

# Layering in representation: Rethinking architectural representation through Perry Kulper's works

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## Abstract

“Layered representations” in architecture create a ‘personal’ language with their complex structures and can be accepted as creative tools for thinking and designing architectural space in a performative way. These kinds of multiple/interwoven representations that are produced by the overlapping and manipulation of both design tools and ideas are valuable in the context of their original narratives and present an alternative approach in the dialog with space by expanding the boundaries of architectural representations. This study aims to focus on these new forms of architectural representation and discusses them through “personal-knowledge theory”. Within the scope of the study, some of Perry Kulper’s works are chosen and examined as case-studies. Dual readings, which are discussed through the concepts of ‘design thinking and designing act’, as well as ‘explicit and tacit knowledge’, constitute the methodology of this study. Selected works and their architectural narratives are then discussed based on these dual readings. Depending on outcomes, it can be suggested that although layered representations produce singularities through personal knowledge, these singularities include/ carry the possibility of creating alternative spatial worlds and atmospheres in architecture.

## Keywords

Architectural design, Layered representations, Personal know(ing)ledge.

## 1. Introduction

(Architectural) thoughts become debatable through representations. For this, architectural representations have analogue or digital design tools that have their own rules. But today, architectural representation is seen as a language that covers/includes hybrid multiple situations (depending on their medium, tools and techniques) and multidisciplinary approaches. As the discussion of architectural representation has changed synchronously with the ideation of architecture, the search for alternatives has acquired a greater degree of visibility and has come to be seen as possessing increased potential for architectural practice. Therefore, greater attention needs to be paid to the relationship between design thinking and designing act. Drawings on this perspective, in this study, representations that lead and contribute to these hybrid multiplicities and those which bring personal approaches together with more specific forms of representation, are discussed and designated as layered representations.. These representations are those that are informed by both analog and digital tools, but “there is no direct definition for these types of representations. But they have a dynamic structure that exhibits performatively different layers of knowledge and their relationships, produced in-action, and grasped by the resolution of this moment of action” (Asar & Dursun Çebi, 2018, p. 201)<sup>1</sup>. Layered representations can also be defined as productive design tools as they generate and reveal creative situations while designing that, which will serve to uncover alternative approaches to and relationships between thinking and action. In order to decipher this relationship (thinking and action), personal knowledge theory, discussed through the relationship between explicit and tacit knowledge in the context of this study, has been utilized as the situation includes an individualized process.

Personal knowledge, as set forth by Polanyi, draws on Gestalt psychology, and he treats it as “an alternative ideal of knowledge” (Polanyi, 2005, p. preface). It is an internalized type of knowledge that is reshaped each time in conjunction with a series and/or va-

riety of several actions. Thus, it is composed of one’s experiences, as well as cultural and social accumulations depending on a variety of intuitive or perceptual ‘things’. Although it is not possible to decode personal knowledge in all its dimensions - due to the abstract elements it encompasses, it is believed that some of this knowledge can be discussed in the context of space-making. In order to do so, some dual readings through ‘thinking and action’ and ‘explicit knowledge and tacit knowledge’ are formed. These dualities are in a continuous relationship both within themselves and between each other. Taking this relational network into consideration, these dual readings are used in order to analyze selected representation samples.

In its broadest sense, architectural representations emerge from mutual interactions between design thinking and designing act. These interactions take place through the varying forms of relationships between explicit and tacit knowledge, which draw on personal knowledge theory. Through representations, the main idea of the designer and the tools and tactics used to express these ideas become visible. In this regard, based on his alternative engagement with architectural drawing and representation, Perry Kulper and his works were chosen for analysis; his use of divergent techniques for representation was also noteworthy.

The structure of the study can, therefore, be expressed as follows: In the first part of the study, explicit and tacit knowledge theories and layering in representation are discussed through the relationship between design thinking and designing act. Following this, an assessment is made of the selected works of Perry Kulper based on these theoretical relationships. A final assessment and evaluation are then provided in the conclusion. Depending on the interpretation, layered representations as a means of expressing an idea in architectural practice can be viewed as having an interpenetrating relationship between designer/architect and representation object. Therefore, this paper argues that layering in architectural representation can be conceptualized as an expression of the designer in

the context of their personal approach to both thinking and action.

## 2. Layering of architectural representation through design thinking and designing act

The complex networks established between “things” (as per Heidegger’s (1971) expression) refer to the multiple structures that have the potential to be implemented in different ways, specific to each design problem. These structures might be between multiple situations involving thinking and acting, thus facilitating hybrid interpretations. The visibility or disputability of these relations is ensured through architectural representations. In this sense, architectural representations can be seen as “... a hybrid product of an idea and properties of the representational medium” (Scheer, 2014, p. 52). If we approach architectural representation through the idea of hybridity, we need to rethink the use of design tools and their meanings. This raises a number of questions including: How do we interpret the architectural representation? How do we internalize it? And therefore, how do we personalize it? In this study, these questions help us to rethink the creative tools, tactics as well as information used in the representation of spatial narratives. These types of ‘hybrid’ representations have been discussed by various researchers. Gürer (2004), for instance, used the expression ‘mixed structured representations’, and Oxman (1997) and Lawson (2005) used the expression ‘multiple representations’. Within the scope of this paper, however, they are referred to as ‘layered representations’. Accordingly, the layering forms of architectural representation and the way in which they reveal the relationship between design thinking and designing act are taken into consideration. Based on the idea that architectural representation is “not an outcome, but rather a mode of thinking and a relation to the world...” (Bolt, 2004, p. 17), the design processes in which these relations are established and, in particular, the moments of action that create these processes are taken into consideration.

Layering in architectural representation focuses on moments of action.

Disciplines such as painting, photography and architecture were able to express activity only by freezing and creating contradictory situations in the context of the action-expression relationship. Therefore, there have been various attempts to create a sense of action through visualization. One such attempt was chronophotographic records starting with the art of Futurism. The works of Etienne-Jules Marey and Manuel-Cafini (Miklós, 2015) focused on how the movement of the body can be expressed in painting or photography. These images created by multiple exposures, and thus, overlapping (this can also be considered a type of layering) succeeded in conveying presence or sense of motion on static paper. However, these attempts can express not only a sense of overlapping, but also the perception of action. ‘Proun’ works produced by El Lissitzky between 1919 and 1927, for example, can be considered in this context. “The two-dimensional Prouns meant to Lissitzky the temporary transfer station between painting and architecture...” (Van de Ven, 1987, p. 214). This *in-between* or intermediate, transitory situation can be seen as an attempt to deliver a form of performative act.

In the case of architecture, Tschumi’s work creates a performative situation both on a representative and structural scale. For example, in the Parc de la Villette (Paris, 1982-98) project, Tschumi uses the concepts of ‘the event’, ‘the movement’ and ‘the space’ together, and “he defines three overlapping autonomous, and non-hierarchical layers (with grids, lines and surfaces, which contain various functions) of the park” (Stapenhorst, 2016, p. 187). Here, Tschumi tries to reinterpret the representation by drawing on action-oriented relations, and utilizing the relationship of the event-movement and space concepts.

The inclusion of movement in architectural drawing can also be considered from the standpoint that “architecture has been liberated from the straightjacket of the orthogonal thought process of plan, section and elevation” (Edwards, 2008, p. 233). Various concepts of architectural drawing resulting from such efforts have been

derived and used many times. For example, Nathali Frankowski and Cruz Garcia of the WAI Architecture Think Tank group use the concept of 'action drawing' for architectural drawings (drawings, which are formed by lines, planes, volumes, images and typography and are used side by side to explore the complex universe of architecture). It is said that drawing is a means of communication and thought between the architect and the world by utilizing this approach as well (Salgado de la Rosa et al., 2016, pp. 247-248). In this manner, designing act involves a partnership that evinces a variety of forms of expression depending on the designer's concept and approach. However, this is a performative relationship.

Indeed, when Schechner looks at the concept of performance from Erving Goffman's perspective, he delivers it through action and defines "performing as a mode of behavior that may characterize any activity. Thus, performance is a 'quality' that can occur in any situation rather than in a fenced-off genre" (Schechner, 2005, p. 29). Such an attribute helps us to associate the concept of performance with architecture, because architectural design becomes subjective through the forms of performative relationships established between thinking and making. The visibility of this relationship and spatial experience is, thus, provided by architectural representations. However, from a traditionalist point of view, such relationships are implicitly revealed in architectural representations because of their prescriptive and reductionist attitudes. For this reason, depending on this relational network, the discussion is conducted by means of layered representations, which involve different layers of knowledge and are shaped through performative narratives (containing actions such as deterioration, re-establishment, and production at that moment, which trigger the next production).

In layered representations, the multiplicity of meanings expressed by different techniques, their associations, and the new spatial situations that arise from them are considered important. Layered representations, which can also be expressed as a kind of practice

of thinking in action, can be used in multiplicity of ways in different stages of design. Mixed techniques such as sketches, and collages, as well as the combined, simultaneous use of digital and analog tools can be regarded as both suitable examples or as giving rise to them. The important point, here, is how 'things' turn into each other in the act of designing. This transformation process is a way of manipulating design tools by means of action. This manipulation, while maintaining a position against the reductionist attitude of representation, not only produces knowledge about the object of design by layering, but also begins to say something about the act of designing.

The discussion of layering in architectural representation can be expressed as an attempt to bring together what can and cannot be represented (explicit and tacit things) in design. Therefore, layering in architectural representation can be seen as a first step in the approach to this nebular world, which exists in the space between design thought and the act of designing. It is affected both by our past experiences and the ongoing thinking-acting relationship based on constantly changing and transformative dynamics. All in all, it results in the formation of a variety of representations each time throughout the process of design.

According to Scheer, "representation entails an endless revision of our knowledge of the world based on our experience of it" (Scheer, 2014, p. 42). On the basis that our personal knowledge can be revised and transformed in such a process, then architectural representation can also be transformed by means of changing knowledge and therefore our way of thinking. Furthermore, in architectural practice, the relationship between thinking and acting takes place in the context of our personal knowing, and the multiple constructions of this situation constitute layered representations.

Personal knowledge theory was first discussed by Polanyi (2009) in the mid-20th century. While discussing personal knowledge by questioning the nature and rationale of scientific knowledge, Polanyi intended to develop an alternative theory about knowl-

edge. According to Polanyi “we can know more than we can tell” (Polanyi, 2009, p. 4). The conclusion to be drawn from this is that what we say is what we can express explicitly, but what we know and cannot say can be referred to as tacit things. For this reason, personal knowledge discussions can be held to benefit from the relationship between explicit and tacit knowledge.

The theories of explicit and tacit knowledge have been discussed by many researchers (Nonaka (2007), Takeuchi (2006), Howells (1996), Grant (2007), Smith (2001), Toom (2012) etc.) after Polanyi. Some of these researchers have argued that these types of knowledge have turned into each other, while others have claimed that they affect each other. For example, Cook and Brown (1999) argue that tacit knowledge is used to create explicit knowledge, but explicit knowledge is not a transformed form of tacit knowledge, rather it is a kind of knowledge that receives support from it. The same applies to tacit knowledge. In a discussion of these points, they take Polanyi's example of cycling. However, they note that the essential element in this example resides in the action of the riding of the bicycle. From here, they claim that “the act of riding a bicycle does distinct epistemic work of its own” (p.386). According to them, this is not something that people have, but an integral part of the action itself. For this reason, they prefer to use the word ‘knowing’ rather than ‘knowledge’ (Cook & Brown, 1999, pp. 384-386).

Within the scope of this paper, the relationship between explicit and tacit knowledge is considered through a similar argument. The revealed moments of ‘knowing’ are considered important because they are related to action. Indeed, ‘knowledge’ is generally related to a de facto thing: ‘knowing’ is about a process of dynamic performance that can be differentiated for everyone. Aydınli and Kürtüncü expresses this situation through the word ‘understanding’ as follows: “While the word ‘understand’ defines an action that is over and done with; the word ‘understanding’ defines the ability to internalize knowledge, to carry it to different contexts, and to reproduce

knowledge, which is an endless action” (Aydınli & Kürtüncü, 2014).

Personal knowing, which is discussed through the interactions (in action) between explicit and tacit knowledge, constitutes the theoretical structure that contributes to the layering of architectural representation. Architectural representations have a kind of linguistic structure defined by certain rules through their technical expression. However, the use of tools in the architectural design process can be reinterpreted in conjunction with design thought. Personalizing and layering design tools in this context help to reveal the relationship between design thinking and designing act, and contain clues as to the designer's explicit and tacit knowledge. Therefore, layered representations developed through forms of personal knowing vary each time and for each designer. Such representations can be seen as one of the important design tools in the development of alternative approaches to the design process.

### 3. Analysis of architectural representations: Some drawings of Perry Kulper

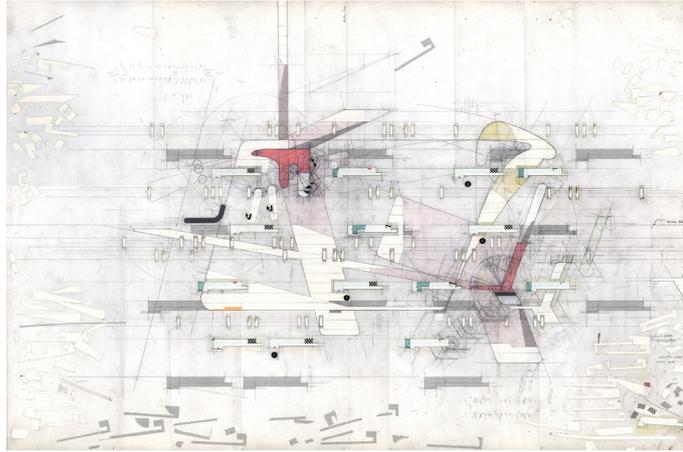
“Drawings become the ‘windows’ through which we see things created in someone's mind...” (Muller, 1988, p. 5). These windows help us to analyze what the designer thinks and what he/she wants to express at each and every stage of the design process. In this sense, many drawing types - windows - can be referenced. For example, what Lawson refers to as *presentation drawings* include ‘drawings by which the designer transfers his work to others’ (p.34); while *calculation drawings* include ‘drawings that can also be seen as a special case of proposal drawings and are effectively made as an alternative to doing some calculations’ (p.49) (Lawson, 2004). By way of further example, Herbert describes drawings in two ways - public and private drawings. According to him, *public drawings* are a common convention and symbol system for ensuring communication between people; and *private drawings* include personal conventions, unfinished graphics and sketches that address the purely abstract characteristics of the

design idea. He treats public drawings as presentation drawings and private drawings as study drawings (Herbert, 1988, pp. 26-27).

All these interpretations regarding drawings are shaped according to the personal point of view and therefore may vary. The designer can go beyond such generalizations in line with the design idea; produce drawing types that express his/her own design approach, and use different tools together by transforming existing ones. Thus, as the drawings (or their genres) become more authentic, the 'windows' that Muller speaks of will begin to differentiate, and become personal. This is also directly related to the logic of the generation of layered representations. For this reason, Perry Kulper's drawings<sup>2</sup>, which can be regarded as the combined visible product of such manipulation and layering, have been chosen for the case study.

Kulper basically explores the potential of drawing. His drawings are unusual; they are not simple; but rather hybrid, multiple, transformed, and in this sense, evince a very unique form. Accordingly, *Bleched Out: De-Commissioning Domesticity*, *Metaspheric Zoo* and *Speculative House, Garden + Landscape* were selected for consideration within the scope of the study, as Kulper uses different drawing types for each of the different stages in these projects. Each of the selected samples contains different types of drawings that Kulper has both named and used. As the main aim of this study is to uncover the type of layering that might occur depending on the relationship between design thinking and designing act, further benefit can also be derived from Kulper's design texts and drawing types in the analysis of his selected works.

According to Kulper, relational drawings can be regarded as "simply work on specific relationships" (Kulper, 2015, p. 21), and "they are neither purely figural or abstract, ... focus on a particular area of study- not architectural or formal, yet, ... these particular drawings explore erasure as a representational activity" (Kulper, 2016, pp. 40-22). His *Bleched Out: De-Commissioning Domesticity* project serves as an example of this relational drawing tech-



**Figure 1.** *Bleched Out. De-Commissioning Domesticity, v.01, 2003* (P. Kulper private archive).

nique (Figure 1). Kulper demonstrates spatial relationships using blocks, lines and colors through this drawing technique, which is a kind of relational diagram. For Kulper, the relationship between the type of drawing and the way of making is held to be as follows: "Within a very limited framework, or set of ambitions this drawing studies erasure, censoring and recoding. It is a pre-cursor to an architectural proposal a relational drawing with no particular scale, orientation or direct spatial implications" (Kulper, 2015, p. 23).

At this point, it can be said that design tactics and approaches have been developed in tandem and inform each other and that the intention of the study can be expressed as follows: "This speculative project attempts to rethink conditions of a domestic world through the literal and figurative acts of editing, censoring, or 'bleaching out' of the elements that typically comprise domestic settings. At the same time, it challenges the additive, or accretive practices of the architect" (Kulper, 2017). This situation tends to express open-ended relationships that are inherent in that thought not the sequential or agglutinative thinking that occurs in conventional space thought and expression.

The intention in question can also be considered through two images that inspired Kulper in his work. The first of these is "a series of large 'edge' paintings by the American painter Sam Francis", the other is "the de-commissioned military aircraft occupying the

desert floor at the Davis-Monthan Air Force Base Aircraft Boneyard near Tucson, Arizona” (Kulper, 2017). The ‘edge’ painting is combined with the connotation of military aircraft occupying the desert floor. In the edge painting, the edges of the canvas are painted, the center is not painted, but left as a vast space, and the boundaries of the defined canvas are questioned. The planes in the desert were grouped according to their size and were also ordered. Based on the relationship and the internalization of the painting and the order of the planes, Kulper tried to create relational thinking and thus a relational drawing technique for this piece. For this, he sought alternative ways to represent non-representational things by working on a kind of sign sequence. The generated sign sequences can also be considered a kind of subtraction for spatial organizations. But, on the other hand, the drawing has acquired a systematic aspect as a result (Asar & Dursun Çebi, 2018).

The systematic and abstract language created within the drawing itself can be considered through the lens of ‘*explicit knowledge*’, while the manner in which the relations come together to establish this language can be evaluated through that of ‘*tacit knowledge*’. Expressions about ‘*Kulper’s tacit knowledge*’ can be partly analyzed in conjunction with how he thinks and which paths he follows while he is designing. Kulper describes this process as follows:

“An initial series of ‘marks’ are established in the space of the drawings- they are ciphers for probable, or expected, domestic characteristics. These ‘marks’ are then systematically qualified through additional ‘marks’ to do with ‘bleaching out’, or editing the original marks. This operational volley of censoring and qualifying is followed by a series of notations which attempt to ‘recode’ the now censored origins- the recoding, a kind of mimetic and material rhetoric, to do with virtually presenting the now ‘evacuated’ marks. A pair of hybrid reflexive objects occupies the ‘edge’ of the ‘bleached out’ field, metaphorically providing a new respiratory impetus for the now ‘suffocated’ proto-architectural characteristics” (Kulper, 2017).

In this context, it is possible to say that ‘*Kulper’s design action*’ practiced through the combination of marks, encodings, and drawings has succeeded in establishing a multi-relationship network, as a performative relationship between *thinking* and *action* is realized. Coding is used where the expression of the marks is insufficient, whereas drawings are used at the point where the coding highlighted the spatial connotations. However, what brings these technical layers together is the expression of affected and imagined things in the context of design discourse and relational drawing techniques. Thus, the logic of the drawing through the generated string of marks is established through the generated string of marks. This, in turn, constituted ‘his explicit knowledge’ that could be analyzed. However, the architectural characteristic is designed in such a way that it cannot be grasped at first glance and always includes a ‘tacit’ side due to the hybridization of the used objects and the feeding from metaphorical thinking. Therefore, on the one hand, this situation has personalized the drawing, and on the other hand, the drawing becomes layered due to the knowledge, technique and experience it contains. It can be suggested that this form of layering, while involving a systematic primitive mind, has also acquired an abstract feature through relational additions.

*The Metaspheric Zoo* project (Figure 2), which is taken as the second sample, was a proposal prepared by Kulper for the Prague Biennale in 2005. The word *Metaspheric* is a cross between “metaphor” and “atmosphere”. According to Kulper, “it is the first in a series of preparatory drawings to discover and theorize the zoo” (Kulper, 2005, p. 18).

Kulper expressed the project’s description as follows:

“Its primary topical, relational, and programmatic attitudes were established through an image combining characteristics of a puzzle, a geographic matrix, and a taxonomic inventory. Ambient surfaces tease coded and indexical marks. Instrumental practices are crossed with language and invented ‘characters’ toward the creation of a synthetic, incomplete, and strangely

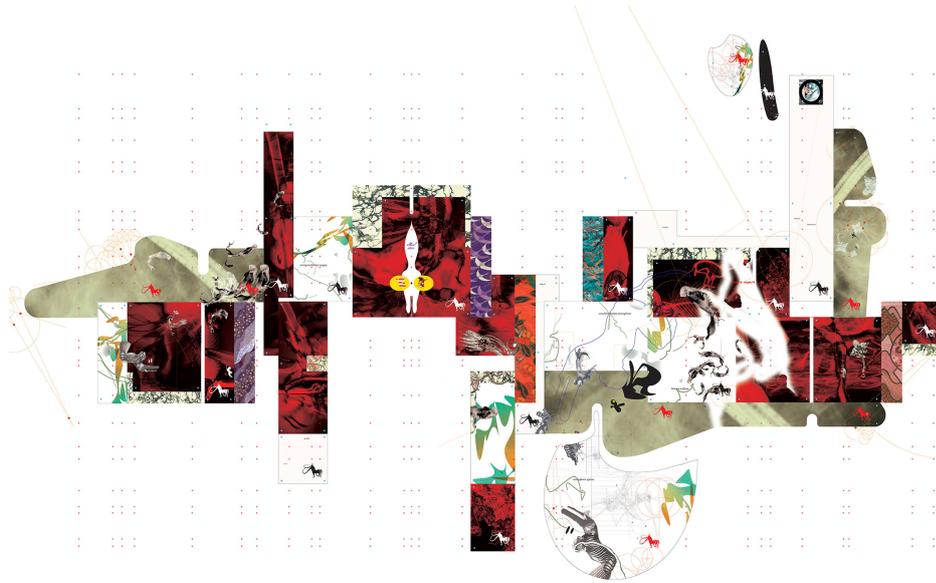


Figure 2. *Metaspheric Zoo*, 2005 (P. Kulper private archive).

familiar whole. From this beginning, programmatic interests in botanic surfacing, a roving taxidermy, and a vessel for obsolete atmospheres emerge, confronting the disparate impulses of instinct and desire which are all but eradicated from our over-programmed society” (Kulper, 2005, p. 19).

According to this discourse, drawing can be viewed as a practice in which many behaviors and characteristics need to be handled together and re-invented each time through language. Therefore, the immanent context of the project enabled the production of its characteristics. This situation affected the use of design tools. Here, Kulper used the type of drawing which he called *thematic strategic plot*: “Strategic plots that plot conceptual frameworks, objects and events over and through time...” (Kulper, 2015, p. 21). Similarly, Kanekar declares that strategic plot “... is quite telling in that the plot signifies the manner in which the story is constructed and planned. It marks, lays out, and locates the underlying story but there is also another side to this meaning, that of intrigue and secrecy” (Kanekar, 2015, p. 117). Therefore, drawing, which is referred to as a *thematic strategic plot*, can be viewed as having a relational and creative fiction with respect to its own story.

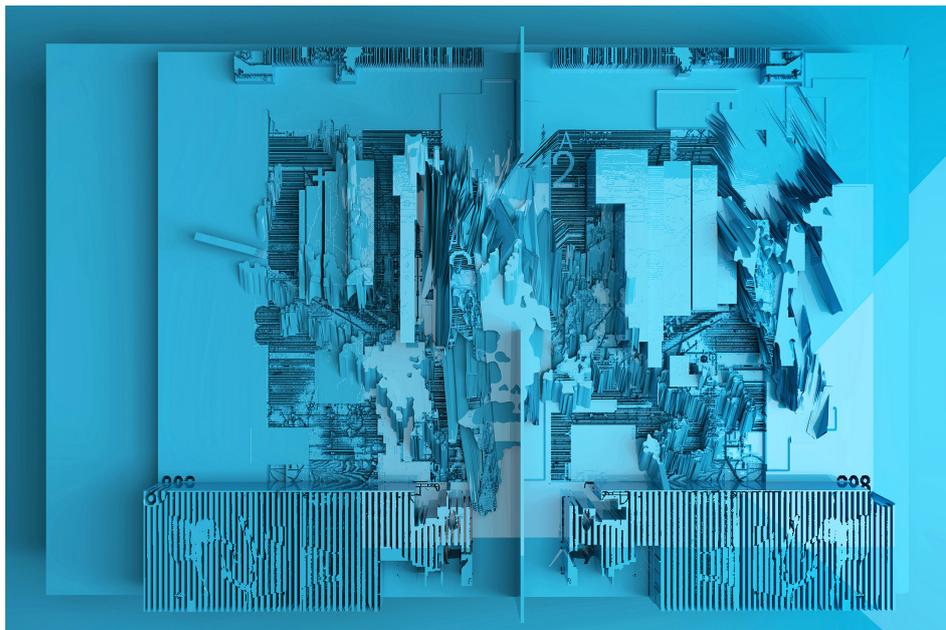
When the *Metaspheric Zoo* project is

examined in detail, it can be seen that some kind of grid structure is used and that on top of that each spatial organization is produced relational with both itself and inter se. When these grid boxes, which can also be referred to as atmospheric sections, come together, the design story begins to become visible. However, it should be noted that these drawings have an abstract side. This openness (abstract thing) allows us to interpret things that we know are explicitly associated with our experience. This openness can also be expressed as a partial externalization of ‘Kulper’s tacit knowledge’.

The concept of atmosphere implies that the things that trigger intuition can also be represented. This situation led to the emergence of alternative spatial relations and personalized drawings. Indeed, according to Kulper:

“Although culturally grounded, drawing is a kind of personal cartography in which circumstance and creative identity coalesce toward spatial configurations. Drawing is a risk, and confronting the white surface, or black screen, is an act of violation. It is an assault on whiteness and abstraction” (Kulper, 2005, p. 19).

Therefore, if we consider this sample with respect to design thinking and designing act, it can be claimed that



**Figure 3.** *Speculative House, Garden + Landscape, v.95-Blue, 2018* (P. Kulper private archive).

the intertwining of both thinking and action has made the representation layered. Layering was carried out on thematic (similar to Kulper's expression for the drawing type) fragments /sections. The basic approach of design has been determined 'through an image combining characteristics of a puzzle' (in Kulper's statement), and the grid structure was then created via this approach. A 'crossover' was performed by means of indexical marks and codes added to the resulting surfaces. This approach can be categorized methodically as a kind of mapping. Thanks to this mapping, some things have been 'explicitly' expressed, while others have been 'tacit' in the context of the atmosphere (although being 'strangely familiar') created by the relational tension. For this reason, the layering of this drawing is fragmentally formed.

Last, but not least, v.95 (which is a collaborative work with Jeff Halstead), found among his *Speculative House, Garden+ Landscape* series of drawings, is chosen because of its three-dimensional expression technique (Figure 3). The reason Kulper regards this drawing as speculative and the inspiration behind it can be explained in his own words as follows:

"The visual speculations of the design studio Archizoom, the architects

Archigram, the architecture, design and media arts-based Ant Farm and the architects Superstudio gave me room to go out on a limb – many limbs in fact – in the making of 140 collage-like images" (Kulper, 2019, p.65).

Such alternative forms of thinking and making coming from the 60s are always open to new speculations both in terms of architectural thought and the use of design tools. In the case of Kulper's works, this gap in today's multi-representation environment is discussed. In this drawing, Kulper focused on a tool (the Quick Selection tool in Photoshop) (Kulper, 2019, p. 65), and using this tool in a creative way by making the representation layered. He designates his making-style for this project *proto-digital collages* by using the Quick Selection Tool in Photoshop. He explains the potential and use of the tool as:

"Motivated by an interest to learn the 'Quick Selection' tool, these proto-digital images unravel the potential of a few simple Photoshop® operations. Under the rubric of simple programmatic elements – that of domestic, garden and landscape realms – this work rethinks programmatic typologies. By appropriating images – much like the aforementioned practices, but using the Quick Selection tool rather

than scissors, to snatch and reassemble some image fragments – a number of interesting things evolved in these very quick visual speculations. An increased range of formal and material possibilities emerged: the generative potential of the history panel – turning layers on and off – offered generative spatial and representational potential; the agency of file sizes, degrees of resolution and scaling opportunities opened things up; and discovering ideas rather than proving them came front and center” (Kulper, 2019, p. 65).

Research on the potential of the tool also generates the discourse of the study and is expressed as follows: “... this work is interested in challenging norms, and opening domestic default assumptions towards probing alternative models for living in relation to natural, synthetic and fictional spatial worlds” (Kulper, 2019, p. 65). The three-dimensionalization of the drawing through this avant-garde-based discourse is also reminiscent of the traditional home-garden arrangements. This situation makes the relationship between ‘explicit and tacit knowledge’ visible, and it “representationally spatialized” (Kulper, 2019: 65) those things either explicitly or not explicitly expressed.

Fictional thoughts about the garden and landscape also affect how the chosen design tool is used to express that idea. Although each tool has its own limits, it is still in the hands of the designer to expand those limits as alternative thoughts or options arise. It can be seen that the layering in the *Speculative House, Garden + Landscape* drawing has been carried over into three dimensions in a digital environment. This includes both intellectual and physical layering, but it also gives the observer a perceptual hierarchy of positive and negative spaces. Thanks to this hierarchy, the physical layers become visible, and as an audience we are able to understand or at least make interpretations about the project as the layering of the drawing is shaped volumetrically.

According to the Wai Think Tank group, Kulper’s drawings are a cosmos of information and possibilities, an architecture of ideas that don’t remain

static and always evolve (Wai Think Tank, 2012). “He is fluid in his uses of techniques and design methods... in the quest for a ‘relational synthesis’” (Kulper, 2013, p. 58). For this reason, his drawings can be seen as a kind of “personal cartography” (Kulper, 2005, p. 19). These cartographies are only one of the infinite possibilities of the relationship between ‘design thinking and designing act’. They also reflect the designer’s relationship with the world. This will be perceived and interpreted differently by each observer just like the differentiation of interpretations of people, who read the same literary text, as “experiences through the image of thought are the source of the formation of a new thought” (Özgençil Yıldırım, 2003, p. 38). Kulper’s drawings are thus seen as fostering discussion of the forms and narratives of layering in architectural representation, because his drawings evince the multiple, complex and performative relationships between design thinking and action.

While each of the examined samples has a personal language, they are also different from each other due to the form of tool using (making) employed. The commonalities in the samples can be considered through the combined use of different layers of knowledge (signs, drawings, affected images, experiences, intuitions, the way of making, tools used, etc.). Differences are directly related to what each drawing is trying to say. For example, when we look at *Bleched Out: De-Commissioning Domesticity* and *Metaspheric Zoo* drawings for the first time, we see expressions that are complex and difficult to interpret. However, when we examine in detail the combined use of the drawings’ texts, affected images or tools, we begin to understand the logic of the drawings. This can be evaluated through the affected images in *Bleched Out: De-Commissioning Domesticity* and the fragmental structure in *Metaspheric Zoo*. However, the drawings also contain metaphoric, atmospheric and relational layers. Such layers are considered important because they can reveal different relationships. This is visible in positive-negative space perception in the *Speculative House, Garden + Landscape* drawing.

While the complexity in other samples became more speculative due to their two-dimensional situation, the perception of three dimensions created there approaches the relationship between the layers of the house-garden images we know. Therefore, making the layering volumetric triggers a different narrative.

When selected drawings of Kulper are considered together, it can be concluded that he has developed his own language, which he uses in different ways and forms each and every time. This provides an openness in which different positions can be taken during the designing act. This openness is believed to make the layering of the representation possible. In this context, it can be said that Kulper builds his design process through provocative, intriguing and performative narratives.

#### 4. In lieu of conclusion

Architectural representation is considered important as it includes both the creation of an idea and the expression of that idea. It encompasses the dual relation between thinking and action. Therefore, this study focuses on the relationship between design thinking and designing act, and discusses architectural representation through the argument that this relationship is multiple and personal, as it is claimed that architectural representation derives from the multiple, and thus, becomes layered.

The relationships established through layering in architectural representation will differ for each design problem and for each designer. For this reason, Perry Kulper's drawings, as provocative samples, are chosen as they consist of different and alternative layering types. All of the samples are personalized in the context of the tools, thoughts and ways of making. These drawings, which can be read as a kind of drawing research, create an alternative gap in the discussion of the relationship between thinking and action in terms of the multiple layers (as either intellectual or physical) they contain. Thanks to this gap, the possibilities for action increase, and the language used becomes performative. In this context, the combined use of both

analog and digital tools as well as environments has taken them out of their knowledge frameworks. The types of drawing used by Kulper can be considered within the scope of studies where this frame is exceeded.

The layering in the selected samples is considered important as it reveals alternative relationships in which we can discover new things by thinking together about things that will never come together. The expressions of the layers in the drawings vary with the narratives triggered by these layers. This change originates from a dynamic network of relationships that arises from both the explicit and tacit knowledge of the designer. Therefore, it can be said that such drawings are more than just objects that are finished and to be agreed upon. They are also things that try to express the forms of reflection of the practice of thinking (instant cross-sections through which an idea travels through an infinite network of possibilities) and the act of designing.

Similarly, Castle cites Kulper's approach to drawing as follows: "... all of the drawings are design worksheets to develop things and are not intended to 'be in the world'" (Castle, 2014, p. 18). At this point, it can be suggested that, Kulper proposes an alternative idea of architecture that oscillates between 'design thinking and action', 'explicit knowledge and tacit knowledge'. These interactions are set up in different ways in each design. For the relationship between design thought and action, Kulper interprets the futuristic thought by using different design tools. He is influenced by many different images and hence re-evaluates the residues of this influence in different contexts to produce new meanings. At this point, the relationship between *his explicit and tacit knowledge* begins to intertwine. One of these reflections can be seen in the variety of drawing types he uses in the different stages of design. These relationalities provide the generation of the layering. Thus, they produce a visionary and alternative way for his architecture.

For him, "alternative architecture is relational, not hermetic" (Kulper, 2009, p. 63), takes place in the context of thought, and is speculative. In this

sense, when the selected samples designed by Kulper are reevaluated, it can be claimed that each drawing forms a narrative through a layering of its own generative logic, with the result that the layering is of different densities. However, in all samples, the relationship between layering is often expressed as intertwined. Therefore, they are neither fully defined nor legible because the attempt to place things that cannot be expressed (action and therefore intuition, emotion-oriented things) in drawing between these layers leads to a narrative form known only to the designer. At this point, personal knowing occurs and the means by which the designer interprets thought tacitly takes place in the drawing.

In the context of layered representations, the point of interest is that such representations have the potential to enable us to determine a course that will allow us to express ourselves in a world of design possibilities. For this, we must pursue the forms of expression that we can integrate with our own world without being trapped within the limits of the known discipline. As a result of this reading of layered representations, it can be said that although representation has an inherently reductionist structure, if we can find a personal way of encountering the boundless structure of thought; the act of designing can become a practice in which we can express our explicit and tacit knowledge together, and, representations can become layered narratives and performative forms of expression that together contain such knowledge. Thus, representation is not only a generic language that expresses what is occurring at the end of the design process; it can also become a productive and creative environment that the designer can personalize, and really communicate and think with during the design process.

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### Endnotes

<sup>1</sup> In this study, the so-called representations were named as “mixed structured representations”. However, as the study became deeper, it seemed out to be that these types of representations are not only complex but also multi-layered. So, in order to avoid any misleading, the naming given has been changed accordingly.

<sup>2</sup> The types of drawings which are used and named by Kulper: Aspectival drawing, Thematic drawing, Proto-strategic plot, Strategic plot, Cryptic drawing, Proto-formal drawing, Relational drawing, Composite drawing, Analogous drawing (Kulper, 2018: 19.19 min.).