The Textile Landscape: a journey through the structure of landscape

Mandana Parvinian

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Key words: Landscape Architecture, textile, weaving, knot, seam

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The Textile Landscape: A Journey through the Structure of Landscape

Abstract

This is a study in which landscape architecture is theoretically related to the “textile art.” It establishes a theoretical analogy of the landscape as a kind of textual manifestation, “the landscape is a textile,” and aims to establish new resemblances that show how the landscape and textile arts are related, not only with regards to the elements of composition, or to similarities between the elemental relationships that exist in both these arts, but to how the study of structure and form in the production of textiles may influence our understanding of the textile nature of the landscape.

The first part of the research is developing a theoretical analogy between landscape and fabric. The process of making textiles is based on weaving and knitting, operations in which knots obviously play a most important role. The context of the urban landscape can also be viewed as a woven fabric of different threads, where knots are the summit of this interwoven textile. This study shows that the goal of landscape is to knit together the clusters of meaning so that the person can experience the unity that binds up these different qualities.

Based on this theoretical analogy, the second part uses the “action research” method which in the context of this study would be a scholarly practice of design, “design-research.” Both parts of the research are qualitative inquiry in nature and the qualitative manner of the investigation calls for an inductive investigation rather than a deductive one; theoretical discussions and the design section rely heavily on interpretation of the researcher.

Mandana Parvinian
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# TABLE OF CONTENTS

Acknowledgement .................................................. III

List of Figures and Attributions ................................. VII

1- INTRODUCTION .................................................. 1

Preamble (The Purpose of this Study) ......................... 2
Our Severed Landscapes ........................................... 3
  • The Problem
  • Research Questions
Methodology ......................................................... 4
  • Theoretical Analogy
  • Design-Research Practice
Research Justification ............................................ 5

2- THEORETICAL ANALOGY (Literature Review) .......... 6

Landscape in Relation to Textile ................................. 7
  Opening Discussion
  • Mythic Association
  • Cultural-Natural Phenomenon
  • The Tapestry of Landscape
On the Analogy ..................................................... 8
Origin of Textile | Techne of Landscape | 10
The Meaning or Semantic Nature of the Textile | The Betrayal or Disclosing Landscape | 11
The Textile: A Primordial Art | Infinite Pursuit of the Picturesque | 13
Representation of Human Expression | Representational Gardens | 15
Textile; Knit the Knot, Weave the Net; (An Ongoing Process) | The Dynamic Landscape | 16
Textile Motive; Dressing | Landscape; Play of Veiling and Unveiling | 17
Tactile Experience of the Textile | Touching the Landscape | 18
The Idea of Knot and Seam | The Landscape Detail(s) | 19
Textile and Construction | The Tectonic Landscape | 21
Textile Structure Analysis/Qualities | The Textile Landscape | 22

3- DESIGN-RESEARCH | 23

Opening Discussion | 24
Why? | 25
How? | 25
The Design-Research Process | 26
1-The Design Problem | 26
1.1- The Site | 26
1.2-Context | 26
1.3-Historical Evolution | 28
2- The Design-Research Vision/Goal | 29
3- Design Approach/Objectives | 30
4- The Design Practice
  4.1- In Search for a Structural Geometry
  4.2- Design Development Process
  4.3- Final Design Description
  4.4- Experimenting Detailed Design
  4.5- Revitalizing the Historic Path; as Seam in the Landscape Textile
    Further Development of the Seam through Lighting Design
  4.6- My Journey Mates (The Design Process Tools)
    • Drawings
    • Inspiring Objects (Study Models)
    • Portrait Moments (Photograph Process Documentation)
    • Visible Voices (Memos)
    • Computer Generated Simulations
  4.7- Reflection on the Design Practice

Design-Research Conclusion

4- CONCLUSION

Epilogue Discussion
  • The Process
  • Theory and Practice
  • The Elegant Landscape

Further Studies

BIBLIOGRAPHY
List of Figures and Attributions

Please note that all figures appearing with no attribution in the caption are my own work which includes Hand drawings, Models, Computer Generated Models, and Photographs. All figures taken from other sources have been evaluated and deemed to be consistent with fair use.

Figure 2.1. Schonbrunn Garden, Vienna, an example of the western tradition of landscape representing the picturesque p.14
Figure 2.2. Schematic drawings, demonstrating the tapestry landscape made of flexible materials p.16
Figure 2.3. Schematic drawing demonstrating the fabric nature of landscape at large scale p.22
Figure 2.4. Schematic drawing demonstrating landscape as a means to celebrate (reveal) cultural values p.22
Figure 3.1. Conceptual sketch p.24
Figure 3.2. View of Virginia Agriculture and Mechanical College, work date 1881 or 1882. (VT Imagebase) p.24
Figure 3.3. V.P.I. Campus taken from tower of old shop, 1897. (VT Imagebase) p.24
Figure 3.4. Site location p.27
Figure 3.5. Site context p.28
Figure 3.6. Study of the evolution of the site (Study Source: University Archives of Virginia Tech/Maps of Virginia Tech, and D. Dunay 1986) p.29
Figure 3.7. Existing site situation. (Aerial Photo from Town of Blacksburg Website) p.30
Figure 3.8. Site photos p.30
Figure 3.9. Structural geometry inspired by the historical grid p.33
Figure 3.10. Exploring the idea of grid through emphasis on nodes p.34
Figure 3.11. Use of transitional scale geometry in order to create integrity p.34
Figure 3.12. Design development emphasizing longitudinal axis p.35
Figure 3.13. Design development emphasizing latitudinal axis p.35
Figure 3.14. Design development- further articulation of a latitudinal geometry p.36
Figure 3.15. Design development- further articulation of a latitudinal geometry p.37
Figure 3.16. Concept development p.38
Figure 3.17. Master plan p.39
Figure 3.18. Spatial elements of the grid p.40
Figure 3.19. Sketch of the structural units which create the landscape fabric p.41
Figure 3.20. Conceptual sketch- section of the unit p.41
Figure 3.21. Alternatives demonstrating variations of the second layer of planting p.41
Figure 3.22. The multi-layered network dynamic p.42
Figure 3.23. Section: view to the main entrance of the campus p.43
Figure 3.24. Section along the main entrance of the campus p.44
Figure 3.25. Perspective viewing the grid p.45
Figure 3.26. Hierarchy of green in the broader context p.46
Figure 3.27. Schematic perspective p.46
Figure 3.28. Conceptual sketches exploring alternatives and spatial design of the path p.47
Figure 3.29. Conceptual scheme (running-stitch seam)- option 1 p.48
Figure 3.30. Conceptual scheme (running-stitch seam)- option 2 p.48
Figure 3.31. Conceptual scheme (fell-stitch seam)- option 1 p.49
Figure 3.32. Conceptual scheme (fell-stitch seam)- option 2 p.49
Figure 3.33. Conceptual Scheme (blanket-stitch seam)- Option 1 p.50
Figure 3.34. Conceptual scheme (blanket-stitch seam)- option 2 p.50
Figure 3.35. Conceptual scheme (overcast-stitch seam) p.51
Figure 3.36. Conceptual scheme (crossed overcast-stitch seam) p.51
Figure 3.37. Final design scheme p.52
Figure 3.38. Study model of the seam p.52
Figure 3.39. Spatial development of the final seam scheme p.53
Figure 3.40. Lighting plan p.54
Figure 3.41. Drawing examples exploring the construction solutions p.55
Figure 3.42. Drawing example exploring the juxtaposition of the grid, seam, and Alumni Mall p.55
Figure 3.43. Drawing examples envisioning a three dimension walkway p.55
Figure 3.44. Drawing example p.56
Figure 3.45. Model A p.57
Figure 3.46. Model B p.57
Figure 3.47. Model “B” (left), four close-up slides of model “A” (right) p.58
Figure 3.48. Documenting the moments p.60
Figure 3.49. Memos p.61
Figure 3.50. Computer simulation p.61
Figure 3.51. Unity of Form and Structure in Landscape p.63
INTRODUCTION
Preamble

Having been an architect, I have always been fascinated by the differences of design views of architects and landscape architects. Pursuing this master professional degree in landscape architecture provided me valuable opportunity to develop a new design perspective as a landscape architect. For this purpose, I started looking back to choose a research topic that can help me develop the perspective. I was aware architecture tends to design landscapes in an object-oriented manner while landscape architecture mostly suggests more a contextual design. This conception along with a fascination on textile, which demonstrates obvious resemblances to landscape, became the motivation for this study.

I have chosen to engage this theme because I believe given the predominant tendency today to reduce all landscape expression to the status of culture and nature and to limit the role of landscape architect to mediation between planning and planting, it is necessary for landscape architects to re-position themselves as the architects of topos, the common place. As a landscape architect I would like to a cohesive topos, an integrated fabric that attests the “common place.”

1 In the ancient Greek, topos meant (common) place. “For the ancient Greeks, topos referred to a tangible place that immediately brought to mind a variety of associations” (Corner, 1992, p. 147).
Our Severed Landscapes

• The Problem
Our world today resembles a deconstructed patchwork quilt. Landscapes have become fragmented pieces that no longer have an integrity. Demand for utilizing landscapes for economical purposes has left nothing for the human but severed landscapes. While early gardens, the origins of landscapes, enjoyed a coherency, today’s landscapes have become leftover spaces among buildings in our urban fabrics. Ironically, they are expected to bring back a sense of integrity to environments. When the design priority is given to architectural spaces, the mass, in our urban settings, landscapes, the space, find themselves in the remnant open places among buildings. This is essentially a fragmented approach to large scale of design, while expecting integrity within a smaller scale design. At a site scale, our landscapes also suffer from fragmentation in their design, which is imposed by the modern utilitarian worldview. The modern world view has impacted designing our landscapes in a way that the priority is given to the land programming which ultimately leads us to an analytical design. As a result, our landscapes have failed in representing a cohesive sense of place through design. Such situation requires significant quest to find the reasons that have led us to such condition.

• Research Questions
We need to ponder the ways we can bring back integrity in design of our landscapes. Followings are questions that help my research find an orientation for further pursuit. How can our landscapes have more integrity? How can the design process bring back integrity? What would be a leading design vision for this purpose look like? Where does such a design vision come from? If it comes from the design process itself or does such a vision need some theoretical grounding outside of existing design theories? Considering that I am fascinated by the theoretical depth of textile arts and their potential to enrich landscape design, how our design of landscapes be informed by the textile arts? How the textile materials can help design process? How can I conduct my research to demonstrate a useful relationship between the textile arts and landscape design? Will we only be able to find possible solution through theoretical endeavors or design play a role as well?

These questions establish a structure for my research. They define the body of the literature that I need to draw on. They are also very helpful in forming the proper methodology for my work. A scholarly process resulting in suggesting answers to these questions will significantly help us solve the above mentioned problems in our landscapes.

2 The modern notion of planning specifies segments of a site for different purposes, which is an operation resulting in a fragmentation in our landscapes.

3 As a result of fragmentation in the planning phase, the site is divided into pieces. Each piece finds a certain practical agenda followed by specific design requirement to meet standard criteria. The result will be juxtaposition of various open spaces that have been linked through some passages or with some green plants. Many of our modern landscapes have such characteristics and are unable to convey a sense of unity in the entire site.
Methodology

My research undertakes of two major journeys. The first is theoretical in nature; it is an analogy between textile and landscape in order to find helpful knowledge for creating a new vision to look at our landscapes. The second part is to bring the new vision into the context of landscape design. Considering the practical essence of the design, the most proper method seems to be use of the design itself as a research tool. Therefore, my research methodology will not be limited to one particular research method. Linda Groat and David Wang (2002) in their seminal book, “Architectural Research Methods,” introduce seven major strategies for research in the field as followings: Interpretive-Historical Research, Qualitative Research, Correlation Research, Experimental and Quasi-Experimental Research, Simulation and Modeling research, Logical Argumentation, and Case Studies and Combined Strategies. Looking back on my research questions, I see that “Combined Strategies” would be the proper in term to describe the method. An articulated description on the research methods used in this research is as followings:

- Theoretical Analogy
  This part of the research requires a qualitative research approach. Interpretive paradigms play a major role in this part of the research. The nature of this interpretation provides us with a holistic understanding of the subject. I use interpretation through use of language as one of the ways in which humans understand the world around them. Linguistic research has shown that human idioms used today can be traced by the changes of individual words over the centuries to determine the basis for their meaning, the result being to shed light on both language and thought. This is as true in the field of architecture as in any other field, when the archeology of a word can offer important knowledge concerning creative genius. The purpose of this section is drawing attention to the evolution of words used both in the making of textiles and in the making of landscapes, words from both Greek and Latin, to establish a theoretical analogy. This analogy suggests a textual manifestation, “the landscape is a textile,” in order to establish new resemblances that show how the landscape and textile arts are related not only with regards to the elements of composition, or to similarities between the elemental relationships that exist in both, but how the study of structure and form in the production of textiles may influence our understanding of the textile nature of landscape architecture.

- Design-Research Practice
  This part of the research not only involves design practice, but also involves reflections on the design, making models and interpreting the work as well. That is why this section is titled as “Design-Research.” According to Gorat and Wang’s (2002) taxonomy of methods, this section involves Experimental-Quasi-Experimental Research, Simulation and Modeling Research, and in part logical argumentations.
Research Justification

No doubt that such a research significantly impacts both the profession and the discipline of landscape architecture. At the profession level, this research provides an alternative theoretical understanding and a design approach that can lead to a change in the design of our future built landscapes. The change, hopefully, will be a much integrated and cohesive landscapes. While these landscapes respond to the programming needs, they also have the potential to make stronger connections between the separated urban environments.

At a disciplinary scale, however, the research can be useful in three ways:

- By providing a theoretical understanding and design vision for design studies, an alternative asset could be added to the previous studies.

- Since the research uses both theory and practice, it is valuable in bridging the gap between theory and practice.

- Finally, through careful documentation of the design process, the design process itself becomes a subject of further in-depth study and reveals insights not previously available.
Landscape in Relation to Textile

Opening discussion

I frequently have encountered the term “textile” being used as a metaphor for “landscape.” Obviously, one can see immediate resemblances between the two; however, those might look ambiguous and require clarification. This was, in fact, the start of my journey; there was enough pull and curiosity to find out the relationship between the two to motivate me to do my thesis on this topic. Various perspectives motivated me to explore the relationship between textile and landscape. These views that establish relationships between textile and landscape comprise myths of creation, the humanities, and built environments. In order to make this journey more fascinating and explorative, I would like to bring a few of examples that portray these views in the following.

- Mythic association

Leatherbarrow tells us a mythic story about the time “the world was formed when Zeus threw a matrimonial veil over the head of the goddess of the underworld:

This nuptial textile instituted marriage. “When everything was ready..., they held the wedding. On the third day Zeus made a great and fair cloth, and on it he wove [lines or division of the] earth, the ocean and the houses of the ocean... This they say was the first anacalypteria [or wedding veil], from this the custom [of the veiled bride] arose both for God and men.” The marital veil, on this account, was really a map that entwined in its fibers the axes and ordinance of the world. It was not really a cover-up, but a filigree framework that disclosed an inhabitable landscape, one that had been there but was unknown, meaning that the act of veiling resulted in an unveiling. Surely this is an outrage for logical thought, for nothing that covers can also uncover. But if we suspend for a moment the principle of noncontradiction, we can see in this veiling-unveiling a reminder that every interpretation or disclosure presents itself through its own lens or framework, that the “things themselves” are always (and finally) inaccessible. The veil preserves or safeguards the earth’s transcendence by singling it. The word anacalypteria derives from anakalypto, to uncover, and is related to ana logos, to use open speech. This etymology suggests the following: the lines and light from the sky articulated the ground; Zeus-work served the soil by giving it voice... The veil, map or woven cloth was thus a trace of the act by which soil appeared within limits. Until that time, while still unveiled, unwoven, and unlined, dark earth had been uncharted and un navigable, like the sea, expansive and absorbing. By means of this chart of horizontals, the earth was shown to be a livable horizon, matter having been abbreviated into a mat... Through patterned textile a livable landscape first emerged in light. Yet what emerged was neither pictorial nor scenic, as the “scape” of landscape might suggest; were a neologism acceptable, a better term for an appearance such as this would be “landscript,” “landgraph,” or topography. Such a graph, map or mat was a constructed thing; through artistic work, Zeus fashioned this world-building weave... this fabric served as the paradigm of any skinlike surface resulting from textile art.”

(Leatherbarrow, 2004, p. 118-120)
• Cultural-Natural Phenomenon

“Landscape space is a highly situated phenomenon, literally bound into geographical places and topographies. The spatial interrelationships of cultural and natural patterns that constitute a particular landscape mean that places are interwoven as a densely contextual and cumulative weave. Every place is unique and special, nested within a particular topos, or “topography.” For the ancient Greeks, topos referred to a tangible place that immediately brought to mind a variety of associations. Places, like things, conjure up a wealth of images and ideas.”

(Corner, 1992, p. 147)

• The Tapestry of Landscape

There is an acknowledged landscape masterpiece of the Greek architect Dimitris Pikionis on a hillside park adjacent to the Acropolis in Athens. Done in the late 1950s, Pikionis’s work is a near perfect example of topographic continuity. It is a stone tapestry, set into the ground, a “landgraph” in which a fabric of landscape negotiates the tapestry of stone, “a topographic continuum that was removed from any kind of technological exhibitionism.”

(Frampton, 1995, p. 8)

On the Analogy

Before starting the theoretical analogy, I would like to refer to Marco Frascari’s three distinct analogical relationships between cities and texts:

“These can be epitomized in three phrases; “cities as texts”, “the city as text”, and “the city is a text”. When we speak of “cities as texts”, we establish a direct similarity between the element or the segments which compose cities and those which compose texts. This discursive analogy functions rhetorically. It might be used to help us understand the structure of cities or texts… .

If the phrase “the city as text”, denotes a likeness of the relationships between the elements of the city and those of the text, we can regard the analogy as methodological. It allows us to relate disparate elements and to establish unexpected relationships between the elements of one term by using the known relationships of the other in an elaborate conceptual and formal process.

A third type of analogy, based on the statement “the city is a text”, is a theoretical analogy. This analogy supersedes the didactic and cognitive functions of the discursive and methodological analogies. The theoretical analogy sorts out new resemblances and shows how they are not fanciful or hidden, accidental or casual, but are rather original, direct, verisimilar relationships.”

(Frascari, 1985, p.16)
With this introduction, a theoretical analogy between textile and landscape can be phrased as “the landscape is a textile.” This analogy starts from resemblances that are visible between the two; then, these similarities “seen by the eyes of the body, lead to inference of others that can be perceived with eyes of reason” (p. 23).

Landscape and textile both enjoy being expansive; they both are limitless in essence. They are limited by exterior restrictions such as a scissors cut or by property lines that ownership cuts. Landscapes, as the finest finishing layer of nature, are comparable to the textile in which its constituent materials, warp and woof, are flexible and fine in essence. They both can cover. That is why in many traditional texts nature is compared to a carpet or textile of flowers and greens.

Such resemblances lead us to productively contemplate this comparison through both a visual and mental analogy. A look at the present status of landscapes, constructed places, reveals that landscape and textile find a greater similarity in the way that they are both artifacts. They both require a critical knowledge, techne, in their creation. The following discussions provide a more holistic understanding on the similarities between landscape and textile.
The root word of textile, *Texere*, puts the textile in association with *techne*, a Greek notion used to refer to both art and craft. David Leatherbarrow (2004), in his Topographical Stories, details the root meanings and etymological origin of the word textile; “Textile” is the English translation of the Latin word *texere*, which in turn derives from a family of Greek words cognate with *techne*. Especially important in this case is *tiktein*, which means to engender, to give birth, and relates directly to the disclosing sense of *techne*, signifying the knowledge, energy, or work whereby something comes into appearance” (Leatherbarrow, 2004, p. 120). Therefore, textile, in its essence is about giving birth to things; this happens through process of making as Frascari (1985) refers to the Latin sense of *texere*, to weave, “as indication of the act of composing both literary and architectural pieces” (p. 17).

*Techne* and landscape are related, making landscapes require certain knowledge to create them. Gardens are elegant exemplars of poetic created landscapes that continuously disclose the way they are made, the unity of plantation and construction. The plantation and construction of Persian gardens are interdependent. They both come together to give birth to the identity of the garden as a poetic expression. Heidegger in his “The Origin of the Work of Art” indicates that the potentially poetic expression of making in the original Greek sense of *techne* is “a bringing forth of beings in that it brings forth present beings as such beings out of concealedness and specifically into the unconcealedness of their appearance” (Heidegger, 1960, p. 59).

Landscapes are engendered by their cultures. They are poetic works uncovering the presence of cultures in nature in a unified place. They are artifacts seeking beauty and craft of making; consequently, *techne* of landscape becomes the knowledge necessary to make landscapes present themselves (i.e. poetical expression of landscape). This is what Heidegger in his “Building, Dwelling, Thinking” means by *poiesis*, the art of making, or *techne*, “to make something appear, within what is present” (Heidegger, 1954, p. 159).

*Techne* is central to both the landscape and the textile. *Techne* is where they both land their beings and continuously enrich it throughout the history. The concept of “*techne*” serves as a chain for the necklace of my discussion that holds all the parts together.
The Meaning or Semantic Nature of the Textile

As mentioned, “Textile” is the English for the Latin word texere, “to weave,” which in turn derives along with a family of Greek words from techne, “knowledge whereby something comes into appearance” (Leatherbarrow, 2004, p.120). In Greek, “techne” signifies neither craft nor art, and not at all the technical in our present-day sense; it never means a kind of practical performance. The word techne denotes rather a mode of knowing. To know means to have seen, in the widest sense of seeing, which means to apprehend what is present. For Greek thought, the nature of knowing consists in aletheia, that is, in the uncovering of beings” (Heidegger, 1960, p. 59). This way of knowing that comes from seeing is innate to the landscape as well.

In the Persian language, the equivalent term for landscape is Manzar, meaning, “the seen” or “what is seen.” Manzar is derived from the origin word Nazar meaning “to see,” “to observe,” and “to believe.” With such understanding, the semantic meaning of Manzar goes far beyond denoting a physical scene; rather, it denotes a specific mode of knowing about what is being observed, which is essential and fundamental to its being. At such a semantic level, landscape becomes a means for “constructing a critical knowledge.” This is very close in meaning to what Frascari (1985) says about textiles, “Textile is in itself a construction of critical knowledge” (p. 17).

The semantic journey of landscape does not end here. If we review the theoretical use of the term Nazar in the context of Persian tradition we see that the meaning of the term has developed immensely as it has been used in the holy texts; the meaning has grown from observation to “pondering,” “contemplating” and most importantly “divine/sacred compassionate attention” to the beings. Consequently, Manzar (landscape) is “the pondered” and what “has been clemently regarded,” which usually involves a sacred dimension as well. To conclude, Manzar has gone beyond “seen scenery” and involves a deeper understanding; it has a presence or being that has been carefully brought into attention. Landscape in its semantic being uncovers the truth. This latter status of landscape is what is innate in the techne as well.

“The to the Greek,” Heidegger informs us, “techne as solely a letting appear, which brings something made, as something present, among the things that are already present” (1954, p. 159). This idea of the “concealedness” of “a state of being” and its unveiling is perhaps the key concept in Heidegger’s metaphysics. Techne is the means by which this aletheia, this unveiling, this disclosure of the existence of “other states of being,” is made to happen. Like inside and out, up and down, light and darkness, concealedness and unconcealedness are contrasted in ways that suggest their interdependence. He insists that bringing forth out of concealedness is not the same thing as making: “techne,… is a bringing forth of beings…out of concealedness and specifically into the unconcealedness of their appearance; techne never signifies the action of making” (1960, p. 59).

For Heidegger, making is considerably more mundane than the magic of simply letting things happen. This understanding of the essence of techne illuminates the true nature of the textile as well. In this light, the textile, in essence, is about revealing. Textile discloses the way it has been woven; the warp and

The Betrayal or Disclosing Landscape

...
woofs create knots and give and order to the being of the textile; similarly the built landscapes reveal things about themselves and their surroundings.

In his essay entitled “Building, Dwelling, Thinking,” Heidegger uses an example of a bridge over a stream to say that the bridge does not just connect the banks that are already there, but rather reveals the banks, unveils them in the process of connecting them. “The banks emerge as banks only as the bridge crosses the stream.” The bridge, in the present context, a kind of joint or knot, ties up one aspect of the landscape fabric while simultaneously revealing the next. “With the banks,” Heidegger says, “the bridge brings to the stream the one and the other expanse of the landscape lying behind them. It brings stream and bank and land into each other’s neighborhood. The bridge gathers the earth as landscape around the stream” (1954, p. 152). The bridge, then, discloses the river and the river banks and the landscape becomes betrayal.
The Textile: A Primordial Art

“Textile art, a primordial art (unkunst) as it were. It alone generates its types from itself or from analogies in nature; all other arts, borrow types from this art.”

(Semper, 1859, p. 175)

“Art of textile is the mother of all arts.”

(Semper, 1861, p. 254)

“And the Lord God planted a garden eastward in Eden; and there he put the man whom he had formed and out of the ground made the Lord God to grow every tree that is pleasant to the sight, and good for food; …”

Bible, Genesis 2:8, 9 (King James Version)

Semper tells us that the “art of textile is the mother of all arts” (1861, p. 254) and that the origin of human artistic expression is to be found in the making of textiles. “For Semper, the primary “technical art” in the making of architecture was textile, which was achieved through weaving and knotting” (Deamer, 2000, p. 109). Semper believed in the tectonic, or perhaps technical origin of the general symbolism of art. Having classified the four technical arts “as textiles, ceramics, tectonics (carpentry), and stereotomy (masonry)” and the raw materials associated with them “as pliable (fabric), soft (clay), elastic (wood), and dense (stone),…, Semper indicates that of the four technical arts, textile is primary by lending aspects to the other three” (p. 109).

Frascati (1985) explains Semper’s point of view that the generation of the textile material is a response to man’s need for shelter and covering. By indicating the need for shelter, Semper associates the origination of the textile materials with architecture; “the origin of architecture, as of any other human expression, is making the textile materials” (p. 17). Considering that the distinction between architecture and landscape is fairly new and did not exist until very recently, architecture has not been limited to buildings. Architecture also included gardens and built landscapes from early times. Gardens as a product of architecture find association with the textile. In addition, garden, the prime mode of landscaping, is known among many cultures as an act of art.

Ancient Mesopotamian gardens suggested shelter and canopy against the burning sun. Like the need for shelter in buildings, early gardens of the area were places that people came to enjoy moments under the garden’s shelter. The shelter granted them a sense of being secure and peaceful. Persian gardens, coming from the same dynasty of gardens, still hold these qualities. The idea of Persian gardens, in their natural setting, is comparable to the idea of house as a shelter. The garden is an enclosed space in a harsh land, sheltered with trees, saving the human which is the same essential function of the building. Now we see how landscapes have virtually provided shelter for humans throughout the history. The covering quality of the gardens was essential to their existence. This understanding is very comparable with Semper’s point of view that the generation of the textile material is a response to man’s need for shelter and covering. Given that there is also a divine intention that gardens hold beauty, the original need for shelter and covering ties with an eternal search for beauty as well.

For many cultures beauty means “picturesque” beauty. In the West the es-
sense of the act of landscaping is to demonstrate beauty. An examination of linguistics reveals the association of landscape and the picturesque:

“Landscape, first recorded in 1598, was borrowed as a painters' term from Dutch during the 16th century, when Dutch artists were pioneering the landscape genre. The Dutch word landschap had earlier meant simply “region, tract of land” but had acquired the artistic sense, which it brought over into English, of “a picture depicting scenery on land.” Interestingly, 34 years pass after the first recorded use of landscape in English before the word is used of a view or vista of natural scenery. This delay suggests that people were first introduced to landscapes in paintings and then saw landscapes in real life.”

(www.dictionary.com)

While landscape has a different origin from garden; they both share a common ground in practice; therefore, they can be considered identical in many aspects. Although the notion “picturesque” has experienced different interpretations through time and among the cultures, “picturesque” as a core concept has remained constant. Elizabeth Meyer (1992) gives us an example of the way the notion of the “picturesque” has evolved; “comparisons between the current popular usage of this term and previous meanings begin to suggest the devolution of the term from a category rich in tactile, temporal, and emotive associations to, by the twentieth century, one solely concentrated with visual” (p. 169). The notion of picturesque demonstrates the art essence of the landscape which is the same for garden. While the landscape has always been a search for the “picturesque,” its origin in gardens, as architecture, makes it

![Figure 2.1- Schonbrunn Garden, Vienna, an example of the western tradition of landscape representing the picturesque](image)

a textile medium. Like textile, landscape is an ancient art and a technical art, which has generated itself from one culture to another throughout time.

1 It is worth indicating that in Latin Dictionary, the Latin word for “landscape” is topiaria, topiariae which derives from the “Latin word topiarus, from topia, ornamental gardening, irregular from Greek topos, place.” The etymological origin of ‘topos’ does help in understanding the original meaning of landscape, since topos is a “short for koinos topos, literally, common place or a traditional or conventional literary or rhetorical theme or topic” (Merriam-Webster Online Dictionary).
Representation of Human Expression

“The origin of architecture, as of any other human expression, is the making of textile materials.”

(Frascari, 1985, p. 17)

Human aspirations and cultural values have found imagery expressions in textile materials. Textile art has responded to this original need of humans. In ancient times, textile materials were taken as major souvenirs of cultures and nations. The ancient trade route, the “Silk Road,” which connected East and West, was named for its most precious trading material, silk. Silk became a symbolic material that virtually wove all the ancient cultures together. This ancient textile route passed through the plateau of Persia, a land set for inheriting the tradition of Mesopotamian gardens.

The idea of garden, the prime mode of landscaping, is known to many cultures as human expressions of transcendence. The ancient Mesopotamian gardens were considered sacred places. Later, in the same region, Islamic worldview portrayed a divine image for the garden, a mirror of the heaven. Soon gardens became artistic expressions which presented an earthy version of heaven. In this regard, Persian gardens have become known as significant exemplars, demonstrating a heavenly presence. Persians use the term pardis for garden, which is the root term for “paradise,” the heaven. In a symbolic way, pardis becomes God’s promised land. Water, as symbol of both life and purity, finds itself at the heart of the garden. Even in later times, and in a non-religious view, gardens have become places which express human desire for beauty; they represent the picturesque nature.

Representational Gardens

One can see from the textile artifacts of ancient Persia that this is the point where the earthly Silk Road and the heavenly Persian gardens meet. Persian textiles and carpets gradually have become an expressive image of heaven. Abstraction of plants along with the use of geometry in the creation of the carpets makes them poetic artifacts, expressing symbolic images which rest in their cultures. Fine imaginary plants were woven in silk to appear shinier. The shiny ornamental patterns in the textile were representational. Although the image experiences change from one culture to another, the essence remains the same, representational and symbolic.

We can see that both textiles and landscapes are representational in the sense that they portray values inherent in their culture. Often times this expression is associated with a divine value.
“It [textile] alone generates its types from itself or from analogies in nature.”
(Semper, 1859, p. 175)

Semper clearly describes how textile is generated. He indicates that this generation comes from two sources: the textile or nature. Semper Reminds us that, of the four technical arts, textile is the primary “technical art” in the making of architecture, which is achieved not by sculpting and layering, as one might imagine, but through weaving and knotting, thus implying that the knot, the essential design feature of textile, is the essential design feature in any and every structural mode of production. Looking into the structure of textiles, we see that the entire structure of textiles potentially is limitless. Unlike the tectonic materials in which they require certain proportion with certain limits, there is no definite beginning or end in the textile materials. As the process of weaving and knitting continues, the textile continues to be generated. Landscapes are potentially limitless as well, at least in our ability to humanly perceive them, the land is vast and expansive. As we continue to move scenes, vistas start revealing this continuity. Landscapes are also dynamic; both real and virtual. Landscapes as part of the Gaia earth are generating and re-generating themselves. The deeper meaning of scientific endeavors demonstrates that the ultimate process of natural cycles involves birth and re-birth. Virtually the cyclic process suggests no limits for the process of (re)generation of landscapes. They are interwoven to the fabric Gaia with strong ties.

Correspondingly, textiles are “artistic productions composed of strong, tensile and pliable materials woven into fabrics” (Semper, 1861, p. 20-21). The process of knitting which suggests the knot, also forms the weaving process which results in a constant process of creation of the textile. Therefore, the textile becomes a process of weaving and knitting and the textile art can be interpreted as a process of generation and re-generation. Textile is an on-going process; real and virtual. Textiles originated from wickerwork, a real process, continued pursuit of perfection. Textiles, in the progress of their evolution have interwoven nations and cultures as they have been developed through various cultures. As associated techniques and art of textile making were transferred among nations, each nation became as a virtual knot contributing to the progression of the textile making at a large scale. As a result a net of nations is created that is a virtual interwoven textile of cultures. Mallgrave in the introduction of The Four Elements of Architecture and Other Writings mentions that “The motive, Semper reasons, first emerged in the crude interweaving of tree branches for fences and pens, evolved into the art of weaving with bast and wicker, later with woven threads. The perfection of the textile phase of this motive took place in ancient Assyria and Persia, cultures that were famed for their colorful tents and tapestries” (Semper, 1989, p. 24). We now can see how both textile and landscape are not motionless in nature; they are in a continuous progress of generation and regeneration.
Textile Motive; Dressing

“The principle of dressing has greatly influenced style in architecture and in the other arts at all periods and among all nations.”

(Semper, 1861, p.242)

Use of textile for spatial enclosure and covering has been known to be the prime role of textiles; the extended use of covering goes beyond architectural area and encompasses the human body as well.

“The invention of weaving first began with grass stalks or natural plant fibers, later with spun threads made from vegetable or animal stuffs… but it is certain that a kind of crude weaving began with the pen, as a means of dividing the “home,” the inner life from the outer life, as a formal construct of the spatial idea… The same is true of walls built of unfired brick, stone, or any other building material that in its nature and use has no relation to the spatial concept… but for supporting the spatial enclosure” (Semper, 1861, p. 248).

Again, Semper attempts to confirm the validity of his interpretation philologically, through language (specifically German), in which “the word Wand [wall], which has the same root and basic meaning as Gewand [garment], directly alludes to the ancient origin and type of the visible spatial enclosure” (p. 248). The primitive techniques of both enclosing and clothing evolved from the weaving of brushwood gates and fences, reed mats, and carpets. Interestingly, when Semper explains the extended use of textiles for dressing, he highlights “art of dressing,” which shows that he considers “dressing” as an art: “The art of dressing the body’s nakedness is probably a later invention than the use of coverings for encampments and spatial enclosures” (1860, p. 254).

An artistic and careful use of the textile in making a dress for the human body could add visual value to the human. In fact, the color, structure, along with certain cuts and seams make a decorative layer over the human body that can significantly elaborate the beauty of the human body. Similar to the textile, landscaped dresses land; landscape as a thin layer over the inner structure of the earth provides a dress over the natural and cultural body behind it.

Our landscapes are not plain and mute; they have experienced natural and cultural evolutions through time. If we look at landscapes as narratives we can see that through stories of the places things can be revealed to us. They disclose their history. Similar to the nature of textiles, covering and dressing, landscapes are real and virtual dresses. Landscape is real dressing for the Gaia earth; it is a soft textile that covers our earth with its beauty and poetic presence. Landscape can also be interpreted as virtual as they carry stories of the past; in fact, they make a dress over the naked past. Built landscapes, if designed in an artistic way, are new dresses for the land. They can be means to the unfolding of the landscapes; they can bring elements of time and place into our senses. They can appreciate certain beauties and stories within the site; then, landscapes become dresses that poetically veil unsightly areas and unveil the beauty of the body land.
People become involved in the texture of textiles through the sense of touch. They also become involved in the texture of solid objects in the garden, such as rough stones and marble pillars, through the sense of touch in conjunction with a knowledge of three-dimensional shapes; “For the hand explores, all unconsciously to reveal, to magnify an existent form. Perfect sculpture needs your hand to communicate some pulse and warmth, to reveal subtleties unnoticed by the eye, needs hand to enhance them. Used, carved stone, exposed to the weather, records on its concrete shape in spatial, immediate, simultaneous form, not only the winding passages of days and nights, the opening and shutting skies of warmth and wet, but also the sensitiveness, the vitality even, that each successive touching has communicated” (Frampton, 1995, p. 10).

The tactile dimension of our sensual experience helps us develop a deeper understanding of things; the sense of touch engages the human body in experiencing things. “The capacity of the being to experience the environment bodily recalls the notion of the corporeal imagination as advanced by the Neapolitan philosopher Giambattista Vico in his ‘New Science’ of 1730” (p. 10).

Landscape is architectonic space which we tactilely appropriate through the touch of the hand and the sensuous impact of these sensations on the nervous system. We communicate these sensations back to the work, creating in the process the ever new experience of landscape. The tactility tends to transcend our received perception of both the aesthetic and the function of landscape. This should be taken into consideration in any study of the structure of landscape. Similar to the memorable tactile experience of a fine fabric, the tactile experience of landscape may present unique opportunities for inter-

2 Against the rationalism of Descartes, Vico argued that language, myth and custom are the metaphorical legacy of the species brought into being through the self-realization of its history, from the first intuitions deriving from man’s primordial experience of nature to the long haul of cultural development running across generations... Vico’s concept of the enactment and reenactment of man through history is not only metaphorical and mythical but also corporeal, in that the body reconstitutes the world through its tactile appropriation of reality. This much is suggested by the psycho-physical impact of form upon our being and by our tendency to engage form through touch as we feel our way through architectonic space” (Frampton, 1995, p. 10).
The “detail,” or the joint, can be the basic unit or segment of any making. In Style in the Technical and Tectonic Arts; or, Practical Aesthetics, (1861), Semper, first introduced the idea of the knot in textiles as a kind of joint, as the “oldest technical symbol and the expression for the earliest cosmogonic ideas that sprang up among nations.” He goes on to say, in a somewhat less “cosmogonic” manner, that “knots serve, first of all to join the ends of two threads; their strength depends principally on friction” (Semper, 1861, p. 219). As previously mentioned, making textiles is brought about through weaving and knitting, operations in which knots obviously play an important part. “Semper described the knotted network first as a principle of construction, then as a decorative tradition in fabric” (Braham, 1998, p. 8). “The middle ages loved decorative netting,” Semper adds that in all the arts, “netting is often applied structurally and symbolically” (1861, p. 221).

Under the sub-heading “The structural significance of seam” in “Style in the Technical and Tectonic Arts; or, Practical Aesthetics,” Semper elaborates as follows on the role of the seam in the textile arts: “The unassuming nature of this heading should not cause anyone to underestimate its significance in relation to art and style. The “seam” is an expedient that was invented to join pieces of homogenous nature, namely surfaces, into a whole. Originally used in clothing and covering, it has through an ancient association of ideas, and even through linguistic usage, become the universal analogy and symbol of any joining of originally discrete surfaces in a tight connection. A most important and prime axiom for artistic practice is most simply, most originally, and at the same time most cogently expressed in the “seam”—the principle of making a virtue out of necessity” (p. 153).

Here we see the essential role seam plays in textile materials; it is used for “joining,” to make a whole. Achieving rests in the nature of the textiles. It becomes the essential reason for the presence of the seam. Therefore, seam carries necessity. “By means of a philological game, Semper prepares and develops his concept of the role of the knot .... begins by considering the German term naht, the seam, the “joining”, as an expedient, a nothbehalf, for the joining of two planes of similar or dissimilar materials. In this game Semper juxtaposes noth (necessary) and naht (the seam) and from this, derives a maxim which he proposes as the first rule for art: to make a virtue of necessity” (Frascari, 1985, p. 17). This idea was originally taken up by Semper’s student, Hendrik Berlage, in his “Thoughts on Style” (1905): “Semper says something very original at the beginning of his observations on the ‘seam’ [die Naht] as a necessary element in the joining together of various parts. He asks if there is an etymological link between the word “necessity” [die Not], as in the phrase “making a virtue out of necessity” and the word “seam”; and whether the phrase would really mean “making a virtue out of a seam” “ (p. 139). The point here is that “in assembling constructional elements, one should not attempt to eliminate the necessary ‘seam.’ On the contrary, one should make it into a virtue, that is to say, a decorative motif” (p. 139).

We have found, so far, that the nature of “seam” can be interpreted as “joint” and also there is an association of ideas between “seam” and “knot.” Looking into the nature of the textile, we see that knots are the construction units of
textile materials; in fact, they can be interpreted as the constituent details of a textile’s structure. Therefore, knots as details become the minimal units of signification. Connotations between the structure of textile materials and built landscapes become available through a close study of the details.

According to Frascari (1985), there are two types of details: Real Details and Virtual Details. “Real, as in the case of a capital where two beams join on top of a column, or virtual, as in the case of a piazza where different parts of the city intersect or converge” (p. 17). Marco Frascari’s “The Tell-the-Tale Detail” (1984) articulates further his concept of real details; “details can be “material joints,” as in the case of a capital, which is the connection between a column shaft and an architrave, or an architrave to an exterior space” (p. 501). Frascari concludes that “Any architectural element labeled as a detail is always a joint” (1985, p. 17). Viewed this way any segments of making in the landscape are details, knots. Detail, in the context of landscape, is interpreted as small-scale places that create the landscape textile.

Accordingly, a seam in the landscape is a transitional place where one space or landscape part becomes another or where two landscape planes join. These transitional places can be considered primary structural components of landscape as they provide spatial and constructional integration in the landscape. Further, they also have social dimensions; they are places specified to a variety of human activities such as sitting place, promenade, or gathering area. They are identified as distinct small spaces in the landscape which have transitional and integrative functions. Theses spaces (generally defined as joint) in landscape architecture have the same potential aesthetic value importance as the knot and seam in textiles. The key point in making sense of the significant role of details in landscape is Frascari’s (1985) indication of the textile as “a construction of a critical knowledge” (p. 17). He clarifies what he means by critical knowledge as technology “with its double-faced presence as “techne of logos” and “logos of techne,”” which in the actual construction and the mental construing, “is the basis for the understanding of the role of details” (1984, p. 500). He gives further explanations of how this double-faced presence occurs in detail; “In the joint, the practical norms of technology and the aesthetic norms come together in a dialectic antimony… In the detail, the logos of techne and the techne of logos become analogous. They share the same logos” (1985, p. 17). Ignoring the essential role of detail in giving birth to landscape results in missing the highest mental and physical construction of our landscapes.

3 To clarify this study I first have to define the concept of detail within the context of architecture. In his essay “The Tell-the-Tale Detail” Marco Frascari gives an interpretation to the meaning of detail which deviates from the conventional dictionary meaning “small part of the whole.” Frascari believes that in architecture this definition creates contradiction. A column, for instance, is a detail as well as a whole. He explains it more when in 1985 writes that “A column can be a detail as well as a complete building, as in the Adolf Loos Chicago Tribune Competition entry of 1923. Similarly, the synecdochical relationship existing between aedicules and edifices makes the traditional definition of details meaningless within the context of architecture. However one will notice that any architectural element labeled as a detail is always a joint” (1985, p. 17). Viewed this way any segments of making in the landscape are details, knots. Detail, in the context of landscape, is interpreted as small-scale places that create the landscape textile.

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4 Frascari’s articulation is based on Semper’s “Style in the Technical and Tectonic Arts; or, Practical Aesthetics.” In a footnote to the text, Semper explains his play on words and claims that “the words Naht (seam) and Noth (necessary) are related etymologically and conceptually... Yet a similar association of ideas between Naht and Knoten (Latin nodus [knot], nexus [bond]; English knot), between the tied-up [necessity] and the inextricable entwinement through which again only Naht can cut, can be pursued in many ways, and it would be difficult for this to be merely the result of a chance similarity between the two words” (1981, p. 144).
Textile and Construction

"There is a great and profound influence that textiles and their original covering and binding elements had on style and on the formal nature of the arts and of architecture in particular." (Semper, 1861, p. 242)

Semper described “the knotted network first as a principle of construction, then as a decorative tradition in fabric” (Braham, 1998, p. 8). Architecture, if not only a “construction-construing” process, immensely involves construction as an essential component. Some even have interpreted the essence of architecture as act of construction, to put together. We see how the fundamental function of the textiles (binding) and construction (putting together) share the same essence, joining. Therefore it makes sense to say that built landscapes, as products of construction, are engaged in “joining.”

In further exploring the essential relationship between construction and “joining” we can refer to a linguistic archeology endeavor by Demetri Porphyrios (2002). He, by means of tracing changes in the meaning of the word “construct,” leads us back to one or more points in time when “to construct” meant “to join,” and “to join” meant “to fit together.” “In Greek, the original meaning of the verb demo, to construct, derives from the Sanskrit dama and the Indo-European root dem, which means ‘to build’ but formerly also carried the meaning of ‘joining and fitting together’. In this sense the Greek word oekdomeo, to build, points to a specific mode of making one’s house, namely that of joining and fitting together the pieces that will make a place for dwelling” (p. 133).

Porphyrios has shown how “joining” is the heart of “building.” He goes further and makes connection between “building” and “weaving” through a linguistic journey: “The French batir and the Old French bastir, to build, derive from the Old High German word bestan, to bind. Building, in the sense of binding, however is still further qualified when we probe into the root of the word bestan, which comes from bass, referring to the inner bark of trees frequently used for plaiting wickerwork. In this sense the French word batir, to build, also points to a specific mode of building, that of binding together by plaiting” (p. 133-134). This shows how building and weaving are related; they share a same origin.

In this sense tectonics, the Greek word derived from tecton meaning builder, is related to the act of joining. Frampton refers to Adolf Heinrich Borbein in his 1982 philological study when he says: “Tectonic becomes the art of joining. Art here is to be understood as encompassing tekne, and therefore indicates tectonic as assemblage not only of building parts but also of objects, indeed of artworks in a narrower sense” (1995, p. 4). Frampton himself believes that the term tekton “would eventually aspire to an aesthetic rather than a technological category” (p. 4). Tectonics as a compilation of the carpenter’s arts readily becomes the art of joining, in the present context, the art of making knots, joints, and seams. Therefore constructed landscape involves joining and binding as well; as a consequence, landscape becomes a place that demonstrating its tectonics, in the sense of binding, its interwoven structure.

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The Tectonic Landscape

5 Semper provides many examples, such as “Decke [cover, ceiling], Bekleidung [clothing, dressing], Schranke [barrier, gate], Zaun [hedge, fence], and Saum [hem, fillet],” not only to show how these linguistic symbols were applied to the building trades, but clear indications of the textile origin of these building elements” (1981, p. 246).

6 Originally a tecton was a carpenter and later he became a builder in stone and in this sense tectonic primarily was carpentry. However, later architecture derived its meaning from tectonic (Porphyrios, 2002).
I undertook an interpretive journey mainly through use of language to portray the essential relationship between textile and landscape. In essence it was a holistic approach to a higher level of understanding on the two concepts. Through a theoretical analogy, some essential similarities and relationships between the textile arts and the making of landscapes were revealed. The essential concepts of knot and seam, as joints and details in making textiles provide us with a vision of how to re-interpret “landscape is a textile.” We continued by contemplating the presence of a “construction-construing” process that rests at the heart of making details, essential to both textiles and making landscapes.

By stating that landscape is a textile, we consider the textile nature of landscape; as a consequence, landscape holds a structure that is integrated and cohesive. In this understanding of landscape it is made up of units that signify its creation; those units are landscape detail places that serve as construction segments of the landscape. The units while maintaining common qualities in structuring the landscape can vary in form, appearance, and function. The resulting pattern or geometry of the landscape suggests a wholeness that is flexible to situational changes. This would be in close correspondence with the idea of simultaneous strength and flexibility/pliability, which exists in textiles. The details reveal the “construction-construing” through their tectonics, demonstrating their essential roles as knots and seams.
Opening Discussion

Use of design as a scholarly method to investigate issues, while still controversial, has been largely accepted in the design fields. Many approach design research from either a social sciences or from a natural sciences perspective. Among those are Groat and Wang (2002) who introduce seven major research strategies in architecture in which cautious design is not included; however, they indicate that design has close collaboration with each of these seven strategies. In the “design in relation to research” chapter, Groat and Wang (2002) point out that there is a philosophical distinction between “generative design” and “analytical design.” As a consequence, for them, the process of designing becomes different from the process of research as “the generative design is indeed a “subjective” process—in the sense that it cannot be fully captured by rule-based propositions” (p.104). However, analytic/episodic design can be considered as a scholarly endeavor.

Another group of scholars, including Frascari, challenges the notion of research in the context of the design fields. They believe that research in design has a different nature from research in sciences. They introduce an understanding that comes to us through an imagery world. In their perspective, human being not only needs faculty of Mind for understanding things but also benefits from imagination. As a result, through an imagery world, we can make sense of things that are not describable in a verbal world. Viewed this way, research in the field of architecture, which mainly deals with an imagery world, essentially entails imagery dimensions. In short, while there is a major difference in the how the two viewpoints reflect on research and design, they share a common ground in that design can be fully or in part research. With this perspective, I
will use the design as a vehicle to enrich my understanding of the subject of the study. Due to the nature of my investigation in which I will oscillate from theory to practice, I prefer to call this section “design-research.”

Why?

A brief overview of the discussion points on the relationship between design and research engages the imagination in the unique role of design in facilitating an understanding specific to architecture. In other words, some understandings in our discipline come to us only through the design. Neglecting design-research as an effective method of scholarly inquiry in the design fields may result in incomplete studies. However, there are exclusive benefits in pursuing a design-research scholarly work as follows:

• Design-Research fills the gap between theory and practice.
• Design-Research is verification of theoretical knowledge.
• Design-Research is a creative and productive process which allows the research to creatively and critically reveal things that cannot be revealed in a mere theoretical endeavor.
• Design-Research embeds theoretical knowledge into an operative arena. Practical knowledge coming from the design joins the theoretical knowledge and elevates the quality of the study.
• My research addresses some existing problems in the design of landscapes; therefore, solutions potentially come from design as well. That is why design-research seems to be the right approach.

How?

Design-Research can occur in a variety of forms. A scholarly component, whether it is observation or interpretation, along with design (analytical or generative) makes it a design-research process in which the two constituents engage interactively with each other.

In the context of my study, I want to translate some theoretical understandings coming from the analogy between the textile art and landscapes into the design practice. It is, in fact, a translation of knowledge from a verbal mode into a visual-construction mode. For this purpose, the theoretical findings provide an initial vision that can drive the design towards certain goals; however, during the process of designing corrections are made to the findings and enrich the ultimate understanding of the subject of study. This can occur in a design project by identifying a design problem that needs to be properly resolved. The new vision for landscapes emerges from the theoretical section and drives the design. Consequently, the design practice becomes a subject of study as it is influenced/driven by the key concepts (weaving, knot, and seam). While the design explores how to give birth to the new concepts in a non-verbal mode, a critical “back and forth” process between the design (practice) and the theoretical knowledge takes place that creates a site for rich critical conversation with the situation, resulting in the knowledge refinement. That is what Donald Schon (1983) calls “reflection-in-action,” which provides the professional with a deeper understanding of the nature of his or her design actions. The emergent knowledge develops a much more accurate understanding of the research questions.
The Design-Research Process

1- The Design Problem

Virginia Polytechnic Institute, VPI, (later named as Virginia Polytechnic Institute and State University and currently known as Virginia Tech) established its earlier facilities next to the downtown Blacksburg, Virginia. Throughout the decades the campus developed towards west and gradually distanced itself from the downtown area. In recent decades, the drillfield has been established as the central open space for the campus, the older site has become abandoned and has become an entry to the campus. An area which was formally the heart of campus is now a fragmented area between the downtown hub and the current core area of the campus.

From both a practical stand point and a semantic view, this area can demonstrate a greater demand in making a connection between the two entities; the university representing an institutional entity and the town as a symbol of a social entity. Design, driven by the theoretical findings on the textile arts, will be undertaken to grant integrity to the site.

1.1- The Site

Virginia Tech’s main connection to downtown Blacksburg is through an open space which mostly includes: Alumni Mall, Henderson Mall, a parking lot and some open spaces. While the existing vehicle access facilitates a connection
between the downtown to the heart of the campus (Drillfield), this is rarely used by pedestrians and has a minimal interconnecting role between the downtown area and the campus. It is also significant that this large open space has been fragmented into smaller pieces which results in a lack of a sense of integrity. A major cause of this fragmentation comes from a rather wide vehicle access, the mall, which has divided the site into two major segments.

Historically, this site has been developed through the history of the town and the campus and has always been a mediating point between the two. Some of the existing paths are remnants of historical paths and some share the footprint of the past walkways. They look like loose and deteriorated strings of a fabric from the past.

I have considered this area as the site of my design work, because I found a great design potential here. It is a site that mediates between an institutional entity (VT) and a socio-cultural entity (urban/downtown environment). Other than an existing practical problem, which has reduced the space to some convenient purposes (vehicle access), the need for a ‘connection’ in a ‘non-linear’ site is a great design challenge: to pursue the idea of ‘landscape as fabric’.

The core qualities in the textile, such as continuity, expansiveness and strength, on the one hand, and the key notions like “seam” and “joint” on the other hand, demonstrate the “connecting” quality of fabric/textile that can be interpreted in design so that the site can find cohesion and integration with the downtown. That is also another reason why this site is ideal for my design investigation.
1.2- Context

Blacksburg is a small college town in southwest Virginia established in 1797 as 16 square blocks. The site is adjacent to the downtown and the main street. Although the situation of the downtown could be comparable to most downtowns in small town settings which “either are abandoned or locked into a difficult competition with the surrounding suburban commercial centers” (D. Dunay, 1986, p.23), it has maintained vitality. That is because it “still has most of the basic things that infuse a community with life” (p.23). Most of these activities are in direct contact with the site, including the Lyric Theater that “represents time line continuity as an urban experience” (p.23). The presence of the Lyric perhaps has been an initiating factor in promoting a tradition of outdoor music venues across the street, which is a major social activity in Blacksburg. College Avenue on the south side of the site from campus to downtown is a very popular pedestrian experience. Downtown Blacksburg is a (pedestrian) destination both during the day and night and there is a great potential of employing the identified site to improve the urban life experience. The Lyric Theater has become an anchor where the students and the local community come together for a shared cultural experience.

In short, the context of the downtown site is of a vital area bringing urban-social life to both the local community and the students. The downtown has strong connection with the campus through College Avenue; however the connection through the Alumni Mall is weak. There is ample room to re-design the site in order to both improve the urban life of the downtown and to extend that experience in the campus.
1.3- Historical Evolution

Study of the evolution of the site is not independent from Blacksburg’s sixteen squares evolution. According to D. Dunay (1986) there are political, economical and social factors involved with this evolution and some of them should be studied in a broader context; from the post-war era to the much more recent.

Since this study has minimal interaction with those background issues, I will concentrate on the physical changes that have a direct relationship to my work. Before the establishment of the university, southern parts of the grid were central to Blacksburg (D. Dunay, 1986). Currently, urban life is concentrated closer to the established campus. Therefore the site that once embraced major buildings of the new established institution became a force in forming future developments of the fabric of the town. Opposite, drawings depict the evolution of the site.

The evolution of the downtown and the existing site provides a rich realm of study. The historical layers, while giving an identity to the design are considered as key (broken) strings that can be used to re-weave the landscape textile. Both the location and the existing function of the site serve as a connection between the campus and the downtown; this is in close correspondence with key concepts operating in the textile art; joint, knot, seam.

Figure 3.6- Study of the evolution of the site (Study Source: University Archives of Virginia Tech/Maps of Virginia Tech, and D. Dunay, 1986)
2- The Design-Research Vision/Goal

As mentioned in the research problem section, the existing condition of the site calls for an integrated design to enable a strong sense of connection between the campus and the downtown. The site lacks cohesiveness and integrity, which supplies the reasons and inspirations to develop my design goal as a response to this lack.

My study started with the hypothetical notion that the textile art and landscape making are relevant. I was able, through an interpretive analogy, to show how and in what aspects these two are related; however, my findings still belonged to the realm of theory and I need to explore it further in design. Therefore, the vision (goal) of the design practice included an additional investigation of the subject of the study, to demonstrate how practical landscape can be formed from the textile art. In this regard, certain fundamental notions of the textile art, which have been discussed in the theoretical section, have been considered in the design vision/goal statement. These notions include the idea of knot and seam in the textile art and how these notions can be translated into the landscape architecture as details and joints. One other informative notion in the textile art is the quality of being a "technical art" of the textile, which brings up the notion of *techne* in landscape construction, the tectonic of landscape.

In summary, the design goal should cover the above mentioned key notions and the design practice should be driven by the devised vision. The overarching vision of the design is as following:

![Existing site situation](image1)

![Site photos](image2)
To weave a textile (landscape) in which the spatial details, as knots and seams in textile, reveal the presence of the “technical art,” techne of landscape.

In this vision, the product of the design is not a mere result of a geometrical endeavor; rather, it also includes a poetic-construction process. That is because the design is no longer about creating a graphic representation to satisfy the aesthetics and planning purposes; rather, the landscape itself becomes a poetic subject continuously revealing its tectonics. This “techno-poetic” landscape, by means of becoming a “technical art,” not only uncovers the “construction-construing” (see Frascari, 1984) of the details and joints, but also reveals in the context of a larger scale a “virtual detail/joint” between the town and the campus.

3- Design Approach/Objectives

As I have indicated previously, the analogy between the textile art and the landscape is not a one-to-one correspondence; therefore, the nature of the analogy is not analytical. The relationship between the two is more metaphorical and the context of investigation is interpretive. This might call for a more intuitive and non-analytical design. However, looking to the nature of the design, one could understand that even in a very poetic and imaginative design there is still some analytical vision. In fact, we need to consider that when we are talking about either of the extremes (i.e. imaginative-intuitive design/analytic process-oriented design), the entire argument is relative. In other words, to some degree, a generative design involves analytic design as well and vice versa.

In this regard, my design will also involve some analytical approaches; breaking down larger goals into smaller objectives. While the goal expresses more a semantic quality, the objectives emphasis is based on a more physical reality. The objectives are smaller targets with a material-spatial reference that if achieved, will enable the overarching goal to be captured. In addition to this approach to the design, I will leave ample room for creativity and imagination in my design.

In further exploring the design vision and in order to break down a bigger (design) question into some smaller ones, I confronted the following questions: How can the idea of textile as a knotted net be translated into the drawings that will express some spatial qualities as well? Taking into consideration that landscape architecture takes some graphic-geometrical design, what kind of geometry would be in closest correspondence with the idea of knotted net? What would be the most proper scale of the geometry in the site for a better understanding of it? As textile art involves a process of knitting and knotting that represents a spatial mode of construction, how can landscape represent this sense of spatial presence in itself? How can landscape go beyond a visual presence and like the textile express a sense of the way it is weaved? How can one touch landscape like one touches textile art?
The above questions resulted in devising the following objectives:

- In order to reach a spatial correspondence of knotted net (the textile); the use of a module-unit based and/or grid based geometry seems to be a right design approach.

- Use of idea of “pattern,” a positive strategy to give a sense of integrity to the site.

- Knots are both structural and ornamental; the spatial details could move toward such unity in both constructional and aesthetic purposes. The unity of the incorporated structure and the aesthetic can also grant more integrity to the design.

- Like knots, the structural units of textile, the small transitional places in landscapes should perform as structural units of the project. This performance could appear as form (visual) and the inner structure (construction).

- Sensitivity to the scale of the geometry; a rather small scale, probably human-scale, is helpful to develop a better understanding of a homogenous/modular geometry.

- Use of multiple layers appears to be beneficial in conveying a sense of a textile in landscape.

- Enhance the sense of tactile experience of the landscape. Due to the human dimensions with regard to the corporeal experience, extra emphasis should be given to the design elements within the human height.

- The final ornamental pattern and the texture of a textile is a resultant of the property of the knots, so would be the same for the design in landscapes; the final form of the site benefits from an inner structure that is a result of the units of the space and the way they can be developed.

The above objectives are not equal in weight and priority for the design; however, a comprehensive attempt to reach the design goal seems unattainable unless the design responds to the objectives properly.
4- The Design Practice

4.1- In Search for a Structural Geometry

Obviously, any design attempt requires use of some kind of geometry. In the case of my design assignment, the geometry is key to creating a landscape textile with a certain structural order. In exploring the context of the site to identify a driving geometry that will also correspond with the concept of textile, I found that the historic grid of Blacksburg has the most potential. “It has survived from the beginning…. More than any one piece of architecture the town grid is the soul of the town of Blacksburg” (D. Dunay, 1986, p.151). Blacksburg, then, is a grid in the middle of farmlands and woodlands. The idea of the grid, the soul of Blacksburg, along with the natural context of the town becomes a source of inspiration. The grid is interpreted as a netted fabric, the farmlands with their semi-pattern forms are similar to a quilted fabric, and the woodlands look like velvet demonstrating a pattern.

Blacksburg: NET
Farmlands: SEMI-NET PATTERN
Woodland: FABRIC-PATTERN

Therefore, while the design is inspired by its cultural and natural context, the

4.2- Design Development Process

A net closer to the town inspired by the historic grid of the town; and a semi-geometric pattern inspired by the farmland patterns join together through a seam, “a historical axis.” That is a spatial concept that drives the design

Figure 3.9- Structural geometry inspired by the historical grid
schemes which will be clarified in the following. In the east side of the seam, closer to the downtown, the dominant geometry is a grid which is inspired by the historic grid of the town. On the other side of the path, the scale of the geometry becomes larger and a semi-net covers the area towards the Drillfield. The seam is intended to be a multifunctional path-plaza-promenade, revealing the historical significance of the path that provides a diverse range of opportunities and activities for both the campus and the town. The seam is also a joint between the two textile landscapes. Water, as a symbolic element in a knotted net (both in a vertical and horizontal order) creates a sense of string woven into a larger fabric. Water is present as a feature at the town ends of the site. A third layer of textile, dense high trees provided by the woodland, brings additional integrity to the design.

Minimizing the width of the existing vehicle access (Alumni Mall) so that it can be accommodated within a module of the geometry is an attempt to reduce the dominance of the road and make it part of the fabric. It also helps to visually create stronger ties to the target point at the end of the axis, the War Memorial Chapel. In addition, by moving the parking access from the Alumni Mall to the main street, the site becomes less distracted and fragmented by the traffic. Infrastructures and construction elements are in correspondence with the finished design forms and figures. This is similar to the textile in which there is a unity in the structure and in the beauty (aesthetic).

Up to this point, these are common elements in all the design schemes. However, due to the nature of the design process in which ideas may appear either prematurely or in an elaborated way, my first drawing schemes did not necessarily follow the design concept. For example, in some early drawings (Fig. 3.10) the grid appears with more focus on the nodes that represent a grid and

the west side of the path is still a combination of small grid and a larger geometry. The side areas of the seam north of the Alumni Mall, although attempted to be framed with a rectangular geometry, are still shaky and unsolved in terms of a design connection between the two. I tried to solve the problem in my next effort (Fig. 3.11) by use of a transitional scale geometry replacing the big rectangular form and using the larger scale rectangular forms closer to the Drillfield.
In some later attempts and after meeting with committee members, I tried to refine the design; the intention was to crystallize the design through the generalization of some details. This way the design would become closer to an integrated fabric. Following such crystallization, I contemplated some hidden rules inherent in a grid/pattern geometry; oftentimes perpendicular orientation is something that absorbs attention. In this regard, the next series of the drawings focuses on exploring the major two orientations that are innate to the geometry and are revelatory to the existing site.

Fig. 3.12. depicts how the design has concentrated in highlighting the Alumni Mall axis. In this scheme, most planters, paths, and small scale places follow the same orientation; as a result, the design seems to suffer from a lack of strong spatial connection perpendicular to the dominant axis. Few site-integrated spaces can fit within this framework of design and there is little room along the main access for various activities. However, there is a strong sense of connection between the downtown and the Drillfield.

Fig. 3.13. depicts that if the focus of the orientation shifts to the other axis how the spatial details could be affected. We can see this version provides more spaces along the main access. It also allows, both visually and spatially, more penetration into the sides of the main access which means a greater capacity for involving people in the landscape. Furthermore, it seems that this version has made stronger connection between the sides of the existing vehicular access. While it appears to be a proper design approach I am still hesitant about the lack of a stronger connection along the other axis.
Continuing my design journey, I changed the scale of concentration in the middle of the design process. For example, when I was focusing on elaborating the two above versions, I carried out some further explorations; I worked on the layout of the grid between the seam and the downtown in a more detail scale. I gained insights from these shifts in the design as natural to the pro-

Figure 3.14- Design development- further articulation of a longitudinal geometry
cess. This exercise revealed more details in my design. At this phase I even developed a three dimensional model that helped me envision the construction solutions. Consequently, I found a better understanding on the structure of the grid I was dealing with and became able to creatively develop the detail design in light of both geometry and construction. It was this phase that my graphic representations became referential to construction.

Figure 3.15- Design development- further articulation of a latitudinal geometry
In addition, through a further exploration of detailed areas of the site, I found some real site constraints in a smaller detail, which were not apparent in the past. These included topography that needed to be regarded in harmony with the new grid geometry, the design of the area where the site and the main street join, and the design challenge in the spatial relationship between the seam and its sides (Fig. 3.16). At this phase, I was able to develop a spatial imagination of them. It was almost a big shift from a more visual imagination to a more spatial imagination.

4.3- Final Design Description

Within the scope of my work the “final design” is a stage of design, where the concept becomes clear and major spatial details are resolved. The final design is a further development of the latest version of figure 3.15; a grid landscape closer to the downtown area and celebrating the cultural heritage of the town, a pedestrian path (Idea of seam), and a patterned landscape connecting the site to the Drillfield. I have interpreted the entire site as textiles joined together by a seam. The smaller scale of the grid geometry (45°45’) allows the design to easily accept the landform in the areas closer to the downtown. The pedestrian paths within the grid allow people to be exposed to more spaces in the site and use them for enjoyable purposes other than occasional passage. A relatively wide promenade crosses the middle of the site and connects the downtown to the campus via the seam. This is a multi-pur-
pose area which can be used as a shared public space between the town and the university. Information kiosks along with seating walls, arbors and various gardens provide a rich environment and become an anchor for social interactions. In addition, an outdoor theater respects the current well-established tradition of outdoor venues. In order to control views and enhance a sense of integrity in the site, a dense grid of trees—as a pattern—makes a connection between the downtown and the drillfield.
As an addition to this phase, I have had to develop a clear vision of the spatial details. Since the nature of my design followed a geometry (grid), I had to explore how the grid geometry could give a birth to my original concept of landscape as textile. While the grid can convey a sense of textile in the landscape, it should go further than that, and provide a greater resemblance to a woven net. A spatial-constructional presence was the answer I was seeking. This then becomes the backbone structure of the grid area of the site. It is, in fact, an underlying structure, which includes utility infrastructures, hardscapes, and softscapes. The grid consists of two parallel walls (gabion framed and filled with rocks), with an average height of 5 feet, and a width of 10 feet covered with a concrete walkway, which creates utility channels. These channels are used for the site infrastructures (e.g., water pipelines, gray water drainage collector pipes, electrical cables, etc.). The 10 foot wide walkways create a net of 45 square foot gardens in a lower level. These gardens can be used for both cultural and educational; themes such as ornamental gardens, gardens with native/domestic plants, and more (Figure 3.18).

The multi-layered grid establishes stronger connections between areas of the site; that is, each layer actively contributes to create physical and/or visual connection and portrays a sense of integrity in the design. Use of modules (the square gardens) creates interesting patterns resembling a quilt textile. The walkways not only provide access and visual continuity, but also provide connection for the infrastructures of the site. Consequently, the grid both aesthetically and functionally becomes a knitted fabric which has integrity, strength and robustness, that is, the qualities inherent in the textile.

Figure 3.18- Spatial elements of the grid
4.4- Experimenting Detailed Design

The story of the grid continues as it is explored by design in more details. Such in-depth envisioning of landscape as a textile would not occur to me in a mere non-design world. Like knots in the textile that are the structural units creating the entire fabric, the devised grid embodies such role; the grid gives structural order and it gives ornamental pattern. I have interpreted ornamental pattern in the landscape as a combination of hardscapes and softscapes bound to a spatial order that contributes to the aesthetics of the site. The spatial order is the same that gives structure to the design. In this regard, and in further development of the grid, I found that if a second layer of planting could be added to the gardens, the entire space enjoys a greater sense of spatial integrity and tactile experience. A second structural grid on the upper level of the gardens (almost on the pedestrian level) is devised to hold planters (Fig. 3.19 and 3.20). The planters are portable and different in size so that they can hold larger plants as well. The planter can be changed seasonally or be replaced with planters for particular events. Consequently, the site becomes a double layer planted landscape, similar to thicker textiles, thus creating vital and purposeful patterns in the site. The interactive nature of such landscapes permits endless forms of presence. I have explored some alternatives that demonstrate how the nature of the second layer of planting can achieve great flexibility (Fig. 3.21).

Figure 3.19- Sketch of the structural units which create the landscape fabric

Figure 3.20- Conceptual sketch- section of the unit

Figure 3.21- Alternatives demonstrating variations of the second layer of planting
Figure 3.22- The multi-layered network dynamic: the walkways and the site scale utility channels (top left), the main utility channels connecting the campus and the town infrastructures (bottom left), the second layer of plants (portable planters) and the water layer (top right), and the ground level grid, the square gardens (bottom right).
To summarize the characteristics of the grid, I can highlight the following:

- **Strength and robustness**: the grid geometry, as knotted net, provides the landscape with cohesiveness and integrity.
- **Interwoven fabric**: the grid has a three dimension design structure, multi-layer, embracing the ground level square gardens to the canopy of the trees in a unified design that makes it as a virtual textile.
- **Unity**: the grid design unifies constructional forms and aesthetic forms.
- **A whole made out of Knots**: the green double-layer squares are as the detail units/knots that virtually give identity to the textile landscape.
- **Flexible and pliable**: Possibility of planting in two levels allows flexibility and diversity in pattern.

Such approach to the design of landscape is particularly demonstrated throughout the sections; unlike most landscapes in which the ground level becomes a rigid line that separates the world above the ground from the underground world. In this approach such rigidness has been removed and there is room for flexible interaction between the landscape elements thus providing ample room for creative design, especially a design that involves more construction. As demonstrated in the section drawing, the landscape is responding to the landform next to the downtown area and the Lyric Theater; and in taking advantage of the existing slope, the design proposes an outdoor theater across from the Lyric. The section also demonstrates how the water features at the sides of the vehicle access have found a slope going underneath the road, thus creating a sense of being knitted to the entire fabric. The water features consist of two big planes slightly inclined toward the ground with little fountains on the top part, covering the planes with water. The plane of water creates a mirror that reflects the sky, a symbol of superior existence
(Fig. 3.23) This symbolic design conveys a sense of respect to the origin of the university, and ultimately the universe, a place where we can grasp a sense and connection. However, the infinite universe poses certain limitations embodied in the routine laws of nature. The design has responded to these limitations by creating a canopy of trees where limited views to the sky are presented. In addition, the canopy provides a space to contemplate the thematic gardens which lie underneath. These gardens (as mentioned above) serve various purposes while metaphorically creating a jigsaw puzzle; variety seeking unity. This is also the nature of seeking true knowledge, to see the details in the big picture and the big picture in the details. And this is also similar to the textile arts as well where a united image results from the labor of making many diverse knots.
Walking through the grid-gardens, one can experience a diversity of landscapes; raised gardens, flat gardens, types of concaved gardens that all contribute to the vitality of the area. Vitality of the colors both in the lower lever and higher level plants, enhance a corporeal experience of the landscape. By changing the depth of the second layer planters or simply by differentiating the height of the plants in the planters, the landscape can have different appearances from different views.
Figure 3.26- Hierarchy of green in the broader context

Figure 3.27- Schematic perspective: view toward north at the intersection of Alumni Mall and Main
4.5- Revitalizing the Historic Path; As Seam in the Landscape Textile

A study of the historical evolution of the site reveals that except for recent decades, an axis connecting the downtown to the Lane Hall has been an important path through the site. Although in some periods the form of the path has experienced minor changes, the overall orientation, and starting and ending points have remained constant. “A door on the north-east side of Henderson Hall still opens to this vanished road” (D. Dunay, 1986, p. 105). In my design concept, I have interpreted this path as a seam in the landscape textile. While (historically) the path has provided connection between the two ends, it has also served as linear joint strengthening ties between the buildings located along the path. This role is exactly what a seam plays in the textile art.

At this stage of my design process and after concentration on the design of the “textile landscape,” I need to articulate the idea of seam in the landscape. The historical identity of the path has demonstrated that the path has been serving as a seam, however, because of the present changes to the landscape of the area, it has become isolated and has been cut by the Alumni Mall. In my design scheme I have revitalized the historic axis by proposing a multi-functional promenade. However, in order to elevate the path from its current status to correspond to the idea of seam, I needed to implement some of the characteristics of the seam into the promenade. Currently, the promenade is a linear figure joining two planes of landscape with the possibility of being developed in two opposite geometrical orders: being integrated with the two adjacent landscape textiles or being developed in an independent order. These two potential opposites for the design development are comparable to a seam that can appear either be invisible or distinctly ornamental when join-

Figure 3.28- Conceptual sketches exploring alternatives and spatial design of the path
The ordering geometry is along the major axis, or the seam length. These schemes emphasize the axis along the seam’s length, similar to a seam formed with “running stitch.” This seam, in the landscape, is in minimal spatial interaction with the sides. Although these schemes create unique qualities in the landscape such as parallel planting and passages along the promenade, the connection with the sides appears to be neglected in this approach.

Figure 3.29- Conceptual scheme (running-stitch seam)- option 1

Figure 3.30- Conceptual scheme (running-stitch seam)- option 2
The next schemes were developed based on a modular geometry recognizing the latitudinal axis of the seam, perpendicular to the seam and analogous to “fell stitch.” This approach makes stronger connection with the sides. Fig. 3.31 depicts a series of parallel arcades that enhance a sense of connection between the sides. Figure 3.32 pursues the same concept through making pedestrian connections in the ground level with the side thematic gardens.
This approach, unlike the first two, employs the driving geometry from the context, the grid gardens, like the “blanket stitch” which is a decorative stitch to finish either a raw edge. In the following schemes, the seam is developed through the extension of the lines of the grid into the seam. Dominant lines are parallel with the main vehicle access. Compared to the earlier approaches, there is a stronger sense of wholeness in the site.
Like the previous approach, these schemes also benefit from the existing geometry of the site. The following schemes demonstrate a greater degree of integration of the seam and site; the geometry is more harmonious with both sides of the seam. The extension of the lines works better with the sides; the result is a pleasing creation of spaces blending with the landscape. The following schemes show similarity to “overcast stitch” seam.

Figure 3.35- Conceptual scheme (overcast-stitch seam)

Figure 3.36. Conceptual scheme (crossed overcast-stitch seam)
The final design scheme is a further development of the last approach; that is, the geometry of the landscape along with diagonal lines creates a pattern of triangles. Figure 3.37 demonstrates how the combination creates a triangular system resembling the “Herringbone-stitch” seam. Use of triangulation allows the design to become easily flexible to the topographical changes. Each tri-
angle becomes a constituent unit of the seam and also, by means of diagonal geometry, potentially enables the seam to easier blend with the context. The lines of the seam become joints of triangular planes or in becoming wider, serve as walkway. Some of the planes can carry gardens while in the areas closer to the outdoor theater the slope can face to the stage area and exist as hardscape. Such adjustments allow the seam to facilitate the surrounding activities and gain a central role in the site design. It is also analogous to the pliable nature of fabric.

To conclude, although a diverse range of approaches to create the idea of the seam in the landscape was pursued, all of them had something in common; a linear element between two planes making connections. Upon completing the design exercise I am able to observe how my understanding of the idea of seam in landscape architecture has grown; I moved from a formal perception to a more functional and constructional understanding of the seam. The new understanding is also internal to the nature of the seam, a promenade which requires construction-construing which dynamically engages in the activities of the site. I have developed an appreciation that a mere verbal understanding of ‘seam’ does not include the knowledge of construction and the ways that the concept can be achieved in the real world. Verbal knowledge lacks an understanding that comes from practice and techne.
Further Development of the Seam through Lighting Design

Materials in the context of this study go beyond physical materials. This study also examined “Light” as a key element by which the landscape can be revealed.

‘Light’ makes landscapes visible to our sight during the night. While light design of landscapes could be simply considered as a technical task, it can go far beyond its utilitarian demands and become a revelatory tool; light can illuminate what is needed to be apparent. Light can support the main design concept and develop the idea further. Light also can add mysterious interpretations of landscapes.

Light, as a material, creates a sense of integrity in the landscape as it illuminates the joints between the knots. The light also emphasizes the geometrical design during the night time; as a consequence, people can find a cohesive conception of the site during the day and the night. Through a process of signification, the key design elements are knitted together by the element of light; hidden spatial and metaphorical relationships could not become visible unless the light is used as an informing element. Difference in glow and color of the projected light onto space, creates various appearances of the space. This multiplicity in the looks creates different narratives of the space that enriches our understanding of it, the landscape detail. In the major promenade, the seam, patterns of light, while making more integration among the landscape fabric, creates a sense of joint between the two sides of the seam. Light then becomes key in making the landscape more readable to people.
4.6- My Journey Mates (The Design Process Tools)

- **Drawings**

Looking back at the entire process, I see that I was not alone; my drawings were always with me. I am reluctant to call the drawing a mere “tool” as tools are mute things to be used by people for certain purposes. My understanding of “drawing” is different. I cannot make a complete separation between my imagination and my drawings; in other words, often times they both occur simultaneously. In addition, I have used the term “Journey Mate” because it seems impossible to make distinction between the designer and the drawings.

Drawings belong to the realm of visuals and benefit from human imagination. We can imagine spaces and things that do not exist in the world or may even seem to be odd. However, masterpieces of art and architecture owe a debt to the human imagination. Although the visual world, by means of using imagination, might seem to incomparable to our rational capability in term of knowledge production, Rudolf Arnheim (1969) in his seminal book “Visual Thinking” teaches us how we can be visual thinkers. He describes how we can make generalizations from visual understanding and that this is analogous to the process of knowledge construction. One important thing that emerges from his studies is the presence of judgment in our visual experiences. This is an important aspect of what I experience in my work. Many times I benefited from the drawings in that I was able to make judgments about certain concepts that I would not have been able to make otherwise. There were times that drawings were very helpful in making sense of things. For example, when I was pursuing the idea of the use of layers in landscape, the only way that I could find an answer was to see “how” it could take place. Therefore I had to draw it. The top two drawings (Figure 3.43) were my findings regarding use of layers in construction of the landscape.
My drawings were also very informative by giving me horizons and limits about things; when I engaged in drawing the seam in the site I was able to see the scale of the seam in the site (Fig. 3.44). When I observed that the width of the seam was large, I began to sketch ways in how it could become flexible or be divided into smaller pieces (Fig. 3.45). Drawings also enabled me to see what I was imagining, and then they helped me develop that imagination. When I confronted elements in my drawings, I could make a decision to accept the design as it was or whether I needed to change it. Figure 3.46 is an example where I found a clearer understanding about the space and decided to remove some objects (e.g. the trees along the edge of the seam) from my design.

To conclude, I can say that drawings are central in my investigations. Although I am reluctant to call them tools, the following statements of the significant scholarly or role of drawings in relation to design:

- Drawing is the most important vehicle, which has the closest ties to my imagination and my tacit understanding of a place.
- Drawings give both visual structure to ideas and also deconstruct and restructure them; every time we reach complete a conceptual drawing it is a result of giving it structure and whenever we creatively change the drawing it is a deconstructualization.
- Drawings are receptive to changes from one mode of drawing to another (plan to section).
- Drawings play a significant role in designing landscape in section (enhanced three dimensional imagination and construction perspective).
- Drawings are a way of defining and making sense of things.
- Drawings are the best tools to answer the "How to?" questions regarding built spaces.

Figure 3.44- Drawing example
• **Inspiring Objects (Study Models)**

Making models is a profound experience of inspiration. It is in making models that we bodily engage in construction, real time three dimensional existences, and a tactile sense of materials in our design. I developed a spatial understanding of the grid landscape when I started making a model of it; it was there that I first faced questions regarding construction. The result was a further development of the grid in terms of the layers involved in the design. It was also during this stage that I became quite sensitive to the materials; I searched all local stores to find proper constituents to be used as ground pavers and as paths in my models. I used copper for the historical path because I felt that copper can convey a sense of depth of time; and respectively, my imagination regarding the actual construction materials of the path became influenced by the choice of copper.

Models were helpful in enhancing a three dimensional vision of the design. Through the model I was able to refine my design in terms of the unity of the constructional forms and aesthetic figures. The models also helped me criticize my graphic design in the way that the models were seeking the dynamics of the landscape construction rather than merely demonstrating formal appearances of the landscape.
As I was developing my design, I made two models in two different scales. The first model (A) included the entire site and its surroundings. Model "A" was helpful in gaining a better perspective about the site, its limitations, and its opportunities. It was also very helpful when I was developing my graphic concept into a spatial mode; that is, the model helped me envision parts of the design which I did not see them in my drawings. For example I found a proper solution for the west side of the seam (through the model), where the geometrical rectangles were bigger yet they had to be in harmony with the existing slope.

Model "B," however, was so different in nature from the earlier one. It played major contribution to promoting the design. Model "B" is a layout model of the grid garden; however, it is not a representational model demonstrating a reduced scale of the final design. Rather, it is an abstract study model exploring the spatial configuration and the construction of the grid. While it maintains a proportional relevance to the design, it does not have to have any specific scale. I would call it a “conceptual model.” This model was the main tool for me to translate the idea of textile, from a verbal and graphic mode, into a real, three dimensional, and constructional mode.
I highlight the major areas that model “B” contributed to the design development:

- Idea of Multi-layer grid: It was in the model making experience that I realized how richer would be the design if I developed the grid in three dimensions. Therefore, I started to design-make the model; in fact, at this phase, the model became the main design medium. As I was designing through the model, I came across the idea of having utility channels to hold infrastructures of the site. Then the idea of continuing the infrastructure utilities, as warp and woof of textile, came to my mind. The height of the wooden sticks that created the grid made me wonder how I could benefit from the existing depth of squares in the design. It was here that I first explored to utilize the bottom and the top levels of the grid squares, a landscape in two levels, idea of square gardens.

- Double-layer square garden: The idea of a layered garden was fostered through making the model. Each square at ground level potentially became a garden surrounded by walkways. At the top level, same level as the walkways, another layer of landscaping could exist. This second layer needed a structure support.

- Portable planters: While I was working on the model towards finishing the grid, I came up with this idea that having flexibility in putting model greens (shredded wood fibers) into the model would help me generate various alternatives. Respectively, I made some cardboard boxes to put the greens (shredded wood fibers) into them. I placed boxes with different colors in the grid in a variety of positions, as if I was creating a carpet with certain ornamental patterns. This experience, a pilot test, showed me that if this idea is applied to the real scale of landscape, the landscape can be very flexible to socio-cultural events.

- Color & Texture: In reviewing my experience of model making, I, now, understand that the tactile and visual experience with the materials (e.g. colorful natural shredded wood fibers) provided me with a wealth of sensual understanding which would never been presented to me if I did my design otherwise. This corporeal experience with materials was analogous with touching different fabrics. I was so specific about the colors and the size of the shredded wood that I searched many stores in the area to find the ones that I needed. This means that I was designing the landscapes through actual model materials. Interestingly, when later I was making the final polished drawing rendering of the site plan, I was deliberate to have the same colors I I used for my model.
Photographs were invaluable tools to track changes and make comparison through the design development. There were times that I felt that having slides of the moments would be the most precious assets for the future. This occurred to me mostly through making the models; as I was generating the models, I used different materials with different proportions to see how the original idea could best be developed. Each experience was valuable and a subject for study; however, the scene was continually changing and making photographs of those experiences was the only way to capture those moments. I took photos primarily for model documentation but the photography also became an influential tool for showing the design process demonstrated throughout the modeling process. Photographs also helped me develop my drawings; I used perspective photographs to make scratch drawings on them to further articulate my ideas.
• Visible Voices (Memos)

For me, memos were often short notes while I was designing; sometimes a reflection, an understanding, a connection between my thoughts and the literature I had studied. My memos are the images of my voice. They are reflections of thought and expressions of feelings. When I wrote more poetic, they were expressive. Memos can be word-pictures; they can carry some imagery aspects; they become creative manuscripts bridging between verbal and visual modes. My notes enriched my design in the sense that I became able to capture some little fragile thoughts on both the work and the process thereby assisting me to have a much clearer picture of what I was doing. Sometimes I felt that drawing could not fully capture what I was thinking or feeling at the moment, at that point writing became the complementary medium to the drawings. I was very inspired by my short notes throughout the entire study; they carried some of my deeper understandings and remain reflections of me and are valuable assets in such subjective study.

• Computer Generated Simulations

The final drawings of my work are productions of digital technology. I also used the computer to produce scratch models when I was in the middle of the design process. Using the digital technology is different from the traditional ways in which we are bodily engage in drawing and making models. The digital simulated models are helpful in developing a clear understanding of the final work. They were helpful in making judgments about the design elements. However, I found them to be tools that are utilized in the final stages of the work. The digital media required me to have some primary dimensions about the model that was being simulated. The “exactness” and “accuracy” in working with computers somehow quantifies the design, whereas in working with hand, imaginary and qualitative dimensions endures longer throughout the design development.
4.7 - Reflection on the Design Practice

The way I began and continued the design exercise is different from my past design experiences. I had a vision which was intended to drive my design. In my past experiences, I employed graphic representations beginning from the whole to the part, seeking aesthetic goals while conveying certain concepts. In this approach, the drawings did not originate from the realm of aesthetics; rather the graphic representation is a demonstration of a deeper structure. In other words, in the past, the aesthetic element was a major criterion for the design; when the design satisfied aesthetic goals, the process was almost at its culmination. However, in this experience I found that I cannot rely on a mere aesthetic judgment; the design was a representation of a deeper relationship between my understandings of the textile art and the structure of landscape. The final forms on the ground were not the only existing things to be judged in a visual sense; rather, the inner layers and how they work together to form an integrated textile constitute a craft that required other criteria for judgment. Whatever the new criteria are, they encompass notions like techne, and poetics.

The design practice was also where I found my inner self meeting the world outside me. There were moments when I was journeying from my deeper senses to make a response acceptable by others. I found that design is in fact a process of interpreting and re-interpreting things and throughout this experience I was engaged in conversations with myself and with the situation. In general, I can say that this experience was different. It is difficult to explain all the details, but if I were to summarize the major points regarding the design experience I would highlight the following:

- Emphasis on detail design as form-structure generators of the entire design whereas in typical design practices the design starts from a large scale and the details are by-products of bigger scale design decisions.
- Finding both generative (intuitive) design and analytic design invaluable in portraying a clearer spatial understanding of the concept of textile and seam.
- The importance of using different media for further developing of the design.
- Emphasis on a three dimensional imagination-design.
- Design as critique of theoretical knowledge.
- Design as verification of our knowledge.
- Design as a site for interpretation.
- Design as a place where our tacit and explicit knowledge meet.
- Generative design, an opportunity to make the self exposed to the outer world and vice versa.
Design-Research Conclusion

In the interest of being concise, I have explained almost all of the processes as a narrative so far. Here, I would like to draw attention to significant parts of my findings pertaining to the relationship between the textile arts and landscape. These findings come from both a theoretical study and a practical investigation. Some of the theoretical findings have remained constant while many of them have experienced some changes. Those changes are often corrections and modifications that have taken place due to the situational nature of the design practice. For example, the notion of “seam” was interpreted as path in the landscape; in the theoretical aspect this notion maintains a permanent presence in landscape, “path as seam in landscape.” Looking into the nature of landscapes and how they interact with societies in real time, we can see that a path (seam) experiences changes when the context of time and places change. In my example, the path that I designed as a seam for today has a different nature in comparison to what it was decades ago when it was passing through those buildings. Therefore, the design practice reveals that some constant notions in a verbal world experience variations in the design world.

The following summarize my major findings on the relationship between the textile arts and landscape:

- Properties of textile that can be implemented in landscapes are situational; depending on the nature of the design problem and the context; a textile nature for landscape can vary in the design appearance.
- While a seam in the textile seems to be a permanent notion with a reference to a material order, the nature of joint (seam) in landscape varies due to contextual changes; including the factor of time. A design solution for a seam in a certain landscape is not a permanent solution over time.
- Considering a textile nature for landscape puts emphasis on the wholeness of form and structure (Fig. 3.52). Fig. 3.53 portrays this integration and compares it with a non integral design approach.

The design practice reveals that landscapes can be seen as textiles, virtual textiles.

The idea of knot in the textile art translates to the idea of small transitional places, spatial details in landscape.

Figure 3.51- Unity of Form and Structure in Landscape: while the grid unifies various segments of the site, landscape details, whether in form of node or a module of the grid, potentially contribute in making the net coherent.
CONCLUSION

THE TEXTILE LANDSCAPE: a journey through the structure of landscape
Epilogue Discussion

This research started with the motivation of a comparison between textile and landscape in the hope that the understanding of landscape can benefit from the unique qualities that exist in textile. Among those, are integrity, cohesion and being a technical art, containing tekhne. In formulating the research questions it became apparent that the research involved both theory and practice in order to fully understand this relationship. Then the research grew further with the pursuit of proper method(s) that bridge between theory and practice.

• The Process

Consequently, two distinct sections, Theoretical Analogy and Design-Research Practice, constitute the skeleton of my work. The first section provided a new understanding of the essential relationships and resemblances between textile and landscape. The result was a holistic understanding. It brought me a new vision on how to consider landscape. I have discussed the research findings in this section of the thesis in detail; therefore, I do not repeat them here.

The second part, the Design-Research, was a very valuable asset to my work. While in the beginning I was expecting this phase to serve mainly as a verification or implementation of the previous section; interestingly, I found it much beyond of my expectation. The design went further and became a valuable tool for an in-depth demonstration of the way(s) that landscape can be a textile. The nature of the design experience for me is comparable to a passage through twilight; that is, in the beginning I did not have a clear picture of where I was going or what would be the outcomes, while I was confident that valuable understandings would occur. I interpret this as the explorative nature of design.

• Theory and Practice

One of the valuable things that I found was my personal attempt and experimental work in making relationships between my theoretical knowledge and the design practice. I experienced numerous back and forth experiences between the design and the vision that I started with. The interaction resulted in integration of the both. The design allowed me to see things that did not exist in the theoretical section. Most of those were about crystallizing the theoretical knowledge and situating them into a practical manner, the design. I found the design a very critical and powerful vehicle that provided me with a practical knowledge to gain a better perspective about the subject of study. By engaging in design as a component of this research, the whole study had become more productive and generative.

The design practice, for me, is comparable to the center of a circle. All the theoretical knowledge and contextual information rests at its perimeter. Design is where all these segments come together in form of a unified landscape. I can say that “design” and “knot” are virtually identical.
The Elegant Landscape

Humanity shares a common earth. Landscape is where humans share life experience. I found landscape nurturing humans. By using the term 'nurture' I deliberate on both dimensions of humans, Mind and Sensation. In this view, landscape becomes much more central to our lives. As a result, looking at landscapes and designing them also requires both dimensions. I found this study to be valuable to me because it provided me with a way to look at landscape at a higher level. It enabled me to come to an understanding that is both an artistic and poetic understanding of landscape necessary for landscape design if the design is to create a landscape that will continue ‘nurturing’ us in its fullest sense. In the context of my study, textile became a means to start incorporating this poetic dimension into design of our landscapes in a time that is dominated by an analytical worldview. Now, I feel like I am able to look at the overarching role of landscape, a place carrying the elegance of artistic creation.

Further studies

I believe there is ample room to give depth to this line of study which I pursued. A critic of this study would be valuable in order to find strengths and weaknesses in the topic and method. However, I believe that scholarly research is necessary in each of the three issues that I have highlighted in the epilogue, the process, Bridging between theory and practice, and studying landscape from non-analytical perspectives. Particularly, I am interested in studies deepening what I did; ‘Landscape is a textile.’
Bibliography


