THE CITY AS A WEAVING PROCESS: PLECNIK’S LJUBLJANA

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Introduction

The 21st century has thus far been, in many different ways, a period that, at least in the endeavor of architectural production, acknowledges the presence of a plurality of expression, whether in terms of style, scale of projects, or fabrication techniques. Digital technology is becoming an undisputed fact of “architectural” life: it is a necessity both in terms of architectural representation and in the manufacturing, or building construction, process.

Issues of and related to sustainability, the environment, and globalization frame almost every serious conversation about architecture, especially those focusing on urbanism. The notion of the city as an organizing force of ideas and as a physical embodiment of political, cultural, and social concepts remains critical to this discourse. In her article Contexturing the City: The Bricoleur and the Weaver, Judih Kinnard discusses the idea of the city as a fabric, refuting the modern art strategy of collage in urban design, in favor of ancient craft procedure of weaving. She goes on to suggest that the architect or urbanist may be more appropriately seen as a skilled craftsperson – a weaver who carefully contexts the fabric of the city.

This change in semantics, and change in hierarchy and focus of city-making, implies a necessity to embrace collective energy in favor of personal and individual pursuit. In an atmosphere of constant flux in ideas and concepts, where big-brushstroke ideas and decisions dominate, rather than mediate, it is refreshing to look at the work of an architect whose urban vision was based on a careful consideration of a balance of different scales of intervention, of balance of built and un-built, of hardscape and softscape, and whose sense of history and genius loci was so a much part of the process of place-making.
Slovenian architect Joze Plecnik (1872–1956), a virtual contemporary of Le Corbusier, produced most of his urban work in the relative isolation of his native Ljubljana. Far from the critical examination of European modernists, Plecnik quietly orchestrated a transformation of his hometown from an anonymous central European town into a visual and experiential treasure for inhabitants and visitors alike.

**Importance of Semper's Theories**

This paper suggests a different reading of Plecnik’s design of the city of Ljubljana. It is well known that Plecnik, as a student of Otto Wagner, was exposed to the writings and theories of Gottfried Semper, an influential 19th-century German architect and architectural theoretician. Semper’s seminal though uncompleted work, *Style in the Technical and Tecionic Arts*, was an important element in the development of Plecnik’s ideas, especially regarding the treatment of the wall surface. In the first volume of *Style*, Semper devotes his discussion entirely to the textile arts. Close examination of his theoretical work can help readers find connecting points between the historical development of textiles and textile-making techniques and the present architectural moment. In that respect, two of Semper’s ideas are especially relevant. One is an overall theoretical framework that recognizes, or proposes, textiles as the “first” architecture, and the other is a theory of dressing, or cladding (*Bekleidung*).

*Bekleidung* theory suggests a clear differentiation—in terms of a horizontal section—between the two sides of a wall, with the structural inner core being clad with a more ornamental and decorative covering than the exterior surface. Semper likens this type of covering to carpet or tapestries, or what he describes as “first true walls”. Semper suggests that: “... it is extremely important to observe that wherever these secondary motives do not occur, woven materials almost everywhere fulfill their old original purpose as ostensible spatial dividers. Even where solid walls are necessary, they remain only the inner and unseen support for the true and legitimate representation of the spatial idea – which is the more or less artfully woven and knitted textile wall.”
Semper proposes that the origin of architecture can be traced back to the development of textile arts. His *Bekleidung* theory promotes a notion of the architectural wall as having an embedded memory of the primordial, ancient textile wall. The application of this theory can be seen in Plecnik’s Zacherl House in Vienna, and in a number of Plecnik’s buildings in Ljubljana, most notably in his National University Library.

Historians and scholars of Plecnik restrict Semper’s influence to this period of work. I would propose, however, that Plecnik’s revitalizing of Ljubljana can be seen as a further development of Semper’s ideas, but on a much different scale and with much more subtlety. Plecnik’s urban thinking seems to derive its energy from a concept that precedes most of the textile arts, and one that Semper identified as the most important—namely the concept of weaving.

**Weaving Process – A Parallel to Urban Design**

Weaving is a disciplined, structured, yet dynamic process that offers myriad possibilities for experimentation and innovation. It is a system that is simultaneously two- and three-dimensional, creating both surface and space within the repetitive nature of manipulation of warp and weft. Materials used for weaving are (or are assumed to be) pliable and malleable, and often fragile when on their own. The warp is the strong set of threads which run lengthwise in the loom. The weft is the yarn or threads carried by the shuttle back and forth across the warp. Their transformation, through the process of weaving, into a system that achieves different characteristics from the ones contained in a single strand or thread is both very inspiring and engaging architecturally—and at a number of different scales. The study of weaving can help understand, articulate, and formulate different aspects of spatial relationships, structural systems, and building envelopes.

Annie Albers states, in her well-known essay “On Weaving” (1965), that:

“Surface quality of material, that is *matiere*, being mainly quality of appearance, is an aesthetic quality and therefore medium of
the artist; while quality of inner structure is, above all, a matter of function and therefore the concern of the scientist and engineer. Sometimes material surface together with material structure are the main components of a work; in textile works for instance, specifically in weavings or, on another scale, in works of architecture.

Pleonik as a Weaver

Plecnik understands the city as a complex two- and three-dimensional system, or, to use Annie Albers' terminology, as the coexistence (or as a "matrix") of both surface and structure and surface and space.

Newly designed bridges, roads and key public buildings, are clear physical embodiment of structure for Plecnik. Yet, their presence is imbued, or intertwined, with invisible, but palpable, another structure – that of historical layers, historical reference, and particular contextual qualities. One can parallel this to the yarns that constitute a warp in the weaving process. These were the first elements that were addressed in Plecnik's rethinking of Ljubljana's new plan – the one based on Ljubljanica river and the bridges that form connections at number of different points. Another interesting possibility is to actually think of Ljubljanica river as a loom, and all of the structural woven city fabric being derived from it.

Surface can be understood as weaving of materiality, texture and color into a coherent whole. One of the most remarkable qualities of Plecnik's urban design was his ability to use landscape and architectural elements interchangeably, and to do so in a time period that had no particular interest in landscape architecture. A series of beautifully executed parks and squares that grace central part of Ljubljana is in clear defiance of Modernist sensibility; and one is tempted to compare Le Corbusier's philosophy with Plecnik's, in a carefully orchestrated inter-weaving of cars and pedestrians at the same level at the Three Bridges.

Plecnik was able to create these highly enjoyable moments in the city fabric by thoughtfully considering individuality of every situation, and by establishing delicate balance between use of historical references and new materials. By creating a series of
new references, Plečnik had successfully retold Ljubljana's history through deeply human and personable language. As one approaches Trnovo bridge, it is not immediately obvious that, in addition to an obelisk and a sculpture of a saint, the bridge has trees growing on it, as a living colonnade. The sense of mystery and wonder, and the sense of appropriateness of the scale that frames each of the experiences (the scale that allows for personal discovery, rather than for an immediate disclosure of the facts), provides for an image of the city that imprints itself strongly into the minds of visitors. Plečnik's urban design distinguishes itself by the fact that it is not a prescriptive in its nature, but rather, highly intuitive and adaptable. It points to the enormous amount of skills that architect had to have, in order to orchestrate a harmonious whole from all of the different elements. And, lastly, one of those immeasurable elements that Plečnik had translated into one of those beautiful yarns in the weave of Ljubljana, is his sense of social equality of all of its citizens – with his design of Zale Cemetery being its most prominent example.

**Conclusion**

The weaving process, regardless of the fact that it is an ancient craft, offers a valuable parallel for contemporary urban design. In the weaving, one can stop or pause, readjust warp and weft, and tighten or loosen the yarn. The new strand, or even an object, can be introduced, and the pattern can be changed either gradually or abruptly, without affecting the whole. The void can be created, and the space of the weave can achieve different quality within a very small section.

Simplicity of weaving in terms of its structure – binary nature of its warp and weft, and complexity of woven surface and space– has a timeless quality, and it gives itself readily to completely hand-made or completely digitally produced artifact, and everything in-between. The role of architect, or urban designer, as someone who orchestrates all of these different moments in the weaving process, is refreshingly humble in its recognition of the importance of larger structure, and interconnectedness of all the threads. Plečnik's Ljubljana is a fascinating example of a city whose fabric was re-woven by the hand of the architect who claimed to be nothing more than a skilled craftsman. One can question whether, in a lengthy process of Ljubljana's transformation, Plečnik indeed
remained, and, intentionally so, only a skilled craftsman; what is more obvious is that he avoided the position of architect-superhero, thus differentiating himself from the most of his twentieth-century contemporaries.

Selected bibliography: