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## L'ESPACE PIRANESIEN

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### Abstract

Analysis of the space in the series of figures Carceri by Gianbattista Piranesi and the use of the model of this space in contemporary architecture.

*Keywords: Aronoff Center, Carceri, Coop Himmelb(l)au, Peter Eisenman, Euralille, Rem Koolhaas, The Light Pavilion, Daniel Libeskind, Micromegas, Piranesi, Lebbeus Woods*

### Streszczenie

Analiza przestrzeni w serii rycin Carceri Gianbattista Piranesi oraz wykorzystania modelu tej przestrzeni w architekturze współczesnej.

*Słowa kluczowe: Aronoff Center, Carceri, Coop Himmelb(l)au, Peter Eisenman, Euralille, Rem Koolhaas, The Light Pavilion, Daniel Libeskind, Micromegas, Piranesi, Lebbeus Woods*

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In 1742 Piranesi began to draw a series of sketches of prisons: *Invenzioni capric. [ciose] di Carceri*, (*Prisons for the imagination*). The theme of the figures was not unusual at that time. Prisons often appeared in theatrical sceneries. (Piranesi himself drew *Carcere Obscura* a few years before.) The uniqueness and peculiarity of these drawings<sup>1</sup> is based on their aesthetics. “Cropped, implicitly labyrinthine spaces filled with: bridges, arches, stairs, porches, columns ... make up a captivating scenery, without revealing its beginning or end, presenting itself as an architectural metaphor” [14, p. 65]. Over the years they inspired an endless list of artists – graphic designers, architects, filmmakers, comic book illustrators, writers – Victorian revivalists, surrealists (including Dali), Maurits Escher, Fritz Lang, Situationists, Hugo<sup>2</sup>, Borges, Eco ... According to Dariusz Kozłowski they are architectural pretexts as a sets of prototypes from the World Museum of the Imagination [10, p. 14]. The “dark brain of Piranesi” fascinates nowadays among others Lebbeus Woods, Daniel Libeskind, Rem Koolhaas, Peter Eisenman and Coop Himmelb(l)au, who present various ideas in the form of labyrinthine, panoptical, open space, oneiric and thus devoid of time, the logic of perspective, the continuation of space, and references to the natural elements – “the dream of stone”.

The *Carceri* are associated with Piranesi’s interest in architectural fantasies used as the means of formal analysis at that time. Therefore the *chateau* interiors from his other drawings, with sculptural vaults, massive columns, and rich architectural details are the basis of the prison spaces, where the arcs of vaults interspersed with wooden structural elements are accompanied by twisted, surreal staircases, bridges, ramps, galleries and balconies. Hanging ropes, rags, prisoners’ silhouettes, and different traces of destruction replace the details. In the later sketches, the drawing manner is increasingly distinctive, the spaces more complex, and there are more and more impossible elements – falsified perspectives and optical illusions [24, p. 12-14].

Lebbeus Woods is invariably indicated as the modern successor of Piranesi with his biomorphic and mechanomorphic forms presented in “mythical spaces” [14, p. 147]. Like Piranesi, Woods drew rather than built. Through his drawings, Piranesi criticized the dogmas of classicism, and Woods in his dystopic visions showed the commercial face of contemporary architecture – the conformism of architects who agree to create mindless, flashy forms, merely to maintain the current world order. Mystery machines, fantastic cities, aggressive, biomorphic buildings – the “anarchitecture” of Woods, full of tensions, cuts, broken, damaged and oddly arranged elements triggers attraction and fear at the same time – feelings of pleasure and disgust [17]. The only work of Woods built is The Light Pavilion (together with Christoph A. Kumpusch) in Steven Holl’s Chinese Sliced Porosity Block<sup>3</sup> –

<sup>1</sup> The first album was probably published in 1745 and included 14 etchings dated 1742 by Piranesi himself, who was 22 years old then. The second edition was published in 1761. It had a different title (*Carceri d’invenzione di G. Battista Piranesi*) and included 16 drawings. Two were added and two swapped. Piranesi also “improved” the graphics. He dimmed them, added lines and details of building elements, making them similar to torture instruments. These “corrections” may actually be regarded as copyright changes not necessary adjustments, because – according to Marguerite Yourcenar – if anything matches the virtuosity of the second version or exceeds it, it is probably only the first version. The essayist favors rather the influence of Rembrandt, preromanticism, the attempt of clarifying the idea or changes in the perception of crime, and the concept of justice [23, p. 23].

<sup>2</sup> Victor Hugo saw in them the image of the interior of the Tower of Babel – the expression of human arrogance, the chimeric project leading to inevitable failure and confusion.

<sup>3</sup> The building of Steven Holl in Chengdu, China (2007–2012) with an area over 310,000 m<sup>2</sup> of office, residential, commercial and service spaces (including hotel, restaurants, cafes). Five towers



III. 1. G. Piranesi, *Invenzioni capric [ciose] di Carceri*, figure VII (Source: J. Wilton-Ely, *Piranesi as Architect and Designer*, Yale University Press, New York 1993)

four levels of viewing platforms connected by open staircases and supported by sloping, “broken”, highlighted beams and columns, changing colours with the Chinese calendar. The structure placed several levels above the ground in one of the buildings of the complex is open to the interior of the square and surrounded on three sides with glass walls, visually continuing its space *ad infinitum*. It is an experimental space, experienced never before like the one of Piranesi, created without the logic of orthogonal, geometric design – “somewhere between traditional architecture and the virtual environments of cyberspace”. Its sole purpose is to give a new experience, just like reality provides it – “new challenges to our abilities to understand and to act”<sup>4</sup>.

The *Carceri* also present open spaces. Piranesi’s drawings have little in common with the real nightmare of prison, the essence of which is closing an individual in a small space like walling in a tomb, The space was “coloured” by poverty, death, vermin and tortures in the Romantic era, and “enriched” by the uniformity of barracks and the hygiene of execution in the twentieth century. *Caprices on prisons* is more an oneiric work – a dream devoid of time (the autonomy of individual figures shows the lack of plot in Piranesi’s narrativity) with a “smooth” space, accompanied by “the impression of flight, intoxication coming from touching or exceeding the threshold of impossibility”, terror close to ecstasy and “the terrible, inevitable beauty”. Margerite Yourcenar sees it as “the dream of stone”. The stone is indeed the main material of the Prisons, completely devoid of fauna, flora and other terrestrial elements except for the fire but not open – only forming clouds of smoke – “light and shapeless” [23, p. 31].

Thus the nightmare of the Piranesi’s prisons is a nightmare close to the Panopticon – a labyrinthine and yet open space in which avoiding noises and the gaze of observers is impossible – the absolute lack of any privacy and shelter. Manfredo Tafuri sees it as an infinite space without any centre, corresponding to the evolving, Enlightenment society. The world of traditional, ancient values was demolished – with its order and reason – and transformed into the absolute irrationality. The *Carceri* predicted alienation – the “global, voluntary alienation in collective form”. “But the prison, precisely because infinite, coincides with the space of human existence” [20, p. 18]. The human mind in Piranesi’s works leads simultaneously to its freedom and condemnation<sup>5</sup>. The *Carceri* were critical acts towards the surrounding reality.

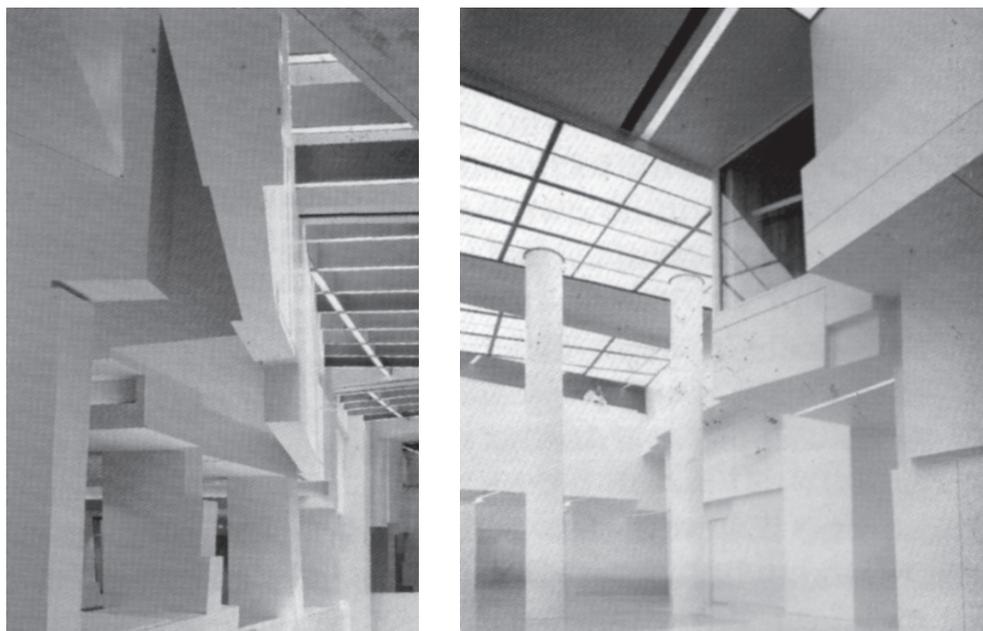
The architecture of Peter Eisenman has the same function. “Architecture must be capable of questioning both the traditional way of expressing meaning and of solving the

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surround a multilevel square (formed on the basis of Du Fu’s poem) with symbolic water gardens – skylights. Above the square in three openings in the buildings three pavilions are located: The Pavilion of History by Steven Holl Architects The Light Pavilion by Lebbeus Woods and the Local Art Pavilion [18].

<sup>4</sup> L. Woods, the description of the project [11].

<sup>5</sup> The failure of resistance against the upcoming changes illustrates according to Tafuri the scene of tortures in the figure II – a fatigued “Superman” surrounded by a bland crowd. At the same time it is known that Piranesi didn’t want to show the horror of prison tortures. Only in one drawing is a group of tortured people clearly presented. In the rest of the drawings only tools and small figures in the background appear – torture victims, executioners, and an indifferent audience. These prisons, where there is no time or living nature, closed cells with unsafe here stupidly happy residents, the bottomless abyss with no way out are not ordinary prisons but hells, according to M. Yourcenar [23, p. 41] and M. Tafuri [20, p. 18-19].



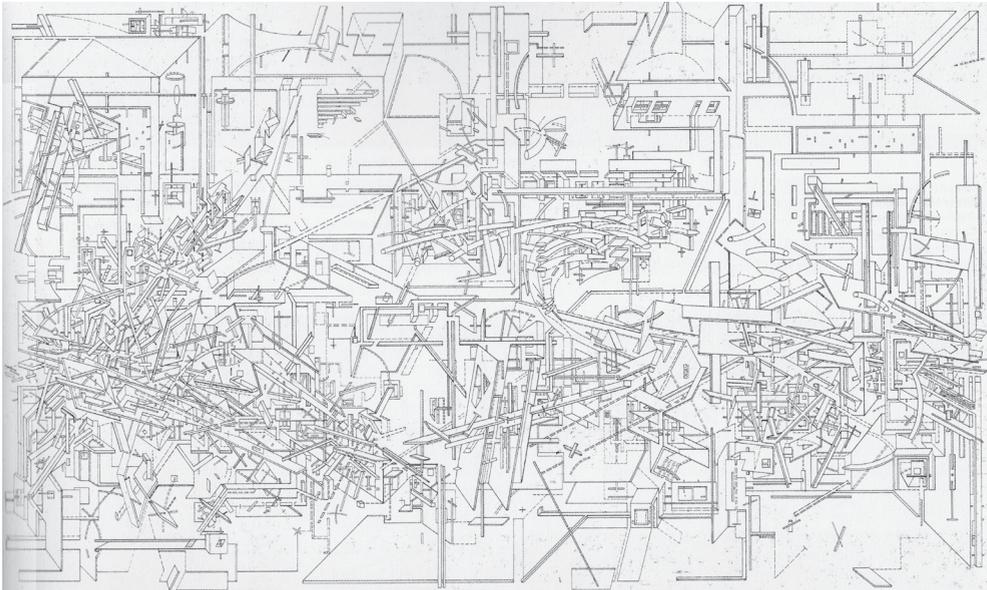
Ill. 2. P. Eisenman, Aronoff Center for Design and Art (Source: L. Galofaro, *Digital Eisenman: An Office of the Electronic Era*, Birkhäuser Architecture, Basel 1999)

problem of function. And thus both the social function and its modes of legitimization”<sup>6</sup>. Eisenman draws his way of thinking and forms from Piranesi, transforming them and interpreting in his own act of creation. Various analogies with the *Carceri* may be traced in the example of the Aronoff Center of Design and Art (1988–1996, Cincinnati, Ohio), the reconstruction and extension of the college of design, architecture, art and planning. Its new section accommodates exhibition spaces, offices, studios, a library and a theatre. Its aesthetic stems from its context – the flowing of the surrounding landscape lines and the curves of the existing building. The new school building was created in cooperation with its staff, students and patrons. It challenges the process of contemporary education and its present alternatives, preparing its students to play a significant role in society, to avoid “artificiality and inconsistency”. Instead of planning an architectural monument the architect of the Aronoff Center created a building that is supposed to be the result of an evolutionary design process with which users may fully identify themselves [5, p. 11]. Its central space – a hall with a staircase, formed out of intersecting, crashed and dynamic elements in different colours, places its user in a situation of constant discovery instead of explicitly directing their sight and giving a sense of security and spatial orientation. Piranesi used perspective to introduce the viewer into his space – “to reconnect the fragments of a puzzle that proves to be, in the end, unsolvable” [22, p. 26]. Eisenman on the other hand uses modern multimedia technology to create a space that “a body measures and feels”, continuous, variable and surprising, a space in which colour emphasizes contrasts and “dematerialises spatial tension” [5, p. 14-18].

<sup>6</sup> From an interview with P. Eisenman, 1997 [5, p. 11].

Buildings of institutions educating in the field of art, which through its form are supposed to sensitize its students and have a broad influence on their perception of the world, are excellent buildings to use the model of the “Piranesian” space of the *Carceri*. It was applied by Eisenman, Coop Himmelb(l)au and also Thom Maine. “41 Cooper Square” (New York, 2004–2009) is a building of the School of Fine Arts combining faculties situated once in three different buildings. It houses: laboratories and educational rooms, exhibition spaces, an auditorium, a hall, multi-purpose spaces, and service facilities. The architecture of the building reflects the ideas of the Cooper Foundation – thorough and innovative education in the fields of art, architecture and engineering. Just like the building standing previously on the site, it was to be distinctive and innovative, and this means not just the modern technologies used in its construction and energy saving solutions, but also its architecture. Its central communicational space creates a kind of “vertical piazza” – a place of social, intellectual, and creative exchange – formal and informal, shaping the academic environment. A grand staircase, surrounded by a construction shaped as a concrete, reticular funnel and placed inside, leads through four levels. Bridges connecting rooms of various functions above it intersect and pass in the space of a glass atrium. Vertical transportation is also possible by lifts, but not all of them stop at each level, making it necessary to change and thus creating more movement [7].

In Piranesi’s, “the unparalleled freedom of etching here matches the daring spatial play of an architect escaping from the limitations of conventional perspective” [24, p. 12]. Delusions not due to incorrect perspective, but the construction of a perspective impossible to receive unambiguously – a world enclosed and mathematically infinite at the same time [23, p. 35].



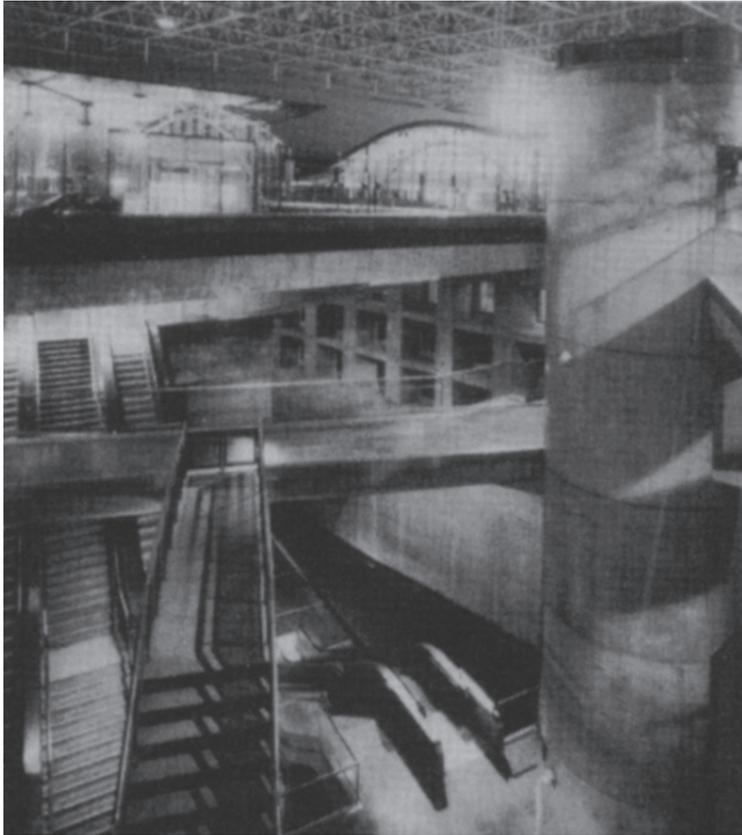
III. 3. D. Libeskind, *Micromegas* (Source: N. Spiller, *Visionary Architecture, Blueprints of the Modern Imagination*, Thames & Hudson, London 2006)

Daniel Libeskind's drawings make such an impression. The series of "Micromegas" graphics (1979) shows twisted, free compositions with accumulated architectural elements which do not play the role of spatial signs but rather "post-apocalyptic tableaux" create an infinite space without any centre or borders, producing feelings of uncertainty and confusion. Without any scale or the ability to read any close or distant plans it is impossible to identify the viewed space and to assign it to the world of real things or not. Libeskind also used such spatial tricks in his Jewish Museum in Berlin, producing private and collective palimpsests, creating an experience that is always an attempt of presence lived in the presence – "even if it is the presence of absence", such as the experiences of exile or death [17, p. 152-153; 16, p. 40].

Sloping ramps and columns, walls of varying plans and divisions, freely positioned openings, glass partitions not limiting the space running "to infinity" are visible in all of Coop Himmelb(l)au's architecture and in the expansion of the building of the Munich Academy of Fine Arts they combine zones with different functions (workshops for painting, sculpture, photography, media, and printing) – university departments. The building (1992–2005; the extension of the academy built in 1876) is located at the junction of the facades of the *Leopoldstraße* and *Akademiestrasse* buildings, various shattered buildings of the *Schwabing* district, and the green spaces of *Leopoldpark* and *Akademiegarten*. The form of the building corresponds to its purpose – the diverse ways of creativity – and its context, creating a series of interpenetrating spaces between the park and municipal buildings: the glass façade and the academy gate, a courtyard, the terraces of studios and the gate to the park [2]. "We want an architecture to have more. Architecture that bleeds, that exhausts, that whirls and even breaks. Architecture that lights up, that stings, that rips and under stress tears. Architecture should be cavernous, fiery, smooth, hard, angular, brutal, round, delicate, colourful, obscene, voluptuous, dreamy, alluring, repelling, wet, dry and throbbing. Alive or dead. Cold – then cold as a block of ice. Hot – then hot as a blazing wing. Architecture must blaze!" we read in the manifest of the Coop Himmelb(l)au group [13, p. 462].

Searching for the origin of the *Carceri*, Margarite Yourcenar indicates the biography of Piranesi, who survived the plague at a young age. She writes that primarily the fever sharpened the perception of the artist to the limits of hyperactivity – almost torture. This could have caused his stunning impetus and mathematical folly, but also the simultaneous attacks of agoraphobia and claustrophobia, the fear of the enclosed space of prisons, which might have dictated the *Carceri* to Piranesi [23, p. 25].

In *l'Espace Piranesien* Rem Koolhaas has found a link between the open space of prisons and the network communication of Euralille. This new shopping centre and the TGV station in Lille, added to the existing railway station (1989–1995), connects the historic centre of the city with its suburbs. The square building measuring 50 × 50 m and 25 m high is a "shell" covered with glass, containing the "urban chaos" of the living city – people and vehicles moving in all directions. In the vast space similar to the one of the *Carceri* one can see only the structure and movement: stairs, ramps, elevators, TGV tunnels and the local metro and also access routes for a three-level car park and a highway. Tafuri describes Piranesi's *Carceri* as a metaphorical, labyrinthine journey without end. In the Koolhaas's building this journey receives the literalness of the realized object and paradoxical notion. *L'Escape Piranesien* is real – made of metal, glass and concrete, but instead of clarity and conciseness helping passengers moving in this transport hub, which would be consistent with its essence, it creates a kind of horror by adding the element of a labyrinth to the "beloved" themes of Koolhaas: density and size [9, p. 320-331; 8].



III. 4. R. Koolhaas, *l'Espace Piranesien* (Source: N. Temple, *Disclosing Horizons, Architecture, perspective and redemptive space*, Routledge, London 2007)

The basis for the richness of the narrative references of contemporary architecture to the figures of *Carceri* should be probably looked for in the depths of the human psyche. Thomas de Quincey in his *Confessions of an English Opium-eater* (1821) gave the *Carceri* as the best example of architectural visions that drive him to the state of excitement under the influence of opium. It is therefore neither a rational architecture nor pure functionalism, but one the creation of which is accompanied by a euphoria similar to the ecstasy while creating music or dance. The architecture not “analogous to the salon conversation in stone, but a unique symbol of faith” – “a passionate expression transferred into the stone of his ideological credo ...”, which in the works of Eisenman, Maine, Woods, Libeskind and Rem Koolhaas communicates novelty, experiment, variability and the dynamics of movement. The fever that Piranesi “balanced” in the rest of his works. “Without the Views and the Antiquities the phantasmagoric world of the Prisons would have seemed too polite and artificial to us, we could not recognize the reality from the elements appearing in the dream, like an obsession. On the other hand, without the almost demonic boldness of the Prisons and in the seemingly classic Views and Antiquities we could not hear the deep song – visual and metaphysical at the same time – of the meditation on the life and death of forms” [23, p. 15, 16].

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