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## In Praise of Errors

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# IN PRAISE OF ERRORS:

## Erroneous Landscapes of Passages

BY LAURA CIPRIANI AND LEONARDO ZUCCARO MARCHI

*There is no art which has not had its beginnings in things full of errors. Nothing is at the same time both new and perfect.*

Leon Battista Alberti

*To rise from error to truth is rare and beautiful.*

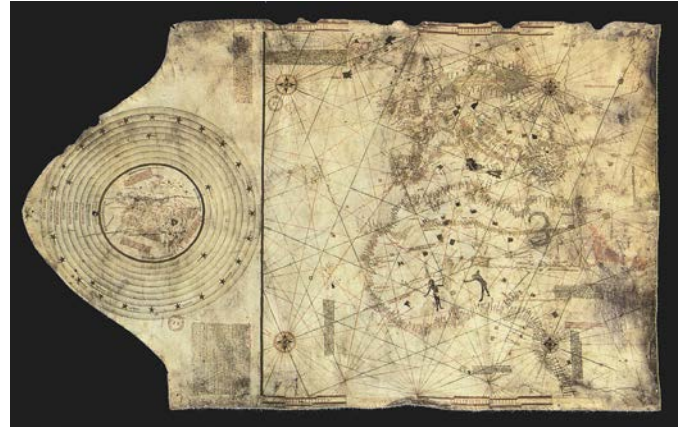
Victor Hugo

History has seen plenty of erroneous spaces and – more rarely – anomalous discoveries: from architects to engineers, from navigators to cartographers, multiple passages and routes were found by unplanned oversights.

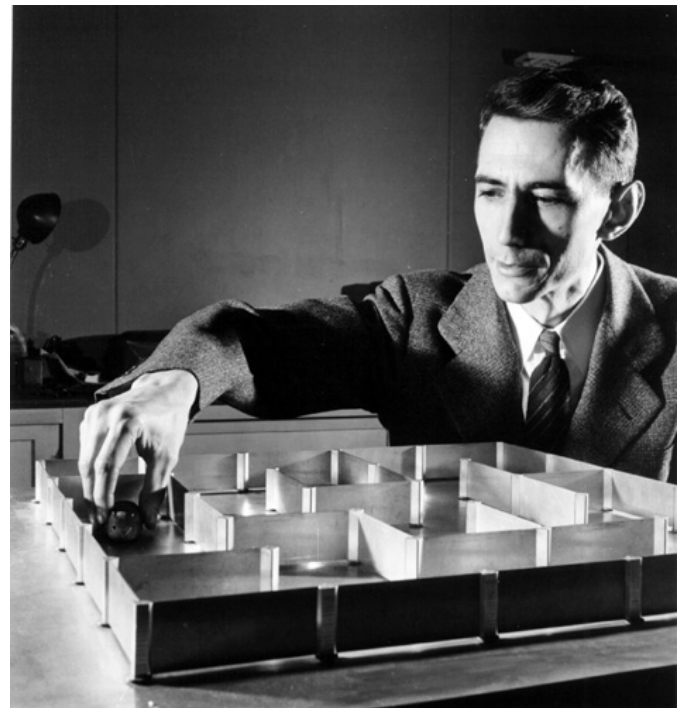
Since contemporary cities are made up of socially and physically disjointed parts, the passage occupies a crucial role in connecting the urban fragments and making a significant impact on the quality of movement and social life in the urban space (Smets, 2014). Facing the existing urban landscape condition, we intend to speculatively re-interpret the idea of passage as a product of error. We are interested in both re-conceptualizing error as a potential catalyst for passage and in reconsidering the different possible types of errors in the city landscape and their relationship with spaces of physical connection. From structural to administrative, functional to material, design to digital/technological, we are particularly interested in investigating case studies wherein error is the force behind relevant spatial transformations, either in the urban landscape or in the social structure, and, even more, when it is reinterpreted with a new and positive purpose.

The word ‘error’ comes etymologically from the Latin error, the verb form of which, errare, translates into ‘wandering.’ Error is thus both explicitly and implicitly connected with the idea of a path, a route, a passage with neither boundaries nor endings nor directions. In Italian errare still retains its double meaning: on the one hand, it refers to a mistaken route; on the other, to walking about, roaming, and wandering. The error itself can therefore be re-conceptualized as a kind of undefined promenade: an ambiguous, dynamic passage that does not conform to any set of rules.

Error is therefore understood as a creative act. Looking for new roads, risking creative responses, taking the road “less traveled,” making mistakes in order to create something



Bartolomeo and Christopher Columbus, ‘Christopher Columbus map,’ Lisbon, c.1490  
Bibliothèque Nationale de France (CPL GE AA 562 RES)



‘Claude Shannon and experimental mouse maze constructed of relays demonstrated machine learning,’ 1952

that breaks the routine of daily life: such negotiations are the main intent of this short essay on erroneous landscapes of passages.

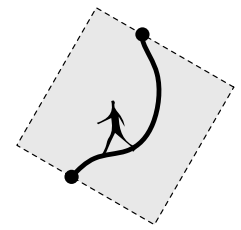
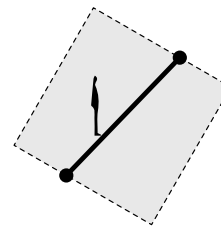
Error potentially hides an opportunity to see the birth of a new story, but nothing would exist if it were not for the novelty of arriving at an unexpected and unpredictable

result, occasionally following an unprecedented and seemingly absurd path. In times of economic, political, environmental and imaginal crisis we believe that there is a need for design that recalls the desire to imagine a new way of life behind the apparent absurdity, that we need a vision to imagine a world that knows how to create through the elaboration of the error. All types of errors – whether grammatical, structural, functional, or physical – are considered for their potential, even though these different perspectives are usually categorized as being ‘wrong.’

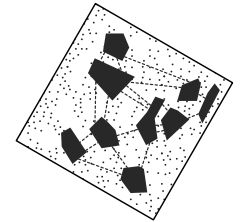
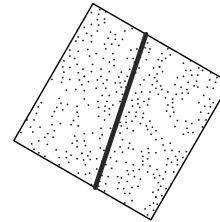
For example, Cristopher Columbus’ arrival in the so-called New World was the result of a series of geographical misconceptions. His notion of reaching the East Indies by sailing westward and therefore establishing a new westward spice trade route was fundamentally correct as an idea, yet he mistakenly believed that Europe and Asia were separated by less than 3,000 miles and had no knowledge of the hulking landmass and its inhabitants that lay in the way. Nonetheless, instead of reaching Japan as he intended, Columbus landed in a New, and unexpected, World.

Contemporary cities, like Columbus’ world, are made up of fragmented parts that often do not communicate with each other. Planned passages or corridors can patch up disjointed pieces but, occasionally, unintentional routes allow for a different method of joining parts. The grammatical error in the urban plan is an important aspect of our contemporary urban condition, affecting the text of the city as well as our reading of it (De Certeau, 1980). In cities, even ecological corridors were mostly unplanned for a long time; today, only open spaces from the leftovers, from errors of some kind, take on ecological value. In urban semiology (Barthes, 1967), the grammatical error of the city goes beyond the prefixed ideas of our reality. Error establishes new relationships inside the physical and representative fragmentation of the twentieth and twenty-first century city, where each singular fragment or part is juxtaposed or reinterpreted in new laws, similarly to Schönberg’s contemporary classical music (Viganò, 2000).

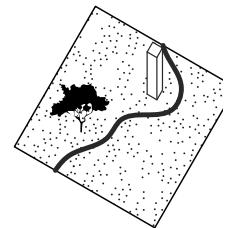
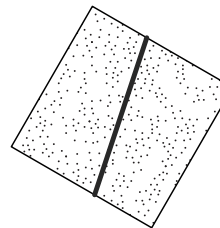
Error is also a method of latent learning, as explored, for instance, by Edward Tolman since the 1930s. Our living in the city is similar to that of hungry rats in a labyrinth or maze where, through test and error, they learn and memorize the right route. Paying full attention to the subjective experience of the city, the cognitive maps from the 1950s and later (Kevin Lynch, the Situationists, etc.) derive from behaviorist and cognitive psychology based on experiments on the errors of animals as well as those of men (see ‘Cognitive maps in rats and men’, Tolman 1948). Tolman’s maze is therefore one of the most important early prototypes of passages of error in the city and calls for a comprehensive reconsideration.



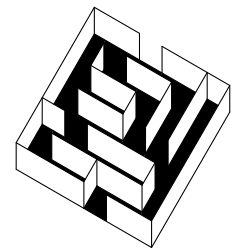
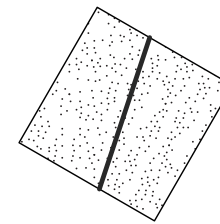
*Etymology*  
PASSAGE / PASSUM  
ERROR PASSAGE / ERRARE



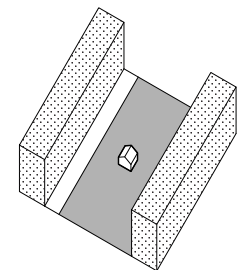
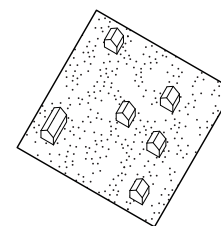
PSYCHO-GEOGRAPHIC



PSYCHO-GEOGRAPHIC  
LYNCH



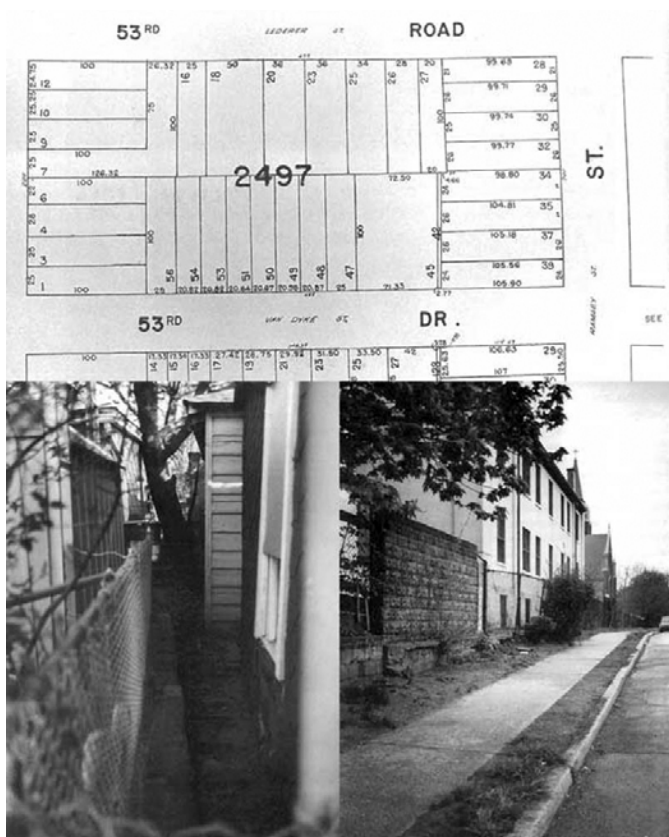
COGNITIVE



ADMINISTRATIVE

Above: ILLUSTRATIONS BY ALICE COVATTA.





'Reality Properties: Fake Estates,' Gordon Matta-Clark, 1973.



'Nail houses in China,' Wenling, Zhejiang Province, REUTERS/China Daily, 2015.

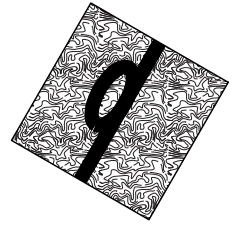
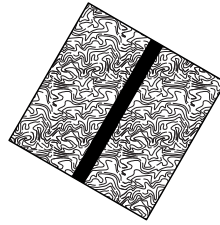


'The Friendship Bridge,' Hiyosbi Springs Resort in Nantan, Japan, 2009.

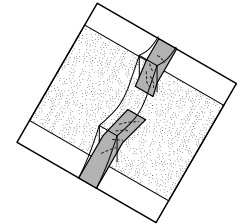
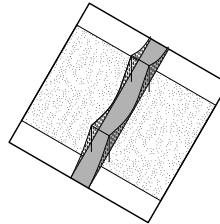
Among the different types of errors in the city, the administrative error became an important source of inspiration for many, including the well-known artist Gordon Matta-Clark. In the 1970s, Matta-Clark acquired fifteen small lots of land in New York which were the result of errors of zoning, measuring, and lazily supervised development of the city. These very tiny residuals of land were anomalies and glitches in-between two or more administratively correct lots. These weird micro-zones were of different dimensions and proportions: they could be many meters long but narrower than 30 centimeters, similar to long narrow corridors. They were the administrative and physical gutter passages of error, the forgotten voids of errors, separating one property from another. Their odd and nonsensical presence was hidden from and in contradiction to the rationality and rigidity of the urban grid's rules. These liminal and sometimes inaccessible landscapes of error became potentially astonishing sources of inspiration as well as physical supports for the artistic ideas of Matta-Clark. His *Fake Estates*, put together in 1973, turned administrative and zoning error into an intriguing source of artistic expression and a sharp critique of the way in which urban space is conceived and used.

In other cases, passages are affected by the refusal to make room for real estate development. In China the so-called 钉子户, or 'nail houses,' are homes whose residents refuse to leave in order to make way for new construction. Photos show how these houses intersect multiple infrastructures, such as highways and public plazas, representing a physical symbol of protest and condemnation of the administrative appropriation error. The result is an anomaly of both the passage whose flow is interrupted by the house and the private living space, which is absorbed into the new infrastructure's unnatural context. What is interesting is that the route, the passage, is not completely affected; instead, the presence of the obstacle generates the possibility of going around it.

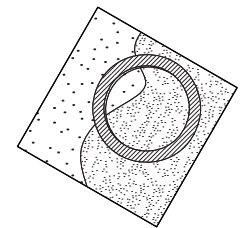
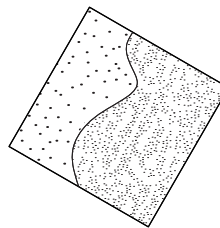
Error can also be the product of a deliberate design decision. Multiple bridges and passages have been planned as twisted, distorted, and broken paths meandering between two points. Error, in such contexts, is the result of the architect's design will. Japan's Friendship Bridge, located over a spring near Kyoto, draws a suspended circular route between the water's banks. If a line usually represents the shortest direction between two points, this 'erratic' path allows for a rounded wandering above the river. The ring-shaped structure of the Laguna Garzon Bridge, designed by Rafael Viñoly in Uruguay, is not justified by any regular vehicular reasons. Neither crossings nor rotatories are needed since the street is suspended over the lagoon without any interactions or interruptions. The error is designed on purpose in order to reduce the speed of cars and give the driver, as she meanders, the opportunity to visually enjoy the landscape.



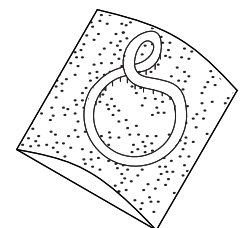
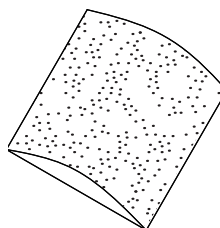
DESIGN



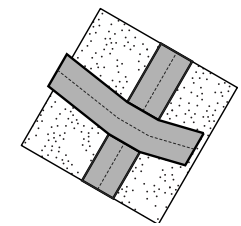
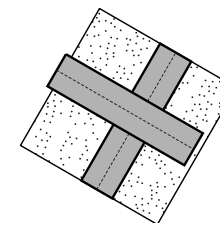
STRUCTURAL



LANDSCAPE



DECEPTIVE



TECHNOLOGICAL-DIGITAL

Above: ILLUSTRATIONS BY ALICE COVATTA AND LAURA CIPRIANI



The Tianjin Eye in Tianjin, China, is a passage over the Haihe River that encompasses the idea of the erratic circular wandering. The bridge, which carries six lanes of traffic across the river, incorporates a Ferris wheel with passenger capsules.



Rafael Viñoly, *Laguna Garzón*, Uruguay, 2015



'Tianjin Eye,' Hai River in Tianjin, China, 2008



'The Half-Bridge of Hope,' Russia, 2007



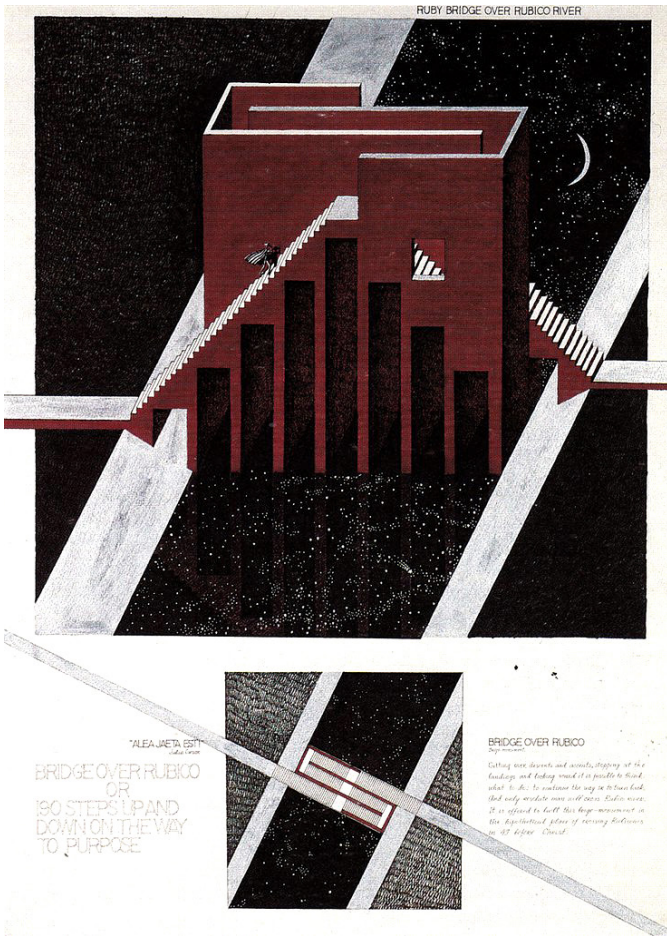
Tetsuo Kondo, *'A path in the forest,'* Tallin, Estonia, 2011

As such, it is not so much an error as it is a destination in itself. The Atelier Bow-Wow, has recently reinterpreted and juxtaposed the wandering and chaotic experiences of Piranesi's Carceri and the Circus. Their experimental project, presented at the inaugural Chicago Biennial in 2015, is a public artwork which enhances social interaction through different kinds of paths, passages and promenades in a narrow courtyard. In the Russian countryside, the Half-Bridge of Hope forces the idea of a missing, endless passage with no practical purpose. This abortive connection with its intentional error assumes a symbolic connotation of hope, constructing, and forcing, a brand new point of view and relationship with its surrounding landscape.

In 1980s Russia, a group of young architects founded an informal movement called 'Paper Architecture' which took elements of broken passage to further extremes. The Minotaur Bridge, designed by Mikhail Belov in 1987, pursued a reinterpretation of the ancient Greek myth by transforming the direct and linear passage of the bridge into an impossible labyrinth. In this case, the error is both the wandering experience on the bridge itself as well as the closed passages which inside the Minotaur's mythical maze itself. Similarly, Belov's 1987 proposal for the Bridge over the River Rubicon was a radical expression of error as wandering, indecision and ambiguity: only by turning back toward the starting place, negating the first action toward the other side, can the end of the passage be reached.

Error sits at the center of countless other design proposals, too. Peter Eisenman, with the project Moving arrows, Eros and other Errors (1986), interprets the story of Romeo and Juliet in architectural form, intersecting the oppositional Capulet and Montague castles in an erotic error of juxtaposition and interpenetration. Defensive walls, necessary to protect the two feuding families from one another, here become passages from one property to the other in an homage to the doomed lovers' commitment to one another. In Eisenman's hands, Shakespeare's manuscript collapses itself into a synchronic error of its physical reinterpretation.





'The Bridge over the river Rubicon,' Mikhael Belov, 1987 (Top)



'Plate from Box 3 – Moving Arrows, Eros and other Errors - An Architecture of Absence,' Peter Eisenman, Published by Architectural Association in London, 1986



'Walk On,' Zaleski Architecture Group, Gliwice, Poland, 2014 (Right)



'The Infinite bridge,' Gjøde & Povlsgaard Arkitekter, Aarhus, Denmark, 2015

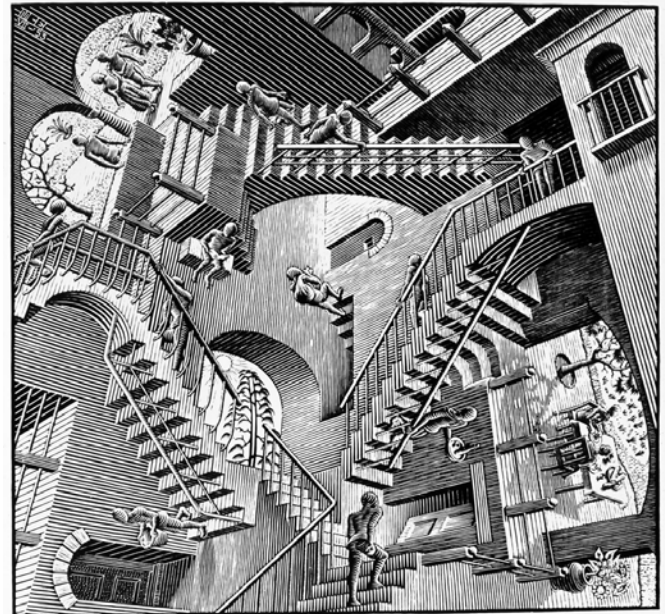


In the world of landscape, error passages often endeavor to involve nature in the erratic experience of movement. The poetic Infinite Bridge in Aarhus, Denmark, designed by Gjøde & Povlsgaard Arkitekter in 2015, seeks to establish a relationship between the city and the endless landscape of the bay through its perfect circular form. Error in this case is the act of walking in circles, a physical and spiritual revolution which allows people to meet and emotionally connect in contemplation of the natural panorama, free of the decisions of navigation as well as from the definitiveness of arrival. Similarly, architect Tetsuo Kondo's floating footpath, entitled A Path in the Forest, preserves the natural integrity of the forest while also incorporating certain woody elements, such as ivy, into itself. Installed in Kadriorg Park in celebration of Tallinn, Estonia's designation as the 2011 European Capital of Culture, the erratic passage enables people to gain different experiences and perspectives of the natural environment. At the opposite extreme, the Zalewski Architecture Group imagines a green, tortuous, suspended pathway above the courtyard of a building in Gliwice, Poland. The concept was conceived on a summer's day when the architects, looking out their office window, were desperately longing 'to go for a walk'. The grass and gravel covered path leaps out from a window and ends up, after a few twists and turns, in the next window over, reminding us that the error, the creative evasion, has led you back to reality.

The historical list of failures of infrastructural passage is very long and often descriptive of epochal shifts in the paradigm of passage. The collapse of the first Tacoma Narrows Bridge, a suspension bridge south of Seattle, is an example of how error can facilitate new construction and engineering knowledge. On November 7, 1940, four months' after its inauguration, the passage dramatically collapsed as a result of self-propelling vibrations, called aeroelastic flutter, caused by the wind. The event is an example of what, in physics, is known as elementary forced resonance: the wind provided a periodic frequency that matched the natural structural frequency of the bridge, encouraging the further rotation of the bridge's span. This construction failure boosted research into the fields of bridge aerodynamics and aeroelastics, research that has greatly influenced the designs of all the world's great long-span passages built since 1940.

The error passage can also be extreme, endless and imaginative. In the afore-mentioned Carceri (1745-1761) of Giovanni Battista Piranesi, the space has neither centrality nor order in its mix of anguish, the irrational, and the sublime. Piranesi's destruction of the center and the lack of rules or directions transform the total disorder into an infinite wandering. In contradiction to the later conceptions by Bentham or Foucault, the complete freedom of movement in any direction without any limits or destinations turns the structure into the most anguishing prison. In Escher's *Relativity* (1953), the total

Piranesian disorder is imbued with physical and theoretical paradigms which flustered the entire twentieth century. The physical and perfect geometric composition is upset by the presence of multiple gravitational forces. These latter allow mannequins to wander in any direction, folding reality and the physical rules into a distortion, an error of the normal physical rules and of common sense.

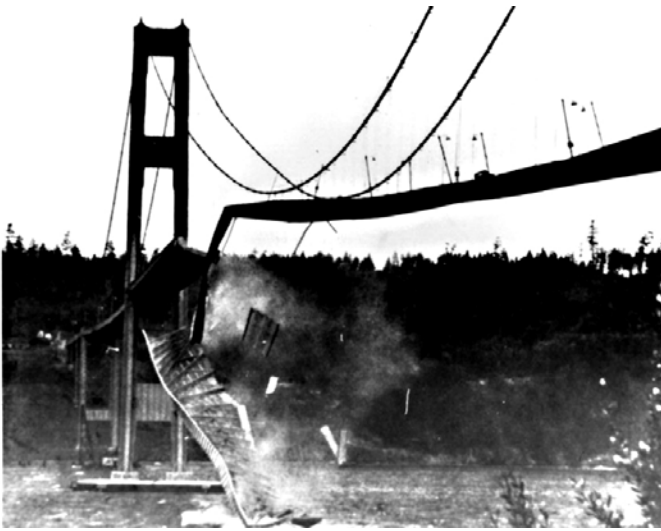


*'Relativity,' Maurits Cornelis Escher, 1953*

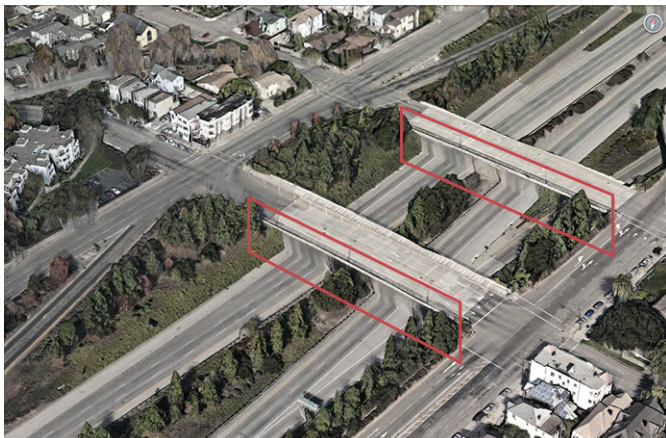


*'Security,' John Quentin Hejduk, Oslo, 1989*





*The Tacoma Narrows Bridge Collapsing, November 7, 1940*



*'Postcards From Google Earth,' Clement Valla, 2012*

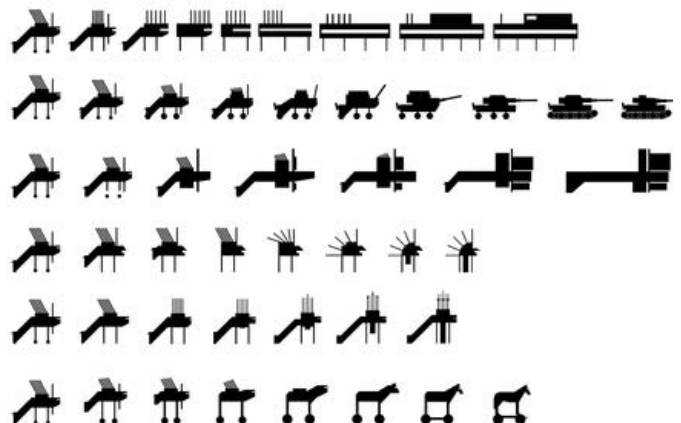
The visual passages of Piranesi and Escher materialize in the apparently endless spiral of the Dutch architects NEXT. This passage brings you to nowhere in particular: it is a sculpture in a green landscape, a folly of impossibility which recalls Richard Serra's large-scale assemblies of sheet metal. The path is walkable only in one direction, transforming the endless error passage into an impossible visual illusion.

Right: LAURA CIPRIANI AND LEONARDO ZUCCARO MARCHI

Extreme error passages have also been sagaciously envisioned in John Hejduk's moving masques. Some of his movable staircases are interrupted architectures: these iron passages, trying to resemble engineering construction errors, surprisingly allow unusual viewpoints, thereby becoming destinations themselves.

In the book 'Mask of Medusa' Hejduk writes: 'The wall... [is] the moment of greatest repose, and at the same time the greatest tension. It is a moment of passage. The wall heightens that sense of passage, and by the same token, its thinness heightens the sense of it being just a momentary condition... what I call the moment of the present' (Hejduk, Shkapich, 1985). This is why, in Hejduk's sketches, these transportable staircases transform incessantly into something else, mutating into erroneous and incongruous architectural metamorphoses, assemblages of passages confronted with stasis and obstruction.

In the present age of media in which we live, errors can also be the product of a technological and digital distortion. The artist Clement Valla started collecting Google Earth images in which he discovered odd and misrepresented passages of the Earth's surface. The distorted bridges and passages are the absolute logical result of the system revealing how Google Earth software works. Images are represented through automated data collection from a myriad of different sources that are constantly updated and endlessly combined to create a unified illusion. 'Google Earth is a database disguised as a photographic representation. These uncanny images focus our attention on that process itself, and the network of algorithms, computers, storage systems, automated cameras, maps, pilots, engineers, photographers, surveyors and map-makers that generate them' (Valla, 2014). As such, that piece of the internet that we have all become accustomed to trusting as the farthest-reaching representation of our reality is yet another manifestation of error, requiring the mind, in its transmigration from screen to understanding, to negotiate the distorted passages of technology. It thus stands that the notion of error is all-encompassing, definitive of all experiences of the urban, natural, and digital world. We believe that we need a new vision to imagine a world that knows how to create and compose through the elaboration of error.



## The Micro-Manifesto of the Erroneous/Erratic Passage

1. The passage of error allows us to wander ('errare') and to explore.
2. The passage of error is a creative act. The opportunity to see the birth of a new story potentially inhabits every error.
3. The passage of error sometimes brings you to an absurd path. Without foolishness we do not have a new vision.
4. The passage of error can be explorative, cognitive, administrative, design-based, structural, and technological-digital.
5. The explorative passage of error leads to new routes.
6. The cognitive passage of error leads to new learning.
7. The administrative passage of error establishes new social and spatial relationships between art and the city and between the living space and infrastructure in the city.
8. The designed-based passage of error is a fake error and it is the product of the architect's will.
9. The landscape passage of error allows us to connect emotionally to nature.
10. The structural passage of error improves our scientific knowledge.
11. The extreme passage of error makes us reflect on reality and on illusion.
12. The technological-digital passage of error leads us to not trust maps, cartography and digital media.

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