Patrice Elmer

The Propylaea of Paris

Los propileos de París

Os propileus de Paris

Abstract | **Resumen** | **Resumo**

Ledoux, les Propylées de Paris is an animated slideshow portraying all the octroi tollhouses of Paris, built by Claude Nicolas Ledoux (1736-1806), a visionary architect, urbanist and utopian. 3D modeling was done with SketchUp Pro, rendering with Artlantis Studio and Photoshop CS, and video editing with iMovie. Each building rendered in 3D is graphically explored using transparency and greyscale. The source documents are the writings of Claude Nicolas Ledoux – *L'architecture considérée sous le rapport de l'art, des mœurs et de la législation* (Architecture Considered in Relation to Art, Mores and Legislation), Volumes I, II, and III, viewable online at the French National Library website: gallica.bnf.fr

Ledoux, les Propylées de Paris es una presentación animada que muestra todas las barreras de aduana de París construidas por Claude Nicolas Ledoux (1736-1806), un arquitecto y urbanista visionario y utopista. El modelado en 3D se hizo con SketchUp Pro, el *rendering* con Artlantis Studio y Photoshop CS y el vídeo se editó con iMovie. Cada edificio representado en 3D se explora gráficamente mediante transparencias y escala de grises. Los documentos originales proceden del libro de Claude Nicolas Ledoux *L'architecture considérée sous le rapport de l'art, des mœurs et de la législation* (La Arquitectura vista desde la relación del arte, de las costumbres y de la legislación), tomos I, II y III que pueden consultarse *online* en el sitio web de la Biblioteca Nacional de Francia: gallica.bnf.fr

Ledoux, les Propylées de Paris é uma apresentação animada de slides que retrata todas as portagens *octroi* de Paris, construída por Claude Nicolas Ledoux (1736-1806), um arquiteto, urbanista e utopista visionário. A modelação 3D foi feita com o SketchUp Pro, a renderização com o Artlantis Studio e o Photoshop CS, e a edição de vídeo com o iMovie. Cada edifício renderizado em 3D é explorado graficamente usando a transparência e escala de cinza. Os documentos originais são os escritos de Claude Nicolas Ledoux – *L'architecture considérée sous le rapport de l'art, des mœurs et de la législation* (A Arquitetura Considerada na sua Relação com a Arte, Costumes e Legislação), Volumes I, II, e III, disponíveis *online* no website da Biblioteca Nacional Francesa: gallica.bnf.fr

Claude Nicolas Ledoux and the octroi tollhouses of the Fermiers Généraux wall

There can be no better introduction to the work of Claude Nicolas Ledoux than the review of his book *L'Architecture considérée sous le rapport de l'art, des mœurs et de la législation*, by Daniel Rabreau[1]:

> *Born in 1736 at Dormans in the department of Marne, after studying with a scholarship at the Beauvais College in Paris, Ledoux started out as a draftsman and engraver while also learning architecture at the school of Jean-François Blondel. Linked to poets such as Dellile or Saint-Lambert, friend of Physiocrats and familiar with the world of the fermiers généraux tax collectors and of high finance, Ledoux became one of the most fashionable architects from the latter reign of Louis XV to the Revolution. He was one of the outstanding builders of his time, though his work was largely demolished in the nineteenth century and has been reassessed really only in the last fifty years or so. Appointed inspector of saltworks in Lorraine and Franche-Comté in 1771, then architect of the Ferme Générale [the corporation responsible for collecting taxes on the king's behalf] in 1773, Ledoux had an essentially Parisian career albeit with significant ventures in the provinces. A member of the Royal Academy of Architecture from 1773, protégé of Madame Du Barry, of Trudaine, and then of the chief ministers of Louis XVI, he was commissioned to perform some major innovative projects: the Royal Saltworks of Arc-et-Senans (1775-1779), the Theater of Besançon (1775-1784), or the octroi tollhouses of Paris (1785-1789). The Château of Bénouville in the department of Calvados and the Hallwyll Hotel in Paris are the sole remaining testimonies of his private-sector output, also extensive.*

> *As a theorist of narrative iconography in the art of building, much influenced by the morality of Jean-Jacques Rousseau and the sensualist philosophy of Condillac, Ledoux shared with his colleague Etienne-Louis Boullée (author of a book entitled Architecture, essai sur l'art – Essay on the Art of Architecture – written in 1781-93), an altruistic and didactic view of the art of architecture at the service of society. In 1804, two years before his death, Ledoux published one of the five promised volumes of L'Architecture... A second posthumous volume, published without text by Daniel Ramée in 1847, contained unpublished engravings compiled by his heirs. The first prints of L'Architecture... had appeared back in 1773; over thirty years, Ledoux set some twenty engravers to work on this unique publication.*

1: Cover of *L'Architecture considérée sous le rapport de l'art, des mœurs et de la législation* by Charles Nicolas Varin (Ledoux 1840 edition)

2: Cover pages of the various volumes of *L'Architecture considérée sous le rapport de l'art, des mœurs et de la législation* (Ledoux 1804, 1847)
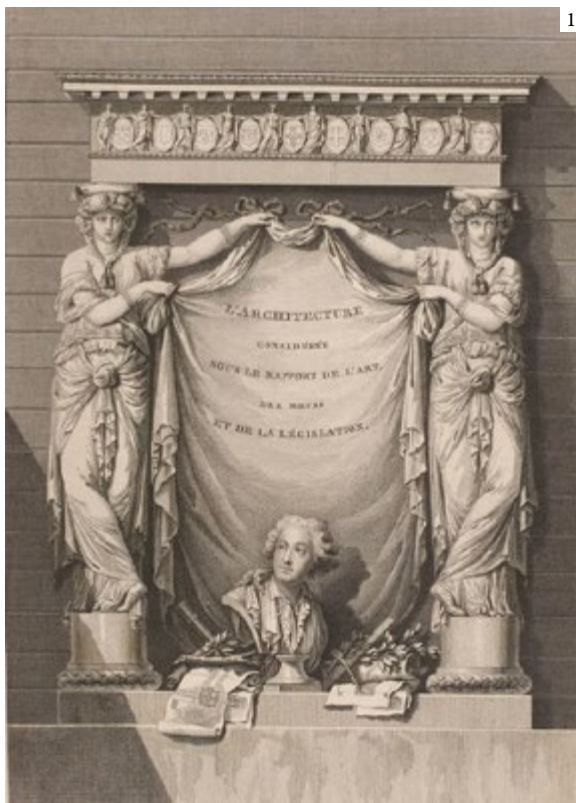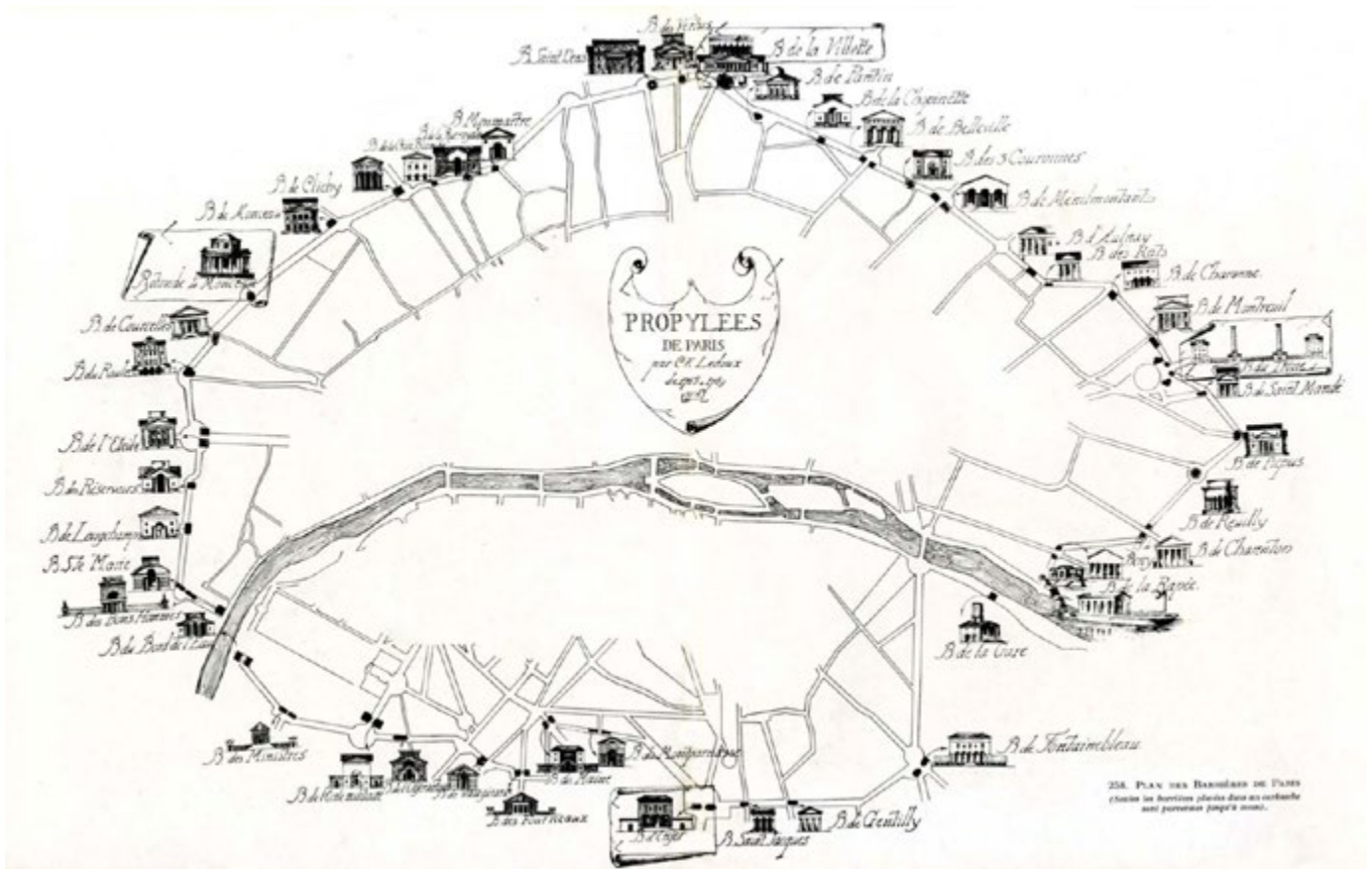
Plan of the octroi tollhouses of Paris by Claude Nicolas Ledoux (https://www.fulltable.com/VTS/v/vis/pr/26.jpg, consulted on 03/01/2022)

In his epic metaphorical style, with storytelling and mythological poetry, Ledoux celebrates architectural creation. Utopian visions are combined with details of his work as actually built and designed. The book is an artwork in itself rather than a treatise in the usual sense, but its encyclopedic character (as Ledoux himself says) makes it a work for the edification of practiced architects (Ledoux 1804. Introduction by Daniel Rabreau).

In 1785, through the offices of the Controller General of Finances, Charles-Alexandre de Calonne, Louis XVI tasked Ledoux with a project for the construction of 51 octroi duty tollhouses encircling Paris. These "propylaea", built over three years, prompted popular discontent in Paris: "Ce mur murant Paris, rend Paris murmurant" (This wall around Paris makes Parisians grumble), according to a punning alexandrine quoted by Beaumarchais referring to the wall's unpopularity in 1785, to the point of its becoming one cause of the Revolution.

Jailed after the Revolution, Ledoux escaped the guillotine only through the intervention of the painter David. Ruined and disillusioned, he died in Paris on 18 November 1806.

Architectural Drawings

As we lack plans (except for the tollhouses of Chaillot-Sainte-Marie, Lavillette, Charonne, Enfer, and Maine) for reproducing these structures, mostly demolished in 1860, we have relied mainly on the subtle watercolors of Jean Louis Gaspard Bernardin Palaiseau, portraying poetic pastoral scenes, and the drawings of Léon Leymonnerye (1803-1879), the artist and surveyor, both of whom produced a full collection of Ledoux's octroi tollhouses.

The numbering of octroi gates is that of Jacques Hillairet (1886-1984), a French historian specialized in Parisian history.

The Fermiers Généraux wall had a total length of 24 km. It was a continuous wall of stone masonry, interrupted by the Seine, by the railings bordering the Monceau park (where, instead of a wall, a trench was dug). It was 10 feet (*pieds*) high, i.e. 3.24 m, with a walkway 33 feet (11.69 m) wide on the inside and boulevards 90 feet (29.23 m) wide on the outside.

The octroi tollhouses consisted of 63 buildings, built over three years. They had a floor area of 46,000 m², almost equivalent to that of the Château of Versailles.

Outside the octroi gates, avoiding tax duty, a recreational streetscape grew up with restaurants, cabarets, dance halls and *guinguette* cafés, giving Ledoux the chance to deploy his talents as a visionary architect and utopian: "For the first time, the magnificence of *guinguettes* and of palaces shall be seen on the same scale" (Ledoux 1804: 18).

A French Architecture

In *Description de Paris et de ses édifices* (Description of Paris and its Buildings), by Landon et Legrand (expanded edition of 1818), the architect Nicolas Goulet describes Ledoux's still controversial architecture for the octroi tollhouses in the Fermiers Généraux wall as follows: "This architecture, full of grace and strength, is neither Egyptian, Greek nor Roman; it is French architecture; it is new and its creator drew its form and style from his own imagination" (Landon and Legrand 1818).
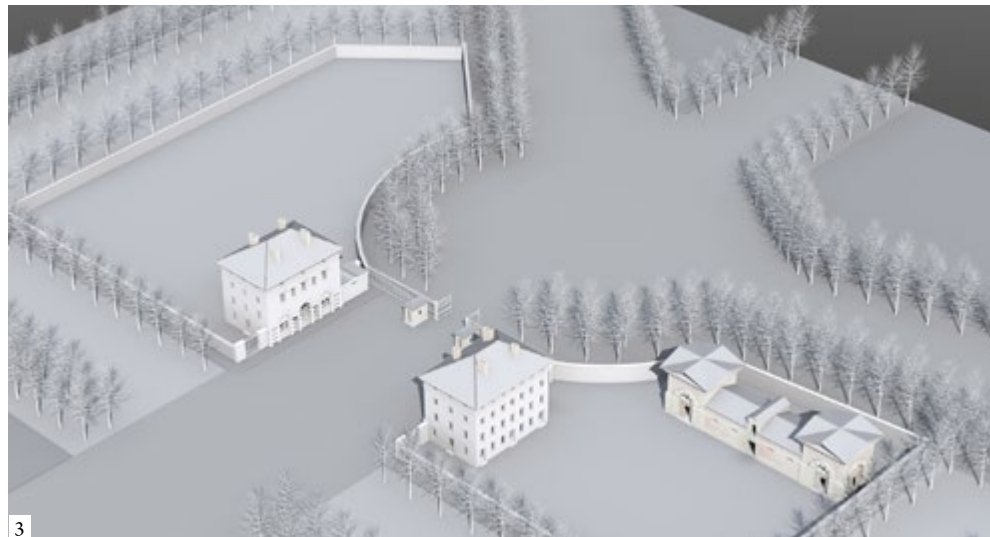
1: Photo of the front of the west pavilion of the Enfer tollhouse (https://fr.m.wikipedia.org/ wiki/Fichier: Barri%C3%A8re_d%27Enfer,_place_ Denfert- Rochereau,_ Paris_0 2.jpg, consulted on 03/01/2022)

2: Watercolor of the Enfer tollhouse by Jean Louis Gaspard Bernardin Palaiseau (Gallica, Bibliothèque Nationale de France)
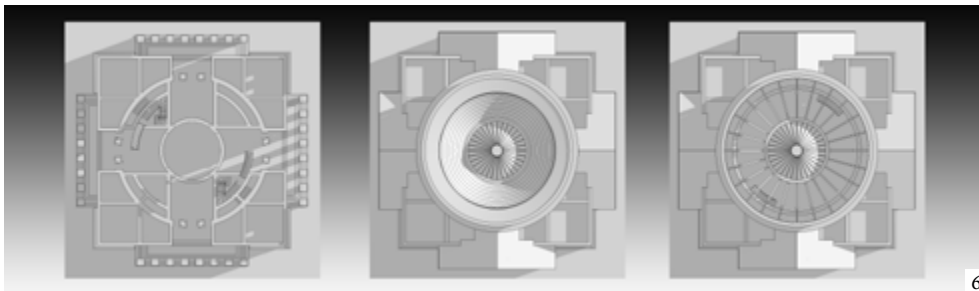
3, 4: 3D rendering of the Enfer tollhouse

5: Section of the Rotonde de la Villette, former tollhouse of La Villette

6: Plans of the tollhouse of La Villette

7: 3D view of the tollhouse of La Villette

8: Photo of the Rotonde de la Villette (http://pietondeparis. canalblog.com/ archives/2011/12/16/22977678. html, consulted on 03/01/2022)

9: Watercolor of the tollhouse of La Villete by Jean Louis Gaspard Bernardin Palaiseau (Gallica, Bibliothèque Nationale de France)

Ledoux was the first architect to revisit the classical orders. By creating his own, stripping them of embellishments not indispensable to beauty of line, he stands as a precursor of modern architecture.

A reading of his work *De l'Architecture considérée sous le rapport de l'art, des mœurs et de la législation*, from which we have extracted the following aphorisms, shows the universality of his thinking (Ledoux 1804):

On beauty: "Unity, as a type of beauty, *omnis porro pulchritudinis unitas est* (Saint Augustine), consists of the correlation of masses with details or ornaments, in uninterrupted lines allowing the eye not to be distracted by deleterious accessories" (10).

1: Drawing of the tollhouse of Le Trône by Ransonnette, 1787 (Gallica, Bibliothèque Nationale de France)

2: 3D view of the tollhouse of Le Trône

On architects: "... almost always subject to narrow calculations, to hazardous chances, to vagaries counteracting the impulses of the spirit ..."; and "Let the nations sound the trumpet! Let all be summoned to the philanthropic gathering! Architects will be quick to answer the call and their busy and generous hands will furnish society with treasures that will be valued only once they themselves have gone. Like dew, shiny nourisher of our fields, appreciated only once it has disappeared, after the plentiful harvest that it fertilized, their work will be remunerated only in the immortality of their names" (9).

On architecture: "Architecture is to masonry what poetry is to literature: it is the dramatic enthusiasm of the trade; one can only speak of it with exhilaration. Design gives form, and it is form that imparts the charm animating any work of architecture. As there is no uniformity in thinking, there can be none in expression" (16).

On economics: "Public finances enjoy recognition through the simple and great characteristic of being nurtured by the very good that they supply to all members of society" (5).

On bioclimatic construction: "Healthful winds and the most suitable site must always determine the arrangement and construction of buildings; one must build in accordance with the temperature" (9).

On himself, and destiny: "Everyone, I grant, has their way of setting sail; but when one is organized so that a slack sail trimmed with skill by an ordinary captain carries one beyond the poles, to resist one's destiny would be reprehensible" (7).

On happiness: "It is natural for men to wish to be happy, but true happiness is nowhere to be found: men hardly ever find what they seek; anxious for what they lack, they are rarely anxious about what they possess (...) The best things that we pursue are not worth what we possess, which is inside us" (181).

3: Watercolor of the Bercy tollhouse by Jean Louis Gaspard Bernardin Palaiseau (Gallica, Bibliothèque Nationale de France)

4: 3D model view of the Bercy tollhouse

Watercolor by Palaiseau (Gallica, Bibliothèque Nationale de France) and 3D rendering of the Place de l'Italie tollhouse

Drawing by Léon Leymonnerye (Gallica, Bibliothèque Nationale de France) and 3D rendering of the tollhouse of La Glacière

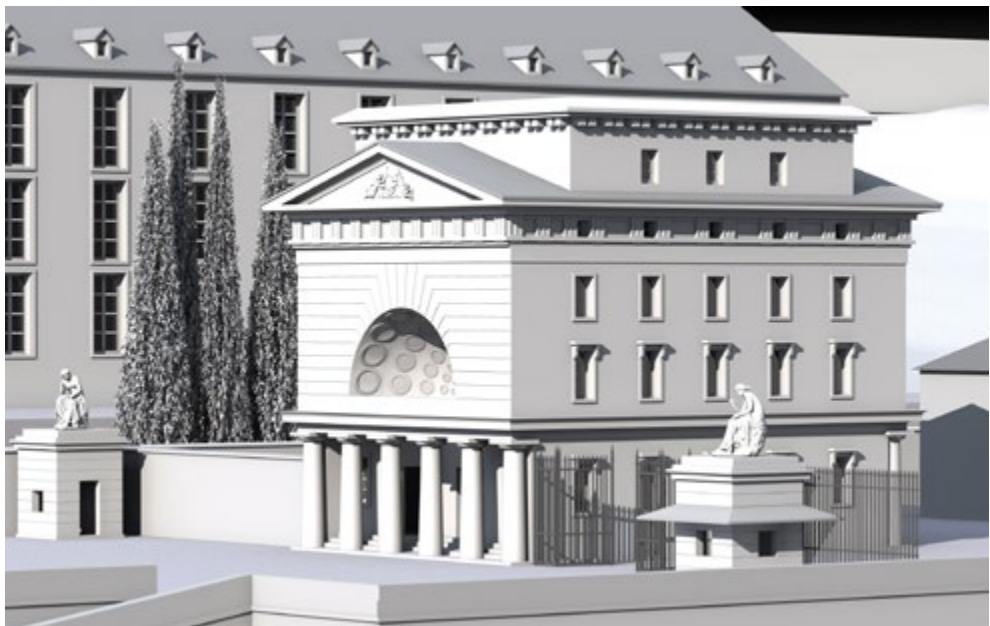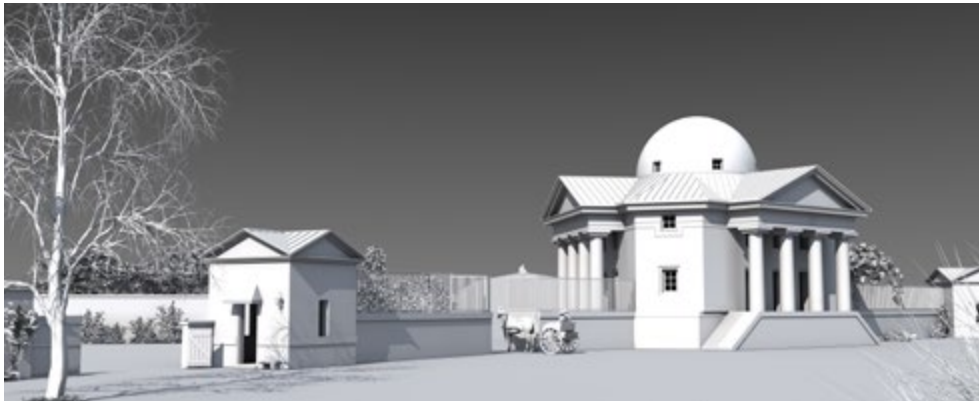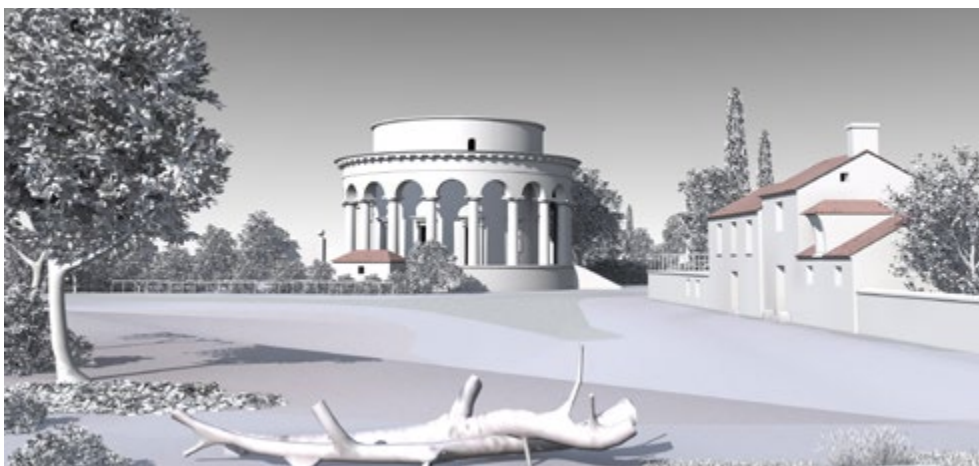Drawing by Léon Leymonnerye (Gallica, Bibliothèque Nationale de France) and 3D rendering of the Saint-Jacques tollhouse

Watercolor by Palaiseau (Gallica, Bibliothèque Nationale de France) and 3D rendering of the Montparnasse tollhouse

Drawing by Léon Leymonnerye
(Gallica, Bibliothèque Nationale
de France) and 3D rendering of the
tollhouse of Les Fourneaux

Drawing by Léon Leymonnerye
(Gallica, Bibliothèque Nationale
de France) and 3D rendering of the
tollhouse of Les Paillasons

Watercolor by Palaiseau (Gallica,
Bibliothèque Nationale de France)
and 3D rendering of the tollhouse of
La Cunette

Drawing by Nash and Watkins
(Gallica, Bibliothèque Nationale
de France) and 3D rendering of the
Passy tollhouse

Watercolor by Palaiseau (Gallica, Bibliothèque Nationale de France) and 3D rendering of the Sainte-Marie tollhouse

Watercolor by Palaiseau (Gallica, Bibliothèque Nationale de France) and 3D rendering of the tollhouse of Le Roule

Anonymous drawing (Gallica, Bibliothèque Nationale de France) and 3D rendering of the tollhouse of Le Combat

Watercolor by Palaiseau (Gallica, Bibliothèque Nationale de France) and 3D rendering of the Reuilly tollhouse

Genesis of the Project

In 1984, after six years of adventures at sea, I decided to settle in the south of France and to build my own house. Imbued with theories of bioclimatic construction and passive solar heating, and seeking a façade concept liable to suit my preferred building type, namely bioclimatic with conservatory glazing on two levels, it was the "Temple of Terpsichore" designed by Ledoux in 1775 for Mademoiselle Guimard, a famed eighteenth-century dancer, that became my source of inspiration.

In 2018, after ending my architect's career for health reasons, it was time to pay a tribute for this loan.

The choice of theme – the octroi tollhouses of the city of Paris – came naturally in view of the unity that it gave to such a project.

Implementation

The source documents are the writings of Claude Nicolas Ledoux – *L'architecture considérée sous le rapport de l'art, des mœurs et de la législation* (Architecture Considered in Relation to Art, Mores and Legislation), Volumes I, II, and III, viewable online at the French National Library website: gallica.bnf.fr

In 1860, due to the expansion of Paris under the direction of Baron Haussmann, the Fermiers Généraux wall was knocked down, along with the octroi tollhouses. The only ones left were the Barrière d'Enfer in Place Denfert-Rochereau (14th *arrondissement*), the Rotonde du parc Monceau by the Monceau park (8th *arrondissement*), the Rotonde de la Villette in Place de Stalingrad (19th *arrondissement*), and the Barrière du Trône in Place de la Nation, where the 11th and 12th *arrondissements* meet. Two tollhouses also remain on Quai de Bercy, which were part of the Seine embankment, and which we have replaced with a modeled Barrière de la Rapée after the illustration by Antoine-Nicolas Misbach (1779-1805) and a drawing from the Paris City Plan produced by Edme Verniquet in 1791.

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[1] Daniel Rabreau, born in Guérande in 1945, is an art historian, emeritus professor at the Paris University I-Panthéon-Sorbonne, and a specialist in eighteenth-century architecture.
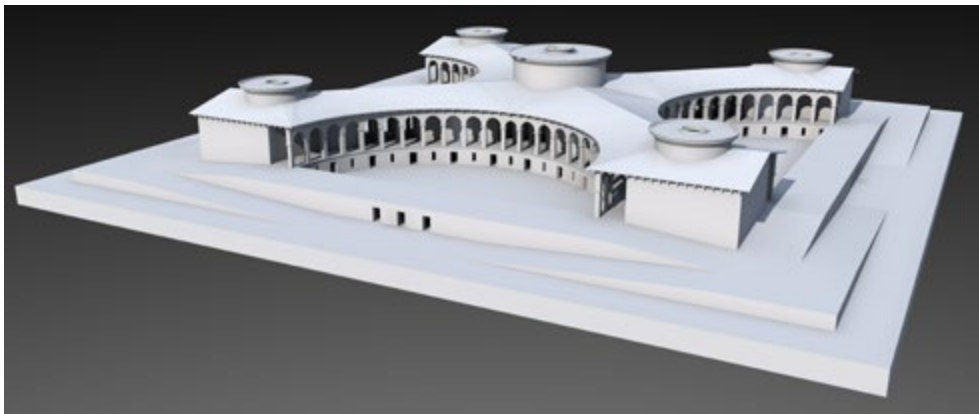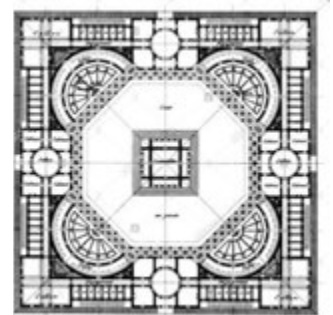
1: Drawing of the tollhouse of La Rapée by Misbach (Gallica, Bibliothèque Nationale de France)
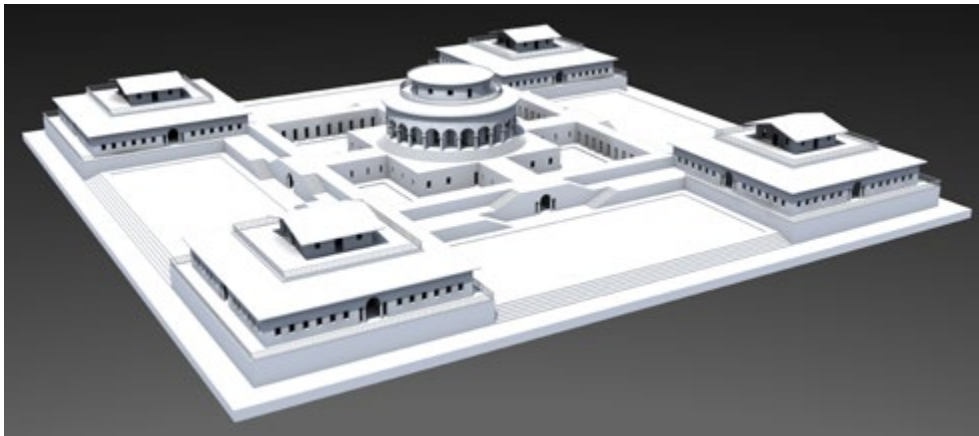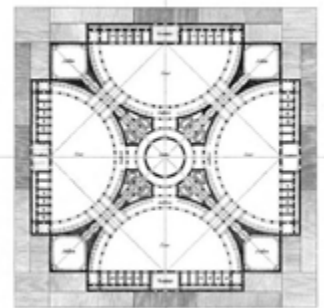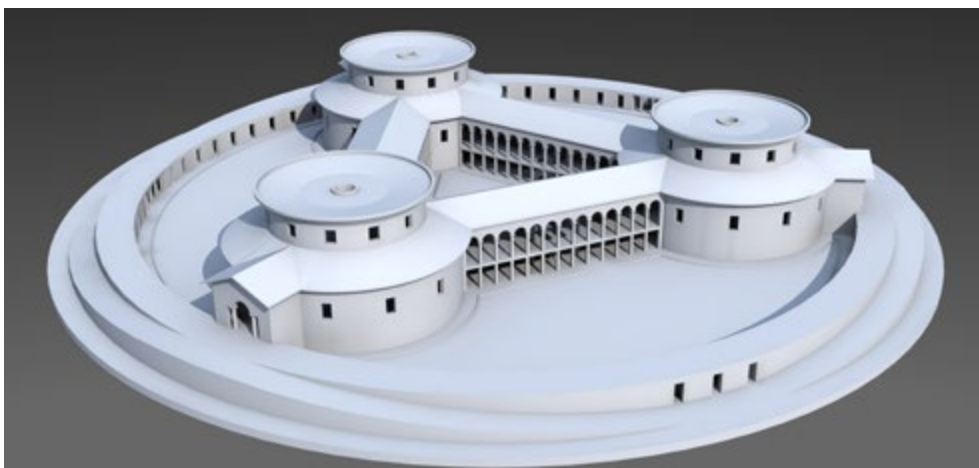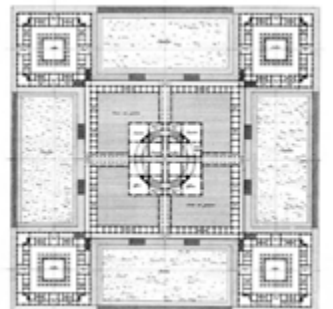
2: 3D view of the tollhouse of La Rapée
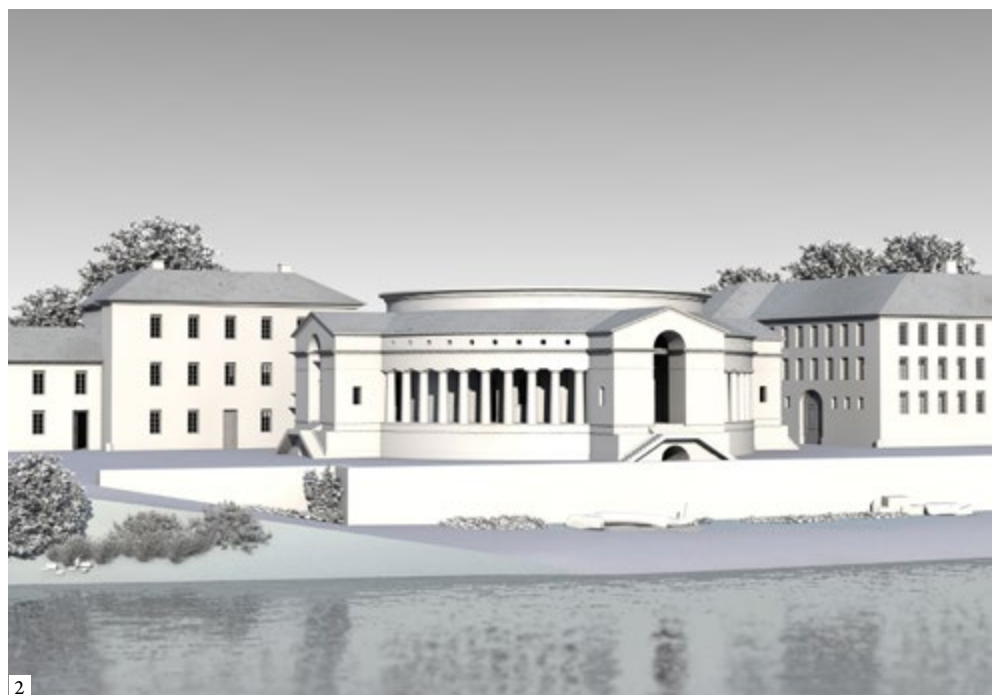
3D rendering by the author and plan by Claude Nicolas Ledoux of the *guinguette* of La Poissonnière (Ledoux 1804)
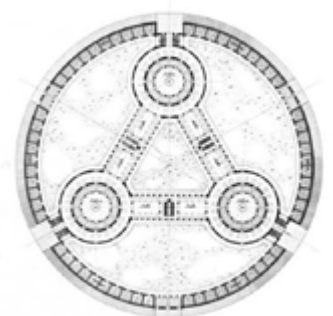

3D rendering by the author and plan by Claude Nicolas Ledoux of the *guinguette* of Chaillot (Ledoux 1804)

3D rendering by the author and plan by Claude Nicolas Ledoux of the *guinguette* of Le Temple (Ledoux 1804)
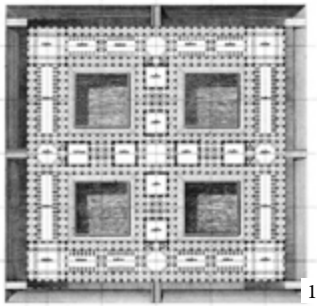

3D rendering by the author and plan by Claude Nicolas Ledoux of the *guinguette* of Saint-Marceau (Ledoux 1804)

1: Plan by Claude Nicolas Ledoux of the *guinguette* on Quai de la Rapée (Ledoux 1804)

2: Section by Claude Nicolas Ledoux of the *guinguette* on Quai de la Rapée (Ledoux 1804)

3: 3D rendering of the *guinguette* on Quai de la Rapée

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Biography | Biografía | Biografia

Patrice Elmer

Patrice followed technical courses at the National Vocational School of Saint-Étienne and then obtained a Bachelor of Philosophy at the International Cévenol School. He set up his first ceramics workshop in Ardèche in 1970 and in 1978 he built a 13 m steel ketch with which he set sail for six years. On his return to France, in 1984 he built himself a house in the Gard department and worked again in ceramics for a few years. Then in 1992 he set up an architecture workshop on Nosy Be, Madagascar. Over twenty years he produced some sixty designs for individual houses, hotels, shops, and the creation of tourist areas.