Bridge as Aesthetic Object

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Finally on the seventh night of the seventh hunar month, Vega and Altair could be together at last. On this day they shone brilliantly. Magpies flew from afar creating a bridge over the Silvery River so Vega could across to meet her husband. Vega, beautifully dressed, hurried across the magpie bridge to return to her husband.

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Bridge in Culture

Bridges have been part of human settlement for thousands of years. Historic bridges stand as evidence of the power and influence of past societies. They vary greatly in style and reflect the culture and engineering innovation of their society. They show the daring, engineering skill and craftsmanship of their builders. Even in the simplest bridges, we can find inventiveness and subtlety in working with the local context.

Great bridges are audacious or beautiful enough to evoke wonder. Their primary function of linkage soon adopts a symbolic function. A bridge in the landscape helps us interpret that landscape by providing a scale and a reference to human intervention. This was well defined by the famous Swiss architect Mario Botta when he said, "the bridge defines the valley".

Modern bridges exploit the latest technologies and construction techniques. They allow us to challenge the landscape in new ways and so impose our hand on the landscape. It is important to do so well. In doing so, our impact on the environment should be minimized. Our understanding of the context should guide our solutions. And our concern for design should consider the look as well as the span. In short, our bridges should be beautiful. (Figure 1, 2)

^{*} Original version of this paper was presented at the 17th International Congress of Aesthetics held in Ankaca Tukkey, July 2007.

RTA, Bridge Aesthetics, Design guidelines to improve the appearance of bridges in NSW, July 2003, p.2.



Figure 1. Bosphorus Bridge, Istanbul Turkey.

Source: Wikimedia Common, Photograph by Radomil, 2005.

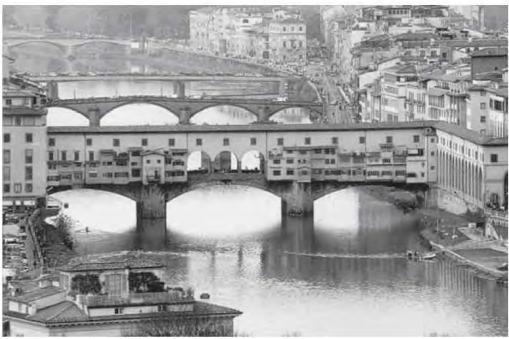


Figure 2. Ponte Vecchio, Florence Italy.

Source: Cuarentonas.ORG, 2007.

In dictionary meaning, a bridge is built to a gorge, valley, road, railroad track, river, body of water, or any other physical obstacle. Designs of bridges vary depending on the function of the bridge and the nature of the terrain where the bridge is to be constructed.

The History of bridges is long. Early bridges were simple affairs, like logs, that were strategically placed over obstacles, like rivers. Humans eventually learned to build more enduring structures.

The early Roman Alcantara Bridge that spans the Tagus River is still standing after nearly two thousand years. Many of the ancient bridges that are still standing were built on solid rock. But the history of bridge building tells us that the Romans made a lasting contribution to the method by finding a way to pour cement footings below the water. In time, Roman methods were impacted by Persian and Muslim influences that made bridges more artistic and beautiful to look at. Strength and durability alone are hardly enough for the human eye.

During the 18th century there were many innovations in the design of timber bridges by Hans Ulrich, Johannes Grubenmann, and others. The first engineering book on building bridges was written by Hubert Gautier in 1716. With the Industrial Revolution in the 19th century, truss systems of wrought iron were developed for larger bridges. But iron did not have the tensile strength to support large loads. With the advent of steel, which has a high tensile strength, much larger bridges were built, many using the ideas of Gustave Eiffel.

There are six main types of bridges: beam bridges, cantilever bridges, arch bridges, suspension bridges, cable-stayed bridges and truss bridges. They presents various formal beauties of their own. A bridge is designed for trains, pedestrian or road traffic, a pipeline or waterway for water transport or barge traffic. In some cases there may be restrictions in use. For example, it may be a bridge carrying a highway and forbidden for pedestrians and bicycles, or a pedestrian bridge, possibly also for bicycles. The area underneath several bridges have become makeshift shelters and homes to homeless people. The undersides of bridges all around the world are spots of prevalent graffiti. An aqueduct is a bridge that carries water, resembling a viaduct, which is a bridge that connects points of equal height.

To create a beautiful image, some bridges are built much taller than necessary. This type, often found in east-Asian style gardens, is called a Moon bridge, evoking a rising full moon (Figure 3). Other garden bridges may cross only a dry bed of stream washed pebbles, intended only to convey an impression of a stream. Often in palaces a bridge will be built over an artificial waterway as symbolic of a passage to an important place or state of mind. A set of five bridges cross a sinuous waterway in an important courtyard of the Forbidden City in Beijing. The central bridge was reserved exclusively for the use of the Emperor, Empress, and their attendants (Figure 4).



Figure 3. Ando Hiroshige, Wisteria at Kameido Tenjin Shrine, from Hiroshige's "One Hundred Famous Views of Edo" series, woodblock print, originally published 1856.

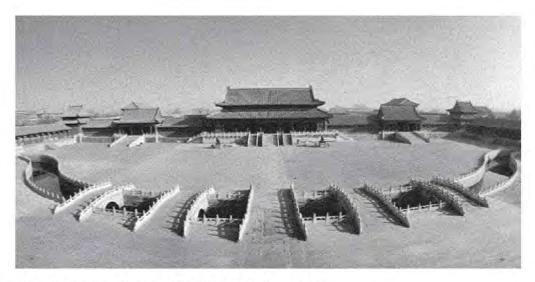


Figure 4. The Five Bridges of Forbidden City, Beijing China.

Bridges may be classified by how the four forces of tension, compression, bending and shear are distributed through their structure. Most bridges will employ all of the principal forces to some degree, but only a few will predominate. The separation of forces may be quite clear. In a suspension or cable-stayed span, the elements in tension are distinct in shape and placement. In other cases the forces may be distributed among a large number of members, as in a truss, or not clearly discernible to a casual observer as in a box beam. Like this, there are many possibilities for bridge design in practice.

Design Value of Bridge

Charles S. Whitney emphasized the contemporary urgency to study bridge design. "Bridges are among the most ancient and honorable members of society with a background rich in tradition and culture. For countless generations they have borne the burdens of the world and many of them have been great works of art. As in most large families there are numerous poor relatives. The modern bridge too often appears as a workman performing its task for a minimum wage, mechanically efficient but uneducated and ignorant of its own ancestry. A worthy subject for serious consideration." It is important for bridge designer to produce bridges of aesthetic value. Therefore, the designer will make guidelines to set down unequivocal aesthetic outcomes.

Whitney, Charles C., Bridges: A Study in Their Art, Science and Evolution, New York: William Rudge, 1929.; RTA, Bridge Aesthetics, p.4.

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As to the aesthetics of bridge, Paul Harbeson mentioned as following. "Beauty has been thought of as extraneous to considerations of function, practicality, economy and advancing technology. To many people, the word 'aesthetics' has meant superfluous or artificial, like cosmetics." It is necessary to encourage aesthetics to be considered as an integral part of the design process. Every part of the bridge has a role to play both structurally and aesthetically in the whole. Good bridge engineering and good aesthetics are synonymous and only defined by the imagination and skills of the bridge designer. It should be said that whilst personal tastes differ, beauty is not simply a matter of taste alone. When qualities such as proportion, order and symmetry are applied well, people often agree that the object has aesthetic value. Whether they like it or not is another matter. When applied badly there is often public outcry.

The designers are responsible for the look of bridges. They must consider appearance as a major design imperative along with strength, safety and cost. For aesthetics to be successful, it must first be considered. It should be an integral part of design and must be considered both in the general form and all the details that support it. The parts must be considered as to how they contribute to the whole. Aesthetic ability is a skill that can be developed. However, it must be seen as an essential requirement for that development to occur.

Bridges are seen from many angles and the viewers see them from a variety of conditions. Bridges may be isolated objects in the landscape, part of a suite of engineered infrastructure or on a city street. They are seen from close up, faraway, from rivers and other roads. Viewers can be standing still or moving to or across a bridge at varying speeds and in a variety of vehicles. We could assume viewing from all angles. The first step of the design process is to establish the critical views for the bridge. Further, there is the issue of illusion whereby the assembly of the parts can use visual devices to enhance the bridge by emphasizing its apparent slenderness or visual continuity. Generally bridges seem aesthetically more pleasing if they are simple in form. Simple form means that the deck is thinner as a proportion of its span, the lines of the structure are continuous and the shapes of the structural members reflect the forces acting on them.

According to the RRA guidelines, the following design values are important to creating a bridge of aesthetic merit and should run through the design process from inception to delivery. 1) Commitment to aesthetics. 2) Context sensitive design. 3) Comprehensive design process. 4) Collaboration in the design team. 5) Cost and aesthetics can be complementary.⁴

A commitment to aesthetics is needed from both the client and contractor. A valued bridge is not likely to be produced if aesthetics is not championed and adequately weighted in selection and

³ Harbeson, Paul C., "Architecture in Bridge Design," *Bridge Aesthetics Around the World*, Committee on General Structures--Subcommittee on Bridge Aesthetics, Transportation Research Board, Washington D.C.: National Research Council, 1991, pp.105-121.

⁴ RTA, Bridge Aesthetics, pp.10-12.

assessment processes. Furthermore, this commitment must be carried through the implementation process, as a well-designed bridge can be marred by poor workmanship.

The aesthetic value of a bridge is dependent on its context. A bridge may be acceptable or beautiful in one location whilst unacceptable or ugly in a different location. Starting the design process by picking a bridge design, before understanding its context, is therefore inadvisable. Beautiful and locally valued bridges are more likely to be produced if the design process starts when the natural, built and community context is understood.

Artistic Expression of Bridge

Bridges are a relatively uncommon motif in artistic works. Nevertheless, due to the evocative image they present, they are often centers of interest within those few works. Philip Grundlehner, in his examination of the bridge motif in German poetry, notes that even in cases where the bridge is used only once in a poem, "its significance is such that it becomes the focal point and central symbol of that poem." This observation holds true for poetry and literature generally even outside of the German tradition. Demonstrating this in poetry are works from various cultural backgrounds including William Wordsworth's "Composed Upon Westminster Bridge, September 3, 1802"(18 07) and Arthur Rimbaud's "Les ponts"(1886). In prose, authors as varied as Fyodor Dostoevsky (Crime and Punishment: 1866), Ernest Hemingway (For Whom the Bell Tolls: 1940) and Franz Kafka ("Die Brucke":1946) have all used the bridge for thematic purpose in their writing.

John Sweetman, in his examination of bridges in landscape paintings since 1800, attributes the sudden upsurge of interesting bridge in the 19th and 20th centuries to the new bridge-building technologies developed during that time period. Especially in industrialized nations, the bridge became a prominent subject for many notable artists. In the visual arts, some examples include J.M.W. Turner's "Rain, Steam and Speed" (1884), Vincent Van Gogh's "The Trinquetaille Bridge" (1888) and Claude Monet's "Japanese Bridge" series (1899-1900). Bridges have also been the object of intense speculation in fields as diverse as political science, anthropology, religious studies, psychoanalysis and folklores studies. There were numerous attempts to probe the symbolism of the bridge. Most of the previous scholarship on bridges tended to identify the bridge image as a powerful symbol and unusually fecund artistic affectation. (Figure 5, 6, 7)

Grundlehner, Philip, The Lyrical Bridge: Essays from Hölderlin to Benn, Cranbury, NJ: Associated University Presses, 1979, p.15.

⁶ Sweetman, John, The Artist and the Bridge: 1700-1920, Aldershot: Ashgate, 1999.

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Figure 5. J. M. W. Turner, Rain, Steam, and Speed, oil on canvas, 91 x 122 cm, 1844, The National Gallery, UK.

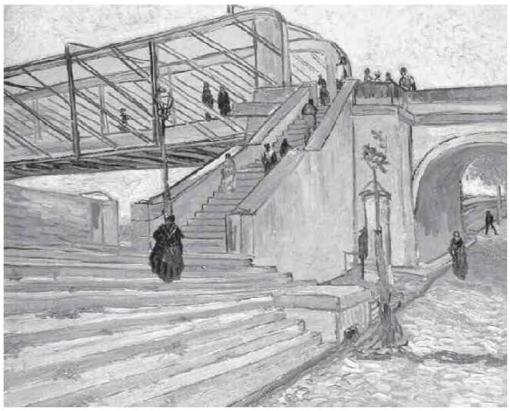


Figure 6. Vincent Van Gogh, The Trinquetaille Bridge, Oil on canvas, 73.5 x 92.5 cm, 1888, Private collection.



Figure 7. Claude Monet, Water Lilies and Japanese Bridge, Oil on canvas, 90.5 x 89.7 cm, 1899, Princeton University Museum.

Noted scholars in a number of disciplines have identified the bridge as an unusually rich imagistic motif. One is forced to ask why this might be the case. What makes the bridge so special? Georg Simmel, who is one of the most influential 20th-century thinkers in sociology and cultural philosophy, has remarked that "the bridge becomes an aesthetic value insofar as it accomplishes the connection between what is separated not only in reality and in order to fulfill practical goals, but in making it directly visible." The fact that the practical function of a bridge is highlighted by its external appearance results in an extremely provocative aesthetic presence. Simmel's insightful observation hints at why bridges seem a special case. Here, it is desirable to explain in detail, drawing evidence from multiple disciplines.

Frisby, David and Featherstone, Mike ed., Simmel on Culture, Selected Writings, Sage Publications, 1997, p.171.

According to Daniel C. Strack, the thematic study of bridges in literary and artistic contexts is valuable for three reasons.⁸ Firstly, in contrast to some other rich images like the moon or the sea, bridges are artificial human constructs. There was a time in history when, in the strictest sense, bridges did not exist. For this reason, the development of bridge technology will necessarily vary from culture to culture. For example, since the first masonry arches were utilized in Mesopotamia in 7th century B.C., some cultures have constructed stone bridges and some have not.⁹ Individual cultures, with varying geography, climatic conditions, local resources and engineering techniques, have created very different bridges. The available historical and archaeological details of bridge technology in each culture can be productively cross-referenced with literature and art that include the bridge as a motif. This cross-referencing will provide a way to confirm the correlation between technological advance and metaphorical understanding.

Secondly, as mentioned by Simmel, bridges are characterized by a relatively intuitive relationship between their form and function. In terms of metaphor, this schematic pictorial representation may be expressed as "An intersection of discrete states is a bridge." Of course, this metaphorical formulation may be broken down into more basic component metaphors. "States are locations" expresses the perceived difference between states (situations or conditions of existence). "Abstract structure is physical structure" allows the bridge to serve as a concrete image to express association or bring about as abstract dialectic between the two differing states. This physical manifestation of some non-physical interrelationship may conjoin philosophies, nations, ideologies, or states of existence (such as life and death).

Thirdly, the crucial functional aspects of bridges insure that they will be attention-gathering objects in human consciousness. Being able to interpret the visual image of a bridge and thereby understand its spatial orientation is crucial for humans and animals as they navigate their way. Leonard Talmy, a psychologist and cognitive linguist, demonstrated implicitly the image-schematic importance of the bridge in cognitive terms. Talmy examined on closed-class forms, i.e. schematic orientational configurations that organize very basic levels of human cognition. Tamly recognizes the preposition 'across' as being typical of a very limited set of closed-class forms and characterizes it as representing a schema "of a point describing a path that goes perpendicularly from one to another of two parallel lines." In terms of Tamly's theory, a bridge would represent stationary circumstances in which the closed-class form 'across' is perceived in terms of constructional fictive motion.

Strack, Daniel C., "The Bridge Project: Research on Metaphor, Culture and Cognition", The University of Kitakyushu, Faculty of Humanities Journal, Vol.68, October 2004, pp.23-24.

⁹ Brown, David J., Bridges: Three Thousand Years of Defying Nature, St. Paul, MN: MBI Publishing Company, 2001, p.18.

Tamly, Leonard, Toward a Cognitive Semantics, Vol.1, Cambridge, Massachusetts: MIT University press, 200, p.26.

Mentioning these psychological aspects is not to minimize the importance of the appearance of specific bridges as we encounter them in daily life. Bridges of distinctive design are easily able to grab our attention and even come to symbolize cities in which they are located. The Golden Gate in San Francisco or the Roman aqueducts in Segovia are examples of bridges that seem to be more works of art than feats of engineering. The aqueducts in particular show how bridges may be seen as aesthetic works long after their practical function has ceased to be of any value. (Figure 8, 9)



Figure 8. Golden Gate Bridge, San Francisco USA.

Source: TravelBlog.org



Figure 9. Roman Aqueducts in Segovia, Spain.

Source: Wikimedia Common, Photograph by Manuel González Olaechea y Franco, 2004.

Bridge and Human Will to Connection

"Bridge and Door" (1994) of Simmel provides a fresh insight into his epistemology. For Simmel, truth is relational. He argued that people build society on everyday relational truths. Our social and physical environments reflect each other. Simmel argued this point through reflections on the bridge. Our 'will to connection', he said, pushes us into an empathetic mode that bridges our separateness and allows us to establish processes through which we create one society. This process, Simmel argued, was like the bridge that overcomes obstacles by spreading its will through space. The human bridge that creates society must be firmly anchored and enduring. It must also, the bridge that transverses a natural divide, 'fitting into nature and transcending nature'. The perfect physics of the bridge comes through taking measurements so that distance becomes the unification of separateness."

Frisby, David and Featherstone, Mike ed., Simmel on Culture, Selected Writings, Sage Publications, 1997, pp.171-172...

Bridges are seen to people as structures requiring the holy. It turns out that bridges are more than objects. They take on the characteristics of the divine-human relationship. Human beings are bridge builders. Bridges themselves take on a quality of the transcendent. We build bridges to transcend our separations. When we decide to take on this role, we know what we are doing. We are risking our lives for the sake of interconnection. Simmel reminds us that we are the only one of God's creatures who makes paths and when the paths are interrupted we are the only ones who build bridges so that the paths continue. What then are we doing when we build bridges? Simmel would tell us that when we are uniting what is separated, we are creating relationships.

Our ability to create pathways to relationships comes from within our mind and from within our hearts. Our minds take the empathy we have for others and construct a willful ability to feel the other's inner life, to identify, to empathize. The bridge of empathy we construct between people is an element essential to urban life. For example, the Brooklyn Bridge, the Manhattan Bridge, the George Washington Bridge, and the Verrazano Bridge connect all New Yorkers with each other and with the outside world (Figure 10). They also make us responsible to each other in ways we would not otherwise be obligated. We cannot construct a world without empathy. Not to empathize is to decide against oneness, society, and wholeness. Just as a canyon without a bridge felt 'unforgiving' to Simmel, the lack of empathy keeps humans separate and is a sign of an unforgiving heart, a lack of will for the survival of another. To put it succinctly, a lack of empathy is a sign of moral failure. Empathy changes one's inner life.

12 Ibid., p.171.



Figure 10. Brooklyn Bridge and Manhattan Bridge from above. Source: DumboNYC.com, 2005, Photo courtesy of eight double.

According to Eastern Buddhism, 'the charity to make a bridge' is an important affair for devotees. There are many valleys around the temples that are located in deep mountains. Therefore, we should cross over many rivers to reach the temples. The process to go over waters means to enter the other shore from this world, namely to advance into the state of deliverance or Elysium. To make a bridge is looked upon as a process of religious training. Those who make a lot of bridges can help so many people to across the rivers that they could attain spiritual awakening. (Figure 11)



Figure 11. Sungseon Bridge of Sconam Temple, Korea.

Source: Culture and Feast.

We construct wholeness by interrelating parts, even though human beings do not see or understand the whole of anything, argued Simmel. Wholeness then is a construction of the mind. To get wholeness the mind transcends the separateness of the parts. Bridging as a mental activity is the most common way we use the word 'bridge' in human relations. Society is only possible through our will to relate. The will to relate creates a path which others can travel on, a path to connectedness. As Simmel theorized, the purpose of the bridge 'exhausts itself when inter-relation happens.' The bridge has served its purpose when we cross over it. In making inter-relation visible, the bridge creates enduring concrete reality. We know that we can cross the bridge again. The bridge refers to the ultimate or to something beyond our senses. The bridge submits to nature but it transcends nature. Simmel argued that when we step on the bridge we waft between heaven and earth and eventually through habitual use, we loose our fear of hovering. The strange becomes familiar to us.¹³

The bridge is a visible sign of direction. It brings us from one finite point to another. Whether one is going or coming across the bridge does not really matter. What matters is the unity that is

¹⁵ Ibid., p.172

created as we spread our will through space. The bridge submits to nature and it transcends nature. It pours its footings on each side of the divide on the one hand, it creates a path where none existed before on the other hand.

There is an acknowledgment that what is holy seems to be broken. Bridges of our mind also gradually seems to be crumbled. Even the children sing as "London bridge is falling down." There is the awareness that the unity we seek, the path to each other, the path to wholeness, is visibly fragile. That is why children and bridges need angels to protect against the possibility of 'slipping through the cracks."

Landscape with a Bridge

A bridge is a construction that ensures the unbreakable continuation of a road or a path across a body of water, across another road, across a chasm, a mountain pass or some other obstacle. As such, the bridge is, above all, a part of the road. At the same time, it alters the character of the road, it brings the vertical dimension into the landscape and it can be perceived as a special place on the road. Two main structural elements of man's existential space, namely a road and a place, are united in the bridge. The bridge is both a road and a place.

Simmel used the example of the bridge to explain the metaphysical relationship between human beings and the landscape. He firmly believes that existential topography is based on the idea of space being shaped by man. Both the material world and the perception of this world have a transcendental dimension. The location of a human being in space reveals the essence of the human being. According to Simmel, human beings are the only ones that have the ability to connect and separate, and as always, one of these actions is a precondition for the other. We do associate, either practically or logically, only things that have previously been separated.

The construction of a road between two places is one of the greatest human achievements; the will to connect becomes the act of shaping things. The building of roads is a generically human achievement. An animal also follows its certain paths, but this does not bring forth a miracle such movement does not freeze into anything permanent. An achievement of such kind reaches its peak with the construction of a bridge.

The bridge symbolizes the expansion of our will over space. For a human being the riverbanks are not only apart, but also separated from each other. Without the need to connect them, such separateness would not have any meaning for us. A bridge, which connects separated things because of a practical need, obtains aesthetic value through the observability of such a connection.

¹⁴ Cf. Erickson, Victoria Lee, "On the Town with Georg Simmel: A Socio-Religious Understanding of Urban Interaction", Cross Currents, 2001.

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The simple dynamics of movement have seemingly become a lasting object. The bridge not only bears the functional and purposeful side of our movements as a tool, but it also transforms it into a directly convincing plastic form. Simmel compares a bridge to a portrait. For Simmel, a portrait also seemingly halts the bodily and spiritual processes of life, and gathers reality into a single timelessly stable view. Differently from a work of art, the bridge with its synthesis, which exceeds nature, can still be fitted into a landscape.¹⁵

Just as Simmel, Heidegger also begins his discussion with the idea of a connecting function of a bridge. Being a place (Ort) itself, the bridge gathers together both the land and landscape. The bridge and the banks of a river or a stream, connected by the bridge, are not located in the indefinite anymore. The banks become the banks only when the bridge crosses the stream. The banks are not neutral edges of dry land anymore; the bridge creates the stream and the land. The piers of the bridge allow the stream to continue its course. The bridge covers the stream for a moment and frees it again, at the same time enabling man to follow his path. The bridge either in a city, in a village or on a highway again and anew creates a connection, making it possible for man to cross the water.

Gathering (*Versammlung*) is etymologically related to the word *thing*. In older Germanic languages thing (*Ding, thing, Ting*) denotes not only an object, but also an event.¹⁶ The bridge is a thing that evokes a place, but not only that. A thing, as the bridge, can express more, and as such an expression, it can become a symbol. The bridge reveals to us the people's dwelling. It is the symbolic form of dwelling, yet a place is not created by a symbol, but by people's dwelling on the earth. "But the bridge, if it is a true bridge, is never first of all a mere bridge and then afterward a symbol. And just as little is the bridge in the first place exclusively a symbol, in the sense that it expresses something that strictly speaking does not belong to it."¹⁷

Movement or time has become spatial in Simmel's bridge. Dynamics obtain an aesthetical meaning through halting and freezing, through an ideal closure. A bridge is a visual image concerning space-time, making the metaphysical observable. By the bridge man connects spatially not only dispersed objects, but also time and space.

Heidegger continues Simmel's idea that time is incarnated in a spatial thing, precisely in a bridge. A bridge as a road and as a place gathers and draws together space, at the same time also drawing time into itself and around itself. However, as Kaia Lehari indicated interestingly, we can claim

Frisby, David and Featherstone, Mike ed., Simmel on Culture, Selected Writings, Sage Publications, 1997, p.172

¹⁶ Bonnsdorff, Pauline v., *The Human Habitat. Aesthetic and Axiological Perspective*, Jyväskylä: Gummerus, 1998, p.212.

Heidegger, Martin, "Building Dwelling Thinking", M. Heidegger, Basic Writings, Ed. David Farrell Krell, London: Routledge, 1996, p.355.

¹⁸ Lehari, Kaia, "A winter Landscape with A Bridge", Virve Sarapik, Kadri Tüür, and Mari Laanemets ed., Place and Location II, Proceedings of the Estonian Academy of Arts 10, Tallinn 2002, pp.55-56.

that the time embodied in Simmel's and Heidegger's bridge is abstract. As a part of the landscape and as a construction of symbolic meaning the bridge is subjected to the change of seasons. The metaphor of the bridge, rendered by both Simmel and Heidegger, is based on an image of a bridge crossing water, being thus a bridge in the spring, summer or autumn landscape, and excluding the winter landscape. In winter the essential purpose of the bridge is weakened or entirely lost. The bridge does not connect the separated banks anymore. A frozen road gives way to a new freedom of movement such as skiing, skating, sledding or walking across and along the frozen and snowy river. The frozen river is a bridge itself, and even more, it is a 'freezing movement'.¹⁹ Thus the symbolic meaning of the bridge weakens as well. The bridge is not a special place anymore, crossing an obstruction and determining the direction of our movement. Consequently, we might say that winter roads are bridges in both a pragmatic and symbolic meaning.

Being on a Bridge

The bridge changes the landscape not only horizontally, but also vertically. Large railway bridges, highway viaducts or huge suspension bridges across islands raise people high between the sky and the earth. 'Flying' in a car over the islands of Rhode Island gives one a magic feeling (Figure 12). A view from above, such as from the Eiffel Tower or from a plane, offers a unique, divine view over a landscape. The bridge and the plane are the incarnations of the dream of a flying carpet. At the same time, such a distanced experience allows one to get a cartographic view of the landscape. Similarly to a tower, the bridge opens up a panoramic view, creating the possibility of passive contemplation of the landscape. The landscape, the city "offers itself to him as an object virtually prepared, exposed to the intelligence, but which he (the looker from a tower) must himself construct by a final activity of the mind". The paradox of the bridge resembles that of the tower, described by Barthes - a panoramic view over the landscape is the most passive way of perception, accompanied by an active reasonable interpretation. The bridge lifts man out of the landscape, separates him from it, and the landscape ceases to be an object of immediate perception. Visuality persists and even strengthens, but other bodily senses do not participate in the process. And from afar, the bridge itself is only a picture.

Frisby, David and Featherstone, Mike ed., Simmel on Culture: Selected Writings, Sage Publications, 1977, p.171.

²⁰ Bartes, Roland, "The Eiffel Tower", *Rethinking Architecture*. A Reader in Cultural Theory, Ed. Neil Leach, London, New York: Routledge, 1997, p.176.



Figure 12. Newport Harbor and Bridge, Rhode Island.

Source: Webshots travel, 2002.

Analyzing the bridge as an aesthetic phenomenon, we should keep apart the aesthetical perception of the bridge and the perception of the landscape from the bridge. But as we consider the bridge as a part of the unified landscape, it is, unfortunately, not possible to the end. Being on the bridge, we cannot leave aside the bodily movement, the bodily presence. When we change the location of the body in space, its height from the ground and water (or from snow and ice) becomes important. When we lift the viewpoint, the landscape changes, and as this is also the view from the center (we look around), the bridge really does draw the landscape around it together into a place.

From a moderate height the bridge enables us to perceive the landscape as a harmonious, beautiful and unified environment. With the increasing height the basis of the aesthetic experience also changes. Namely the overcoming of the fear of heights forms the basis rather for a divine than an aesthetic experience. The perception of both the bridge and the landscape depends on the fact that we move or have stopped. As a place, the bridge halts movement for a time, pausing its natural rhythm. The place is characterized by a more intense perception. The movement does not even need to stop, but the flow of perception, or the psychical automatism, supported by the rhythm of walking or driving, stops on the bridge. The bridge as a special place on the road awakens

perception, activates it or even makes it conscious. Previous experiences, memories and knowledge of bridges unite in the act of perception. The aesthetic experience, received from the bridge, is thus not connected only with vision. Even the bridge itself is the source of an aesthetical experience not merely as a picture, or a visual image. The senses, memory, imagination and the knowledge in both the conscious and unconscious form render meaning to every act of immediate perception.

The bridge can be seen from afar, when reaching it, standing on it, or being under it. The surface of the bridge divides space vertically, breaking it into the upper and lower parts. The person under the bridge experiences an unusual danger from above. The effect of a half-closed and dark underside of the bridge resembles that of a tunnel or of trenches in the battleground. Such an experience is short-lived for those who drive through under the bridge, but for a pedestrian, this state of anxiety could last longer. Arrival at the aesthetic experience may be difficult, or it may even be totally excluded. Thus the bridge also disrupts the road running through from under the bridge, and in such a disruption negative feelings predominate. Being under the bridge is like being trapped. Escape from under and from within restores the freedom of movement. The bridge is a psychological obstacle here, which we have to overcome. This is a fictitious experience of space, as we move on the same plane, but still perceive the bridge as something that presses us into the ground. This primeval fear or anxiety is, fortunately, a fleeting feeling.

Conclusion

The bridge is an artifact, which has been loaded with aesthetic value and symbolic meaning, being used as a familiar metaphor to describe all kinds of connections in a very wide range of spheres of life. It is one of the best devices that express frankly the human desire to connect beyond the condition of 'now and here'. It fills up not only a physical distance but also a psychological gap. Moreover, when such human disposition is expressed faithfully in the design and ornament of bridge, the bridge sublimate to be an aesthetic object above the mere object of practical purpose. There are various forms of bridge that show the aesthetic sensibility for connection and technical beauty.

The bridge makes a new spectacle in the landscape. It draws the landscape into a circle on the horizontal plane. It is not only an abstract and static spatial-temporal image, but it is also dynamic and constantly changing in accordance with the geographical and climatic conditions of the given season. The movement and position of human body in space form an essential part in the emergence and transformation of the dynamic images of the bridge and the landscape. From the metaphysical aspect, the bridge is the symbol of man's being between the sky and the earth. An

²¹ Jay, Martin, Downcast Eyes. The Denigration of Vision in Twentieth-Century French Thought. Berkeley, Los Angeles and London: University of California Press, 1994, pp.212-216.

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anonymous poem sings as following.

There is a bridge connecting Heaven and Earth.

It is called the Rainbow Bridge because of its many colors.

Just this side of the Rainbow Bridge.

Just this side of the Rainbow Bridge,

there is a land of meadows, hills and valleys with lush green grass.

Finally, now, at the edge of the Rainbow Bridge, their souls meet, the pain and the sorrow disappears, and two friends are together.

They cross the Rainbow Bridge together, never again to be separated.²²

²² Anonymous Poem, The title is "At the Rainbow Bridge".