in the years following his graduation depicted highly detailed constructed, imaginary architectural spaces. (2.38.) Bury worked prolifically throughout the 70s on these abstract constructions before, 'defecting to fine art'.⁶⁵

Bury is best known for his jewellery, which pioneered the use of boldly coloured acrylic and bonded metal, this coupled with his conceptual approach to work and exacting craftsmanship was extremely influential on the jewellery scene both in America and across Europe,⁶⁶where he travelled while also, exhibiting and teaching in the 70s. (2.36.)

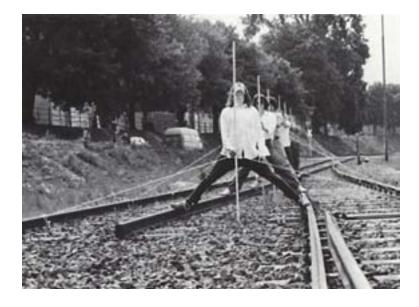
Bury's works proposed a different type of involvement of the wearer with the work. The development of "meticulously rendered blueprints" as a part of his process distinguishes his unique intellectual and conceptual viewpoint; this scenario is explained thus: "he partially eliminated the passive role the consumer played in using and wearing jewelry. By setting up a dialogue with the consumer by means of explanatory drawings, or scenarios for activating the jewelry, he gives the buyer of one of his pieces of jewelry a variety of options with which to create his own combinations. A brooch or a ring, for instance, can be worn in multiple ways, or simply become an objet d'art along with the drawing."⁶⁷

In Architectonic Propositions C.E. Licka terms these works as 'participatory jewelry', for the relationship that they establish between the blueprints and the wearer. Licka connects these works as 'provisional sketches' the first stages, in the development of his large-scale orthographic projections, which involve people in the sculptural manipulation of space.⁶⁸

Bury's ongoing fascination with architecture is shown through his experimentation with different mediums, in a search for a format that adequately satisfies and expresses his intentions. Jewellery as a medium proved too limiting to completely express his ideas. Bury's sitespecific sculptures initiated in Jerusalem from 1975-76 experiment with the manipulation and perception of space through the creation of formal structural relationships.⁶⁹



2.36. (middle) Claus Bury. Brooch. 1969. Acrylic



Licka cites Bury's Geometrical formation series Parts 1-6 in support of this. (2.37.) In these works the body is used as a structural coordinate, through geometry and tension an underlying system is suggested. Participants are integrated into a spatial experience whereby they are able to sense their own physical relationship to the space.⁷⁰ Licka explains Bury's specific interest in architecture as an investigation with time-space relationships and in the ordering of space, "the purpose behind these 'activities' was to experiment with and create new relationships and experiential possibilities within a specific setting."⁷¹

These architectonic sculptures like his jewellery, refer to his constructed reality, "that make the observer feel like a visitor in an imaginary world where familiar forms of orientation no longer apply."⁷² Bury's oeuvre displays a complex, multifaceted relationship to architecture, he currently lives and works in Germany as a sculptor.



Anton Cepka, like Bury uses both the mediums of sculpture and jewellery to express his architectonic constructions. Born in 1936 Cepka studied in Bratislava and Prague during the 50s and 60s. This was a time when modernism was becoming firmly established in Eastern Europe. Cepka has been credited with establishing "a new design ethic for jewellery that married 20th century technology with humanity and poetic imagination."⁷³

The celebration of technology and optimism for the future are both evident in this work, this in tandem with the architectonic structuring, point in particular to the Constructivist facet of modernism that influences Cepka. In fig xx the similarities between these Constructivist drawings and the graphic quality of Cepka's jewellery are clear. Beyond simply developing just constructivist ideas in three-dimensions in his work, Cepka responds to particular structures to a technological iconography evoking "space stations, cranes and utilitarian structures such as electricity pylons."⁷⁴ These influences and the unique aesthetic that Cepka developed is expressed in both jewellery and large kinetic sculptures in Slovakia; Ralph Turner draws parallels between his sculptural work and his jewellery:

"Movement is never far from Cepka's thinking. In his earlier work, there existed a plethora of 'winged' brooches... many of his pieces contained moving parts with bright splashes of colourful acrylic, punctuating form and line...These site specific works perched high up to catch the wind. Vent and panels carrying brightly coloured graphic symbols twist and turn as if frantically trying to arrest our attention."⁷⁵

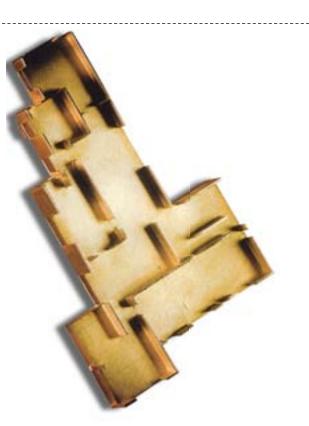
Both in his jewellery and sculpture, Cepka's works are realised as delicate yet dynamic constructions.Whilst they communicate an interest in the mechanical, structural and engineering aspects of technology and structure, the works are realised in an aesthetic

2.37. (left) Claus Bury. Geometrical Formations Parts 1-6. Jerusalem 1975 2.38. (right) Claus Bury. Brooch. 1978. Gold 750, fine gold, silver 900, fine silver, various copper alloys 2.39. (above) Anton Cepka. Brooch. 1964. Silver

that is far from the cold, hard and impersonal aesthetic that is associated with these factors. The deliberate imperfections and slightly wavering quality of the structural lines in the work create humanness about them. The works retain a personal quality reflecting Cepka's perspective and role in the translation of ideas into jewellery. (2.40.)

The oeuvre of German born and based jeweller, Michael Becker, can at various points be seen to sit in both the abstract and interpretive strands, and therefore serves as a convenient bridge between the two. In correspondence with Becker⁷⁶, he outlines the development his interest in architecture has taken; throughout the 80s, the subject of proportion fascinated him, his work of this time being concerned with questions of the whole in relation to the section and what formal considerations brought these together. In the process of development of his work in tandem with his interest in architecture, Becker describes how a loosening up of ideas changed his focus from working with proportion to the investigation of elements of architecture, examining beginnings, transitions and connections. From here, he began to study blueprints of buildings, abstracting these diagrams into jewellery pieces. (2.40.)

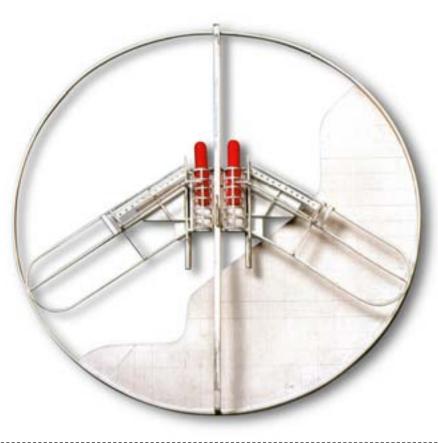
As the process of abstraction developed, the structures and the rhythmic units and ordering principles became the focus from which his brooches emerged. At the end of the 80s, Becker was preoccupied with architectural plans from the Renaissance period, including those of Palladio and Alberti. Contrasting with this was his interest in modern architecture investigating the plans of Mies van Der Rohe (2.27.), Ludwig Wittgenstein⁷⁷ (see fig XX) and Richard Meier. In Jewelry of Our Time, he pinpoints this:



"The analyses of particular buildings was my point of departure for designing groups of related objects. I developed spatial, threedimensional brooches based on two-dimensional forms, rhythmical units and principles of arrangement."78

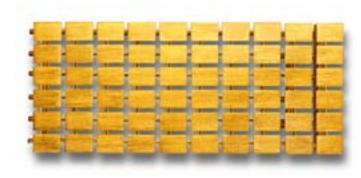
In the 90s Becker made a series of pieces that responded to aerial views of Marrakesh, the images he drew inspiration from were satellite photos and the architecture that was visible from this type of digital imaging.79

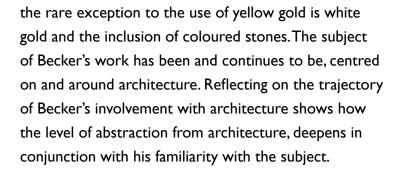
In his most recent work, formal elements in architecture. such as pattern and repetition in structure (2.43.) are investigated. Becker works almost exclusively in yellow gold because of its material qualities; the way light reflects off the material and the play of light on the works, being integral in the conception of the pieces,





2.40. (left) Anton Cepka. Brooch. 1988. Silver and perspex 2.41. (right) Michael Becker. Esters. Brooch. 1988. 18ct Gold 2.42. (above) Michael Becker. Stonborough. 1988. 18ct Gold





Responding on a more personal level to architecture, Ruudt Peters explores the evocative power of particular architectural Renaissance sites in his *Interno* series. (2.44.) These works strike the delicate balance between directly referencing known architectural sites whilst communicating Peters' personal response and relationship to them.



"I try to combine my personal feelings with a historical perspective. I used the Architectural language and meaning of a building to express my personal feeling about certain places."⁸⁰

The external appearance of these simple hollow forms, is deceptive, the inquisitive viewer and wearer will discover rich detail that distinguishes these forms revealed inside. This duality has been described as: "both hiding and inviting one to explore the enclosed secrets, referring to both myth and history."⁸¹

The medium of contemporary jewellery and the relationship between wearer and piece is an intimate affair, the works demand to be understood and have significance to the wearer in order to be collected and worn. Peters' works strongly reflect his perso exploration and resolution of ideas but it is the w interpretation and their relationship to the work becomes important in the life time of a piece of j not the makers. This is the process where the ow and meaning are transferred; such is the nature of highly personal work. It is also a credit to the ma that works convey both the original meaning and space for personal interpretation. This phenomen particularly evident in the medium of jewellery, d intimacy with the body. Jewellery undergoes a probeing incorporated into the realm (both physicall psychologically) of the body.

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	2.45. (right) Ruudt Peters. Interno Pantheon. Brooch. 1991. Silver

The Interno series comprehensively displays a highly personal response to specific sites in the imitable language of Peters. A counter-balance to this series can be seen in the light-hearted witty response to architecture by Peters, with 'Pin and Brooch' from his earlier works.

"Ruudt Peters produced a drawn decorative jewel in the true sense of the word in 1983, with his drawings of Renaissance architectural ornaments. He took the capital and base of a column from an old drawing, stiffened them with acrylic and attached them to a double metal pin. When worn, the pin vanished into the wearer's clothing, leaving just the ornaments visible and causing the body to function as a column.''⁸² (2.46.)

This foray into the subject of architecture, demonstrates Peters' conceptual thinking, particularly Dutch in flavour, its wit reminiscent of his contemporaries, Gijs Bakker and Onno Boekhoudt.

His jewellery touches on many subjects, working in what he terms as 'families', he produces series of individual works linked by a common theme. These 'families' are works related through idea, material and technique, ⁸³

Peters, "makes jewellery to give physical form to the complexity of human relationships. He explores the complex nature of intimacy, celebrating moments that are personally and historically significant."84

The ideas inherent in Peters 'families' of jewellery have traversed, subjects of history, change and alchemy to name a few, what remains constant throughout Peters investigations, are the works' deeply personal perspectives on these subjects and his passion for making



Contrasting with the work of Peters, in indifference to the body or wearer is the work of Zack Peabody. Peabody is the jeweller of non-European origin whose work is particularly significant in this area of practice under review curiously he is also the only jeweller for whom the role of history is a source of inspiration for the work.

Originating from San Diego, Peabody's jewellery draws our attention to the architecture in our environment that goes unnoticed. Finding beauty in elements and structures that serve utilitarian functions, Peabody brings these elements into the world of the precious. Susan Grant Lewin discusses the way in which in these highly rational work function:

2.46. Ruudt Peters. Pin and bracelet. 1983. Acrylic, wire and laminated photograph



"Peabody uses the strict formal language and materials of engineering – skyscrapers, bridges and towers...Peabody's works reveal the means of their construction, with bolts, screws, and interlocking strips all evident."85

Grant Lewin contrasts these hard tectonic works with the "soft randomness of the human body" reflecting on the works as speaking about the human need for security and clarity in the relationship of parts.⁸⁶

That he no longer works as a jeweller adds weight to Peabody's contemporary Claire Dinsmore's comments when she states,"The wearability factor is obviously unimportant to Peabody"⁸⁷ Dinsmore affirms Grant Lewin's, interpretation of Peabody's work as revealing human ability,"our ability to create, to understand, and to order, to think, and to rationalize."88

Although Peabody lifts these vernacular structures from relative obscurity to preciousness through the medium of jewellery, it is only their structure which is translated. The prevailing aesthetic of this work celebrates a machine aesthetic, in opposition to the finish and environment these structures were originated from. Despite this the fact that the ill-considered industrially built environment with only function in mind should transgress status and serve as inspiration for the realm of the precious and highly considered, contains a lovely paradox.

Because of the indifferent and indeed strained relationship of Peabody's work to the body⁸⁹, the medium of jewellery ceased to hold particular value for him as a means of expression and he turned instead to sculpture a more autonomous medium.



2.47. (left) Zack Peabody. Caster bracelet. 1997. Stainless steel and aluminum 2.48. (middle) Zack Peabody. Brooch 534. 1992. Stainless steel, niobium



Beate Eismann is a German jeweller whose project Industries, discussed here is most closely related to the nature of this research on Therme Vals. Although 'Industries' is a more personal response to the deconstruction of a historical site which references the social and political problems of the area. The similarities between Eismann's project and this research lie in the idea of 'response' to a particular architectural site and particularly in the working process.

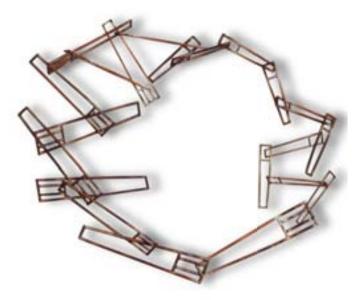
Industries was a long-term project, the site was visited several time before its demolition. Eismann responded emotionally to the site, documenting aspects of the site through photography and writing.⁹⁰

Industries was born from a personal concern for the decommissioning and eventual destruction of Elbe.⁹¹



Eismann's response to the inevitable demolition of Elbe was to document her feelings and ideas about the power station, immortalising them through the permanence of jewellery.

Eismann is a parallel voice within this contextual review to my own research, because of her conceptual approach



and the role her documentation played in the process of designing. Additionally the scope of the project is long term and evolving. Eismann attempts to capture and document Elbe not only from one point in time but over time as well.

Figurative works

The two jewellers to be discussed in relation to figurative jewellery are Swiss born Otto Kunzli and the late Onno Boekhoudt from Holland. Both jewellers have a conceptual and playful approach to jewellery. Kunzli's work in the 80s fell into the category of, 'unthinkable body decoration'⁹² his works confront, exploit, and play with the perceptions and notions society has towards jewellery; this playful approach is also evident in Kunzli's foray into the symbolic use of architecture in his work throughout the 80s and 90s.



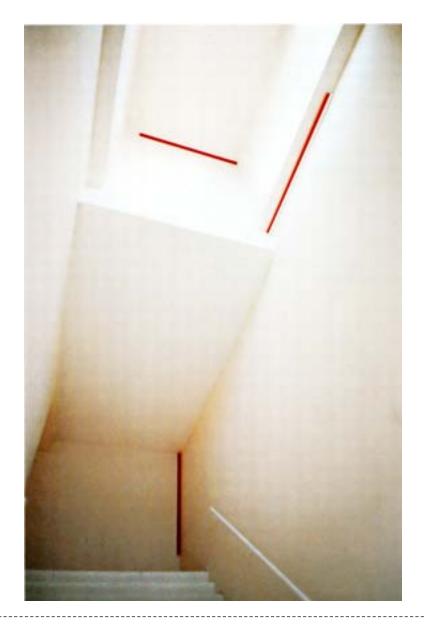
2.49. (left) Beate Eisemann. Object.
2001. Aluminium, gold, stones.
2.50. (middle) Beate Eisemann. Neck piece. 2001. Gold and lead.
2.51. (right) Beate Eisemann.
Neckpiece. 2000. Silver
2.52. (above) Beate Eisemann.
Neckpiece. 2000. Lead, silver and amber.



'The desire for protection' series is simply a 'metaphor for wanting protection',⁹³ Archetypal shapes are utilised for their graphic qualities and the immediate associations they carry.

Kunzli's primary concern with jewellery is to subvert its conventions and meanings at any point in time. This is made abundantly clear with 'Shelter'; given to a group of architects this work is, "intended to be worn as a hat." Manfred Kovatsch one of the architects involved with the 'Shelter' works, comments in 'The Third Eye', where he speaks of the scale and accessibility of architecture as being the most human in orientation. In relation to Kunzli's work, architecture is transformed on to the body, its graphic qualities exemplified with irony.⁹⁴ (2.55.) An example of this can be seen in 'House' (2.53.) where, tongue-in-cheek, Kunzli plays with the archetypal 'fixed abode' which has the wearer's body for a landscape.⁹⁵

Kunzli has flirted with architecture in other ways besides playing with the symbolism it has to offer. In January 1991 in the stairwell to the Museum of Modern Art in Antwerp Kunzli installed, 'x,y,z':



"Three vertical strips, their length (175cm) corresponding to that of Kunzli's body... On each of the strips is a point where two walls meet. This gives rise to a system of coordinates in a part of the building that people usually pass through quickly."⁹⁶

In relation to the various subject matters Kunzli turns his attention to, his penchant for drawing our attention to aspects that are normally ignored remain. Kunzli continues to work as an artist, both in jewellery and sculpture and as an academic, teaching internationally.

The playful use of archetypes is a particularly Dutch trend, whether the contained meaning of the works is intended to be taken seriously, or merely brought to our attention remains in question. Which perhaps is the point; these works may be read as an experiment in questioning those aspects of our culture which are often taken for granted.

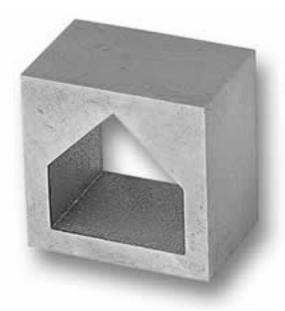
Boekhoudt is regarded as one of the most important contemporary jewellers and teachers; his expressive yet sensitive work, "manages to touch the emotions, as well as the mind, because his work has a spontaneity and naturalness about it."⁹⁷ Both as a teacher at the Reitveld Academy, and as a practioner his work was highly valued.



2.53. (left) Otto Kunzli. House. Brooch 1983-1990. Uriol, pigment and steel 2.54. (middle) Otto Kunzli. xyz. Staircase MUHKA Antwerp. 1990. Wood and pigment 2.55. (right) Otto Kunzli. A roof over one's head. 1986. Wood, red varnish and leather. Manfred Kovatsch, architect



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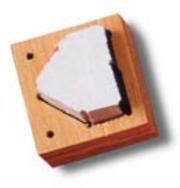
Boekhoudt envisaged the concept of a ring being 'room for a finger', his foray into the symbolic use of architecture takes this concept quite literally. (2.58.) 'Room for the Finger', operates with unmistakable Dutch irony, the rigid shape of a house is split into thin layers that breaks up the solid mass, resulting in flexibility. The lightness and humour with which these works play with ideas is enviable, they are at once understood in simple terms, yet possess layers of meaning should one feel the need to look further.



The 'house' was a symbol for things to be contained in, taking on many forms as can be seen in 'hat-house dish'. (2.57.) For Boekhoudt the role of jewellery was inextricably linked to this containing of ideas within a form. For Boekhoudt the house symbolised the sha the 'thing' that it contains.⁹⁸ Also unique was Boekho command across the mediums of design, his ideas slip between jewellery and product design with ease.

From this review, it is possible to see the develop from contemporary jewellery to American mode jewellery and to read architectonic jewellery as a of this. The development of contemporary jewelle was borne from a shift in cultural values, where t expression and identification of ideas developed g importance than the display of monetary wealth.

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expression of ideas was the primary motive for the design and crafting of contemporary jewellery. The awareness of this type of jewellery was assisted by the endorsement of these values by teachers in the educational system and exhibitions promoting this work.

The development of American modernist jewellery, a later expression of contemporary jewellery, had two strands, rational and non-rational. The rational strand being of particular significance for this review, was one result of the diaspora of Bauhaus émigrés, seeking refuge from the war. Bringing their modernist and Constructivist thinking with them, they took up teaching in America educating a generation of artists with their approach.

Architectonic jewellery, is considered as continuing in the same vein as modernist jewellery, many of the jewellers

working in this style are European and their work displays modernist and constructivist expressions. The definition of architectonic jewellery arrived at in the process of research for this contextual review is; jewellery that possesses the qualities or principles of architecture in relation to the body. The qualities or principles are defined as architectural concept or theory, architectural space and its use. These ideas are developed by jewellers through interpretation or response to architecture in relation to the body. The symbolic use of architecture in works is acknowledged for its reference to architecture but is not considered as architectonic jewellery, nor indeed are literal translations of architecture writ small on the body, as previously discussed.

Within the review of architectonic jewellers, many similarities can be found in the source of architectural

influence and the prevailing modernist aesthetic. The strands that have been identified serve to locate the position of this research and establish the different ways in which the subject of architecture is approached by jewellers.

Research on jewellers situated within the interpretive strand has proved invaluable in both positioning the direction of this project and gaining an insight into the different approaches and working practices of my contemporaries. In gaining an understanding of both the commonalities and the diversity amongst practioners with similar influences the complex and multi layered relationships between architecture and jewellery is uncovered.

2.59. (left) Onno Boekhoudt. Room for a finger. 1993. Wood and paint.

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 Foley, Mark. Structure and Ornament: American Modernist Jewelry 1940-1969. Metalsmith. Vol 5. No 3. Summer. 1985 Arthur, Tom in, Larsen, Helge (ed.). Cross Currents: Jewellery from Australia, Britain, Germany, Holland. Museum of Applied Arts and Sciences, Powerhouse Museum. Sydney. 1984. p6-7 ibid Evens, Chuck. Jewelry: Contemporary Design and Techniques. Davis Publications. Massachusetts. 1983. pxiii Metcalf, Bruce. On the Nature of Jewelry. Metalsmith. Vol 13. No 3. Winter: 1993. p27 	 6. Morton, Phillip. Contemporary Jewelry: A studio handbook. Holt, Rinehart and Wilson. New York. 1970. p48 7. op. cit. Evens. 1983. pxvii 8. ibid 9. Brepohl, Erhard. The Theory and Practice of Goldsmithing. Brynmorgan Press. Maine. 2001 pxvi 10. op.cit. Morton. 1970. p42 11. Stein, Joseph. Bauhaus. MIT Press. Massachusetts. 1969. pxviii 12. Hughes, Graham. Modern Jewelry, An International Survey 1890-1963. Crown Publishers. New York. 1963. p25 13. Norton, Deborah, Jewelry at the Bauhaus. Metalsmith. Vol 17. No1. Winter 1987 14. West, Janet. Made to Wear. The Lethaby Press. London. 1998. p14 15. Weber-Stöber, Christianne. http://www.stfz.art.pl/ao_ cracoviana/wyklady/bauhaus.htm Last accessed: 4.4.04. Click for PDF 16. op. cit. Stein. 1969. p279-291 17. Schon, Marbeth. Wearable Art Movement: Part 1. http:// www.modernsilver.com/Walkerarticle.htm Last accessed: 25.3.05 18. Turner, Ralph. Jewelry in Europe and America, New Times, New Thinking. Thames and Hudson. London. 1996. p9 19. Bennett, Jamie. Jewelry Mediating Jewelry. Metalsmith. Vol 18. No 1. Winter. 1988, p25-33 	 20. op. cit. Schon. 21. op. cit. Morton. 1970. p48 22. op. cit. Turner. 1996. p12 23. op. cit. Schon. 24. Isaacson, Mark. The Search for Modernist Jewelry. Metalsmith. Vol 5. No 3. Summer. 1985 25. Messengers of Modernism: American Studio Jewelry 1940- 1960. http://www.msac.uoguelph.ca/messeng.htm Last accessed: 22.3.04 Click for PDF 26. Greenbaum, Toni. Messengers of Modernism. Montreal Museum of Decorative Arts. Montreal and Flammarion. Paris. 1996. p15 27. Foley, Mark. Structure and Ornament: American Modernist Jewelry 1940 – 1960. Pages from the original catalogue were sent in correspondence with Mark Foley. Excerpts from the catalogue were published in Metalsmith. Vol 5. No 3. Summer. 1985. p36-39 28. op. cit. West. 1998. p16 29. op. cit. Hughes. 1963. p44 30. Ibid p34

31. Maas, Barbra, Architecture in Jewelry, Schmuck, January, 2000. p18-20 (German article - English translation in supplement p3-4) 32. ibid. p3 33. ibid. p3 34. ibid. p3 35. Alessi website. http://www.alessi.it/tct03/index.jsp?mWidth=10 24&mHeight=768 Last accessed: 2.4.04 Click for PDF 36. ibid. 37. ibid. 48. ibid. pxiv 38. Edwards, Brian. Artitecture 2004. Collins Gallery and University of Strathclyde. 2004. 39. Kapty, Patrick. Architectonic Jewelry. Modern Silver Magazine. 2001. http://www.modernsilver.com/architectonic.htm Last accessed: 15,3,02, Click for PDF 40. Dormer, Peter and Drutt, Helen. Jewellery of our time: Art, Ornament and Obsession. Thames and Hudson. London. 1995. p69-72 41. ibid. p70 42. ibid. p71 43. ibid. p71

44. Trasi, Nicoletta. Interdisciplinary Architecture. Wiley-Academy. Chichester, 2001, p8

45. "The Constructivist aesthetic – the assembling of planes and line in space (as distinct from working solid form)" op. cit. Dormer and Drutt. 1995, p72

46. op. cit. Dormer and Drutt. 1995. p25

47. Hearn, Fil. Ideas That Shaped Buildings. MIT Press

Massachusetts, 2003, pl

49. op. cit. Turner. 1996. p29

50. The golden ratio is a number, approximately 1.618, which when considered as a ratio posseses many interesting properties. It was studied by ancient mathematicians due to its frequent appearance in geometry. Shapes defined by the golden ratio have long been considered aesthetically pleasing in western cultures, reflecting nature's balance between symmetry and asymmetry. The ratio is still used frequently in art and design. The golden ratio is also known as the golden mean, golden section, golden number or divine proportion. Source: Wikipedia. Last accessed: I.II.04 http://en.wikipedia.org/wiki/Golden_mean Click for PDF 51. Dormer, Peter and Turner, Ralph. The New Jewelry: trends and traditions. Thames and Hudson. London. 1985. p20 52. GZ journal on-line. "Italian Market Young Talent at Italy's

Schools. http://www.gz-online.de/en/translations/Translation June 02 three.cfm Last accessed: 25.10.04 Click for PDF 53. Falk, Fritz and Holzach, Schmuck der Moderne; Modern Jewelry 1960 – 1998. Arnoldsche Art Publishers, Stuttgart, 1999. p128

54. "Pontormo, 1494-1556, A painter and draftsman, Jacopo Pontormo was the leading artist in mid-16th-century Florence and one of the most original and extraordinary of the Mannerists. Pontormo enjoyed the patronage of the de' Medici family throughout his career."

The frescos that Babetto was influenced by were excecuted in the Medici Villa's near Florence. http://www.guggenheimlasvegas.or g/artist work md 1305.html Last accessed: 2.11.04 Click for PDF 55. Nalli Nencioni, Anny. Giampaolo Babetto. Aurum Publishing, Zurich. 1991. p39

56. op. cit. Eisler 4.4.02

57. This sentiment is correlated by Ralph Turner in his review of Slovakian jewellery"Full-blown modernism took off with a flourish in parts of Eastern Europe during the 60s and nowhere was this more active and effective than in jewellery design."Turner, Ralph. Slovak Jewellery, Crafts, No 56, Jan/Feb, 1999, p57 58. op. cit Eisler. 4.4.02

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59. Grant Lewin, Susan. American Art Jewelry Today. Harry N Abrams Inc. New York. 1994. p80 60. Jencks, Charles. Modern Movements in Architecture. Penguin Books. Middlesex, 1973, p43 61. op. cit. Eisler. 4.4.02 62. ibid. 63. ibid. 64. Goldberg, JoAnn. Eva Eisler. Ornament. Summer. 1987. p43 65. Licka, C.E. Claus Bury: Architectonic Propositions. Metalsmith. Vol 3. No 4. Fall. 1983. p18 66. op. cit. Dormer and Drutt. 1995. p25 67. op. cit. Licka. Metalsmith. Vol 3. No 4. Fall. 1983. p18 68. ibid. p20 69. ibid. p21 70. ibid. 71. ibid. p23 72. Bury, Claus. http://www.clausbury.de/ Last accessed: 5.11.04 Click for PDF 73. ibid. 74. op. cit, Dormer and Drutt, 1995, p70 75. Turner, Ralph. Anton Cepka: Jewellery. Crafts. March. 1994, p55 76. From the author's own correspondence with Michael Becker.

18.3.02 The guestions and correspondence with Becker, were replied to in German, as a result the direct translations are not completely clear and suitable and paraphrasing was necessary. 77. Wittgenstein is best known for his contributions to philosophy and not architecture, but he was always fascinated by architecture and designed and built one house in his life, agonising over every design decision and its philosophical implications. The 'villa' completed in 1928, was designed with exacting attention to detail (Wittgenstein controlled where all the furniture and art should go, and would not let this change.) and great expense and for his sister, Margarethe Stonborough-Wittgenstein. Wang, Wilfried. The Architectural Review, September, 2001, Click for PDF 78. op. cit. Dormer and Drutt. 1995. p69 79. op. cit. Becker 18.3.02 80. op. cit. Dormer and Drutt. 1995. p177 81. Brown, Gail, Ruudt Peters, Metalsmith, Vol 13, Fall, 1993, p41 82. Yvonne, Joris. Jewels of Mind and Mentality: Dutch Jewelry Design 1950 – 2000. 010 Publishers, Rotterdam, 2002, p35 83. den Besten, Liesbeth, Not all is what it seems. Received from personal correspondence with the artist, 2002, 84. op. cit. Brown. Metalsmith. Vol 13. Fall. 1993. p41 85. op. cit. Grant Lewin. 1994. p172

86. ibid.

87. Dinsmore, Claire. Zack Peabody: Structures of Denial. Metalsmith.Vol 15.Winter. 1995. p44

88. ibid.

89. Peabody, Zack. From personal correspondence with Peabody. 26.3.02

90. Blake, Kristina. Beate Eismann: Industries. Gallery Himmelreich. Magdeburg. Germany. 2002.

91. "The electric power station, 'Elbe', that was built in the town of Vockerode from 1937 to 1940, was in its time, a unique technical and architectural achievement. It was constructed to meet the rising demand for energy needed by the chemical industry that was situated in the central region of Germany. After World War II the power station was dismantled and sent to the Soviet Union, as a part of the reparation tributes. Nevertheless, in 1952 the rebuilding of the power station was begun. By 1959 its turbines were fully working again, forming the base of the power supply of the German Democratic Republic. During that time 640 tons of brown coal were transformed into electricity every day. The coal was brought to the station by 15-20 trains and 2-3 trains returned the remnants to the open cast mine. In 1994 all activity at the power station was suspended because of its outdated

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technical equipment and the pollution which it was causing in the area surrounding Vockerode. Because of these problems, its time was over:" Eismann, Beate. Industries. Gallery Himmelreich.
Magdeburg. Germany. 2002.
92. op. cit. Dormer and Turner. 1985. p146
93. Kunzli, Otto. The Third Eye. Stedelijk Museum. The Netherlands. 1991. p68
94. ibid.
95. ibid.
96. ibid.
97. op. cit. Dormer and Turner. 1985. p23
98. Joris, GJM Yvonne, Jewels of Mind and Mentality Dutch Jewelry Design 1950-2000, 010 publishers. Rotterdam. 2000. p50

33

.introduction

"A theory is exactly like a box of tools."¹

In 'What Is Architecture?' Ballantyne quotes Deleuze in relation to the practice of the philosopher who, as the inventor of theories, reinforces the mode of thinking and the ways in which a theory may be freed of its original context and put to use.²

Ideas are first appreciated from a philosophical standpoint, which underlies those theories and concepts that are built on top of it. This foundation allows interpretations across disciplines, it allows philosophical paradigms to be functional and useful, and it allows the abstract to rest in, and be understood in terms of the real.

A theory or concept may be used as a mode of thinking



and applied to a context other than that from wh it originated. This approach has been adopted for research. I considered theory as a 'box of tools' w which to work in order to understand the vast ar complex subject area of architecture. I have subsc a series of theoretical standpoints to be used as t reflective thinking, and to gain a deeper understan architecture with a view to practice.

This chapter explores the constituent parts of contemporary Swiss architecture in order to illust the context in which Zumthor (and specifically his work at Vals) is situated. This chapter has been div into three sections, beginning with the establishme of a philosophical standpoint that underpins both research and contemporary Swiss architecture.

This first section illustrates the theories that have significant in contributing to the establishment of formal philosophical approach to architecture. In a overview of phenomenology, the perspectives of I Sokolowski and Terry Eagleton are introduced to the fundamental principles.

Phenomenology is the study of how things are per it takes that which is presented to us in conscious experience, as a starting point and tries to extract essential features of experiences and the essence we experience.³

In this research the investigation of phenomenolo emanates from an architectural perspective. Key t are highlighted for their specific relevance to arch

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role of architectural theory introduction



and then in relation to Vals. The identification of phenomenology as a way of conceptualising and reflecting on these matters has particular relevance to the Swiss Essentialists,⁴ and specifically Zumthor.

The second section develops this philosophical standpoint in relation to architecture, concurrently explaining its relevance to Zumthor and Vals. Various interpretations of a phenomenology of architecture are illustrated, by Christian Norberg-Schulz, Juhani Pallasmaa, Tado Ando and Tony Fry. This shows that despite the differences in terminology and points of departure, the meaning that is conveyed is the same.

Phenomenology as a philosophical ethos emerged as the most appropriate approach for reasons beyond synchronicity with the architectural theory. As a philosophy, concerned with how things are perceived, it is synonymous with the enquiry of this research; in essence, on an abstract level, this research experiments with my own perception and creativity.

From a design perspective, phenomenology holds particular weight, because of the emphasis it places on the 'object'. The 'object' or 'artefact' is a central subject or focus of what we 'intend' or perceive. This is also evident in the famous catchphrase of phenomenology: "back to the things themselves!"⁵

The third section begins by defining the Swiss Essentialists, the group with which Zumthor is associated. This explains the key characteristics of contemporary Swiss architecture. A brief overview of the cultural conditions that created the current architecture is given so that it may be considered within a contex perspective. Modernism is then addressed, illustraits constant unbroken tradition in Switzerland, sh that it is an integral part of contemporary archite Switzerland.

The conclusion demonstrates why these theories been brought together: to articulate a formal cor which this body of research sits, so that it may op a diachronic⁶ manner.

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that things in question cannot be properly brought to light without the words that name them.⁸

.phenomenology as methodological tool

"Phenomenology is the study of human experience and of the ways things present themselves to us through such experience."⁷

In this research project phenomenology, as a tool, has provided the opportunity to examine the process of experience itself. The process of experiencing and responding to Therme Vals – having had no prior knowledge of the building, then revisiting it after extensively researching its context, architect and site constitutes an experiment with perception and response.

As a conceptual tool, phenomenology provides an approach through which to understand the site and the perception of it. The vocabulary of phenomenology has supplied a formal language with which to express the description of an experience; affirming Sokolowski's view

Eagleton's insights are central here: "If phenomenology secured a knowable world with one hand, it established the centrality of the human subject with the other. Indeed it promised nothing less than a science of subjectivity itself."¹⁰

The dialectic illustrated by Eagleton is central to what phenomenology offers: a precise location for the body when considering the perception of objects, and in this case architecture. Sokolowski elaborates on this point that identity, understanding or intelligibility reside within the objects themselves; it is our interpretation of the (identities and intelligibilities of the) objects that define the self.

"Not only can we think the things given to us in experience; we can also understand ourselves as thinking them. Phenomenology

is precisely this sort of understanding: Phenomenology is reason's self-discovery in the presence of intelligible objects."¹¹

This theoretical perspective was of value in explaining the experience and response to the first visit to Therme Vals. Eagleton reinforces the role of experience in his description:

"Phenomenology, by seizing what we could be experientially sure of, could furnish the basis on which genuinely reliable knowledge could be constructed."12

By establishing what is referred to as 'transcendental reduction' the phenomenological attitude is entered, allowing the act of perception to be observed in the abstract, or from a neutral stance. Sokolowski describes the advantages of this 'philosophical perch'; by theorising perception, distinctions may be identified and made about the subjective and objective correlates. ¹³ This

Prephilosophical thought

Phenomenology does not discount prephilosophical thought; rather it validates it as truth, truth through experience. It offers a contemplative stance that neutralises prephilosophical thought whilst still allowing it to be possessed by the self or dative⁹.

and Vals...

In hindsight the initial experience of and response to Vals was challenging, with the outcomes lacking in clarity. (In terms of phenomenology, the results of the experience of this first visit to Therme Vals would be considered prephilosophical thought.)

This was due to the spectrum of sensorial information received. and lack of theoretical tools with which to analyse it. The result was a very intuitive response to the architectural space that attempted to abstract both the ideas and experience, but ultimately lacking in a systematic means to do so.

This dissatisfaction with the results from the first visit to Vals led to a search for theories and concepts that could illuminate this process: a desire to question the experience from another point of view, to extract information from it in a different manner that engaged an alternative line of thinking.

3.3. Looking down on top of Therme Vals.

roleofarchitectural theory.phenomenology as methodological tool



'philosophical perch' provides exactly the shift in point of view or change in mode of thought required, to think reflectively about experiencing architecture.

Whilst entering into transcendental reduction or approaching with a phenomenological attitude can occur without theoretical knowledge, Sokolowski draws attention to the advantages of understanding this theoretical standpoint; by shifting into the phenomenological attitude clearly and explicitly (through knowledge of its theories), a more complete appreciation of the distinction between the two attitudes (natural and phenomenological) are made. ¹⁴ And as a theory it then

becomes a more powerful tool.

"It is from within the world that we perceive, our experience is always perspectival, i. e. incomplete... Man can only act from within a situation, this being understood in terms of his own background."¹⁵

This acknowledgement dispenses with universal notions of truth. 'Truth' may exist for an individual, based on experience. This places value on the individual's experience and response which emerge from their own parameters. 'Universals' of a form can be seen within the concept of 'eidetic intuition' (insight or intuition of essences that is given to us through use and expe where it is accepted that essences of things exist be commonly understood.

Sokolowski's discussion of the reasons for eidetic intuition reinforces fundamental issues particular only to phenomenology but also to philosophy it notes that philosophy recalls obvious facts, things often overlooked or denied, and that this content act of revealing eidetic necessities is a gratifying p Sokolowski speaks here of joy of knowing and re the fundamental essences of things: the value that placed in the simple knowledge of what makes a thing.

It is with this understanding of essences that Zur experiments at Vals, placing great emphasis on the elemental meanings of materials, extracting from truth or essence through design. ¹⁶

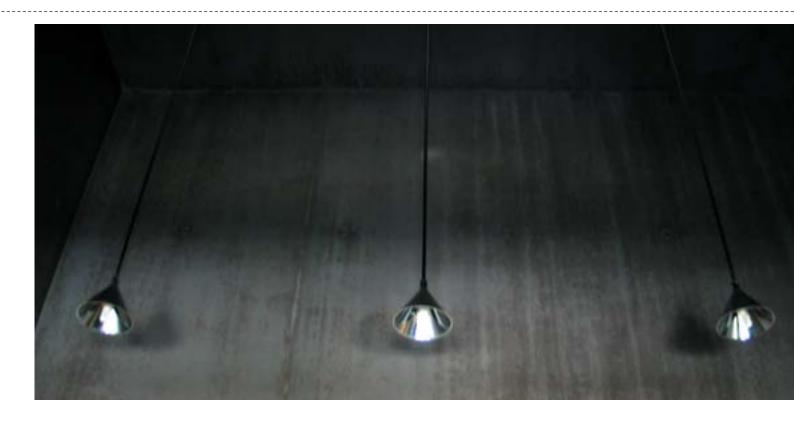
"I remember the sound of the gravel under my feet, the of the waxed oak staircase, I can hear the heavy front d behind me as I walk along the dark corridor and enter the only really brightly lit room in the house.

Looking back, it seems as if this was the only room in in which the ceiling did not disappear into twilight hexagonal tiles of the floor, dark red and fitted so tight that the cracks between them were almost impercep hard and unyielding under my feet, and a smell of oil p from the kitchen cupboard.

Everything about this kitchen was typical of a tradition. There was nothing special about it. But perhaps it w fact that it was so very much, so very naturally, a kitche imprinted its memory indelibly on my, mind. The atm this room is insolubly linked with my idea of a kitchen."

perience) at and can ic r not itself. He gs that are mplative pleasure. evealing at is a thing a	The response to the discovery of phenomenology was one of immediate recognition; it offered exact elucidation on what was being attempted. It provided an academic point of view, yet one that was directly applicable to the design process.	
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role of architectural theory



.phenomenology and architecture

Zumthor here describes those qualities of architecture arising from his own personal experience that inform his perception and design of architecture.

Applying a phenomenological approach to architecture aims to enhance the meaning of architecture. ¹⁸ It attempts to identify how character and essence are imbued in architecture, how empathies in perception are felt and why. This inexact and slightly poetic science of the mind draws on philosophy and psychology to grasp at definition. Fittingly most definitions remain largely interpretive and subjective, for example:

"Architecture, as with all art, is fundamentally confronted with questions of human existence in space and time, expressing and relating man's being in the world. Architecture is deeply engaged in the metaphysical questions of the self and the world, interiority and exteriority, time and duration, life and death. 'Aesthetic and cultural practices are peculiarly susceptible to the changing experience of space and time precisely because they entail the construction of spatial representations and artefacts out of the flow of human experience'.'¹⁹

The phenomenological perspective on architecture expressed by Juhani Pallasmaa is one that locates 'man's being in the world' as central and co-defining. My earlier discussion of phenomenology positioned it as a tool for understanding perception and the relationship of the self to the world. The consideration of architecture in phenomenological terms extends this concept of phenomenology as a tool to redefine not only the reception and reading of architecture, but also how this reading is created, and provides reflections for its future application. The varying viewpoints of Norberg-Schultz, Pallasmaa, Ando and Fry are presented, to show the range of interpretations that constitute the field of phenomenology and architecture:

Christian Norberg-Schultz interprets the ideas in Heidegger's essay *Building, Dwelling, Thinking*, in which Heidegger distinguishes 'space' from 'place'. Norberg-Schultz links this distinction to the ancient Roman concept of 'genius loci' to which ideas on 'place' are tied. In phenomenology, 'genius loci' is termed 'essence'. Norberg-Schultz places emphasis on how we come to understand and read 'place' as possessing meaningful character to the individual. Central to the Norberg-Schultz doctrine on the phenomenology of architecture is his desire to communicate how places may be made more meaningful.

Juhani Pallasmaa

Juhani Pallasmaa is a Finnish architect and critic who has written prolifically on the philosophy of architecture and worked across many disciplines (graphic design, product design, urban planning as well as architecture). His current focus is the sensorial interaction with architecture.²⁰

Christian Norberg-Schulz

Christian Norberg-Schulz's writing has been extremely influential in the development of ideas for a phenomenology of architecture. Motivated by the Heideggerian concept of 'dwelling', its manifestation in architecture and the inadequacy of texts on the subject, Norberg-Schultz "identifies phenomenology's potential in architecture as the ability to make the environment meaningful through the creation of specific places,"²¹

3.5. Lighting detail in outside rest area at Therme Vals

role of architectural theory. phenomenology and architecture

In this research, the study of phenomenology as a way of understanding how meaning is contained in an object extends beyond the architectural focus described here. How this translates to other disciplines, particularly jewellery, is also the subject of this investigation.

Whilst the central theme so far has been architecture, the particular perspective in this research is the potential of phenomenology to work across other disciplines, specifically in this case jewellery. A wider understanding of the ways in which meaning may be contained in an object or a space underpins this investigation.

Pallasmaa's focus differs from Norberg-Schultz's thesis on method in terms of the reception and understanding of architecture. Pallasmaa uses the writings of Merleau-Ponty to position the self, by this means an examination of the senses' response to architecture and the task of architecture are investigated.

It will be shown that Zumthor's approach to architecture emerges from a phenomenological standpoint. The differences between the perspectives on the phenomenology of architecture discussed lie partly in the vocabulary used to explain the concepts. These variations emerge from the range of historical perspectives, interpretative and adapted. Weather they are those of Husserl, Merleau-Ponty or Heidegger, meanings overlap despite the particularity of the language used to communicate them. This may also be because the interpretations of these phenomenological approaches to architecture have occurred in the last sixty years, as Pallasmaa's words here indicate:



"I believe that we need today an ascetic, concentr contemplative architecture. We yearn for an architecrejects noise, efficiency, and fashion. We need an architecdoes not aspire after the dramatic, but rather aims at lyr real things of everyday life. We yearn for radical ordina mundanity, a natural architecture of the type that fills of with good feelings when we enter an old peasant cotto upon a Shaker chair. But alongside an architecture the beyond its boundaries and redefines itself, we need an ar of silence."²² (1990)

Both Pallasmaa and Norberg-Schulz appeal for a r to 'things', as opposed to the abstract. For Pallasm is his criticism of the superficiality of post-modern that drives this. Writing in 1985, he argues: "The ancient themes lack emotive power... because the collages of architectural motifs are no longer linke with phenomenologically authentic feelings true to architecture."²³ Some years earlier Norberg-Schul impetus for developing a phenomenology of place architecture was born from a similar discontent w the architectural theories of the day. In his case, it the excessive programmatic functionalist dogma t accompanied modernism, in which the loss of meawas manifest.

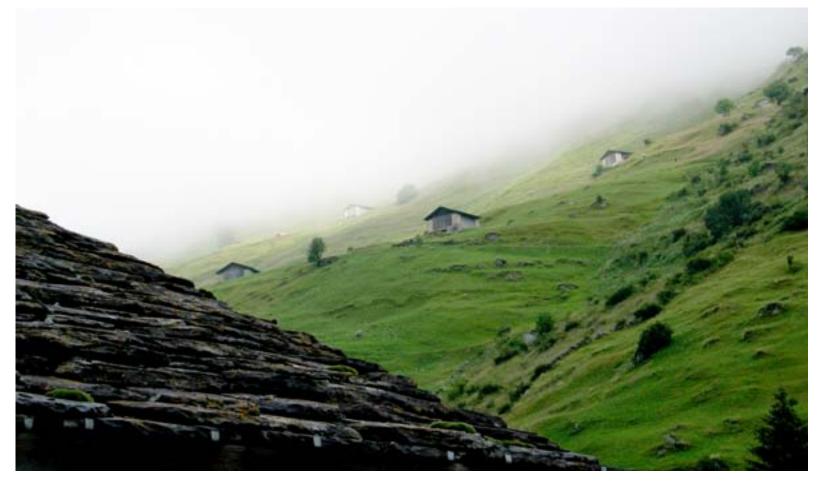
"The purpose of architecture, [Norberg-Schultz] sta provide an 'existential foothold,' one which provides 'orie space and 'identification' with specific character of place.

In order to understand this perspective of the phenomenology of architecture, the vocabulary N Schultz employs must be explained. Place is different from space by the act of marking enclosure:

"Any enclosure is defined by a boundary. Heidegge boundary is not that at which something stops but, as t

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role of architectural theory phenomenology and architecture



recognised, the boundary is that from which something begins its presencing, '''25

It is within the act of defining place or creating a boundary that the origins of architecture may be found, according to Norberg-Schultz.²⁶ The act of demarcation (or defining of boundary) signifies the production of meaning as described in this statement:

"A boundary may also be understood as a threshold, i. e., as an embodiment of a difference''.²⁷

When Norberg-Schultz cites Heidegger, he reinforces the importance of boundaries as not only marking difference

but as distinctly positioning life, creating and defining not only dwelling but also existence.

"Architecture clarifies the location of human existence... between the sky and the earth, in front of the divinities."²⁸

If space can be said to exist between the sky and the earth, place is the architecture that clarifies the location of the self. By clarifying specific location in reference to the self, and therefore identification, character is determined. Norberg-Schulz states:

"Character is determined by how things are, the atmosphere that is created, or the essence of place – the essence of place is referred to as genius loci."²⁹

Character is the basic mode in which 'presencing' occurs (or in which places are 'given') in the world, it is what the self 'receives' from the environment. Norberg-Schultz goes on to explain that 'character' is the 'how' of places. Character may to some extent be defined by:

"the function of time; it changes with the seasons, the course of the day, and the weather, factors which above all determine different conditions of light. Character is determined by the material and formal construction of the place,"³⁰

However, Norberg-Schultz places emphasis on character being determined by:

"how things are made, and is therefore determined by the technical realization ("building"). Heidegger points out the Greek word techne meant a creative "re-vealing" (Entbergen) of truth, and belonging to poiesis, that is 'making'. A phenomenology of place therefore has to comprise the basic modes of construction and their relationship to formal articulation. Only in this way architectural theory gets a truly concrete basis."³¹

Character arises from the way things are made. The 'work' that goes into an object or place is revealed as a truth or essence; material nuances construct meaning to which the self identifies and responds. Norberg-Schultz makes the connection that places/objects are made significant through identification and experience. Identification of properties, in character or essence, develop from relationships established in childhood through memory.³²

Zumthor affirms this in describing his approach and working process, where essences, characteristic of architecture and objects are sourced from memory in the act of perception and creation. This is a personal language

Gaston Bachelard

Bachelard was a French regarded as a philosopher, phenomenologist. Relevant to this research is his book 'The Poetics of Space'.

"Poetic images of matter do not spring from out instinctual depths, but instead arise in the 'intermediate zone' between the unconscious and the rational consciousness, at the threshold of rational thought, of objective knowledge about the world."³⁸

Bachelard reinforces the role of the poetry, which puts language into question and also our relationship to matter, in this case architecture. "Poetry helps us to return to a pre-linguistic stage of our development, to a period in which language did not determine our modes of expression." 39

Through extension, architecture and jewellery are made from a visual language that is 'prelinguistic' or poetic, in that their definition is not concrete, but the work of the 'intermediate zone', of creativity.

3.7. South facing view of the valley from the village of Vals

role of architectural theory phenomenology and architecture

or frame of reference that serves to define for him the world that he receives and his architecture.

"When I think about architecture, images come into my mind. Many of these images are connected with my training and work as an architect... some [other] images have to do with my childhood. There was a time when I experienced architecture without thinking about it. Sometimes I can almost feel a particular door handle in my hand, a piece of metal shaped like the back of a spoon... Memories [like these] contain the deepest architectural experience that I know they are the reservoirs of the architectural atmospheres and images that I explore in my work as an architect."³³

Substantial value and importance are placed on the experiences and memories gained early in life. The role these fundamental experiences play in shaping and influencing how we go on to perceive in later life is discussed in *Body, Memory and Architecture*: "The body-image... is formed fundamentally from haptic and orienting experiences early in life. Our visual images are developed later on, and depend for their meaning on primal experiences that were acquired haptically."³⁴ They constitute the complex psychological realm and have more influence on our comprehension of the world than we are able to recognise, state Bloomer and Moore in discussion of haptic experiences. ³⁵

Pallasmaa introduces phenomenology through Merleau-Ponty, to explain the "embodied vision... an incarnate part of the flesh of the world". Pallasmaa emphasises the single continuous existential experience within which the perception of the body and the image of the world are bound. Relating this to architecture, Pallasmaa cites Bachelard, "The chief benefit of the house... the house shelters day-dreaming, the house protects the dreamer,



the house allows one to dream in peace"³⁶ This per reasoning reinforces architecture as strengthening existential experience, of one's sense of being in t world and one's experience of self.³⁷

Zumthor states his architecture has no strictly th foundation, yet he refers repeatedly to mental ima essences, created through experience, residing in which then inform his design.

"I do not work towards architecture from a theoretica point of departure, for I am committed to making archi building, to an ideal of perfection...⁴⁰ When I work on allow myself to be guided by images and moods that I and can relate to the kind of architecture I am looking of the images that come to mind originate from my experience and are only rarely accompanied by a rer architectural commentary. While I am designing I try t what these images mean so that I can learn how to creat of visual forms and atmospheres."⁴¹

In Construction, Intention, Detail, Alter notes that in process of designing Zumthor searches for image memory, evoking their characteristics, to see if th 'fit'.⁴² Memory and experience are authoritative, i relationship between the different decisions made design process.

In Eyes of the Skin, Pallasmaa argues that the domin of ocularcentrism in philosophical and architectur history parallels the separation of the self from the world; meaning and understanding of the world exin an intellectual rather than in a corporeally 'lived manner. A case is made, instead, for a multisensori phenomenological approach, which reflects the inworld of experience (to which we inseparably bel

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role of architectural theory, phenomenology and architecture

reconstructed in artistic expression. ⁴³ Or as Merleau-Ponty stated, "The body is our general medium for having a world."44

In The Geometry of Feeling, Pallasmaa defines the phenomenology of architecture as "'looking at' architecture from within the consciousness experiencing it, through architectural feeling in contrast to analysis of the physical proportions and properties of the building or a stylistic frame of reference. The phenomenology of architecture seeks the inner language of building."45

In juxtaposing these ideas with the writings of Zumthor, descriptions become inseparable and mirror one another, as if in answer directly to the case made by Pallasmaa. Zumthor designs, constructs and reasons from the interior world of experience and memory from this the 'inner language of the building' is recalled and realised, he writes.

"When I design a building, I frequently find myself sinking into old, half-forgotten memories, and then I try to recollect what the remembered architectural situation was really like, what it had meant to me at the time, and I try to think how it could help me now to revive that vibrant atmosphere pervaded by the simple presence of things, in which everything had its own specific place and form...⁴⁶

The design process is based on a constant interplay of feeling and reason. The feelings, preferences, longings, and desires that emerge and demand to be given a form must be controlled by critical powers of reasoning, but it is our feelings that tell us whether abstract considerations really ring true...⁴⁷

Personally, I still believe in the self-sufficient, corporeal wholeness of an architectural object as the essential, if difficult, aim of my work, if not as a natural or given fact."48

There are many similarities between Zumthor and Japanese architect Tadao Ando, not least their approach to architecture and material. Neither are professionally trained as architects, and both have arrived at architecture through craft, graduating from the skills and understandings materials afford on a smaller scale. Their works have a "stillness and quietude"⁵¹ to them; architecture is "enshrouded in silence"⁵² as has been described by critics. Both essentially have a phenomenological attitude towards architecture – whilst not having stated as such outright, both have written

prolifically on their ethos, reflecting with their own vocabulary and in their own elliptical way the tenets of phenomenology.

Ando brings another interpretation to the phenomenology of architecture, using the term shintai⁵³ as referring to the experiencing subject. In his essay Shintai and Space, Ando describes shintai and its relationship to architecture:

"Architecture is the art of articulating the world through





Tadao Ando

Tadao Ando is a contemporary lapanese architect. He did not receive any formal architectural education⁴⁹ but trained for some time as the apprentice of a cabinet maker. Winner of the 1995 Pritzker Prize, his work is known for the introspective spaces that are created, secluding the inhabitant from the surrounding urban chaos. 50

3.9. (above) Tadao Ando. Chruch of the Light. Ibaraki, Osaka.1987-8

3.10. (left) Tadao Ando. Chruch on the Water. Tomamu, Hokkaido, 1985-8

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geometry. However, the world is not to be articulated in isotropic, homogeneous spaces. It is to be articulated not abstractly, but as concrete places (*topi*) that are each related to a totality of history, culture, climate, topography, and urbanity. A 'place' is not the absolute space of Newtonian physics, that is, a universal space, but a space with meaningful directionality and a heterogeneous density that is born of a relationship to what I choose to call *shintai*."⁵⁴

In this, parallels can be drawn between the term *shintai* and 'dative'. *Shintai* appears to represent the reception of the world from within the phenomenological attitude and subjective eidetic intuition (insight into essence) or genius loci;

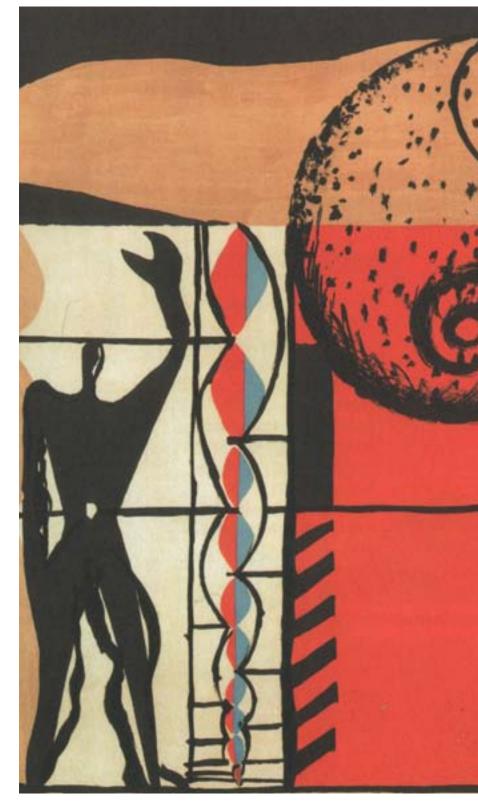
"Man articulates the world through his body... The world that appears to man's senses and the state of man's body become in this way interdependent. The world articulated by the body is a vivid, lived-in space. The body articulates the world. At the same time, the body is articulated by the world... In this way the body in its dynamic relationship with the world becomes *shintai* It is only the *shintai* in this sense that builds or understands architecture. The *shintai* is a sentient being that responds to the world." Ando continues then to confirm the commonalities between *shintai* and "the old anthropocentric idea of the *genius loci*"⁵⁵ in 'Shintai and Space'.

From a somewhat more scientific perspective, Tony Fry, in A New Design Philosophy, presents a phenomenological attitude to design and architecture in a more rational way. Using the term, 'anthropocentric' in a qualitative sense he describes the co-dependence of the body and the object and therefore world. His emphasis lies in the rethinking of the body central to design as a language for future application. The following quotes used to illustrate this are taken from Design and the Body of Competition, indicating Fry's further consideration of the body as object, and indeed suggesting commodification, bringing a new reading to Merleau-Ponty's idea that "our body is both an object among objects and that which sees and touches them". ⁵⁶ Fry's analytical approach lends an alternative view to the poetic and indulgently philosophical approach taken by others cited in this discussion.

"The human body is present, as an

anthropocentric figure of reference, in all that is designed. At its most basic it stands between designing and the designed, sometimes as agent, sometimes as object, and often as effect (subject)...⁵⁷ The body is the standard reference point of measurement for that which is fabricated and how it is perceived."⁵⁸

Here Fry touches on premises which have been renewed throughout the history of architecture. In The Ideas that Shaped Buildings, Fil Hearn introduces Vitruvius, dating back to antiquity where parallels are drawn "between the elaborate system of proportions inherent in the orders and the natural proportions of the human body". Hearn gives two reasons for this; because buildings are constructed for humans alone. the relative measurements should reflect those of the people and that this system of measurement was derived from nature – an unguestionable standard. 58



Le Modulor

One example of this is 'Le Modulor' (the I. 83m tall anthropocentric system of relational measurements) that was made into a human-figure referent by Le Corbusier.

"The Modulor is a measuring tool based on the human body and mathematics. The height of a man with an upraised arm may be divided into segments at the points determining his position in space his feet, his solar plexus, his head, his fingertips.

These three intervals produce a series of the Golden Section... "The numbers of the Modulor, which are chosen from an infinite number of possible values, are measures, which is to say real, bodily facts. To be sure, they belong to and have the advantages of the number system. But the constructions whose dimensions will be determined by these measures are containers or extensions of man."⁶⁰

The internal proportions of 'Le Modulor' were rather difficult⁶¹ but it reasserted the age-old concern of proportions and standards based on the human body.⁶²

3.12. Le Modulor: humanfigure referent by Le Corbusier

role of architectural theory, phenomenology and architecture



"The designing body (the designed body in action) turns It is both an object of continuous redesigning by the k concepts and language of its designation, and it is a desig in itself that designs the world in which it appears and a

Fry acknowledges the body and its duality, which central to all of these theories touched upon. In the introduction to this chapter it was mention phenomenology is largely an 'inexact and slightly science', whose main thrust is the comprehension essence of an object in relation to self and how an we experience and understand this. Through archi and in fact design in general, it can be seen as an that desires to establish meaning and significance. attempts in theoretical terms to unpack and desc vague phenomena such as intuition and experience finds a way, through the creation of a specific voca to explain things that occur and to clarify phenom which we have inklings of anyway. It is able to solid these impressions and half-formed comprehension through formal means. It is not imperative to an understanding of the world that phenomenology grasped; but it is a tool to clarify the workings of mind and it offers an alternative vantage point from to view things.

Despite this it can be shown that it is a line of thin that has been followed independently by artists and architects alike: those trying to gain a deeper understanding of their craft, grasping at the indisti form of what constitutes the core of being. It is cu that remarkably similar approaches to the formal of phenomenology are arrived at independently.

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	3.13. View from outside rest area at Therme Vals

.swiss essentialists

Throughout this thesis I have referred to this group of architects as the *Swiss Essentialists*⁶⁴. Indeed a plethora of names have been used in critical theory to label this disparate collection of individual architects, including Swiss Neo-Modernists, Northern Swiss architecture, Analogous architecture, Factual architectures and Mountain architecture. Because of the relationships that have been identified between the phenomenology of architecture and the works of this group, the term *Swiss Essentialists* most accurately describes these architects for the purposes of this text⁶⁵ - it is out of pragmatic necessity that classification of *Swiss Essentialists* arises. In group terms there is an absence of a collective rationale, there have been enough commonalities in ethos and typology for architectural critics to comment on and



position these architects together. Bruno Reichlin, who was influential in the education of many of the Swiss Essentialists through his teaching at Zurich ETH, has commented on the necessity for a nomenclature for these architects. He states:

"An architectural design or work earns greater 'visibility' when it bears the recognisable signs of a given genre or movement, suggesting that it belongs to a trend, a family. The well-ordered background of the group provides the context for interpretation of the particular qualities of the work, in all their individuality. The coherence of the whole ensures the presence of each single member." Reichlin argues that the naming of this group is a cultural design incentive, the working hypothesis of architectural criticism, a, "cultural construct in the sense that it has been formulated *a posteriori.*"⁶⁷

The Swiss Essentialists emerge from a specific context. In order to better understand the openness of these architects to a phenomenological ethos, the cultural conditions that nurtured them must be touched upon.

The key characteristics of the architecture of the *Swiss Essentialists* will be highlighted in relation to phenomenology. Explanation of the cultural milieu includes geographical location, environmental sensitivities and the role of the democratic

Analogous architecture

Analogous architecture is referred to in 'A Matter of Art: Contemporary Architecture in Switzerland' by Jacques Lucan, Martin Steinmann and Miroslav Sik.

Factual architectures

Factual architectures is a term used by Kevin Alter and Mark Gilbert and Martin Steinmann in 'Construction, Intention, Detail: five projects from five Swiss architects.'

Mountain architecture

Mountain architecture has been used by Bruno Reichlin in 'Architecttura contemporanea alpina' by Birkhauser, Basel in 1996. An excerpt of this was published in Nexus 2G. The term 'Mountain architecture', its use and appropriateness in loosely defining a group of architects is debated by Reichlin.

Bruno Reichlin

Bruno Reichlin was an assistant to Aldo Rossi at Zurich ETH. He currently teaches in Geneva. His initial architectural practice was in partnership with Fabio Reinhart based in Lugano in 1970 their work was representative of the Ticino School, considered as latter day Modernists. ⁶⁶

3.14. North facing view from the village of Therme Vals

role of architectural theory

attitude that created a favourable situation for the development of such an architecture. Shaping influences have been teachers, art movements and the reassessment of Modernist architecture.

Alter and Gilbert introduce the Swiss Essentialists as possessing 'self-sufficiency', their architecture relying not upon "rhetorical methodologies in order to validate itself", but :

"propos[ing] an architecture which emerges out of a direct examination of the architectural problem itself. Meaning and value are here vested solely in the artefact – the building – and form is developed from the intense working of materials and their means of construction... these architects reach into the ordering principles endemic to their discipline, and it is from these principles that the buildings evolve."⁶⁸

Alter and Gilbert cite Herzog and de Meuron: "Material is there in order to define a building, but equally, a building is there in order to show the material from which it is made." Alter and Gilbert go on to note that beyond the material existing, giving it a form creates a specific existence with which it is distinguished from simply being. ⁶⁹ This shows clearly the extension of concepts from a phenomenological approach applied to the act of architecture, through creation of *genius loci*.

Despite the deliberate and somewhat anti-rhetorical attitude adopted, some irony lies in the very distinct philosophical position this group of Swiss architects find them selves in by default.



3.15. Peter Märkli. La Conggiunta, Giornico, Tincino. 1992

roleofarchitectural theory.swiss essentialists

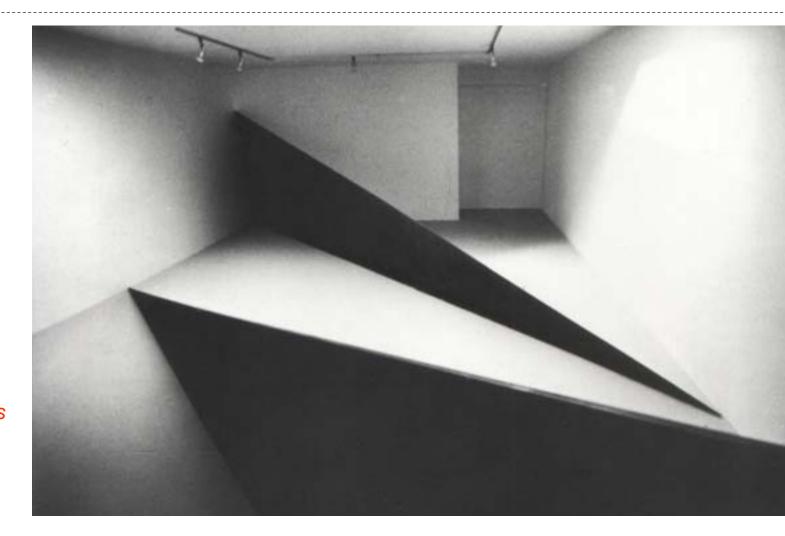


Key characteristics of this group of architects, to v Zumthor is both central and the specific focus of research, are: a fundamental concern for materials construction, an investigation into architecture as discipline and a strong concern for the cultural co particular to Switzerland, which may be translated sensitivity towards typology and site.

Alter and Gilbert further define this architecture works that attempt to engage consciously with the prevalent perceptual modes of society, works that the basic elements of a building in order that the be perceived and questioned, works that allow re whilst still revealing their conceptual raison d'etre remaining very real. ⁷¹Adamant that no text or de should represent the inhabiting of the architecture this critical overview returns the focus solely to the experience of the building.

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3.16. interior view of Peter Märkli's La Conggiunta



.contextual overview of swiss essentialists

"These buildings are devoid of rhetoric and heroism, and so might not at first glance look like masterpieces, But they leave room for the imagination: we can adapt them to our own images and we can appropriate them, which is something we can't possibly do with certain other buildings."72

What follows is a brief overview of the historical factors that have contributed to the state of the contemporary Swiss architectural scene.

A country of paradoxes, geographically located at the crossroads of Europe (bordering four different countries), Switzerland is both central and yet isolated. It has isolated itself historically in a cultural sense, and its fierce independence is palpable. The Swiss Confederation was established in 1848 essentially as a continuation

of medieval democracy where the state was an allembracing idea, not defined by race or language. It seized control of its borders in order to remain neutral and peaceful amidst its warring neighbours. Despite being small in size, Switzerland is host to a diversity of cultures and languages across its regional cantons. In the introduction to Switzerland Builds, Siegfried Giedion comments on the specificity of each canton:

"The independence of the cantons is emphasised by [these] language zones which are culture zones even now and naturally colour the architecture accordingly... This architecture presents and extraordinary diversity of expression, it is a simple and truthful manifestation of the needs and materials of each locale,"73

Giedion speaks of the historical pattern established by the limited natural resources available, resulting in the cultural insularity of each region. The development of styles comes as a result of the response to specific local needs and means.

Arguably the birthplace of democracy, each canton organises its own internal affairs:

Siegfried Giedion

Siegfried Giedion, architectural critic and historian, author of Space, Time and Architecture: the growth of a New Tradition' (in which the key figures and movements in Modern Architecture are examined) studied with Christian Norberg-Schulz at Zurich ETH (Eidgenossische Technische Hoschule). In 'Switzerland Builds' he documents the role of the Swiss vernacular and the contributing cultural conditions in Swiss Modernism.

Miroslav Sik

Miroslav Sik is Czech born, and studied under Rossi at Zurich ETH in the 70s before returning to research and teach there as head assistant of the chair of Professor F. Reinhart in the 80s.⁷⁶ He is considered the as the initiator of 'Analogous architecture'.

Arte povera

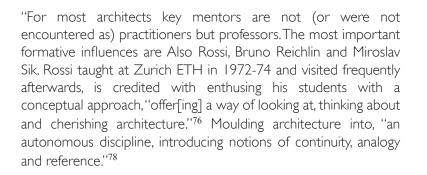
The term Arte povera defines a group of Italian artists named by Germano Celant in 1967. Their work (painting, sculpture, installation and performance) explores the relationship between art and life through nature, materials and cultural artefacts as experienced by the body. ⁸⁰ Arte

3.17. Richard Serra. Twins: To Tony and Mary Edna. 1972. 2 plates each/2.44 x 12.80 m x 2 cm. Los Angeles

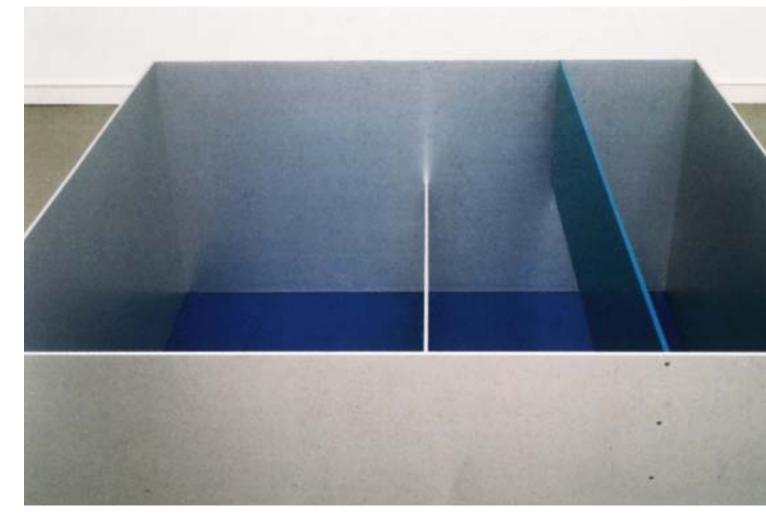
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"Democracy in Switzerland is kept active and dominant, frequently. Through constant use and engagement, the Swiss vote on many matters often, electing all posts in the community." **Kidder-Smith goes on to state the extent of democracy and its effect on architecture,** "The commission[ing] of all public buildings of importance are arrived at by competition, every taxpaying architect of the community has a right to participate. Every architect has the opportunity to get a large job. Public opinion determines success."⁷⁴

It should be noted that there are no professional accreditations to qualify for the title of 'architect'. Anybody may call himself or herself an architect and practise as such. Indeed the comment has been made repeatedly that "many of the best Swiss architects (like the greatest of them all, Le Corbusier) are autodidacts who never formally studied architecture."⁷⁵ However, Zurich ETH has had an influential and an illustrious procession of professors and students through its doors. Relevant to this research, this list includes Sigfried Giedion, Christian Norberg-Schultz, Aldo Rossi and Bruno Riechlin. Of the contemporary Swiss architects referred to Zumthor remains the only exception, not having studied at Zurich ETH.



Besides the formative influence of Rossi, 60s art movements, such as the Italian *arte povera*, Joseph Beuys, Edward Hopper and minimalist sculptors such as Richard



Serra and Donald Judd, exerted a strong influence and in a sense reinforced Rossi's teaching. Jacques Lucan parallels the qualities of Minimalist art and contemporary Swiss architecture as both "rejecting the current trend to 'binge' on form."⁷⁹ Most importantly, the engagement of Minimal art can be appreciated as it similarly deals with the phenomenon of perception. ⁸⁰

In discussing what these influences offered as aspirations for these architects, Buchanan surmises, "the reduction to essentialist objecthood leads not to potent physical presence, but also to a presence that hints at a rich array of allusive images and associations."⁸⁴ Here the idea of reduction to essentialist objecthood; refers to the essence of meaning in material, the expression of the material carrying cultural references and associations. The common thread in all these influences can be seen as the phenomenon of perception. ⁸⁵

In A matter of Art: Contemporary Swiss Architecture Lucan and Steinmann offer further insight into the 'essentialist objecthood' that Buchanan speaks of. For Lucan and *povera* can be translated as Poor Art, although it was intended to describe an art which was open-ended, experimental and without restraints. Challenging the Bourgeois art of the past and consumerism it is distinctive due to the rejection of a theoretical basis in favour of openness to materials and processes.⁸²

Minimal Art

Minimal Art is an American the 60s movement of predominantly consisting of painting and sculptural works and characterised by the reduction of forms and elements. These internally referential works aim to focus attention on the experience and perception of the works. Key artists include Donald Judd, Carl Andre, Sol Le Witt, Dan Flavin and Frank Stella. 83

3.18. Donald Judd. Untitled. 1989. Anodised Aluminum, plexiglass, 39 3/4" x 79 1/2" x 39 3/4" (cat. no.18)

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Steinmann the types of materials and the way in which they are used have much in common with Minimal art, both in terms of their phenomenological aspect (engendering primal sensations) and in the use of 'banal materials'.This use of everyday materials makes the building comprehensible and "necessarily leads to questions such as how to actually use them... questions are raised about the construction of the form itself."⁸⁷

Lucan and Steinmann go on to analyse this approach to materials, defining it in fine art terms:

"What is happening is that two approaches – realism and abstraction – are converging in an amazing way. Realism in the sense of remaining truer to building materials, and abstraction in the sense of using ordinary materials for purposes other than those for which they were initially intended... Yet, both approaches are characterised by a striving to seek out the essence of things albeit by different paths. Wassily Kandinsky pointed this out, saying that realism transmits the meaning of an artwork by the fact that it represents simple objects, while abstraction does exactly the same thing by incorporating simple forms... The two approaches resemble one another for it isn't the objects or forms of an artwork that are important but rather what he called their 'resonance' or their essence."⁸⁹

In an introduction to *Minimal Moralia*: Reflections on Recent Swiss German Production, Hans Frei comments on the intention and results of considering architecture in an 'art' context:

"Artistic processes in an architectural context do not aim to make aesthetic objects out of buildings, but to place them, by working on the formation of meaning, in a cultural framework."⁹⁰

Zumthor describes his interest in this group of artists and why they influence him, "What impresses me is the



A matter of Art

A matter of Art: Contemporary Switzerland Architecture in by Jacques Lucan proposes, through a series of essays and discussions, that contemporary Swiss architecture be seen as a matter of art. Lucan argues that the international attention and acclaim received by these architects transcends geographical boundaries and are now located in an artistic dimension. He states that contemporary Swiss architecture projects the notion of architecture as an art form.⁸⁶

Banal materials

The term 'banal materials' refers to everyday materials which are not often employed in architecture, materials which are not bound to any particular meaning. Examples cited of these are ordinary components, materials that don't require any major shaping or moulding, factory-made components that can be used straight from the packet. Used in architecture they are 'free' (for a while) to reflect meaning and interpretation.⁸⁸

The concept of 'banal materials' has been utilised in the design process, with the uuse of felt and buttons. See *Idea Development:* chapter 4 p89

3.19. Jacques Herzog and Pierre de Meuron. Central Signal Tower. Basel Switzerland. 1998-9

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precise and sensuous way they use materials. It seems anchored in an ancient, elemental knowledge about man's use of materials, and at the same time to expose the very essence of these materials which is beyond all culturally conveyed meaning."⁹¹ It is likewise the sensitive and skilful use of materials in Zumthor's work which has drawn attention to him as a central influence. It follows that these qualities and understanding of materials are fundamental aims of the works produced as a result of this research. (See *Design Process* in chapter 4 p83.)

For Zumthor the fine art influences examining material

essence and internal reference hold particular weight due to his background as a cabinetmaker. Never formally trained as an architect, the skills and sensitivities acquired through his design education furnish him with an approach based in materiality. In a statement that sums up the attitudes and environment that these Swiss architects emerge from, Annette Gigon of Gigon and Guyer architects explains:

"We feel we come out of the Swiss environment, where we have good craftsmanship and where we have a not so bad, you could even say a mild, climate in the press... some people even care for architecture in the newspaper. We have a closeness. We are a small country so we don't have so much space and there are lots of things to care about, like doing a job 200 percent. We can't rip off other people – it is part of our constitution and our condition. And we also have an interesting base, a conglomeratic country; we have so many languages and also [many] different ways to build. It is about different identities that somehow should be kept. There is also a richness in just working on one thing but doing it right until something new comes out of it."⁹²

3.20. Gigon & Guyer. Kalkriese Archaeological Museum Park, Onsabruck. Germany 1999-2002. Two of three pavilions scattered throughout the park. On the left is the 'listening' pavilion and on the right the 'questioning' pavilion.

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"It is crucial to the understanding of current Swiss architecture to realise that Switzerland enjoys a quite special and unproblematic relationship to Modernism." 93

In addition it is crucial to understand the development and involvement of Modernism in Swiss architecture to truly comprehend Swiss Essentialists. The following passages describe the Swiss Essentialists as working in a tradition which follows directly on from Modernism.

In many ways Switzerland was central to the development of Modernism. Home to a host of key figures in the Modern movement, it was culturally stable and became a refuge for artists, intellectuals and architects fleeing the turmoils of war. This is discussed by Bachmann and von Moos in New Directions in Swiss Architecture, who go on to make the bold claim that "Switzerland became the birthplace for Modern architecture". ⁹⁴ Although Switzerland produced many great architects and critics integral to the Modern movement, it remained a peripheral country in terms of actual execution of polemic architectural examples. For this reason, there was no architectural crisis over Modernism and hence no real change or reaction to it. As a result, the development in contemporary Swiss architecture, which reassessed the fundamental principles of modernism, comes as no break in tradition.

Gold's concept of the 'Grand Narrative' proposes that stories of history are condensed and fit into established frameworks; resisting plurality, they merge, falling into one strand. The follies of this approach are the "tendencies towards conceptual tidiness, stripping away complexity and ambiguity in favour of simple deterministic sequences and readily identifiable outcomes". ⁹⁵

Gold's criticism of this conceptual propensity settles on those who were actively engaged in the writing of the 'official' version of Modernism. Including Giedion in this critique, Gold highlights the fact that those involved in writing the history were themselves central to the story. This predicament, where architect acts as historian, presents obvious biases, especially when the theory is used to further the standing of the group or movement.⁹⁶

This situation is particularly pertinent to the architecture of Switzerland, where many critics were both commentators and architects themselves – Le Corbusier is the clearest example of this. ⁹⁷ Whilst commenting on events which are an integral part of the mover to which an architect belongs may be seen as bias may also be viewed as inherently part of the proc of development, and so essential to the vitality of movement in its self-reflexivity – always a central of the design process. Additionally the document of intimate knowledge of cultural history and sens understanding of the reception of architecture in context is invaluable.

John R. Gold, in the Experience of Modernism, prov alternative reading of Modernism (to the grand n that is relevant to the developments in Switzerlan interpretation and reading of Modernism correlat Jacques Lucan's description in the foreword to A Art: Contemporary Architecture in Switzerland:

"The development of Swiss architecture cannot be in mere linear fashion, nor can it be postulated that homogenous national features. Rather, it should be unde sequence of sharing of moments' that often correspond traditions tied to geographic or linguistic areas."⁹⁸

Lucan's observations reinforce the points made exthat discuss a decentralised Switzerland. It is in the of Europe, yet within its border each canton remadeterminedly self-sufficient and isolated – partly b specific needs and requirements of each locale, bu because of the sense of democracy. The highly val democratic system, coupled with the decentralise of Switzerland, played a significant role in lessenin severity and extremity with which a movement su Modernism was able to take root.

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Buchanan asserts Switzerland did thoroughly emb this movement and cites a number of key reasons Modernism offered the benefits of suburban living whilst still being in contact with nature. Its develo coincided with the growth of wealth in cities, whil chalets and historical architecture were considerer representing the past, and hence rural hardship. ⁹⁹

This apparent contradiction is explained by Dr Ha Hofmann in an essay from a book published to co with an exhibition hosted by the RIBA in 1946 Sw Planning and Building Exhibition:

"The interwar years and the period of the war can be de one of revaluation, of self criticism, and reflection. Years practice had gradually eliminated the weaknesses which adhere to a revolutionary movement in its infancy. What theoretical and dogmatic was reinterpreted to suit the of our country."¹⁰⁰

On one hand the values and merits of Modernism recognised as progress and development. Cultural however, the attitudes and approach of the Swiss a mitigating affect, preventing the heroic aspects of Modernism from being part of the phenomena.

In Hofmann's introduction, he reinforces the liber role that Modernism in Switzerland had, breaking trend in the architectural practice at the turn of t century from the revivalist styles and the superfic formalism of l'Art Nouveau.¹⁰¹

In addition to the stylistic change that Modernism brought to Switzerland, the principles of utility an

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function were endorsed; the science of building, an analytical approach to architecture and the exploitation of the then new materials, steel and concrete were added to the architectural vocabulary. In the self-critical style of the Swiss, Hofmann proceeds to criticise the failings of Modernism in Switzerland:

"The architectural language became consequently prosaic... words like 'beauty' disappeared from the vocabulary... a sensational formalism was sometimes indulged in... the architectural language of functionalism in a stereotyped form [was applied] to all sorts of buildings." **Hofmann concludes this, by describing the change in the intervening years between the two wars**, "as a transition from the science of building to the art of building."¹⁰²

The religious attitudes of Switzerland of this time are mentioned below, as they colour the cultural perspective to change and the rejection of the heroic, dimensions of Modernism. Peter Meyer outlines these attitudes in his essay *The Historical Background*:

"Republics are thrifty and suspicious, especially Protestant republics. No citizen may venture too far above the average, whether as a man or in his buildings. The envy and suspicion of his fellow-citizens brands all luxury as arrogance. That is the origin of the stolid 'goodness' which is the basic principle of our architecture and, with few exceptions, its limitation."¹⁰³

It is partly these cultural attitudes and the reflective criticism from the resident architectural intelligentsia of the time that had this moderating affect. Additionally the cultural requirements of each canton in Switzerland necessitated reinterpretation and therefore constant revaluation; resulting in the development of regional variations of Modernism. The Swiss Essentialists can be seen as a group that has emerged from this tradition. "We no longer believe in the omnipotence of science and technics, nor in the validity of functionalism as such, nor in the unquestioned authority of the intellect. We see ourselves placed between the poles of mind and feeling, and the unresolved contradiction of fact and enigma. We are seeking in our work the synthesis of a rational working method and artistic imagination."¹⁰⁴



In this reassessment, the considered balance between the rational and emotional can be seen. Traces of philosophical elements that constitute a phenomenological attitude may be read into Hofmann's analysis: "between the poles of mind and feeling... and fact and enigma", i. e. a balance of and between what may be known and felt. Beyond the attempts to reach a philosophical median, separation between the then topical elements (excessive functionalist rhetoric) of Modernism and the fundamental tenets are also evidenced. This shows the type of constant assessment of architecture that has led to the current climate. In support of this, a conversation between Lucan an and professor Martin Steinmann explains the surv Modernist attitudes in contemporary Swiss Archi

"Swiss architecture never really turned its back on N Which has given rise to an enriching and highly speci status quo – no rejection, no total separation."¹⁰⁵

Lucan: "Modernism wasn't perceived as an epoch that be overcome. Instead, it was received as an inheritance fact that this architecture could derive its vitality in large from an unbroken intimacy with the Modern Moven appear contradictory. It is one of the peculiarities of of this country in the 20th century that suffered to a me degree than the neighbouring lands"¹⁰⁶

Steinmann: "One reason is undoubtedly that Switze spared both wars. So there was no break in continuity, there were recessions, and of course modern architectu welcomed by everyone with open arms by any means, never completely rejected."¹⁰⁷

Architectural development during the Post-Mode period, which was typified elsewhere as a reaction against Modernism, did not evolve in the same wa Switzerland. Buchanan comments on this, stating to this discontent with Modernism in the 70s and 80 overshadowed by the attitudes to Post-Modernism marked as a movement which lacked resonance, i and intensity. In Switzerland, however, "the solution not the rejection of Modernism but its reinvigoral through a re-examination of its roots and early w Buchanan states that the re-assessment of Modern held works that were more "fascinating and concersubstantial than had been realised, more complex

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intentions and sources deeper in their intellectual disciplines."¹⁰⁸

Two statements made by Sik, Rossi's replacement at Zurich ETH, further explain how a Modernist sentiment was prevalent in the education of contemporary Swiss architects. Sik cites the well-known Modernist diatribe:

"Less is More – if as a Traditionalist one falls back on an axiom of one of the eminences of Modernism, there must be some truth in it! Less is actually more and not because we are asceticprotestant educators. We need an architectural diet, a return to an ordinary and regional world to find new enjoyment and purpose in life."¹⁰⁸ And Sik cites the functionalist priorities underlying the a phenomenological approach, "First usefulness. Second atmosphere. And lastly effect."¹¹⁰

In this Sik touches a point made by Roman Hollenstein in Swiss Architecture Today when he disputes the title of 'ascetic-protestant educators'. Hollenstein claims it is from this basis that reinterpretation of Modernism has been examined. In speaking of the contemporary architectural scene he summarises:

"Based on historical and critical analysis of austere Swiss Modernism. This new architecture, [was] committed to a Protestant and puritanical objectivity, [looking] at the heritage of Modernism in a new way, from a reduced and minimalist point of view... an architecture inspired by art."¹¹¹

The evolution of Modernism in Switzerland and its role in contemporary Swiss architecture is an inseparable part of how Zumthor's work is approached and understood. We have seen that a combination of cultural attitudes and inspired educators over the last eighty years has methodically shaped the direction architecture has



taken. The overtly Modernist rhetoric was stripped away, leaving the fundamental core of type and programme. This process, when combined with the phenomenological interest in atmosphere or essence, found sympathies with art movements which strived to achieve the same ends through perception and material investigation. The result is an architecture whose approach and process has much in common with aspects of contemporary art practice and can be read in a similar way. In conclusion, a number of theories have been collated and described in this chapter so that they may be used as tools through which contemporary Swiss architecture can be viewed and taken apart.

Phenomenology provides the philosophical stance which, in defining objects and the world, defines the self. It places the experience in a formal context, allowing it to be analysed and in so doing reflects the nature of the subject



3.23. Interior gallery space. Kunsthaus Bregenz, Austria

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or dative. A phenomenology of architecture raise question as to how meaning and essence are imbuplace, and how place may be understood by the bomulti-sensorial way.

This approach is evident in contemporary Swiss architecture; it has evolved in tandem with the eve morphing strand of Modernism resulting in a cons architecture that values legibility and atmosphere, architecture that has developed closely with the r and values of its context.



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	3.23. Peter Zumthor. Sound Box. Swiss pavilion. Hanover Expo 2000, Germany

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I. Deleuze, Gilles, in Foucault, 1977: 208 in Ballantyne, Andrew. What is Architecture? Routledge. 2002. London. p25 2. Ballantyne, Andrew. What is Architecture? Routledge. 2002. London, p25

3. Wikipedia. http://en.wikipedia.org/wiki/Phenomenology Last accessed: 28.10.04. Click for PDF.

4. Although not defined as a movement as discussed in "Swiss Essentialists" p45 it is clear that similarities between this group of architects exist. For the purposes of this research Swiss Essentialists will refer to Peter Buchanan's classification of the group. (Architectural Review. January. 1991. p19)

5. Eagleton, Terry. Literary Theory. Blackwell publishers. Oxford. 1983. p48

6. It has been necessary to approach this research diachronisticly; as an academic paper it must operate within the same parameters as tradition dictates, despite the inherently synchronic nature of design work. In this way a diachronic approach allows for a formal context, which is widely accepted and used as a means to understand and host this design research.

7. Sokolowski, Robert. Introduction to Phenomenology. Cambridge University Press, Cambridge, 2000, p2 8. ibid. p61 9. the subject from within a phenomenological attitude. 10. op. cit. Eagleton. 1983. p50 II. ibid. p4 12. ibid. p48-9 13. op. cit. Sokolowski. 2000. p50 14. ibid. p48 15. Merleau-Ponty, Maurice. Sense and Non-Sense. Dreyfus, H and P.A. (translators) Northwestern University Press, Illinois, 1964. pxxi 16. Zumthor, Peter. Thinking Architecture. Lars Muller Publishers. Switzerland, p19 17. ibid. p8

18. Norberg-Schultz's focus developed from his critiq Modern architecture, "which, he claims, has created a meaning by creating a diagrammatic, functionalist env that does not allow for dwelling" he was also dissatisf with the potential for the then current theories of se explain architecture. The fundamental guestion Norb asks is where does meaning in architecture come from may it be created. Norberg-Schultz, Christian, Heideg on Architecture. In: Nesbit, Kate. Theorizing a New A Architecture: An Anthology of Architectural Theory Princeton Architectural Press, Princeton, 1995, p429 19. Pallasmaa, Juhani. Eyes of the Skin. Academy Editic 1996. p8 20. Pallasmaa, Juhani. http://www2. uiah. fi/esittely/histo htm Last accessed: 6.6.04 Click for PDF 21. op. cit. Nesbit. 1995. p412 22. Pallasmaa, Juhani. Architecture in Miniature, 1990 uiah. fi/esittely/historia/world. htm Last accessed: 6.6.0 PDF 23. Pallasmaa, Juhani The Geometry of Feeling. A look phenomenology of architecture. In: op. cit. Nesbit. 19

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24. op. cit. Nesbit. 1995. p429 25.3.05 Click for PDF word I do not intend to make a clear distinction betwee 25. Norberg-Schultz, Christian. A Phenomenon of Place. In: op. cit. 39. Bachelard, Gaston. The Poetics of Space. Beacon Press. Boston. and body; by shintai, I mean a union of spirit and the fle Nesbit, 1995, p419 1964. pxxiii cognisance of the world and at the same time takes co 40. op. cit. Zumthor. 1999. p34 26. op. cit. Nesbit. 1995. p412 the self. 27. op. cit. Norberg-Schulz. In: op. cit. Nesbit. 1995. p419 41. ibid. p24 54. Ando, Tadao. The Complete Works. Phaidon Press. L 42. Alter, Kevin and Gilbert, Mark, Construction, Intention and 28. op. cit. Nesbit. 1995. p412 1995. p453 29, genius loci is a Roman concept. According to ancient Roman Detail, Artemis, Zurich, 1994, p18 55. ibid. belief every 'independent' being has its genius, its guardian spirit. 43. op. cit. Pallasmaa. 1996. p15-16 56. op. cit. Merleau-Ponty. 1964. pxii This spirit gives life to people and places, accompanies them from 44. Merleau-Ponty, Maurice. The Phenomenology of 57. Fry, Tony. A New Design Philosophy: an introduction birth to death, and determines their character or essence... Perception. Routledge, London, 1978, p146 defuturing. UNSW Press, Sydney, 1999, p174 Ancient man experienced his environment as consisting of 45. Pallasmaa. In: op. cit. Nesbit. 1995. p449 58. ibid. p I 77 definite characters. 46. op. cit. Zumthor. 1996. p9 59. Hearn, Fil. The Ideas that Shaped Buildings. MIT Pres 30. op. cit. Norberg-Schultz. In: op. cit. Nesbit. 1995. p420 47. ibid. p | 9 Massachusetts, 2003, p47 48. ibid. p29 60. Le Corbusier, Le Modulor, Birkhauser, Basel, 2000, p5 31. ibid. 32. op.cit. Norberg-Schultz In: op. cit. Nesbit. 1995. p429 49. http://www.greatbuildings.com/architects/Tadao_Ando. html 61."it represented a tool of composition that was rathe Last accessed: 25.3.05 Click for PDF 33. op. cit. Zumthor. 1999. p10 in nature. The Modulor was difficult for others to incor 34. Bloomer, C and Moore, C. Body, Memory, and Architecture. 50. http://www.pritzkerprize.com/andorel.htm Last accessed: into their own designs because itsratios did not corresp Yale University Press, London, 1977, p44 25.3.05 Click for PDF standard whole number measures in either feet or met 35. ibid. p39 51. Chaslin, Francois. 'Brutalizing' History and the Earth. In: Tadao Hearn, 2003, p214 36. Bachelard, Gaston, The Poetics of Space, Beacon Press, Boston, Ando Complete Works, Phaidon, London, 1995, p498 62. ibid. p214 1964, p6. In: op. cit. Pallasmaa. 1996. p28 52. Zumthor, Peter. Works. Lars Muller Publisher. Switzerland. 1988 63. op. cit. Fry. 1999. p178 37. op. cit. Pallasmaa. 1996. p28 р8 38. http://www. dayglow. ndirect. co. uk/work/bach/ Last accessed: 53. "Shintai is ordinarily translated as 'body', but in my use of the

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64. This name has been taken from the title of Peter Buchanan's article in Architectural Review. January 1991. p19 65. The generation of architects referred to by this definition are: Peter Zumthor (who is the focus), Jacques Herzog and Pierre de Meuron, Marianne Burkhalter and Christian Sumi, Valentin Bearth and Andrea Deplazes, Markus Meili, Markus Peter and Peter Markli and Annette Gigon and Mile Guyer. 66. http://www.artnet.com/library/07/0712/T071218.asp Last accessed: 25.3.05 Click for PDF 67. Reichlin, Bruno. Nexus 2G. Building in the mountains: Recent architecture in Graubunden. No 14, 2000, p134 68. op. cit. Alter and Gilbert. 1994. p6 69. ibid. p | | 70. Alter and Gilbert's nomecleature of this architecture is, 'Factual Architectures'. 71. op. cit. Alter, and Gilbert. 1994. p6

72. Martin Steinmann in, Lucan, Jacques. A Matter of Art: Contemporary Architecture in Switzerland. Birkhauser. Basel. 2001. p19

73. Giedion, Siegfried in an introduction to Kidder-Smith, G. E. Switzerland Builds. Ahlen and Akerlunds. Sweden. 1950. p9 74. Kidder-Smith, G. E. Switzerland Builds. Ahlen and Akerlunds,

1950. p1675. Buchanan, Peter, Swiss Essentialists, Architectural Review.

January, 1991, p19

76. http://www.ethlife.ethz.ch/cd/bits/whoswho/prof/engl/ 1020engl. html

77. op. cit. Buchanan. 1991. p19

78. Lucan, Jacques. A Matter of Art: Contemporary Architecture in

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79. ibid. p20

80. Humbel, Carmen. Young Swiss Architects. Birkhauser. Basel.

1995. p7

81. http://www.studio-international.co.uk/reports/arte_povera.

htm Last accessed: 25.3.05 Click for PDF

82. http://www.tate.org.uk/modern/exhibitions/artepovera/ default.htm Last accessed: 25.3.05 Click for PDF 83. Zabalbeascoa, Anatxu and Marcos, Javier Rodriguex Minimalisms. Gustavo Gili. Barcelona. 2000. p24
84. op. cit. Buchanan. 1995. p6
86. op. cit. Lucan. 2001. p7
87. ibid. p19
88. ibid. p20
89. ibid.
90. Frei, Hans. From Neuerdings Einfachheit, in Frampto Labour, Work and Architecture. Phaidon. London. 2002
91. op. cit. Zumthor. 1999. p9
92. Watson, Fleur. Shadow Boxing: Gigon/Guyer. Monun May. 2003. p81

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93. op. cit. Buchanan. 1991. p20

94. Bachmann and von Moos cite the foundation of C. I. A. M (Congres Internationaux d'Architecture Moderne) and Zurich becoming the centre for the publication and documentation of Modern architecture, with the likes of Le Corbusier, Walter Gropius, Alvar Aalto and Richard Neutra. Bachmann, Jul and von Moos, Stanislaus. New Directions in Swiss Architecture? George Braziller Inc. New York, 1969, p15 95. Gold. John. Experience of Modernism. Modern Architects and the Future City 1928-1953. E & FN Spon. London. 1997. p7 96. Gold defines Modernism as operating on two levels, representational and personal, against a background of upheaval and dislocation. On a representational level Gold states that it was a search for forms and aesthetics that, "truly expressed the needs and challenges of modern times." On a personal level he sees, "Modernism comprised a radical set of personal attitudes that underpinned the search for new representations: attitudes towards the past, towards society, towards the arts and industry and towards the conduct of everyday life... Modernism signified that the individual had adopted new moral positions guided by the right spirit." Gold locates the timeframe of Modernism as

occurring in the first three decades of the twentieth century, as a movement that addressed the realities of urban life in cities in Western and Central Europe, op. cit. Gold. 1997, p14 97. As early as 1912 Le Corbusier was publishing his writings on architecture, the most famous of these manifestoes being, 'Vers une Architecture' of 1923. 98. As an example of this Lucan cites thhe Tincino School. Architects key to this Modernist strand are, Aldo Rossi, Luigi Snozzi, Bruno Reichlin and Luvio Vaccini. Lucan, Jacques. A Matter of Art: Contemporary Architecture in Switzerland, Birkhauser, Basel, 2001, p6 99. op. cit. Buchanan. 1991. p21 100. Switzerland Building and Planning Exhibition, RIBA, London. 1946.p19 101. ibid. 102. ibid p20 103. Meyer, Peter in: ibid. p15 104. op. cit. RIBA. 1946. p19-20 105. op. cit. Lucan. 2001. p6 106. ibid. 107. ibid.

108. Buchanan, Peter. Latterday Modernists. Architectura January. 1991. p65 109. Sik Miroslav In: op. cit. Lucan. 2001 p45

109. Sik Mirosiav in: op. cit. Lucan. 2001 p45

110. ibid.

III. Hollenstein, Roman. Swiss Architecture Today. In D. Mercedes. Birkhauser Architectural Guide to Switzerlan Birkhauser. Basel. 1995. p380

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.introduction

This chapter discusses the ideas within the research and their development in different directions. Charting this cyclical process of development entails drawing on documentation from the *work process journal*.¹ This includes discussions with supervisors, moments of clarity in reading, visiting architecture and writing itself. As with any research, the process is both complex and dynamic,² constantly changing and readjusting its focus. Included is the documentation of ideas and theories that have been discarded for various reasons along the way.

What has been constant from the outset is the enquiry into architecture; how we perceive and respond to it, and its relationship to jewellery.What follows describes the reflexive process undertaken; the evolution of



questions and ideas, and ultimately the development of understanding gained through the research.

Initial discussions on architecture were held with then advisor Christian Hermansen from the GSA School of Architecture. This inceptive period established invaluable structure and logical ordering to the subsequent research.

First to be established was the idea of responding to architecture through jewellery. The idea of 'responding' to architecture through jewellery developed as an empirical method of working following the initial contextual review, investigating architectonic jewellery.

As discussed in the *rationale and contectual review* (Chapter Two), in the contextual study the categories of architectonic jewellery reviewed (*abstract*, *interpretative* and *figurative*) show that the majority of the work deals with general architectural principles, and as such lacks the specificity that the investigation of a particular site generates.

Additionally, responding to architecture through jewellery was considered a method of allowing a personal interpretation and experience of architecture to be involved and reflected in the design and development of jewellery. The academic study of architecture was an entirely new discipline for me. The plan was to allow a gradual understanding of architecture to be incorporated into the cyclical research process, and then married with my expertise in jewellery design.



on the subject of architecture. Through an informal literature review, I felt it necessary to educate myself on the history of architecture. This included familiarising myself with the development of styles, building types and theories throughout history. Additionally the outer realms of what may be considered architecture were also investigated. This touched upon transient structures, such as tents, cars and clothing. The enormity of the task became apparent after several weeks, and the necessity for a specific focus became very clear.

Due to this unstructured approach to understanding architecture, the realisation that selection criteria, which defined the type of architecture to be focused on, gained importance. Having decided on the way in which architecture would be investigated, it was necessary to put in place structure by making decisions as to definition and typology. Specifically a definition of architecture was sought which also shared an approach sympathetic to the perspective of jewellery and one that I felt defined architecture for me in a relevant and individual way. Deciding on a typology established boundaries that were of key importance to the subsequent body of research. Emerging from the initial research into architecture was an interest in the primary use of light within

Emerging from the initial research into architecture was an interest in the primary use of light within structures; this, coupled with the focus on contemporary architecture, was identified as an important factor when searching for a definition and a locus. Exploring 20th century architecture for a definition was seen as logical

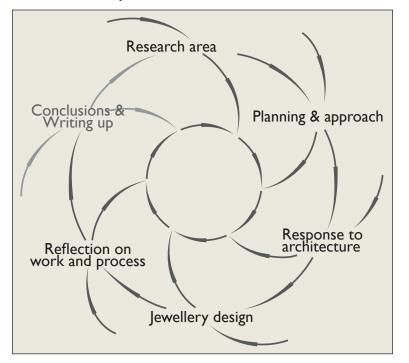
This initial period is marked by an education undertaken

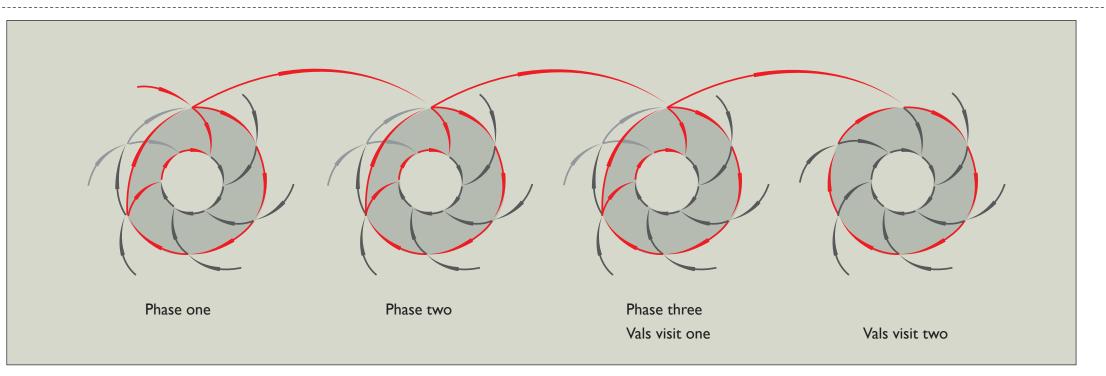
additional notes...

A personal understanding of architecture

To clarify this, I realised the architectural sites that were of particular interest were a reflection of a personal definition of architecture. Across the examples I had picked out, (unknown to me until they had been investigated further), similarities in approach and theory were evident. In this way consistent types of architecture became known and meaningful, their raison d'etre developed into a personal definition.

4.1. (previous page) approaching Vals 4.2. RCR Arquitectes. Aranda, Pigem and Vilalta. Bathing Pavillion. Olot, Girona, Spain. 1998.





for a variety of reasons: 20th century design language is a language of our time, and one we are familiar with; one of its basic aims is to communicate its aspirations and use clearly. Although the architectural focus was contemporary architecture, the basis of this design ethos owes much to the Modernist movement. So it is from this time-frame that theories were initially examined. Le Corbusier's definition of architecture was initially selected for its emphasis on the interaction of light. Additionally his ideas are easily applied to jewellery.

"Architecture is the masterly, correct and magnificent play of masses brought together in light. Our eyes are made to see forms in light; light and shade reveal these forms; cubes, cones, spheres, cylinders or pyramids are the great primary forms which light reveals to advantage; the image of these is distinct and tangible within us and without ambiguity.""

As a definition that was to represent architecture within the research, it quickly showed itself as too general and distinctly a product of its time, overtly referencing the Cubist and Constructivist ethos of the early 20th century. Corbusier goes on to describe what it is that architecture should do, what its purpose is and really what he aims to achieve with his architecture. The following passage is poetic and communicates not only the aspirations and intent of meaningful architecture but on an abstract level, design in general.

The spirit of order, a unity of intention. The sense of relationships: architecture deals with guantities. Passion can create drama out of inert stone."⁴

Le Corbusier 1923

In considering this passage in relation to the creation of wearable objects, the architect's point of view is similar in conceptual terms to that of the goldsmith. Beyond the utilitarian it is the metaphorical content that distinguishes architecture from building. It is this that it shares with the art of the goldsmith.

It should be pointed out that a formal definition of architecture was important for the beginning stages of the research. After this initial exploratory phase the perceived importance of aligning myself to a formal definition dissipated. This was later replaced by the realisation that the architecture that I was seeking out and studying was in itself forming a personal understanding.

As mentioned earlier the development of selecti criteria became important to focus the architect investigation. This was a crucial process that con

Le Corbusier, 1923

on	4.3. (left) Research Spiral adapted from Blaxter, Hughes and Tight.
ural	4.4. Research spiral showing iterative
stantly	development of processes.

[&]quot;The Business of Architecture is to establish emotional relationships by means of raw materials. Architecture goes beyond utilitarian needs. Architecture is a plastic thing.



evolved as research progressed and understanding of architecture grew. Every cycle that was completed (choosing a number of architectural exemplars, investigating them and then designing) returned again to the selection criteria to refine its characteristics. (See 4.3. and 4.4 showing research spiral and iterant idevelopment)

The architectural exemplars were selected using the following criteria:

- Built and designed within a contemporary time-frame
- · Located within a defined geographical boundary
- Use of light as a primary factor in the design

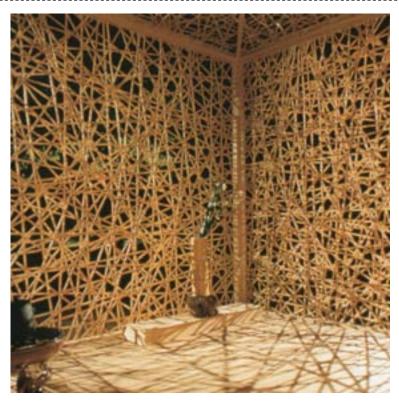
• Structures whose typology may be described as that of contemplation

A contemporary time frame was defined as that which



has been built in the last sixty years; a time frame which also coincides with the emergence of architectonic jewellery. The reason for this is that the changes in design and architecture in the last sixty years have resulted in an environment, which we are familiar with today, and thus is not outside the sphere of common experience.

The restrictions that a defined geographical boundary set have pragmatic reasons, in terms of visiting the sites, and researching the context from within which they are located. In the case of Vals for example, there is an extensive history to consider, which has resulted in particular cultural conditions. Vals is a relatively remote site, and its geographical location (topography and climate) has also affected the architecture of this town. Additionally Vals is a small community and one whose



needs and requirements must be sensitively considered; all of these factors impact on the architecture that was built there and must be understood in light of the chosen exemplar.

The use of light (a primary factor in the exemplar design) as one of the selection criteria stems from initial definition of architecture that was sought. T factor played a role in the initial stages of selecting architecture than it did in the design process or outcomes. The consideration of light is essential in the design of structure, and it is also a factor that very much contextual and particular to the specific environment in which the structure is located. Un jewellery, which is nomadic in the sense that it moaround with the body when worn, architecture for

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	Structures of contemplation.
in	4.5. (left) Hans Peter Worndl. Guckl Hupf (Mobile lookout). Mondsee,
at is	Austria. 2000
ific	4.6. (middle)Tadao Ando. Ayabe
Jnlike	Community Centre. Kyoto, Japan. 1993-1995
noves	4.7. (right) Shigeru Uchida. Interior of
for the	teahouse. (made to order).



most part is very specifically located in one place and the qualities of light are particular to that place.

Structures of contemplation can be churches, chapels, baths, built artefacts of remembrance and those created in part for the appreciation of a space or nature. Their primary function is to promote reflection; they have been designed with the idea of contemplation in mind. This typology has a benign and neutral quality, existing as a platform for abstract ideas in order to encourage both inner reflection and wider contemplation. A fundamental consideration of this design is to provide/provoke a spatial experience between the visitor, abstract idea and the hosting architectural structure. In XS, Phyllis Richardson comments on this typology: 'The concise purpose of these structures, that they address a single function, simple to use or even a purely aesthetic aim, makes them psychologically as well as physically accessible...

Whether intended to block out urban clatter or to commune with the natural environment, structures that mediate nature and the appreciation of that natural world through their walls and roofs take a variety of forms... (they) return us to our essential beings. The aim of this splendid isolation is manifold: to observe, to contemplate, to become inspired or calmed.^{'5}

Richardson discusses this expressive building type as sensitive to the human scale, possessing detail and intricacy that engages in a way larger, more complex building types fail to achieve. Parallels can be drawn here to the intimate scale and detail with which jewellery operates.

Crucial and yet tacit in the selection criteria was the

potential of the visual language and ideas in architecture to be translated into wearable objects. This communicates itself in the material expression, the building's structure and the sensitivity with which the architect manages to convey the conceptual intent.

Equally important is the ability for the chosen exemplar to allude to concepts beyond itself without being explicit, eliciting a response from the viewer that becomes crucial to their experience of the work. Charles Jencks refers to this factor in *The New Paradigm in Architecture* when describing the emergence of the 'multivalent signifier' in contemporary architecture, defining it as:

''in search of an open interpretation, one related to the building task, the site and the language of the particular architecture.'' 6

Structures of contemplation. 4.8.Jens Peter Askim and Sven Hartvig. National Cultural Centre, Verdal, Norway. 1990-95



Equally critical to the decision making process was the elimination of exemplars whose visual language was so direct in its application and aesthetic that a literal translation of its design characteristics would be hard to avoid. One of the architects considered at this stage was Carlo Scarpa. Scarpa's architecture stems from a distinctly craft tradition, as shown in this descriptive passage:

"The sensory delight that comes from what can be touched and felt in each material, to the intellectual excitement that derives from exploring and unveiling its structural characteristics, and to the logical pleasures of seeing how distinctive materials with different properties can be wed."⁷

Though this approach originates in the contemplation of materials, their qualities and their construction are central. This perspective is one that echoes jewellery, and



one that I could personally identify with.

By understanding the similarities in approaches, it is easy to view Scarpa's architecture in the light of jewellery on a different scale. As shown in (4.9. 4.10. 4.11. Chapel and pond) the level of detailing and ornamentation (given that these are Modernist works) reflects an approach that designing on a small, intimate scale creates. When a work such as this is so completely conceived, through the attention to detailing and ornamentation, in a way that is so familiar to jewellery, it is hard to imagine a process of investigation for a jeweller that would avoid a literal translation of the design elements.

Clearly, Scarpa's architecture is perfect for comparison to jewellery in the sense that the resolutions of forms, points of connection, aesthetic and thinking are so like the solutions a studio jeweller would arrive at. On the other hand, so great are the similarities that they leave little room for translation.



Carlo Scarpa. Brion Monumental Tomb. 1969. San Vito d'Altivole Treviso. 4.9. (left) Detail 4.10. (middle) Platform 4.11. (right) Walkway



.phase one

The first phase was experimental, and using the model of response that had so far evolved can be summarised as: subscribing to an existing definition of architecture, development of selection criteria for choice of an architectural exemplar, selection of exemplar, qualitative research on the exemplar, response to data collected through design and writing and translation of designs to realise 'response' in jewellery.

The first exemplar to be examined was Juha Leiviska's 'Myyrmaki', a Parish Church in Vantaa, Finland. 1980 - 84 (4.12.). Leiviska's Myyrmaki Church is a space that uses light as a structural material to transmit veils of light that fill the interior. Leiviska's signature as an architect is his evocative use of light; correspondingly light is perhaps

considered to be one of Finland's most valuable assets. Positioned at the edge of the Arctic Circle, the result is an extreme fluctuation in the quality and quantity of light between summer and winter. This intensity of available light has greatly influenced the architecture, which must take advantage of these atmospheric polarities to sensitively attune to the environment.⁸

Alvar Aalto began this kind of exploration; for example in Imatra Church (4.13. and 4.14.) light is used to diffuse perception of form. It is Leiviska exclusively, however, who has turned this into an art form, using it to allude to the spiritual and the metaphysical. Leiviska works from his cultural roots, believing the individual to be an extension of the place, and that he must "stay connected with the

environment that is most appropriate for the cultivation of his own architecture."9 His buildings have been described as 'instruments of light'.¹⁰

Leiviska is not conventionally religious, despite the number of churches that he has designed, but nevertheless his architecture possesses an atmos that is reverential by experience - he creates spa that envelop and cocoon, buffering the visitor fro realities of the outside world – yet these spaces alienate one. (4.17.) Working with the natural lay land, his architecture does not impose itself - rat draws the visitor inside by the use of planes, in m same way as light is guided.

Leiviska speaks of the building thus:



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y of the	4.12. (left) Juha Leiviska, Myyrmaki
ther it	Parish Church. Vantaa Finland.
nuch the	1980-84
	4.13. and 4.14. Alvar Alto, Imatra
	Church, Church of the three crosses. 1956-58

idea development. phase one



"The most important building material of the church itself is daylight... a living interaction of large and small, open and shut, high and low, light and shade, spaces 'as instruments for light to play on', a continuously changing, shimmering veil of light..."

In searching for a materials palette from which to draw on in designing the collection made in response to these concepts and to Leiviska, the properties of acrylic, bone, glass and vellum were explored. Given the emphasis on nature in Finland, acrylic seemed a crass choice. For reasons of health and safety, bone was also discarded,



likewise with glass, the difficulties of working with this material ruled it out.

Despite being difficult to track down (there is only one supplier and manufacturer of this material in the world) vellum was an obvious choice. As a material it possesses strength and structural stability over paper, and being a natural material it was flawed with structural irregularities: both a good and bad characteristic. The variation in surface quality added to the texture and the light quality it absorbed and transmitted. These flaws took



the form of variation in thickness of material, on patterns made by the short hairs of the animal left in the material.

Depending on the grade of vellum and the type of animal it comes from, the level of translucency and correspondingly the amount of light it lets throug changes. The difficulties that I had with working we this material were that as an absorbent material, potential to lie flat (or curl up) changed with the A technique was developed that allowed the piece vellum to be pinned (in most cases under tension

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place in the works. The natural tendency of the material to curl up in one direction (when cut in small pieces) had to be worked with and the pieces tensioned accordingly.

The first piece that was made was a silver and vellum armpiece (4.18.). This arm-piece aimed at varying the translucency of the material by building it up in several areas and leaving it open to 'channel' light through in others. The angled openings in this arm-piece are almost a direct translation of the structure at Myyramaki (4.15.). As a first piece it aimed to draw the light into the interior of the piece. The vellum is held in place by four bands of silver, which also serve to structure the openings of the piece, splaying the three layers of vellum at staged points. Self-criticisms of this work lie in its weight as an arm-piece: the diameter of the silver used to structure



the work is far larger than is structurally needed, creating unnecessary visual and physical weight.

The subsequent arm-pieces experimented with different grades of vellum and weights of silver used to hold them in place. Layers of vellum were also used to build up different levels of translucency and create textures of light. These variations aimed to change the qualities of light, in response to Leiviska's architecture.

One of the problems associated with using vellum in the arm-pieces was keeping the material clean. As an arm-piece is located next to the skin and in a 'high use' area, exposed to much wear and tear, and vellum is a very absorbent material, keeping the surface white was considered difficult in the natural course of the piece

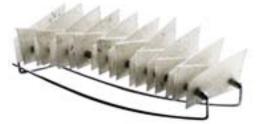


being worn. Various leather sprays were used as a sealer to keep the surface resistant to dirt.

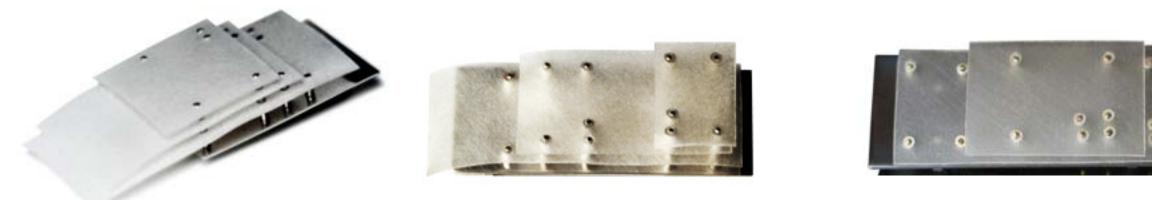
By working with the format of a brooch, this problem was rectified. It also enabled a greater experimentation with the material as it was on a smaller scale and therefore faster to make and alter. The series (4.21.) shown here again plays with the structuring of layers of vellum to vary the light quality in and around the pieces. The thinnest, most translucent vellum (4.22. and 4.23.) achieved the best results in terms of variation of light about the works. Unfortunately these were also the least stable over time. As can be seen in (4.22.) the vellum has curled up and distorted at the edges.

These works, successful on a design level, achieved the qualities that were desired in terms of playing on

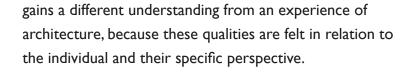




4.18. (left) Arm-piece. 2002. Silver and vellum. 4.19. (middle and right) Subsequent arm-pieces were smaller and lighter. 4.20. Brooch. 2002. Vellum, silver and stainless-steel

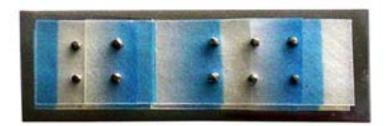


textures of light. However there were limitations to the understanding that could be achieved about Leiviska's work from the secondary sources that were sought. What was conveyed clearly through literature was the special quality of light that these buildings possessed. Beyond this it was difficult to judge the impact of the structures and the other features of this architecture. I was conscious that the critics' interpretation was exactly that – their own interpretation. Everybody



For this reason I felt the distanced way of examining an exemplar lacked depth and investigation, resulting in an unsatisfactory and limiting enquiry. This can be seen in the one dimensional, sometimes literal translation of the appearance of the architecture into these jewellery





pieces. This method of working failed to provide the depth of understanding that first-hand experiencing of architecture facilitates. The conclusion was that it was important to visit and experience any chosen exemplars first hand. This was in vast contrast to the understanding gained on Phenomenology, which places emphasis on the truth of experience. Stating that we can only truely know anything through the interaction of a bodily experience.





4.21. (left top) Brooch. 2002. Vellum and silver. 4.22. (middle top) Brooch. 2002. Thin vellum and silver 4.23. (right top) Brooch. 2002. Thin vellum and oxidised silver 4.24. (bottom) subsequent works produced by digitally printing on the vellum, in collaboration with Helena Britt, fellow PhD student.

idea development



4.25. Montage of photos taken at the Burrell Collection gallery.

.phase two

The concept of 'responding' to a particular site through the design and creation of jewellery developed more fully as a model of working as a result of the second phase; visiting the Burrell Collection gallery in Glasgow.¹² This was not entirely successful, partly because the site was not chosen in relation to the selection criteria previously determined. But a positive outcome was the crystallisation of the absolute necessity of visiting and experiencing a selected site first hand. Whilst designs were drawn from this project no works were ever realised, due to the lack of conviction I felt about this architecture.



idea development

architecture'. Its geographical boundaries, whilst culturally diverse, all originate within Switzerland, particularly the Graubunden and Tincino cantons.

A number of sites were chosen by purely visual means from architectural journals, and then visited in order to determine the most appropriate exemplar in relation to the selection criteria.

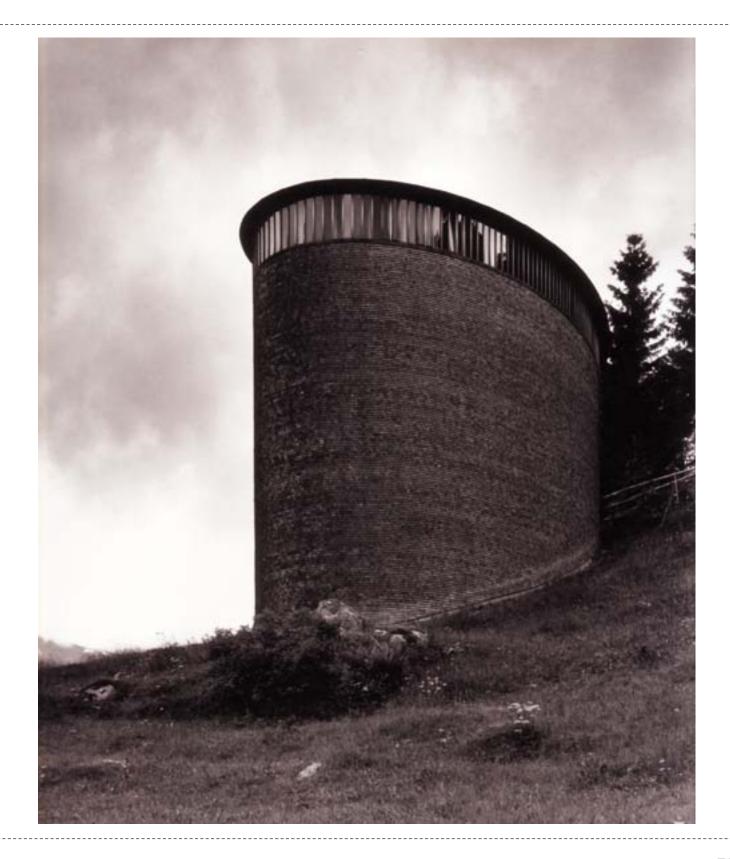
The following six sites in the cantons of Graubunden and Tincino were visited and documented:

Therme Vals, Graubunden, Switzerland: Peter Zumthor. 1996 Sogn Benedetg Chapel, Sumvitg, Switzerland: Peter Zumthor. 1988

'Gigolo' House, Versa, Graubünden, Switzerland: Peter Zumthor. 1994

Vrin, Graubunden, Switzerland, Gion A. Caminada. 2000 Footbridge in Via Mala, Switzerland: Jurg Conzett. 2000 Santa Maria Chapel, Monte Tamaro, Switzerland: Mario Botta 1995

Part of the model of response discussed initially with Christian Hermansen was experimenting with an uninformed response. In terms of an uninformed response, it should be emphasised that no research was conducted on the site or architect prior to the visit, although naturally it was necessary to ascertain information relating to each site's geographical location and its suitability in relation to the established selection criteria. The reason for this was so that the first-hand experience of the building would not be influenced by critical interpretations of others.



.phase three

Previous literature reviews of architecture had revealed four geographical areas of particular interest, with architecture that met with the established criteria: Finland, Spain, Japan and Switzerland. Groups of exemplars were selected and examined for their suitability and location in each country. The close proximity of the chosen exemplars in relation to each other and to Glasgow resulted in the logical choice of Switzerland.

This Swiss architectural focus was chosen in strict accordance to the selection criteria as discussed in the beginning of this chapter (p63). Swiss Essentialist architecture has developed from the Modernist mindset of Switzerland in the 1960s; it is active and evolving today, thereby situated firmly within 'contemporary



.therme vals. visit one

From the six architectural exemplars that were visited in Switzerland. Therme Vals became the clear choice for the research to focus on. The primary reason for this was that Therme Vals was an emotive site and one that could be responded to. Additionally, it was also clear from this visit that there were several dominant concepts running through the work operating on an abstract level and relating strongly to the local environment.

The detailing, material usage and finish of Therme Vals conveyed a craft-based approach that I could identify with, whilst form and structure conveyed conceptual content that still allowed interpretation by the visitor.

Whilst at Therme Vals, photographs were taken and notes and some drawings were made. Immediately following the

visit, initial impressions were written; this was largely an intuitive response.

The working process following this visit involved continual writing, drawing and designing. This was imperative to extract as much as possible from the memory of the recent experience. This resulted in a series of progressive 'responses', documenting the various written responses to Therme Vals at various stages after each visit. These can be read in the additional notes.

From these texts, concepts were distilled and developed into works of jewellery. The process by which this happened was cyclical, oscillating between writing, drawing, designing, creating, experimenting with materials and referring to the original documentation of the site.

additional notes

Immediate response at Vals

No introduction, instruction or guide. Ushered into a dark space by the beckoning of small illuminations. Industrial sumptuousness. With seemingly basic elements (granite, water and brass) a richness is extracted out of their interaction. The environment is that of a raw and yet somehow luxurious inner-sanctum of the mountain.

Were you to realise the extent of a space it may be claustrophobic. Discreetly emerging from a wall, behind a curtain, led by the rails and volumes to the promise of space. A large central bath with four access ways allows you to come to terms with your surroundings. The access ways for the other baths are through dark corridors labelled

discreetly by the temperature of the bath on the external wall.

This absence of information provokes the curiosity, leading to a multi-sensorial journey of discovery.

A reflection of the earth and its tectonic make-up, volumes, baths and spaces are held together and at the same time made distinct, by channels of light and water respectively in the ceiling and the floor.

Each bath consumes the senses in wholly different ways.

Combinations and variations of temperature, scent, sound, light and volume envelop.

4.26. (previous page) Peter Zumthor. Sogn Benedetg Chapel, Sumvitg, Switzerland. 1988 4.27. Front view of Therme Vals



additional notes

Second response

The following text is a summary of the second response, written two days after the first visit to Therme Vals. This text aimed to document the dominant concepts and ideas at Vals that had potential for translation into jewellery design:

Meaning residing in material relative to a specific context, stimulating experience which allows an acceptance of that which is not familiar.

Each part creates another building block, which in turn creates another. This can be read as a homogenous construction, whereby conceptual parameters have been set and conformed to.

From the qualities and working of a material, the form and process resulting in the structure will be a natural progression dictated by the initial material and qualities.

The processes involved in the creation of a work form a visual language that remains evident in the finished work.

There is a sense of a tightly controlled perspective in this work, all angles and views are considered.

Spaces and forms are arranged so that they invite use and enquiry.

The qualities of each part of a whole play an unspoken role in adding to the dimensions of a finished work.

The third response

The response, written a week later, analyses and elaborates on the immediate response, developing the ideas therein more comprehensively:

The arrangement of space leads the body to actively engage and discover the space. Through the use of low ceilings, dark colours and narrow passageways, the sense of enclosure ushers you through one space and into another.

Contrasts of light and space create an element of surprise, leading from the locker area to the main bathing space. Descending gradually into a large neutral space, you are presented with a choice of spaces to enter, and the main central bath is accessible from four sides. There is an ambiguity to the layout, which invokes a sense of curiosity and treats the visitor with integrity.

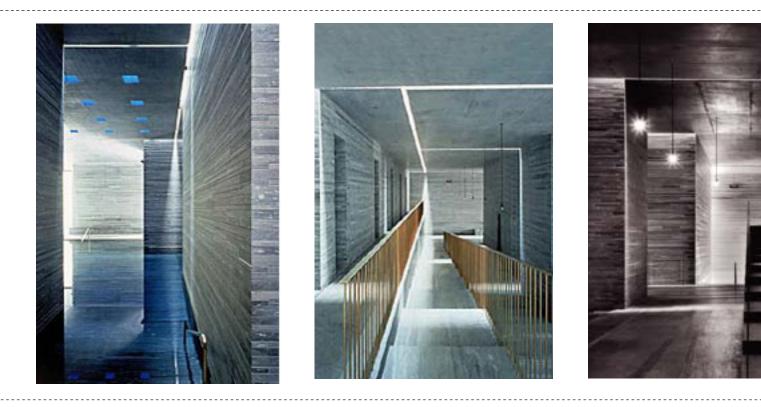
Whilst the ceiling height in the baths is constant, perception of that height is not. This sense of space is played with; Zumthor uses

light (natural, artificial, direct and reflected), sound, temperature and seating ledges to alter the perception of each bath. For these reasons each enclosed bath has a very different environment. Channels of light seep through slits in the roof whilst over-flow water runs in between baths. This is used as a subtle yet powerful means of linking and making distinct different areas of use. There is a sense of 'feeling' a volume, being immersed in a volume of water, which is contained in a vault type enclosure. This brings awareness to the volume that the body takes up and the space, which it does not. The water extends the perception of space – perhaps due to the increased movement within it. The restrained pared down use of materials gives the baths

The restrained pared down use of materials gives the baths a basic, raw, almost industrial feel, the construction of which has been executed with excruciating attention to detail that exudes perfection. The result of this combination is an exquisite environment set in the side of a remote mountain with the Swiss Alps as a backdrop.

.

4.28. View of outside bath.



additional notes.

Literal translation

From the outset the idea of a literal translation of architecture in jewellery was considered a danger. The very word 'literal' is laden with negative implications.

In the literature review an article written by Maas comments on many architectonic jewellers and interpretations and celebrates the relationship established between the two disciplines in these works. However, her criticism falls on those whose work displays a 'literal' translation. (p10)

Maas refers to a "jejune copying"¹³ of architecture which hints at the implications of a literal translation as that which lacks in maturity, is simplistic and is dull or uninteresting.

Literal translations are considered unsuccessful in the contextual review because they are seen to borrow or copy ideas directly, thus resulting in a pastiche of the original. The literal copying of ideas implies a lack of integrity, original interpretation and process of translation. The successful works are able to balance and integrate elements of the original, responding with new concepts, thus further developing ideas.

Necessarily when ideas change medium (in this case from architecture to jewellery) a very 'literal' copying is difficult. Yet when Maas criticises Vicky Ambery-Smith and the Cleto Munari Collection¹⁴ it is because the ideas or resulting 'mini-architecture' in the jewellery are not seen in a new light at all, despite the change in scale and medium; nothing new has been added and the relocation of these ideas on to the body is largely irrelevant.

Despite this there is a very necessary place for 'literal elements' of an original to appear in an interpretation; some essence or representation of the original needs to be retained in order that the source material be recognised. Successful examples of this can be seen in the work of Ruudt Peters. As discussed in the contextual review, there is no doubt which particular architectural site is being referenced, yet it is a very personal response to and celebration of that site that we understand from the work.

In the early stages of this research project, before the criteria of visiting and experiencing an architectural site was an integral part of the process, I felt that the notion of a literal translation was a

threat. In retrospect this was clearly the result of the medium of the source material on architectural sites. When the complete understanding of an architectural site is drawn exclusively from a two-dimensional medium (i.e. photographs, books and digital formats), the visual is all that there is to go on.

From the first visit to Vals the threat of a 'literal translation' ceased to be an issue, as the response to the architecture emerged from a multi-sensorial experience, one that did not rest on simply the visual.

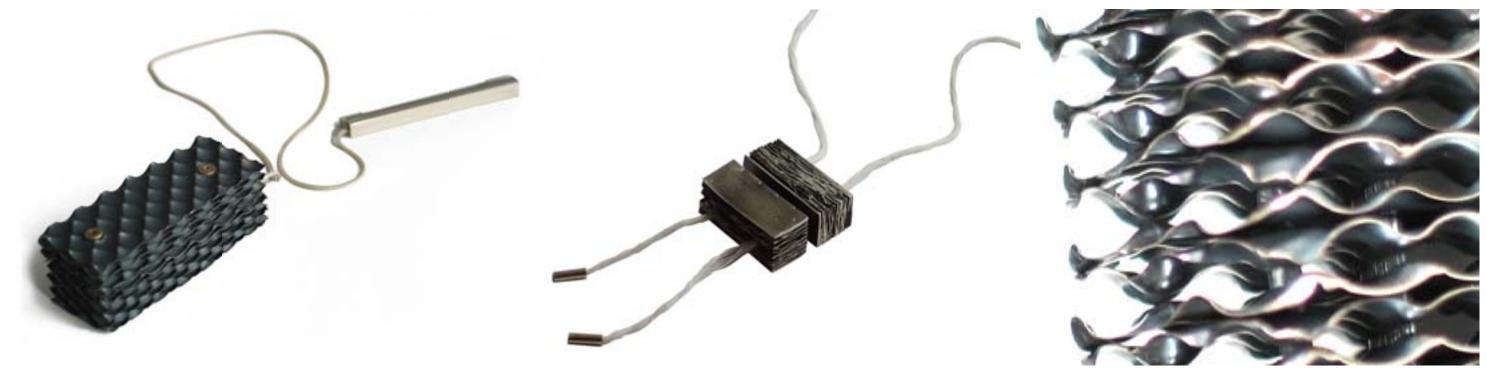
In the last phase of the research and design of jewellery, it has been necessary to reconsider how it is possible to sensitively reference this response to Vals in some of the works. Although all concepts from which the designs have evolved are a direct result of the visit to Vals, the positioning of the ideas and concepts within the context of jewellery and the body have in some cases resulted in an absence of literal referencing of Vals in the designs.





4.29. Therme Vals (from left to right) Cantral Bath, Walkway looking down, Walkway looking up, Central Bath.

idea development. therme vals. visit one



However the emphasis remained on a 'response' to an exemplar. This required an understanding of the concepts that were embodied in the architecture. By responding to and focusing on a conceptual understanding of site, literal translations would be less likely.

The key abstracted concepts from Therme Vals, developed further were **volume**, **material** and **displacement**. These categories are the result of a sensory response to the site; concepts that were 'felt' and could not have been arrived at by any other means other than visiting. Because of the type and use of Therme Vals, 'experiencing' it involves the body in ways other sites cannot. As such, the stimuli available to the senses responding to Therme Vals are richer, allowing greater potential for conceptual interpretation.

additional notes.

Volume

This work in part is about volumes: volumes that you occupy as part of the water, volumes that the water occupies in proportion to air, volumes of an enclosed space, volumes of solid mass (stone walls) and the way they guide you around the voids of solid mass. With certainty an understanding of volumes is imparted. Creating volume also creates weight.

Economy of weight is a restriction both architecture and jewellery must address.

One of the design problems that faced me at this point was finding a way to create volume or mass with the minimum weight. To solve this I looked towards architectural construction materials, such as honeycomb structures and corrugated iron, whose strength is a result of structure, which makes the most of thin material. The following material tests were experimented with. (4.32.)

The forms shown in 4.30. are a result of the following working process.

Through experimentation, the lightest weight in silver that held its

form within a structured mass, due to corrugations, thin silver shim.

0.1 mm thin silver shim can be cut with scissors; it is extra and malleable.

By pressing the shim into a die, the material was pushed by a three dimensional pattern.

Pattern creates structure and the structure creates str depth, thereby creating volume.

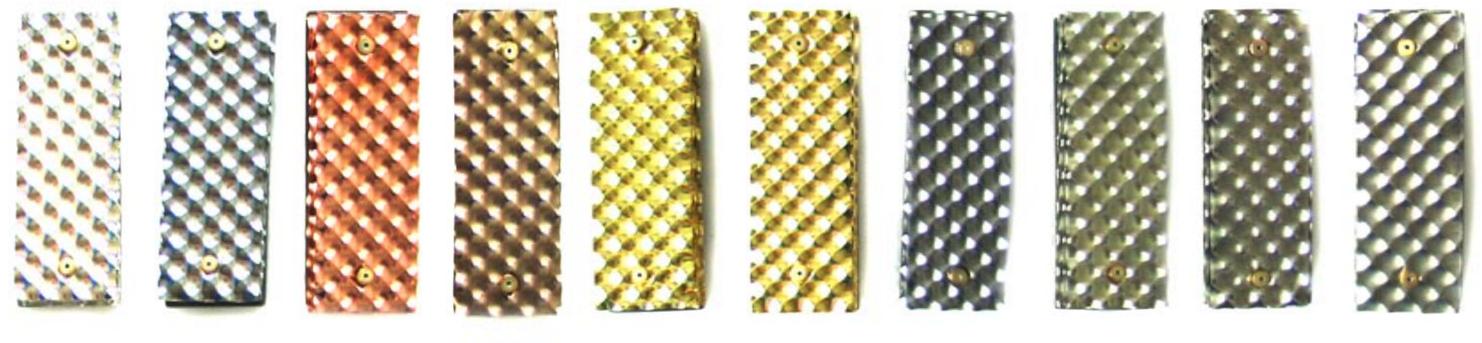
This structure in the individual pieces of shim exp dimensions from 0.1 mm to 3mm in depth.

From these pressed pieces of shim, layers were co creating volume. The creation of monolithic form wa development from the material's structure.

The natural state of silver is black; this process of sulphur been accelerated by chemical oxidisation to create this The edges and ends have been polished back to expose expected quality of this material.

The resulting forms have visual weight and allude industrial tone, in contradiction to the material and its the body as a wearable object.

, was 0.1mm	
ctremely light	
ed to its limits	
strength and	
kpanded the	
consolidated, was a logical	
nurisation has lis finish. ose silver, the	4.30. From Volume series. Brooch.
to a more s location on	 2003. Silver. 4.31. From Volume series. Neckpiece. 2003. Oxidised silver and cotton. 4.32. From Volume Series. Detail of neckpiece. 2003. Oxidised silver.



The additional notes discuss the three series of works that resulted from the site visit to Therme Vals, titled **Volume, Material** and **Displacement**. Beginning with the investigation entitled **Volume** these texts describe the thinking on the series of concepts in relation to Therme Vals.

Only after the majority of the pieces had been made was reflection on the working process possible.

After the site had been 'responded to', texts written, pieces designed and work on producing them begun, literature on the sites was sought as a way of confirming and correlating observations and questions. On reflection the body of work that had been thus far produced in response to Therme Vals, lacked the

additional notes

Material

Therme Vals is made entirely from local mountain granite within its environmental context. This makes perfect sense. What you gain from visiting Therme Vals is an understanding of this material, you are able to absorb an understanding of this granite through the ways in which it has been worked and its homogeneous use.

Looking towards jewellery as a discipline and the traditional materials that are associated with it, I wished to create a series of brooches that only conveyed material qualities. The similarities in appearances between the metals used create superficial ambiguities, given that two of the brooches are made from traditional materials, I rely upon the knowledge that memory and experience provide tacit understanding of the qualities of these materials, these brooches would be immediately 'known', removing the need for individual identification. (4.33.)

10 brooches

10 brooches. 10 materials: gold, silver, copper, brass, n pewter, lead, stainless steel, steel and aluminium.

The familiar provides a way to understand the foreign.

Material understanding comes from experience and me Traditional materials carry the potential for understanding.

Traditional materials in contemporary forms update our and conception of use. Identical forms in other materi understood through association of form.

Dispensing with all but the essential elements, the brooc reduced to a material focus and a plate to hold the pin.

10 brooches, identical in form, are made from differ Each brooch consists of a four-layered wafer that sits This plate allows the object to function as a brooch. Each brooch has been through an almost identical

nickel silver,	making. The only difference in the making process between the brooches is a result of the particular qualities that the material exhibits.
emory. immediate	The reduction of visual differences consolidates the meaning into the material differences. The identity of each brooch is that which the material conveys.
experience ials may be	
ch has been 1.	
rent metals. on a plate.	4.33. Material works. 10 brooches. 2003. (from left to right) Silver, steel, copper, nickle silver, brass, gold, stainless-steel, pewter, lead,
process of	aluminium.

idea development. therme vals. visit one

specificity and depth of concepts that I felt were indicative of the site. Whilst the concepts developed were specifically from Therme Vals, they had been explored in a general way, one that did not do justice to complexity and the approach that was beginning to evolve from the theory.

By reflecting on theory, it was possible see how the atmosphere had been created at Therme Vals, emerging from Zumthor's desire to articulate his own architectural experience, to establish a site which possessed a sense of permanence both within itself and within the community. The involvement of theory enabled a clear, articulate, language-based understanding to be formed and understood by all, whereas the experience alone lacked conviction because it remained indistinct and vague in definition.

Zumthor has documented and written extensively about his works. The result of this was gaining a better insight into some of his more personal reflections on the discipline of architecture and his approach than is usually possible through interviews. Most informative was Thinking Architecture¹⁵ in which he goes into detailed descriptions on what architecture means to him and how he perceives the wider role of architecture.

The process of turning to theory to confirm thoughts and better understand the context of Therme Vals led the research in a different direction. The emphasis shifted from the visual language of the selected architectural exemplar to investigating the architect and his approach. It became clear that an understanding of the architecture's raison d'être was also required. With



additional notes

Displacement

This work explores the idea of displacement of volumes from within one mass.

One mass, which, through design, allows displacement of parts of its volume.

The forces that cause this displacement are the wearer and the weight of the volumes in relation to the whole mass.

This displacement of a volume from the mass allows linking to subsequent masses, 4,34,

Emergent process following visiting Therme Vals:

Initial drawings are made based on the responses to the site. Materials and designs were then selected for further working. The making process began by creating samples; this is a physical playing with ideas.

An understanding of the physical properties from the previous making phase led to the rethinking and development of ideas through writing and designing. This was done with constant reference to the original evidence gathered at the site. As the designs are altered, re-assessment of material choices and previously selected ideas become necessary.

Further studio work develops the designs and in some cases this led to finished pieces, however more commonly this was part of the ongoing refinement of the making process. This progresses to the final phase in the design selection and production and/or outsourcing of the final works.

Proceeding the making phase, reflection on the conceptual nature and philosophical underpinnings of the work occurs.

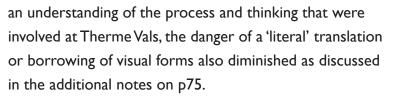
Echoes, confirmations and greater understanding of the essence of the ideas are sought in theory. This led to changes in the approach to the model of response.

significant amount of Whilst a documentation occurs at the end of each cycle or working process (recording of the finished works, conclusions and summaries), it is an ongoing process in varied formats.

4.34. From Displacement series. Arm-pieces and cufflinks (left to riaht).







This phase of the research investigated Zumthor, the Swiss Essentialist architects who made up an architectural context within which Zumthor was situated, and the historical and cultural background of Switzerland. As research developed, it led into areas of Phenomenology and Modernism in Switzerland. This period of research culminated in the start of thesis writing. The time spent writing and focusing on the subjects surrounding Therme Vals allowed sufficient distance to reflect on the process so far.

The research into Phenomenology provided a philosophical standpoint on three different levels. It

developed in the research firstly in order to gain a deeper understanding of architecture, particularly the approach of Zumthor and the Swiss Essentialists. Secondly Phenomenology provided a way to appreciate and observe the act of experiencing the architectural exemplar.Within the design process, this added another dimension to the consideration and use of materials, their qualities, values and meanings.This philosophical stand point offered a wider context in which to locate and contemplate architecture and objects.

There was some hesitation as to whether to choose a different architectural exemplar as the next focus, but it was decided that a second, informed visit to Therme Vals planed for June 2004 would complete this research. The hesitation stemmed from indecision between closing the chapter on this architectural exemplar, taking what had been learnt and finding another or further researching



This decision was made based partly on the lingering dissatisfaction with the previous body of work that had been produced. Additionally, the proposition of visiting the site a second time, with a new understanding of the contextual factors and Zumthor's approach, aroused curiosity as to how that experience would differ from the first visit.

As the overall shape and direction of the research began to emerge and evolve, the reflexive nature of the project became apparent. On one level it remains an exploration into the translation of ideas between disciplines, specifically architecture and jewellery. On another level, the process developed to investigate these subject areas experiments with the creative process itself.



4.35. From Displacement series. Arm-pieces. 2003. Silver.

.therme vals. visit two

The second visit to Therme Vals was preceded by the documentation of memories of the first visit to Therme Vals a year and a half before. The additional notes records these thoughts.

There was the ever-present threat that a second visit to Therme Vals would make no difference to my perception of the site, that no new information would be found and no new work would be produced. This was countered by the logic that so much research had been completed on Therme Vals, Zumthor, the Swiss Essentialists and Switzerland that this knowledge would change and add to the perception of the architectural exemplar.

I came to appreciate the uniqueness of Therme Vals, in

the sense that Zumthor takes the notion of 'experiencing' architecture to another level. The site offers a powerful experience because it appeals to all the senses; the palette from which the experience is drawn is varied and complex.

The additional notes document the second visit to Therme Vals: The second visit to Therme Vals confirmed that my response in essence to the site had not changed despite the intervening period of research. The supporting information and research enabled a more critical dissection and perspective to be developed. There was no significant change in my thoughts and responses to the site, but the reasons attributed to the visual language and experience had changed, in the sense that they were articulate and further developed. In retrospect this is an entirely logical progression, as an uninformed response is largely an intuitive reflex, therefore theoretical understanding of a subject allows for a more critical analysis, adding to the depth of comprehension and not altering the intuitive response, merely rationalising intuitive response in different ways.

From this second response to Therme Vals, the key concepts to emerge were those of *permanence* and *context*. Zumthor's expression of *permanence* at Therme Vals is the manifestation of an architecture that feels as though it had always been there. It is the use of materials that are established in their environment and also eternal.

"I have a passionate desire to design such buildings, buildings that, in time, grow naturally into being a part of the form and history of their place. 16

This feeds into the second concept of *context*, which is





additional notes

Reflections on Vals 21st July 2004

From memory, from texts and others, at this stage my own thoughts are indistinguishable from that which I have read.

My impression and memory of Vals begins from the roadside. Set back a little it is not entirely obvious where this building is... had I not some prior knowledge of what I was looking for I may have missed it...

So to begin with, the exterior of the building; this is not entirely definable, emerging from the ground and set in to the side of the mountain. (A minimalist reordering of a mountain? One wonders...) so inherently part of the mountain [it presents itself] that the two merge.

The entrance is located under an inconspicuous roof round the side of the structure... it seems completely at odds with the rest of the building... as if its creation was an afterthought... (The building it seemed was complete unto itself, without such an addition...)

I recall the process of entering to be somewhat confusing, be it as a result of a combination of factors, foreign language, country and

the nature of the beast. The distance between the lobby/entrance desk and the change-rooms seemed extreme in length, as if one was entering into a tunnel from which there is no return. A hint of trepidation, the same sense I recall that comes from entering into caves... had the towelling housecoat that I had been presented with been a miners hat I would have not been surprised.

The darkness and sense of wet closes in on you as you feel your way down the corridor, to the constant sound of dripping water and visual evidence of mineral deposits on the concrete walls. As if this deliberate shutting down of what is made available to your senses is part of this game, an assault course for the senses. The sudden switch of environment that occurs with entry into the change-rooms saturates perception. Polished mahogany, black leather, piercing halogens and glowing brass fittings; basked instantly in the warmth of highly refined and finished materials. After the apprehension created by the industrial, untamed impression of the entry corridor, this capsule seems faintly cloying. Again the sense that this is a test or experiment of senses of perception of expectation and experience is evident.

The extreme light and dark that you have just experienced have not allowed for a distinct and definable comprehension of your surrounds... Thus when exiting from the opposite side of the change-rooms, when the natural light floods to meet your eyes and space and distance are given to you again, which in a way that up until that point they were denied, it is almost a sense of relief.

From this point on, exploring the different chambers of water, with their varying temperatures, examining the textures you find against your skin and the noises resonating in the vaulted volumes stirs curiosity. It seems at once an investigation of environment and also of self... can you immerse your self in 14 degree water? Is that blue light making it seem colder? What is around that corner? Into that darkness, do you dare to go, are you supposed to go there? All the senses are saturated, sound, touch, temperature, sight is tested, and even taste is involved. Tentative explorations using all senses ensue... an enquiry and exploration that demands all faculties in an effort to comprehend the environment.

I recall the initial sense of mass and volume, where further investigation reveals the granite layers, constructed with precision and exacting detail. The individual parts of the structure cease to reveal themselves to you, rather the whole that they constitute dominates attention.

The levels of understanding and appreciation evolve with the time that is spent there... you can see the same process in action with

newcomers entering Vals...

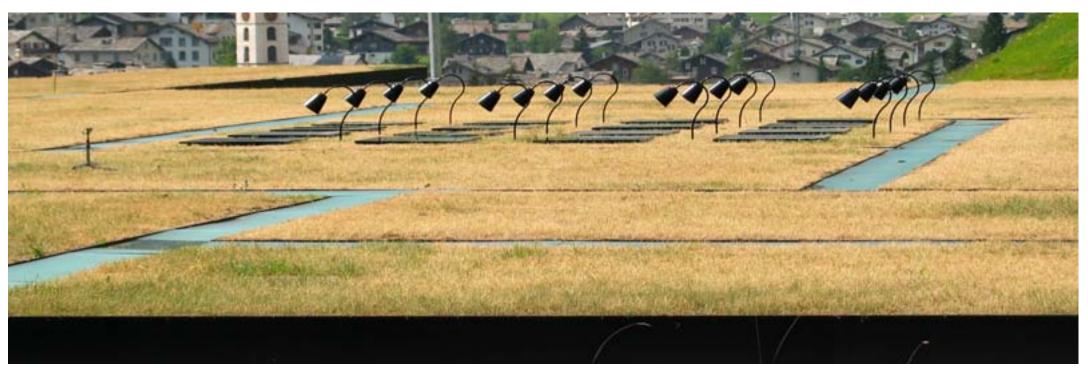
Surprised amusement, and aroused curiosity as the experience is revealed to them. This is then replaced by a sense of confidence as they revisit favourite chambers. As the 'how' question is asked, the detailing and structure are examined, the parts are separated from the whole in a way that is not possible upon first presentation, when the body is contending partly with its self in the baths.

In this it seems that I recall the changing perception of self, reacting to the building as changing most clearly, as opposed to just the perception of the building, but I also wonder, are the two separable?

4.36. (previous page) looking out over the centre of Vals.4.37. View from outside area at Therme Vals.

idea development. therme vals. visit two





so closely linked with the way permanence is expressed. In the choice and use of material the relevance of the context is intertwined. The granite used in the building is guarried from the mountainside in which it is sited, these mountains locate the village and remain a material that is relevant to their lives and architecture. In this way permanence and context are interrelated in the expression of this architecture. In a similar way the design process merged these two concepts.

The intention was to create design families that developed from each concept, however in the process of thinking about materials and designing the works the two became inseparable. An example of this is in the **rewound** collection where the use of recycled textiles in jewellery. (See p84 for the discussion of this collection.)

There were three collections to emerge from the

4.38. (left) looking out over the centre of Vals. 4.39. (above) View from outside area at Therme Vals.

additional notes.

Vals revisited 26.7.04

It seemed altogether brighter and less shrouded in darkness, the granite appeared lighter and dustier in colour. Perhaps it is the sediment and mineral residue from the water, perhaps my memory making drama from inert stone. I perceive the building to possess a content air; its constituent parts are at one with each other. Having been designed completely in relation to each other, resulting in completeness, wholeness, comfortable in its resolution and confident in intent.

In isolation no individual elements speak of comfort, yet this is a comfortable place. Basic, raw, elemental materials are made to work to resonate with a sense of richness.

What I had previously perceived as a weighted heaviness to the building I now read as a sense of permanence this I believe is in keeping with the town. Vals is a very old and remote town located within an extreme environment; confidence, security and permanence are important qualities to emanate from buildings in such surrounds.

The spaces, which are the most evocative and powerful, are those which appeal to the greatest variety of senses, combining and varying sound, temperature, light and olfactory stimuli.

Weight and mass, which equate to a perceptual heaviness previously featured as a key concept, this I now consider to be replaced with a sense of permanence.

Likewise the role and importance of primary elements (materials) point to the intention of an eternalness, context and essence or genius loci.

The well of drinking water seems to consummate the complete emersion into this world. The consumption of the mineral saturated water completes the sensory experience of the environment through taste and ingestion taking in this environment internally.

The key concepts are permanence and context.



.design process

design process, each made up of two to three series of jewellery works, loosely grouped by their chronological development and conceptual similarities. These three collections are an exploration of the conceptual starting point of *permanence* and *context*, in relation to Therme Vals and contemporary jew ellery. The first collection **rewound**, examines the permanence and context in clothing and textiles, the second **reformed**, plays with the altering of garments, and the third **renovations** uses pieces of jewellery to structure garments so that in them selves they become the larger work.

The concepts of *permanence* and *context* in relation to contemporary jewellery led to an exploration of the architecture of the body. In this way clothing – or textiles, the immediate context of the body became the material focus. Indeed, there is the well-established reference that clothing is, 'architecture for the body'. Correspondingly the analogy extends to architecture as clothing; this metaphor dates back to Vitruvius.¹⁷ So culturally embedded is the metaphor that 'clothing is the architecture for the body', that the nuances between dwelling and architecture are articulated here, in the introduction to *Radical Fashion* by fashion critic Clair Wilcox:

"Clothes are shorthand for being human; they are an intimate, skin-close craft form; whenever people are represented, whether painted, photographed or filmed, their clothes come too. There is, however, a differentiation to be made for, as Nancy Spector writes, 'Clothing may be considered merely a "dwelling" for the body, necessitated by climate and moral imperative. But fashion – as constituted by perpetual transformations in style is architecture for the skin.""18

Wilcox discusses the relationship of clothing to the body as one that is intimate and immediate, 'whenever people are represented... their clothes come too.'¹⁹ So too is the interaction between jewellery and clothing. It is the clothing that comes into contact with the jewellery before the body, it is rare (except in photography and film) that jewellery resides on and interacts exclusively with the body.

Textiles as a material is a very 'human' construct, designed for the creation of clothing it remains a very personal material, becoming the second skin of the body. Paradoxically it serves as the means of both hiding and presenting the body to the world. The many factors 4.39. From Rewound series. Armpiece. 2004. Recycled fabric. that affect the lifespan of an article of clothing, climate, durability, fashion results in a relatively impermanent artefact. The choice of fabric for use in contemporary jewellery both alters and questions notions of fabric permanence.

The first collection **rewound**, is comprised of three series of jewellery, the first uses exclusively recycled fabrics, the second silk and stainless steel and the third felt and silver. All three series emerge from the examination of *permanence* and *context* in relation to textiles and the body. The development between these series is the result of the exploration of differing material qualities. The first series relies upon a bonding-web to laminate the fabric, the second stainless steel wire and the third, sources industrial felt that in itself requires no structuring. In the first series, designs developed from the idea that recycled textiles would be used, reinforcing the concept

of permanence in the works (4.39. 4.40.). Textiles that may

already have had one or more histories, uses, or lifetimes, would be the material source. Through restructuring and reuse of fabrics from second-hand garments in the creation of jewellery, permanence is gained. In this evolution of the design the concept of *context* could be articulated in several ways. Beyond clothing as the context of the body, the recycled garments were sought from local second-hand stores, establishing context in the wider sense of the community. From a phenomenological perspective the use of these materials, belongs to the place from which they developed thier first history.

The form design of this series of works, developed directly from the intention of creating structure from textiles. Through the layering and bonding of these fabrics, mass and structure in the works were created (4.42). Whilst these works were entirely conceptually sound, I was critical of my use of a bonding-web in creating structure. The use of bonding-web changed the native

4.40. From Rewound series. Neck-piece.2005. Recycled fabric converted from a second-hand scarf.



qualities of the material, effectively it was like glueing the fabric together. It was important to me to respect and utilise the materials own gualities and make the most of them through design solutions.

In the second series the variation of the use of silk on similar wrapped forms was explored. (4.43.) Possessing permanence in both its history and it structural qualities, the use of silk also provided a material consistency that the previous works lacked. In order to address my dissatisfaction with the reliance on a bonding-web to structure the fabric, stainless-steel wire was incorporated in these works.

Specifically with this series of silk and stainless steel works, the silk has been used in layers, creating

4.41. (left) Process picture of rewound series in the making. 4.42. (middle) From Rewound series. armpiece, 2004, Stainelss-steel, silver and silk. 4.43. (right) From Rewound series. 2004. Silver, Stainless-steel and silk.



additional notes

Silk

(4.42.)

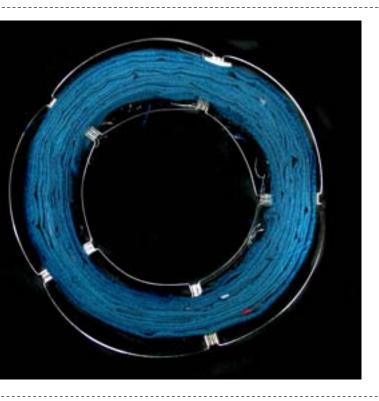
Description: Wrapped white silk, inner most loops dark brown, four-section stainless steel 0.7mm wire, with silver interconnects.

This piece was made with the minimum of bonding film to hold it together. The inner loops, of dark brown silk were completely bonded to create a solid base. This inner loop of dark brown silk serves both visual and pragmatic purposes. Visually the dark silk, creates a distinct base from which the white extends. Pragmatically the inside band of the arm-piece is in contact with the skin, making the use of white silk throughout impractical.

By using the minimum requirement of bonding film in the construction of the silk, this creates a very flexible but structurally weak mass of silk. The lack of structure in the silk is made up for by the support that the stainless steel provides. Thereby allowing the inherent qualities of each material to be utilised.

Modifications:

The 0.7mm stainless steel frame has four divisions and an outer band holding the frames together. I would alter this to have a minimum of five divisions and an inner band as well. Further changes to this stainless steel structure would be increasing the diameter of the wire to a minimum of 0.8mm.



Reasons for the modifications:

By increasing the diameter of the wire a visual and structural strength is added. I felt the framework was in danger of being visually flimsy; structurally there is no weakness that requires the change. This is similarly the case with the multiplying of the number of divisions in the framework to five, additionally five divisions create a rounder circle than four.

Technically this silk series was difficult, because of the differing tensions of the wrapped fabric and the stainless steel and the order of construction. Future developments of these works would investigate the construction of the wire frames over a form, to which the fabric was still attached, thereby aiming to eliminate the problems caused by the differing tensions.

lightweight mass. One of the essential characteristics of fabric, its flexibility, allows the easy creation of forms that in another material would require much construction. The strength in material terms that silk possesses and the tight weave of the fabric chosen, allow the material to be pierced with metal, its edges left raw and frayed without compromising structural integrity. (4.42.)

The structure in these works was created by stainless steel frames, the silk joins these frames together and creates the internal bulk that the frames wrap around. Where the silk mass lacks structure, the stainless steel frame creates it. On the other hand, when the stainless steel frame lacks internal stability, the silk creates the bulk necessary. In this way, because of form and use, both materials require each other for the whole to be realised. Through this the materials' qualities are exploited in relation to one another, and made to work. An analysis of a silk arm-piece is provided in the additional notes.

The third group in this series utilises industrial-felt. As a non-woven material the availability of greatly varying thicknesses and therefore structure is a possibility. In the case of this series 4,6 and 9mm were chosen, this allowed the material to hold its own form and compete as an independent structuring element next to metal. The sourcing of industrial-felt as a material in these works was a progression from the laminating or layering of thinner materials in the creation of structure. This materials into the category of 'banal materials', material not bound to any particular meaning, as defined in role of architectural theory. ²⁰ (p50) In *A matter of Contemporary Architecture in Switzerland*, Lucan disc these materials in relation to architecture, as 'free reflect meaning and interpretation.²¹ In the same industrial felt is used in these works; banal material express their qualities in the forms given to them



rial	
als	
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scusses ee' to e way, rials m	 4.44. From the Reformed series. Neck-piece 2005. Industrial felt, oxidised silver and buttons as connectors. 4.45. (inside) From the Reformed series. 2005. Oxidised silver and a button.

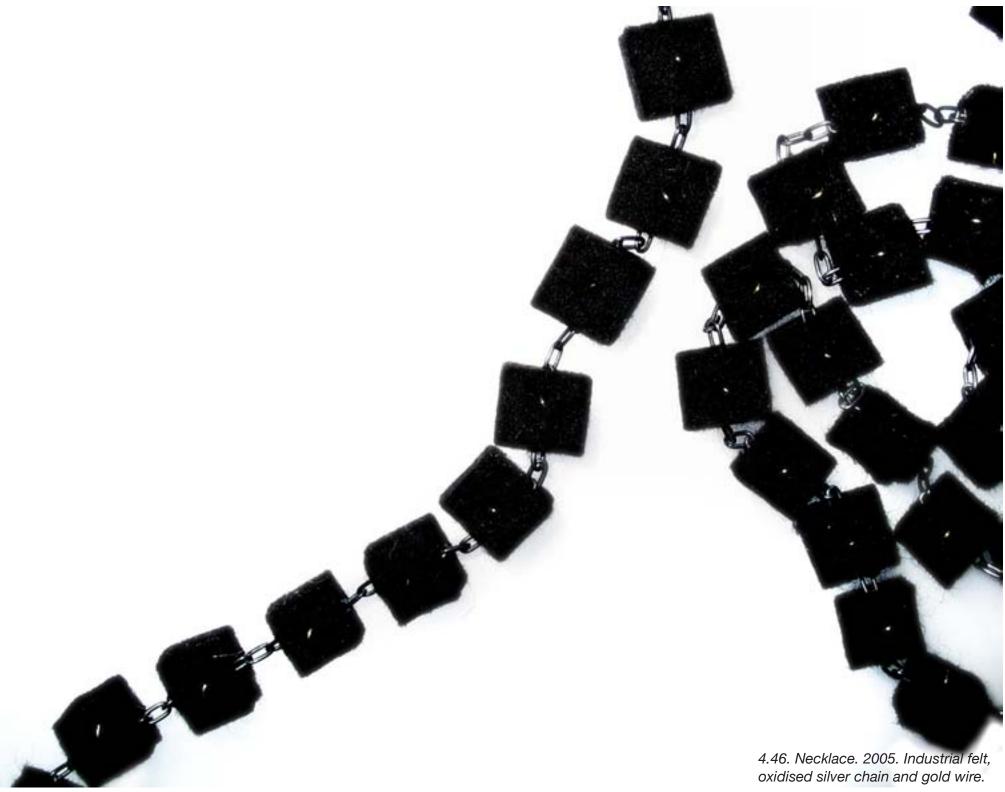
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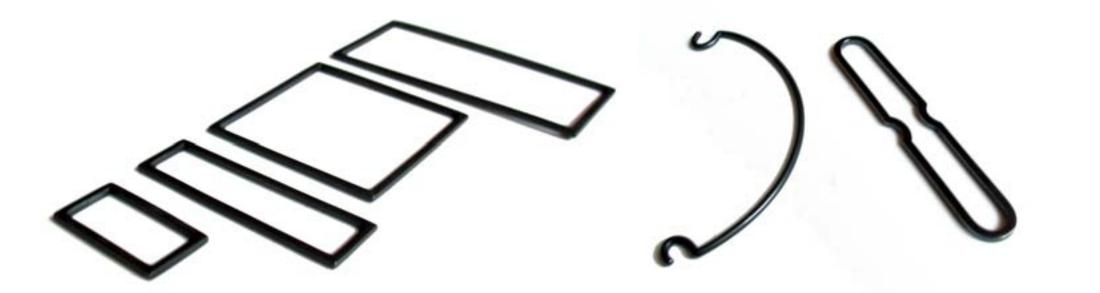
without carrying a 'cultural memory'. They are free from the expectations and comparisons that can encumber a material and its use. The literal reference (p75) to Therme Vals through colour and mass in these works is a deliberate one, retaining a visual connection to the intuitive response and the source material. See, 4.46.

Examining context from another angle the **reformed** collection aimed to alter the form of a worn garment. By restructuring the material that already exists on the body, the context is both utilised and altered. The first series of works in this collection utilise the existing fastening systems of garments. The second series creates structure through the interaction of two forms locking over the fabric.

In the examination of clothing as architecture, means of fastening and joining that were native to garments were adopted to replace those traditionally used in jewellery. These mechanisms (buttons, snap fasteners, zips and hooks) were provided the opportunity for alternative means of making use of context and attaching jewellery. The means, by which this was achieved initially, was through the use of buttons and the utilisation of existing buttonholes on the wearer's garment. (4.45.) By incorporating buttons into the works, pins for brooches became irrelevant; instead the brooch could be simply buttoned into the buttonholes of a garment. Altered structure is created by the differing position of the buttons on the work in relation to the buttonholes in the garment.

This mechanism of the button developed into a means of attaching fabric to metal in later works and series. (4.44.)





The choice of button type in these works is less about aesthetics and more about the functional element of the mechanism itself. The buttons used were either recycled, second-hand or the simplest, plainest buttons that could be sourced. In the case of the bought buttons these were sourced for consistency in the works.

This second series in the **reformed** collection utilises the tensions created in the garment itself by the positioning of two interlocking forms. (4.46 - 4.48) The development of these pieces began with these flatter pieces, (4.46.) and gradually became more threedimensional (4.48.) in an attempt to stretch the limits of restructuring the context. These structures cling to each other using the qualities of the fabric, without which they remain two unconnected wire forms. In this case

Second series in the reformed collection 2005: 4.47. (left) Set of two structuring forms. oxidised silver. 4.48. (middle) 3-dimensional structuring form. Oxidised silver. 4.49. (right) 3-dimensional structuring form. Oxidised Silver.

additional notes....

Tailoring garments with jewellery.

Having designed and had the garments sewn up, I was faced with four massive swaths of fabric, loosely in the form of clothes. Having had no experience with working with fabric before, the challenging element lay somewhere between not really being able to predict how these structuring elements would work or being able to design for them. Through a process of trial and error and many pins (see fig XX) a form began to emerge. The dress was the largest challenge, because of the amount of fabric that was involved and had to be pulled in to create any form whatsoever. To some extent I was working blind with my initial designs for all the garments (see fig XX) what happens on paper is vastly different to the dynamics of moving fabric.

I feel that the concept of taking a large, shapeless garment and using jewellery to completely structure it is a strong one. Further experimentation and change to the process would come from, use of different fabrics (a lighter silk or wool jersey) and a clearer, slightly more tailored design



for the garment to begin with. These changes pick up on elements that I was dissatisfied with in this process. The weight of the fabric in these works is substantial, requiring a certain strength of the structuring jewellery elements. The use of stainless steel wire in the jewellery negates any concerns that I had originally about the weighing down of the garment with the structuring elements. Because of this a lighter fabric that flows more would be more suitable. The additional tailoring in the design of the garment before it is sewn together would serve to highlight the areas in which the jewellery structuring took place. For example in the dress, the majority of the structuring is on one side of the garment, in a redesign, the other side of the garment would require no structuring by the jewellery, thereby drawing more attention to the side which was altered.

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the context of clothing becomes integral, the structuring of context necessary for the complete realisation of the works.

The third collection **renovations**, added structuring devices to tailor made garments. (4.50. - 4.52.) The intention was to blur the boundary between the garment and the structuring element - the jewellery. In these pieces the garment or context relies upon the jewellery to function. The tailor made garments²², were designed to be as large and as loose as the fabric width would allow, the fabric hanging only from the shoulders. In creating these large unstructured flowing garments, the structuring elements or jewellery become essential and in fact replaces any tailoring that the garment may have had. As stated previously in the discussion of the **reformed** collection the emphasis on the mechanisms of connection are those which already exist in the context of the garment.

Experiments with these connection devices used to obtain structure were; hooks and eyes utilised in the dress, (4.51.) the jacket further developed the interlocking wire frame concept that was used in the **reformed** collection, (4.50.) the wool crepe skirt, extended and played with the concept of cufflinks.(4.51.)

With this collection in particular, although it is evident in the **reformed** works, the designs and ideas which began from the same conceptual starting point, take on a life of their own. Straying from the tightly bound up concepts that were evident in the works resulting from the first visit to Therme Vals. The design ideas gather momentum





4.50. Renovations series. Jacket. 2005. Wool crepe, stainless steel and oxidised silver.

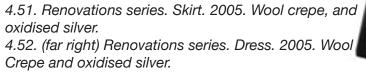


idea development. design process

and take on an independance of their own, developing new directions. This leads on to the further trajectories these collections may take following the completion of the PhD. Investigations stemming from the restructuring and reusing of mechanisims in these collections will be further developed for more commercial purposes.

This chapter has delineated the development of ideas and how they have evolved over the course of this research. The development of ideas and the emergent direction, reflect my response to the subject matter, the decisions that were made and the areas that intrigued me. This chapter pulls together all the little realisations that occur in the process of research, those pennydropping moments of clarity: from the first works that were produced a little stiffly in response to Leiviska's churches in Finland to the last works, considering the concepts discovered at Therme Vals that developed a life of their own. It is through an iterative combination of my own design imperatives and responses to architectural concepts that these works have emerged.







introduction	phase one	.phase two
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.therme vals. visit one	therme vals. visit two	design process
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Glasgow School of Art.

ı by ≺tiles result of a search for a material that would both hang and that could support the metal structuring devices without distorting the rest of the garment. This process was done in consultation

with Jimmy Stephen-Cran, head of textiles department at the

"The process of making insightful decisions when carrying out research in art is not predicated on the assumption that there is a prescribed body of knowledge one learns and then applies. Not withstanding the benefit of prior knowledge, at the outset there is little in the way of prevailing explanatory systems of knowledge within which new advances might be framed." ¹

It can be seen that this three-year research project evolved from the posing of two primary questions: what is architectonic jewellery? And how may I contribute to this field? The process of answering them involved crossing completely unforseen terrain, both theoretical and philosophical. The secondary questions that arose in this process are discussed in the subject/chapter order in which the thesis is structured.

In defining architectonic jewellery, it was first important to discover its origins; how, as a sub-genre, it came to develop, what the contributing factors were and where its parallels lay. After establishing the macro perspective; a study of the constituent parts ensued. This necessitated asking who were the jewellers that had made significant contributions to the field, from this, analysing why and how their work were defined as architectonic followed. These questions were answered through literature reviews, the examination of works and correspondence with jewellers in the contextual review. The analysis of the work demanded that further categorisation of the types of architectonic jewellery be made. This process raised questions as to how the translation of ideas occurred. This resulted in a gradual clarification of the definition of architectonic jewellery and the positioning of the second primary question became apparent. (The flow chart on 5.2. illustrates the development into these subject areas)



5.1. From the Reformed series. 2005. Silver and jasper

conclusion

History of architectonic jewellery Shows the origins and context of architectonic jewellery, provides an example of similar movements and styles.		
Definition of architectonic jewellery Provides paramenters to select the jewellers in the review	How are ideas are translated from one medium to another?	
Review of architectonic jewellery Shows range of ways in which ideas from architecture are translated to jewellery	As a result of the review, how may I research the translation of ideas from architecture to jewellery? Through the idea of responding to architecture through jewellery	
	How is this model of 'response' to architecture be developed? Selection criteria for the type of architecture is established Specific site selected: Peter Zumthor's 'Therme Vals' Site visits are made	
	Uninformed response to site on first visit	
	Context of architect and architecture researched Informed response to site on	What in the arc
	second visit	artic How respon knowle In ese do but u

How does the resulting design work reapond to the architectural site?

Three strands of work are developed in response to the site at Vals, initially distinct they merge conceptually intertwining

Developing the ideas of permenance, context and essence, three collections of work are produced – the ideas reference the architecture of Therme Vals but explored through jewellery, become independent, concerned with the discipline of jewellery itself.

What is the context and origins of the architect and selected site?

This informs and assists the articulation the response to the site

How are perceptions and responses altered through prior knowledge?

In essence perception and response does not change with knowledge, but understanding and reasoning of the cause of the response does

5.2. Aims, objectives and development of ideas flow chart.



The findings positioned the practice-based enquiry (contribution to the field through the design and production of jewellery in response to a specific architectural exemplar) within the interpretive strand of architectonic jewellery.

The process of setting up parameters for the choice of an architectural exemplar was guided by the search for a definition of architecture. Ouestions that contributed to the creation of selection criteria for architectural exemplars included; what type of building would be examined, what time-frame would the architecture be built in and where would it be located. By focusing on a typology, sites could be selected and the idea of responding to a particular site could be developed further. Each cycle involved the selection of a site,

response and documentation to the site and the production of jewellery works. After this the critical assessment of how the selection criteria and model of response might be refined was crucial to the ongoing development of the research.

The design works produced that resulted from an uninformed response to the site,² felt not completely realised and led to a theoretical investigation of the architectural exemplar. A need to understand what contributed to the design of the architecture, led the research to examine what the background, perspective and interests of the architect were. Through an examination of the larger picture it was important to find out who his contemporaries were, if he was working from an established tradition and what the cultural conditions that affect this perspective were. In terms

of the architectural site specifically, it was necessary to ask what the local cultural, historical and environmental conditions were. This contextual line of enquiry discovered Phenomenology as a philosophical perspective that was prevalent in the approach of the architect and used as an interpretive tool to understand the site. This research was conducted in the intervening period between the first and second visit to the selected site. Leading up to the second site visit, questions about the nature of response and creativity arose: how is response and perception altered through prior knowledge? How does a design sensitively reference source material? The secondary questions generated in the design process 5.3. From the Reformed series. Neck-

stem from the interpretation of the source material piece 2005. Industrial felt, oxidised

silver and buttons as connectors.



gathered from the architectural site. The distillation of the principal ideas establishes a conceptual basis from which the designs develop. The question of material choice is crucial in the design process. What material will best express the concept and how may the materials' qualities be utilised to reference the site or idea? What method of production or work suits the chosen material and assists in conveying the idea? How is the material to be finished or detailed? The questions that surround the design process oscillated between conceptual appropriateness and the pragmatic technical issues. As the work is concept driven and the outcome emergent from process, many of the questions to do with the final appearance of the jewellery are not important.³

The questions posed in this research fall into two categories, the first, deals with concrete matters (definitions, histories and context), to which the answers are easily ascertained. The second category was far less clear in the way that the questions required answering. As a self-reflexive practice⁴ these questions involve the self as both the subject and as a creator of subject (jewellery works). However it is the posing and answering of these questions that gave direction to the research.

The above illustrates the evolution of the research questions and methods developed in response to this, exemplifying the point made by Sullivan on the subject of art research.

This underlines the difficulty that lies with this type of research; that there are very few established frameworks into which a system of knowledge can be applied. The

"Making informed choices about creative purposes involves selecting, adapting, and constructing ways of working and ways of seeing, and to do this one has to construct the tools of inquiry from an array of practices. When working from a base in contemporary art, the conceptions of the discipline are uncertain and the informing parameters are open-ended, yet the opportunity for inventive inquiry is at hand. In these circumstances, the artisttheorist is seen to be participating in a postdiscipline⁵ practice. There is little reliance on a prescribed content base; rather it is the deployment of a suitable methodological base that supports the questions being asked, which may take the researcher beyond content boundaries."6

The difficulty inherent in a process that positions the researcher as a subject and the creator of subject has a dual nature; in that is also characterised by the freedom of response and flexibility. Sullivan's tone in this quote touches upon this, when he describes the "opportunity" for inventive inquiry". Despite the complex nature of this enquiry, the involvement of the self as a reflexive entity makes this an intensely rewarding process.

The aims of this research evolved in tandem with the research questions. The enquiry into architectonic jewellery sought to document and position the genre within a wider context. It was through the evolution of the design process that a new paradigm for architectonic jewellery was created. This established paradigm uses the model of response to a particular architectural exemplar and phenomenology as interpretive tools. Thus the new paradigm responds directly to these outcomes respond

design process is one that must be flexible to adapt and respond to the understanding gained and the changing nature of the inquiry. Sullivan succinctly describes the complexity of this self-reflexive, emergent process:

conclusion

directly to the two primary research questions posed.

Reflecting on the whole process and the journey taken there are of course peaks and troughs. Aspects of the research were troublesome and given the luxury of hindsight, these things would have been done differently. The first point to be made focuses on the development of a model of response. Phase One selects Myyramaki Church by Leviska as the first architectural exemplar. This site was responded to through secondary sources, and unsatisfactory because of this. Without any question the architectural exemplar should have been visited and experienced first hand, right from the start. The second criticism of the process was Phase Two: the visiting of the Burrell collection. This site was chosen externally as an exemplar to visit. Having very little interest in this building, resulted in a design process that had little to comment on. The progression made in the first six months would have been greater had a number of buildings been selected early on and used as quick pilots to 'test' the experiencing and the response to an architectural site.

The initial intention of the PhD was to produce a largely studio based submission. However the textual element gathered momentum and demanded far more attention than had been anticipated. The misgivings held throughout the process, about the balance of theoretical work to the design and studio time, had by the time of writing all but dissipated.

As a practitioner I approached this project with the emphasis on the production of studio work, the result of an entirely natural tendency to stick to familiar territory.



5.4. (previous page) From the Reformed series. 2005.
Industrial felt, oxidised silver and buttons as connectors.
5.5. From the Reformed series. 2005. Silk, silver and buttons as connectors.

However from this process emerged clarity of thought and a level of articulation that as a practitioner had not been demanded from me before. The understanding gained from the comprehension of the complexity of interrelated fields and theories instils a type of confidence that feeds back into the studio practice enriching meaning.

This is specifically true with the unforseen development of the investigation into Phenomenology.Yet this investigation has been essential in providing a perspective on the understanding of architecture.This has also been central to the observation and articulation of the act of experience and in the consideration of the design of work.The value of this philosophy in the process of design is a dimension that has permanently altered my perspective on the process of future design works.

On a personal level one of the objectives of this research was to develop a process of working that was concept driven. This method of working has produced successful and unexpected results which will be explored further in the future. Other aspects of this research that will be taken forward require the further development of works from the **displacement**, **rewound** and **reformed** collections. This involves their redesign, assessing their suitability for commercial purposes.

On the whole this research has produced and documented an understanding of an interdisciplinary field. Necessarily this was a difficult process that involved the study of two separate disciplines with their own contexts and cultural parameters. The point at which the synergy is created is the way in which they are interpreted and their qualities interact with one another in the creation of cultural artefacts. The creation of a new paradigm that explores this translation of ideas between two fields, documents the understanding reached.



5.6. From the Reformed series. 2005. Silver and buttons.

.footnotes

I. Sullivan, Graeme. Art Practice as Research: an enquiry in the visual arts. Sage Publications. California. 2005. p1022. This response refers to the first visit to Therme Vals, as discussed in Chapter 4 p73

3. For example: questions about the location of the work on the body, are answered by the process itself. The material will determine the structure and to some extent the production method, the structure will determine the location on the body. 4. "Self-reflexive practice describes an inquiry process that is directed by personal interest and creative insight, yet is informed by discipline knowledge and research expertise." op. cit. Sullivan. 2005. p100

5. Sullivan describes this as, "the way visual arts research takes place within and beyond existing discipline boundaries as dimensions of theory are explored and domains of inquiry adapted." op. cit. Sullivan. 2005. p101 6. ibid. p102

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