

# Travel sketches of Schinkel: on the british trail of twentieth century architecture

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## Abstract

*A lot of things have been said about the origin of the Modern Movement. Having as a reference the Mansilla's book: "Travel sketches within the time", this paper shows how it is possible to see beyond. We start with historical proposals about these origins and take a travel sketch book of Schinkel to England in 1826, edited by Bindman and Riemann. Notes and sketches drive us until nowadays through a quote by Vincent Scully about Kahn's work, where by through a comparison between Schinkel and Kahn we see the English roots of the Modern Movement and the humanization of architecture.*

Keywords: *England, Schinkel, Kahn.*



Figure 1. Hans Tietze and Erica Tietze-Conrat by Oskar Kokoschka.

In 1909, a young Oskar Kokoschka, aged 23, received a commission from the historian and contemporary art precursors Hans and Erica Tietze to paint a personal portrait, which is now owned by MoMA. In 1950, celebrating Hans 70th birthday, a commemorative volume was made, which Paul Zucker contributed to. Its abstract resulted in an article: *The Paradox of Architectural Theory at the Beginning of "Modern Movement"*, (Zucker 1951) which builds on the framework

that set the bases of the Modern Movement. Schinkel, Semper and Bötticher appear as teachers of reference for learning for new generations of architecture students in Germany. Schinkel represents the union of purpose, material and technique. We can see functionalism traits hidden behind an eclectic classicism in the interest of their construction details. But for Zucker, Semper represents the Proto-Renaissance for a later functionalism with his idea of "style" of an architecture "true" in which form, influenced by the construction and material, took into account socio-economic, cultural and climatic conditions. Still, following Zucker's speech, but taking a different view, the real pioneers of the new theories come, the theorists of architecture: Wölfflin, Schmarsow, and Adolf Von Hildebrand.

Interest is thus moved from an interest in form, material, technique and function to the aesthetic qualities of space and its display, volume and shape. Architects and theorists agreed on the emergence of functionalism and the rejection of eclecticism. Moreover, Zucker argues that it is not surprising that the new movement has departed from the rejection to eclecticism and the constant references to classical Greek and Roman teachings received from the great masters. For Zucker, Adolf Loos was the first modern architect, then Peter Behrens, Bruno Taut and Walter Gropius came and continued functionalism.

In 1914 the Werkbund exhibition in Cologne, secured a primacy of functionalism. It leaned heavily on the work of the French, Eiffel and Perret, and the American School of Chicago, along with Sullivan, Richardson and Frank Lloyd Wright.

But, Zucker at no time refers to the Schinkel's Bauakademie, built between 1832 and 1836. In 1950 it still stood before being demolished in 1962. Where had this singular building come from? And if at some

point it has been recognized as a precursor to the Modern Movement, who were its disciples? Zucker, in the article cited for the Modernism notes several of his influences as German, French, American and, Greek and Roman classics. But there may be other sources? This paper starts with the discovery of a travelogue of England that Schinkel makes in 1826 and in addition a note found in the book of Vincent Scully, Louis I Kahn, (Scully 1962, 23) which reveals that Schinkel influenced Kahn.

### *From the classical roots of Modernism*

To the Mount Acuto, where the monastery of Certosa of Florence is set, you need to climb on a scooter just like any other resident of the closest village of Galluzzo to attend the 11 o'clock Sunday mass. From the fragility of a scooter everything feels different; volumes are accentuated, small things seem smaller and large volumes increase their scale. As we approach, the vast watchtower that shapes the whole seems to invade everything. Going up the slope that leads to the entrance it allows us to explore a medieval building, which now belongs to Le Corbu only: "I have found the solution to the working class house in only type." Wrote Le Corbusier to his parents. Years later he recognised that the visit changed his life (Mansilla 2002, 217). The site was the Monastery of the Certosa di Firenze, and the solution he found was in the cells of the cloistered monks. The future was the Modern Movement. A young Le Corbusier, which at that time still did not know what it was called, discovered in Florence, in a monastery of the fourteenth century, the work of those who would teach the steps of the Modern Movement that were later applied in Marseilles Housing Unit. We meet at that place both, at the same time. We meet them following the concept of "time" Mansilla.

In the book *Travel notes inside time*, Mansilla enjoys following the trips made by modern architects. Those architects who did not yet know that in the future they would be known as representatives of the Vanguard and the Modern Movement. These trips, according to tradition began in Italy, but from there new expeditions were made to both Greece and Egypt, and in cases like that of Le Corbusier to the "East". An architect could not complete their training if they had not traveled to the birthplace of Western

civilization. This is something that Louis Kahn throughout his years of teaching, tirelessly repeated to his students at Yale and Princeton. The classical architecture of Greece and Rome eventually become a source of inspiration for all those who came into contact with her.

But the book goes further delving into the characters. Investigating what they did during those years, especially their drawings. The drawing is a useful tool for "thinking images" and Mansilla knows that. But Mansilla also talks about emotions and feelings by referring to the drawings, the drawing for him suggests the author's own emotions and the emotions triggered in the observer. The thrill of drawing as the excitement of life.

The story of the Modern Movement is full of protagonists, painters who felt artists such as those around at the time of Michelangelo's Renaissance, were better painters than architects. Not only were Behrens, Le Corbusier and Kahn artists, so too was Schinkel.

### *From British roots of Modernism*

The Westminster Reference Library is in London, in the 35th building on the narrow street of St Martin, south of Leicester Square. The same place where the house of Newton had been until 1913. She has, like any library something magical and special. When we are in it we can feel that the story and thoughts of mankind are at hand, but it is also a place of worship where we could feel comfortable in slippers. The very mixed selection of researchers that we find there who are absorbed in their books and thoughts, encourages us to suspect that it would indeed be difficult to find a place where time has stopped as it has here. There is nothing more than the soul of the books arranged on the shelves. A book caught our attention: Karl Friedrich Schinkel "The English Journey". A journal of a visit to France and Britain in 1826. Our interest in Schinkel mean this book quickly grabs our attention. At that moment, the world stopped and the library disappeared.

Twenty years ago, on July 28, 1993, David Bindman and Gottfried Riemann edited the annotations of Karl Friedrich Schinkel. The book contains notes and sketches extracted from a small notebook and letters sent from the architect to his wife during the months

of absence. The English Journey won the historical book prize, issued by the American Institute of Architects at the time. Among Riemann's passion for the original document and Bindman's surprise at finding it, interest in the document, which is saved at the National Gallery is accompanied by an interest in the people who brought it to light. This makes the manuscript itself an object of study and moves ones interest towards the people who made her publication possible. We rarely have the opportunity to find such an interesting item, since the careful transcription of the text is combined with the author's intentions, which wasn't to publish it. The richness of the find lies in the technical inputs, which are surprising for a German architect, and will amend their architectural codes dramatically. But on the other hand it allows us to approach the human side of his character. Between his drawings and descriptions of constructive solutions he gives us private particles that bring us closer to the human being, the knight-errant with artist sensitivity.

The drawings and handwritten notes allow us to deepen our search for the origins of the Modern Movement, entering the humanization of architecture while we're cruising between historical events that have been successively joined.

### *From the technological development to the social inequality*

The journal drawings were created in haste. It is called freehand drawing. It becomes a style that captures what the eye sees as an intellectual discipline and as a work tool. The volatility of the "snapshot" focuses on fixing the data that will help with the transcription of the object in another environment. The hand of a fantastic draughtsman, such as Schinkel, seems clumsy, slow and not very decisive, but the design incorporates a novel approach to an old problem.

We show here a quick sketch of the steel casing of the Maudslay's workshop: Schinkel showed more enthusiasm for this cover than the Bank of England by Soane.

The sketch contains a truss I-section, as seen in the double solid line that runs along the top and bottom edge of the piece. The metallic structures started to become popular after the fires at the old wooden textile factories. The structures were calculated under

trial and error, and Henry Maudslay's workshop was highly inspiring to Schinkel.

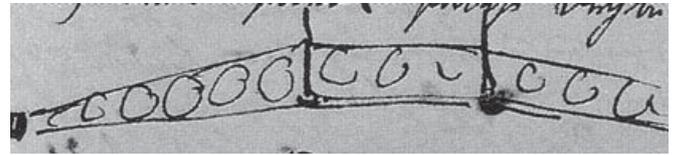


Figure 2. Truss from the Maudslay's workshop (Bindman, Riemann. 1993, 80)

Support points, marked in bold, show graphically his interest in solving the problem of the balance of the structure. The centerpiece is the most clearly drawn feature, summarizing his analysis of the whole. Already in 1757 Euler had found the formula that defines the theory of critical load for slender columns which can also be applied to the section of I-beams, where buckling is inversely proportional to the moment of inertia of the section. In an attempt to ward off the material from the center of gravity of the piece, Maudslay had also pierced the middle of the web with óculos, displacing the workpiece's mass away from its natural axis. As Kahn said on Monumentality in 1944 (Twombly, 2003, 24) the I-beam is an engineering achievement and the pillars must be hollow. Schinkel in Maudslay's workshop, scored the thin steel columns which supported the roof of one of the rooms and also functioned as an outlet for sewage.

Schinkel tells his wife that the Industrial Revolution brought to Manchester 400 cotton mills, some larger than the Royal Palace in Berlin, saw the population quadruple; giving rise to speculation and market saturation, and caused thousands of people who were without work to be piled on the streets. Those who had jobs worked 16 hours a day for only two shillings a week. Schinkel was concerned. Like Kahn, he was worried about the social needs and the dignity of man, as an individual and as a social being.

Going back to Germany, the industrial backwardness, when compared to England, means the production of iron pillars was uneconomical so these were built in brick. In addition, the simple and clean facade of Bauakademie allows for a structural reading of Kahn's tastes. The Bauakademie is built in typical English red brick, the brick which inspired Kahn.



Figure 3. Manchester, Panoramic view of Old Town and cotton mills (Bindman, Riemann. 1993, 177)

### *From the brick to the interest by environment*

Kahn was a strange guy, the kind of eccentric genius that only the British could take seriously. When British architect Allison Smithson asked Kahn what he had done in the '30s, Kahn replied that he had lived in a town called Le Corbusier (Barker 1992). The same Le Corbusier where on his trip to Germany, he met Schinkel's work through the teachings of professor Peter Behrens, their boss in Berlin, as well as Gropius and Mies; in the city of the Bauakademie. Le Corbusier was very impressed about everything in Italy (Le Corbusier 1987, 135), but on March 1st 1911, he recognized that in Germany his dream had become reality thanks to the comprehension of the classic genius (Gresleri 1984, 391). There, he decided for Schinkel (Brooks 1997, 253).

Vincent Scully refers to Schinkel at the work of Kahn, stating that both Philip Johnson and many others realized the proximity between the two, when the unbuilt projects of Adler and De Vore houses in *Perspecta 3*, in 1955 were published (Scully 1962, 23).

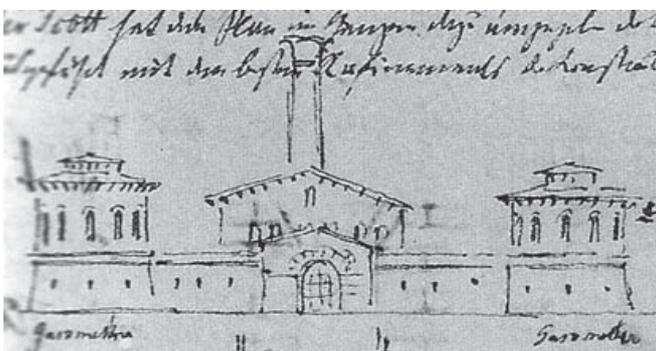


Figure 4. Tandfield Gasworks (Bindman, Riemann. 1993, 155)

Strong brick pillars and chimneys breaking the horizontal cover line of facade, had a pretty relation with both, the modulation of Bauakademie's red

brick and the rotundity of the columns in the facade of the Altes Museum grows through the entablature as akroterias. Philip Johnson, by copying Kahn's houses, designs a house that was very successful. The Boissonnas (1956), the only one with sturdy pillars of red brick, parameterizing the fragility white and transparent of the Johnson signature. Kahn's houses from 54 had oversized brick pillars exaggerating spatial rupture over the ground surface, questioning the Modern Movement which reclaimed diaphanous or transparent spaces as their great achievement. These pillars arranged in a double line appeared in *Perspecta* on a floor plan only of pillars which Kahn liked to highlight. Each column unit generates its own space. Where space is the result of an intrinsic order of the building, trying to integrate space and matter, solid and void. In search of a fullness, which was timeless.

The brick was one of Schinkel's great discoveries. Gasworks Tanfield Edinburgh caught his eye. The central chimney marked the shaft like a giant obelisk and gas deposits were staying in what seemed like Scottish medieval towers with some Palladian features. These same medieval towers would inspire Kahn to project Richard's laboratories, with its brick surrounding it.

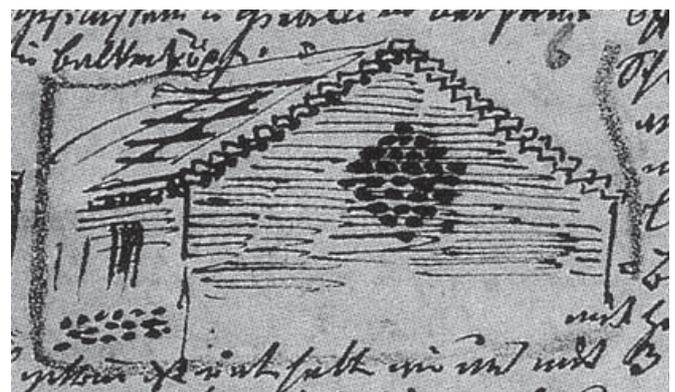


Figure 5. Bricklaying detail (B, R 1993, 133). Fig. 06. Hebridean islands (B, R. 1993, 166)

Because of Schinkel's tremendous sensitivity towards nature, which he mentions almost every day in his diary, we find an allusion to the landscape, its beauty, the danger of degradation and even protection in his work. He puts special stress upon the location of the buildings. But the landscape could also be urban-landscape, hence the concern that the size of the factories could exceed the Royal

Palace in Berlin, and that the towers of the churches might lose their proportionate scale. To Schinkel, art and nature go together; so too with Kahn.

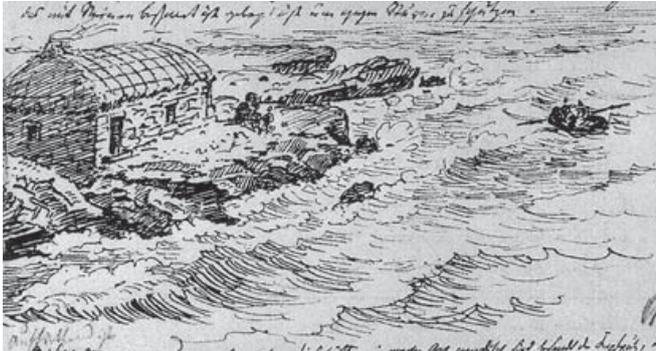


Figure 6.

### *From light to moderation*

It is well known that Kahn had an interest in light. His buildings are designed to optimize the resources offered by the natural light whether it be in Dhaka or Yale.

The light was another one of Schinkel's discoveries on his trip to England. The need for light as a resource not only in factories and workshops but also in museums, hospitals and private homes, made Schinkel take note of constructive solutions favoring their entry to the rooms. In fact the only praise that makes the work of Seane noteworthy is the way he designed overhead lighting.

Many of his sketches contain buildings that could be factories, market halls or churches that seek lateral or zenithal light in countless ways. The light enters through the top of the building and reaches the ground floor. To get it they open *óculos*, coffered, windows, and they put double covers, so that natural light cascades to the lower floors. An innovative example is the design of the Royal Pavilion in Brighton, by J. Nash. Here in addition to overhead lighting and stained glass windows over stairwells, the English architect designs a ladder that allows light to pass through it illuminating the ground floor. Schinkel draws it carefully in his diary, in which the railing, treads and risers of wrought iron staircase and the bevels, frames and brackets appears. He had discovered the translucent staircase.

The staircase of the Kahn's Esherick House reminds us, for its subtle wit, of the Nash's staircase designed for the Brighton Royal Pavilion, due to the novel

adopted solution so that light can get to it. Schinkel's interest in Nash was for the more practical solutions rather than for the pomp and pageantry of his architecture. The simplicity of the facade of the Bauakademie shows us the effort of the architect to save superfluous things but giving the building anything else what he called elegance. The simple cube-shaped building has a square courtyard where the natural light gets distributed to the interior rooms. Simple and effective.



Figure 7. Details of the Royal Pavilion stairway in Brighton by J. Nash (Bindman, Riemann. 1993, 166)

In buildings erected to impress the visitor, such as Eaton Hall in Chester, Schinkel saw that their careful design lacked luster, highlighting their wonderful views. The luxury does not impress him. He seeks simplicity and elegance, both in his work and in his personal life. He enjoys the company of his people and his happiness comes from seeing his son Karl become an industrious young man (Bindman, Riemann 1993, 183). For Kahn ostentation, both in one's personal life and in one's own architecture was not something that was within his field of vision.

### *English feedback*

In 1992 the London galleries seem reluctant to collect the work of Kahn, which would restore it to its place in the history of architecture. Paul Barker, in an article in *The Guardian*, regrets the reluctance of the galleries to receive Kahn and suggests this could be because of their possible lack of attractiveness. According to Barker, without Kahn's work there would not have been able the representative buildings such as the Royal National Theatre in London (1967-1976) by Denys Lasdun, or the Lloyds building in London (1978-1986) by Richard Rogers and Mike Davies.

Kahn brought to the limit, the sentiment of an architect by approaching its dark and deeper meaning.

“Every building should have... his own soul,” he told his students. Speaking of the Kimbell Art Museum in Fort Worth, Texas, Barker refers to its recessed vaults, as belonging to a Romanesque temple-like; but, actually they are alike than Bauakademie vaults, which are the same as those Schinkel drew again and again in his travel journal and then projected in the Bauakademie of Berlin.

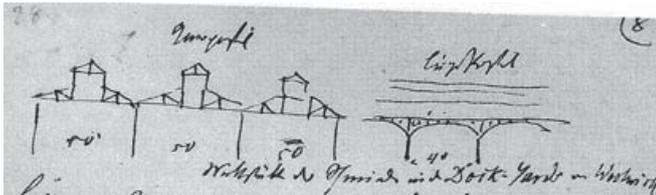


Figure 8. Workshop buildings in Woolwich dockyards (Bindman, Riemann. 1993, 93)

The duplicity in the uses of hollow pillars, which had advanced Schinkel, drives Kahn to become a strong advocate for the separation between servant spaces and served spaces, discovered for the bathhouse in Trenton (1955) and then developed in the Richardson laboratories (1965) and subsequently adopted by Norman Foster and Richard Rogers. But so we found it at the Barbican Center (1982) by Chamberlin, Powell and Bon. But without Kahn hardly any of the obsessive effort geometric by British architect James Stirling would exist.

The intent use of light found in the British Art Center at Yale, comes in sections very similar to those found in the freehand drawings Schinkel made of English factories, or the section of the St John Market by Foster, father and son, who finished off the cover with caissons to allow light to enter.

The art gallery of Yale University has a lot to do with Bauakademie. In their brick walls, blind molded with horizontal bands, which also recognize the expansion of the National Gallery by Venturi, although not the brickwork, keeps fine modulation lines sunken in facade.

## Conclusion

Now, from the Westminster Reference Library, things look different. From the windows onto Orange Street, Venturi winks at us from the National Gallery. In 1991, the outstanding disciple of Kahn, Robert Venturi and Denise Scott Brown, designed the Sainsbury Wing

extension of the museum in the heart of London. Venturi followed in the footsteps of the master, who continued in the footsteps of Schinkel, and thanks to the publication of a travelogue we know that in 1826 he traveled to England in the Industrial Revolution, collecting architectural ideas and methods that would change his later work as an architect and the work of everyone who came after him.

The publication of the newspaper has also enabled us to approach the humanization of architecture, appreciating personal qualities which dignify the man as a human being and will allow him, as an architect, to reach his peak in the focus of his work.

“Emotional training is necessary today. For whom? First of all for those who govern and administer the people.”

In 1944 *The Need for a New Monumentality* by Sigfried Giedion, begins with this motto. The text was edited by Paul Zucker, the same person who in 1951 published the article: *The Paradox of Architectural Theory at the Beginning of “Modern Movement”*. The article ended by passing the baton to the 1950s generation of architects: “It will be up to the architects of the second half of our century to express in their creations those ideas which were the intrinsic problems of the theoreticians of the first few decades of our century.”

Kahn picked up the baton, but didn't go directly to architectural theorists. He went directly to the source, to the architecture. His approach, which he had acquired through Schinkel, turned architecture into a discipline. He was committed to the radical changes in German architecture after Schinkel's tour of England, where, as Vincent Scully would say, he tried to integrate space and matter, solid and void, as he searched for a completely correct classical design. And surely he simultaneously and unknowingly, approaching the social, environmental and human problems of his time, gave a human soul to the inert element and provided thus a timeless solution.

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