

CLAUDE-NICOLAS LEDOUX



ANTHONY VIDLER

CLAUDE-NICOLAS LEDOUX

**ARCHITECTURE AND UTOPIA
IN THE ERA OF THE
FRENCH REVOLUTION**

Second and expanded edition

**Birkhäuser
Basel**

GRAPHIC DESIGN (ORIGINAL EDITION): Sylvie Milliet
TYPESETTING AND LAYOUT (EXPANDED EDITION): Amelie Solbrig
COVER DESIGN: Floyd Schulze, Amelie Solbrig
COPY-EDITING: Michael Wachholz, Ria Stein
PROJECT COORDINATION (EXPANDED EDITION): Ria Stein
PRODUCTION: Amelie Solbrig
EDITORIAL COORDINATION (ORIGINAL EDITION): Chloé Jarry
IMAGE RESEARCH (ORIGINAL EDITION): Françoise Carp and Isabelle Sallé
PAPER: Magno Volume, 135g/m²
PRINTING: Beltz Grafische Betriebe GmbH, Bad Langensalza

Library of Congress Control Number: 2021940252

Bibliographic information published by the German National Library
The German National Library lists this publication in the Deutsche
Nationalbibliografie; detailed bibliographic data are available on the Internet
at <http://dnb.dnb.de>.

This work is subject to copyright. All rights are reserved, whether the whole or
part of the material is concerned, specifically the rights of translation, reprinting,
re-use of illustrations, recitation, broadcasting, reproduction on microfilms or in
other ways, and storage in databases. For any kind of use, permission of the
copyright owner must be obtained.

The French original edition *Claude-Nicolas Ledoux* by Anthony Vidler was
published in 2005 by Editions Hazan. © Editions Hazan, Paris, 2005
An English and German edition of this original edition was published in 2005
by Birkhäuser.

This second and expanded edition was published in German under the title
*Claude-Nicolas Ledoux. Architektur und Utopie im Zeitalter der Französischen
Revolution. Zweite und erweiterte Ausgabe* (Print-ISBN 978-3-0356-2079-5).

ISBN 978-3-0356-2081-8
e-ISBN (PDF) 978-3-0356-2083-2

Second and expanded edition
© 2021 Birkhäuser Verlag GmbH, Basel
P.O. Box 44, 4009 Basel, Switzerland
Part of Walter de Gruyter GmbH, Berlin/Boston

Printed in Germany

9 8 7 6 5 4 3 2 1

www.birkhauser.com

PREFACE

The buildings, designs and writings of Claude-Nicolas Ledoux, have, since his death in 1806, been dismissed or appreciated as anti-architectural, impossibly utopian, brilliantly visionary, proto-modern, absurdly caricatural, or simply marginal to history. Confronted with this panoply of opinions in the late 1960s, I was interested to discover why, following one of the most successful careers in the 18th century, supported by the court and its courtesans, the aristocracy and the new bureaucracy of engineers and financiers, educated as a professional in the values of the Enlightenment, and receiving some of the most prestigious commissions of the pre-Revolutionary period, Ledoux had suffered so divisive a posthumous reception.¹

Certainly, as his arrest and subsequent interrogation testified, he was hardly a Republican revolutionary. Certainly, too, his work for the hated Tax Farm, culminating in the construction of a wall with more than sixty tollgates around the city of Paris, had opened him to violent popular and aesthetic criticism. But then most of his former colleagues in the Academy were forced into exile until the advent of the Empire without damage to their architectural reputations. And many in his circle, notably Étienne-Louis Boullée, had dreamed of impossibly monumental, if not utopian, projects, and written texts that were equally ambitious in the support of architecture in its social role. But almost alone, Ledoux was signalled

out as an exemplar of architectural hubris, an *architecte maudit* (architect condemned) to obscurity, living in poverty and unalloyed resentment after loss of his practice after 1789.

This book, first published by Hazan in French in 1987, and in a revised version by Hazan and Birkhäuser in 2005, is an abridged version of the monograph I published in English in 1990 with MIT Press; it represents my attempt to bring these partial assessments of his career into focus, to develop an understanding of Ledoux's wide-ranging practice as a natural outcome of the reforms instituted by the French State and Académies after 1750, informing his quasi-utopian enthusiasm for raising aesthetic expression to a social art, his belief in the *philosophes'* idea of progress, while sympathising with the "return to origins" of Rousseau, his response to the technological innovations promoted by the *Encyclopédie* and the Académie des Sciences, and his hybrid training as an architect and engineer. If Ledoux stood out among his architectural peers, it is more because he took the Enlightenment at its word, so to speak, and was less inhibited by architectural tradition in seeking to apply the new aesthetics of communication and experience to the invention of new forms.

In this new edition, I have rewritten the preface and introduction, updated each chapter and incorporated further insights and the results of new research. I have taken the opportunity to substantially expand the chapter "Utopia or Revolution"

Frontispiece:
Barrière de Monceau,
Park Monceau,
Paris.

Following double page:
Saline d'Arc-et-Senans,
view of the eastern
semi-circular arc.

and rewrite the final sections on Ledoux's post-Revolutionary life, providing an interpretation of the difficult but unique text and engravings of his *L'Architecture*. A new conclusion surveys his shifting reputation through the 19th and 20th centuries, his historiographical reception, and considerable influence on architects in the 20th century. Throughout I have re-accentuated the role of Enlightenment economic and social thought in the development of Ledoux's architectural ideals, and, responding to recent environmental perceptions of the Enlightenment's vision of nature and production, I have taken stock of Ledoux's projects in the context of what might now be named the "Physiocratic Anthropocene." Finally, I have expanded the bibliography and added illustrations.

In my work on Ledoux, I have been much aided by colleagues in France, Monique Mosser, Daniel Rabreau, Bruno Fortier, and above all by the friendship and remarkable understanding of Mona Ozouf. Hélène Lipstadt provided initial insights into Ledoux's reception by the critics and reviewed the state of the archives on the *barrières*. An invitation to join the research group headed by Jean-Claude Bonnet of the CNRS led to the opportunity to broaden the research to encompass Revolutionary art and literature. Giorgio Ciucci provided the initial inspiration to write a monograph on the Saline de Chaux, eventually unpublished; Georges Teysot supported its expansion into a more general study; Francesco Dal Co

shepherded the exceptional Italian translation of the 1990 monograph. I have benefited from the critique of Robin Middleton; from a correspondence with André Corboz on the foundation of Versoix; from discussions with the late Hubert Damisch on the "Kantian" Ledoux; from the work of Antoine Picon on the formation of the *École nationale des ponts et chaussées*, and the relations between architects and engineers in the late 18th century, and from the generosity of Paul Turner, who provided the clue to a source of Ledoux's utopian imagination in the Renaissance treatise *Hypnerotomachia Poliphili*. I will always be indebted to the support and firm friendship of Richard Edwards during his tenure as Director of the Fondation Ledoux, and for the commission to design a Musée Ledoux in the form of a permanent exhibition of models of Ledoux's in the Saline Royale, completed with architect Pierre Schall in 1989. The continuing support of his successor, Jean Dedolin, led to the curation of subsequent exhibitions at the Saline. Jean-Christophe Bailly edited the first edition of this abridged Ledoux in 1987 and Jean-François Barrielle and Chloé Jarry of Editions Hazan saw to a second edition in French in 2005 while Andreas Müller, oversaw the simultaneous German and English edition for Birkhäuser and Ria Stein the 2021 editions.

Anthony Vidler,
New York, December 2020





INTRODUCTION

“Are we fallen into such a degree of misery that we should be forced to admire the *barrières* of Paris?”

Victor Hugo²

Claude-Nicolas Ledoux’s reputation as a “utopian,” associated with other “visionaries” by historians in the 20th century, has obscured both his historical importance as a practicing architect at the end of the Ancien Régime, and the special nature of his idealisation of architecture at the beginning of the modern era. While his elder contemporary and fellow member of the Académie Royale d’Architecture, Étienne-Louis Boullée, painted idealistic images of vast monumental institutions for an imaginary republic, and was more preoccupied with teaching than practicing; and the younger Jean-Jacques Lequeu, was to remain in obscurity as a draughtsman to state bureaucracies, Ledoux from the outset pursued an active career as a public and private architect. Less privileged than many of his contemporaries, without the experiences and contacts gained by the Prix de Rome, his education nevertheless allowed him to pursue a career supported by his talents as a designer. From a modest family, with a scholarship to a Parisian college, and entering the public school of architecture opened by Jacques-François Blondel, he was constrained to work as an apprentice engraver for his living. Interning in the provinces as an engineer for the Service des

eaux et forêts, in Burgundy and Franche-Comté, he nonetheless gained recognition for his talented interior decoration and ingenious hôtel planning in the 1760s, noticed by the newly adopted mistress to Louis XV, Madame du Barry for her residence at Louveciennes, and rewarded with the commission that was to form the centre of his theoretical and design preoccupations for the rest of his life: the new saltworks built in Arc-et-Senans between 1773 and 1779. With this project, under the administration of the Ferme générale, or Tax Farm, he was ensured of a steady patronage until the Revolution, building offices and warehouses for the Ferme, culminating in the encircling tollgates and tax wall around the city of Paris. Forced into retirement in 1789, arrested and imprisoned in 1793, he was to spend the last years of his life engraving and writing his architectural testament: the first volume of a planned six was published in 1804, two years before his death, under the ambitious title, *L’Architecture considérée sous le rapport de l’art, des mœurs et de la législation*. The publication endeavour remained uncompleted.

If this career stands out from those of his contemporaries, it was the result of his insistence on the vital role of architecture to society envisaged in the terms advanced by the *philosophes* of the Enlightenment: Montesquieu in his *De l’esprit des lois*, Denis Diderot and Jean Le Rond d’Alembert in the *Encyclopédie*, François Quesnay, Jacques

Turgot and the Marquis de Condorcet in their advocacy of economic reform and progress, and, apparently paradoxically, Jean-Jacques Rousseau in his vision of a return to natural conditions. For architecture, this meant both a return to the roots of a French antiquity, in Gallo-Roman forms and 17th century classicism, and a renewed vocabulary based on the re-discovery of Greece in the 1750s and the publication of David Le Roy’s engravings of the Acropolis.

In the 1960s when I first began to be interested in Ledoux, it was tempting, given the debates against utopianism in architecture, launched by Karl Popper and supported by critics like Colin Rowe, to take the path of least resistance, and deny the validity of architecture as a social art or practice. My own interest in Ledoux, however, sparked by Emil Kaufmann’s study of the European Enlightenment in architecture, linking Ledoux as a proto-modernist to Le Corbusier, and by a close reading of the text and engravings of *L’Architecture*, was initially concentrated on the Saline royale d’Arc-et-Senans, as a prime example of a utilitarian building endowed with all the “attributes” (i.e. the decorative elements) of architecture. If Ledoux was utopian, I felt, then he must have been so from the outset.

Preparing a monograph on the complex history of the planning, construction and operation of these saltworks, I was responding to the increased British interest in industrial archaeology, and beyond

this, the shift in Industrial Revolution studies towards histories of labour, and the control of worker life by management. Here the social history approaches of E. P. Thompson and Eric Hobsbawm in Britain, and the technological histories of Bernard Gille, were supported by more generalised studies of power and control by Michel Foucault, work that had been taken up by architect-historians like Bruno Fortier in Paris and Robin Evans in London. The Saline seemed a perfect case-study of these processes at work in a designed environment; a test-case of architecture in the service of power.

Accordingly, I began research into the saltworks at Arc-et-Senans, first visiting the site in 1967, and completed a monographic study of the Saline royale d'Arc-et-Senans, with the sense that the building of a factory community in the 1770s represented more than a utopian gesture; an intuition that was confirmed by the archives in Lons-le-Saunier and Paris. This was not only the last saltworks to be constructed before the Revolution – an attempt by the Académie des Sciences and the Ferme générale, or Tax Farm, to revive an industry in Franche-Comté that was provoking civil unrest at the poor quality of salt produced, exacerbated by the enforced levels of taxation – but also a design that responded to the encyclopaedic discourse of Diderot and his contributors to rationalise industrial production in France. Discovery of the engineering drawings for the aque-

duct from Salins to Arc-et-Senans, for the structural foundations of the Saline as well as the saltworks' daily labour registers, and contemporary accounts of its operation in the former archives of the salt production company that had continued to operate the works in the 19th century, demonstrated that Ledoux was entirely aware of the social and architectural implications of the commission and confirmed my sense that far from an imaginary utopia, Ledoux's project for a new town surrounding the Saline de Chaux was grounded in his experiences in Burgundy and Franche-Comté as an architect-engineer for the Département des eaux et forêts, in his knowledge of the complex relations between the forest, its workers, the policing of forest and taxes, and the provisioning of the saline, the techniques and economy of salt production itself. Beyond this, his claim that the idea of a new town was advanced in 1776 was entirely credible, as in every respect a fulfilment of Jacques Turgot's mandate to compete with Geneva after the failure of plans to develop the new town of Versoix, and the "ideal" town that followed over the next thirty years a logical development. This was confirmed by a map of the saltworks in the forest of Chaux dating at the latest from 1785. In this sense, as a number of commentators have noted, Ledoux's final project was less a "utopia" – "no place" in Thomas More's original formulation – than a "euchronia" – or a "good era" achieved over time.

In this context, the saltworks, an industry of extraction, was, for Ledoux's clients, both an instrument of progress and a participant in the natural "circular" economy of Physiocratic theory, from Quesnay to Turgot. Here, the research of Antoine Picon into the relations between architects and engineers in the late 18th century, and his interpretation of Ledoux within the tradition later established in the École Polytechnique by Saint-Simon, points to Ledoux's own early employment building bridges and restoring canals in Burgundy and Franche-Comté. Indeed, it would not be hard to show that entire passages of Ledoux's book, which describe the canal systems and waterworks of Franche-Comté and Burgundy, were paraphrased, if not directly lifted, from the reports of his associate engineers.

While these activities have been largely obscured by a later attempt to divide the engineering profession from architectural (i.e. aesthetic) concerns, Ledoux's assertion of engineering technique allied to, and expressed through, architectural form, was shared by many; including his colleague in Burgundy, the engineer Émiland Gauthy, whose bridges, churches (such as Saint-Pierre-et-Saint-Paul at Givry, 1772–1791), theatres, and town halls (in Tournus, 1771) attest to his not at all frustrated ambition to practice a truly monumental and public architecture in their Roman forms and free geometric play, interestingly similar to the contemporary work of Ledoux.

In this context, Ledoux's designs for public institutions, notably the new theatre of Besançon, the prison and palace of justice for Aix-en-Provence, and the tollgates for Paris, were, I believe, all conceived within his overarching vision for a new architecture and a new form of urban settlement, hypothetically developed in the surroundings of the completed saltworks. Certainly, a number of unbuilt projects from the mid-1780s, including the church, market, stock exchange of Chaux, ostensibly drawn in response to programmes issued by the Académie d'Architecture, and engraved before the Revolution, were also intended to take their place in his imaginary city, supplemented by a roster of purely utopian institutions designed after the Revolution.

For these ideal projects, Ledoux adopted symbolic forms that were clearly influenced by his affiliation with the Freemasonic clubs and associations of the 1780s. In these circles, as confirmed by research in the archives of the Grand Lodge held in the Bibliothèque nationale, Ledoux, while not inscribed in existing registers, was only one of hundreds of architects and their clients demonstrating membership or engagement with Freemasonic or secret societies and their visual iconographies. The memoirs of the British Orientalist author William Beckford recount a visit to a secret lodge with Ledoux, often thought to be largely imaginary, that proved to coincide with Ledoux's work at the estates of Bourneville and Mauper-

thus. It was also clear that the text of his last book, with the portentous title *Architecture Considered in Relation to Art, Mores and Legislation*, offered clues that had escaped previous readers who were convinced that architects' writings were less important than their works.

These sources were enriched by Michel Gallet's publication of what he called *Inédits pour un tome III* of Ledoux's magnum opus; a portfolio of engravings, evidently collected by Daniel Ramée and remaining unpublished at the time of his first two volumes in 1847. They consisted of a major portion of what Ledoux had announced as a volume collecting his designs for country and city houses, together with post-Revolutionary designs for rural and urban institutions and idealised depictions of the Parisian tollgates. The diverse architectural vocabularies employed, including Egyptian and Medieval references, demonstrated Ledoux's increasing historical eclecticism, albeit still controlled by abstract geometrical outlines. In the context of the post-Enlightenment interest in the history and architecture of Medieval France, these designs complement Ledoux's long-standing nostalgia for the classicism of Louis XIV, allowing for a description of his "utopianism" that looked back to the mythical sources of the nation with the memory of its Gallo-Roman remains, chivalric heraldry and aristocratic lineage, all subsumed within a general nostalgia for the classical ordering of this nation in the era of the Sun King,

and narrated in a form that was drawn from a Renaissance utopian romance – the *Hyperotomachia Poliphili* – at once a love story and a visit to the ruins of classical arcadia.

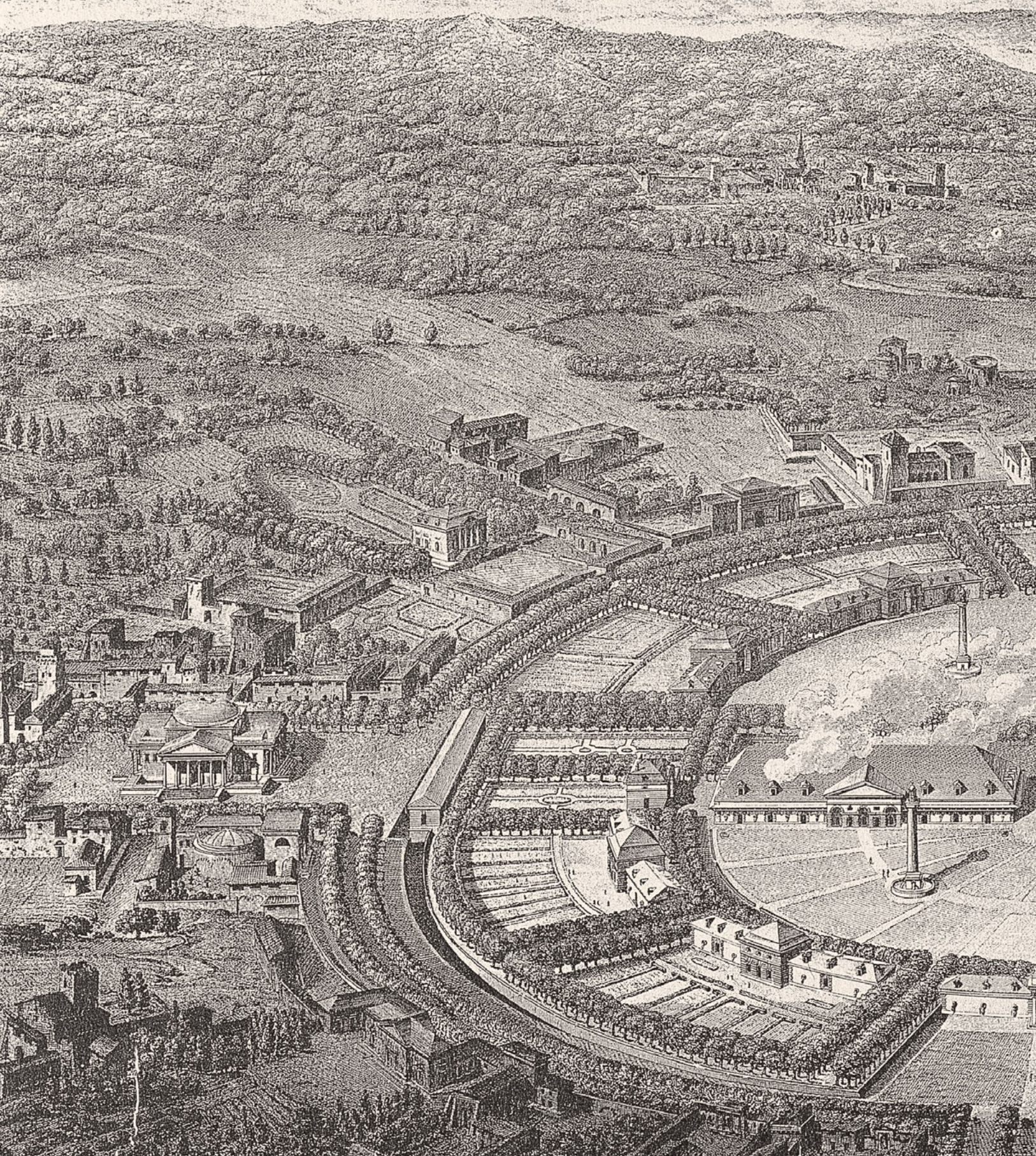
For Ledoux, architecture's role in the constitution of a newly restored social order was both programmatic – the invention of spatial organisations to shape new communal and individual practices – and communicative – the way in which the "character" of building was manifested in form in such a manner that the buildings could "speak to the eyes." This was a central preoccupation of post-Enlightenment language theory that from Leibniz and Locke had speculated over the potential nature of a universal language. For Ledoux, Boullée and many of their circle this meant utilising the "original" forms of neo-Platonic and Newtonian geometries as primary symbols, with added inscriptions and sculptural attributes. Ledoux, pressing this idea to an extreme, invented a pictogrammatic architecture that would render his utopia entirely legible; later critics named this *architecture parlante*.

It was in this vein that the interpretation of Ledoux in the "postmodern" 1970s and 1980s shifted, interpreting Ledoux less as prefiguring modernism, than as a forerunner of the semiotic theories of architecture being re-thought in the 1980s, themselves finding sources – as in Noam Chomsky's *Cartesian Linguistics* (1965) – and, more generally, as the ancestor of the search for *Meaning in*

Architecture, the title of a 1969 essay collection edited by George Baird and Charles Jencks. Ledoux's technique of stripping down architectural forms to pure geometry and adding attributes and text to his walls, seemed to anticipate the work of Léon Krier, Michael Graves, Robert Venturi and Aldo Rossi. Rossi himself had published reviews of Kaufmann in *Casabella*, and even translated Boullée's unpublished treatise into Italian, seeing Ledoux as a proto-neo-Rationalist. More recently, in the re-awakened ecological consciousness of the 21st century, I have been tracing another aspect of Ledoux, one, as Pierre Lacroix already noted in the 1970s, was seriously concerned with the environment, and the potentially destructive effects of natural disasters. Recent re-interpretations of the art and artifice of the 17th century gardens of Versailles have emphasised the powerful images of natural chaos, elemental metamorphosis, in sculpture, water displays and masques that played within its otherwise strict geometrical frame.³ It is notable that these images re-emerge in the later architectural theories of the Enlightenment, under the aegis of new interpretations of the sublime, of a nature always ready to disrupt conventional ascriptions of rationalism and progress. Fueled by the re-discovery of Greece in the 1750s, and the resulting immediacy of the texts of Hesiod and Ovid, nature was now seen in terms of origin and becoming, its forms emerging from the void, its forc-

es unleashed by warring gods. In this context, Ledoux's soliloquies on the taming of nature, the role of the architect in staving off the chaos and ever-present danger of disasters, equal those that pervade Diderot's *Encyclopédie*, and reinforced by Ledoux's actual experience of the ever-present floods and destruction wreaked by the rivers of Franche-Comté – the Furieuse, the Doubs and the Loue. A reader of Hesiod's *Works and Days* and Plato's *Timaeus*, Ledoux conceived of architecture as created from a cosmos rent by the conflict of the elements, threatened by earthquakes, fires and floods; his rational geometries may be understood as embodying allegories of their chaotic origins, sheltering social and industrial life in all its turbulence. *L'Architecture*, indeed, might be envisaged, not so much as prefiguring the rationalism of Le Corbusier, but rather more recent environmental discourses and debates over the nature of "nature" from Félix Guattari's ecologies of chaosmosis, to Bruno Latour's critique of the disciplinary modes of existence. In this book, a concise introduction to Ledoux's life and work, I have developed his architectural and social ideas thematically, and roughly chronologically. The first part of the book, "A Career Open to Talent," to use Eric Hobsbawm's characterisation of the new professionals of the 18th century, begins with an account of Ledoux's education, first as a pensioner at the Collège de Beauvais, with its courses in the classics, and then his

attendance at the newly established École des arts of Jacques-François Blondel; continuing with a discussion of his first designs for Parisian *hôtels* and regional *châteaux*, his activity in Burgundy and Franche-Comté for the corps of Ponts and chaussées under Perronet, culminating in the commission for the Saline royale d'Arc-et-Senans. The chapters of the second part, "From New Town to Utopia," discuss his built and projected work until 1789, while registering its place in his evolving ideas towards an ideal town, his commitment to industrial progress and agricultural reform, ending in his post-Revolutionary imprisonment, and the production of his collected works. A concluding chapter traces his posthumous reputation, and influence, both scholarly, and among generations of architects, as he was seen preparing the way for the geometrical exercises of Napoleon's *bâtiments civils*, studied as a forerunner of abstract modernism by Russian Constructivists, French Purists, hailed as a suitable megalomaniacal monumentalist for the Third Reich, resurrected by Italian neo-Rationalists, adopted as a figural expressionist by postmodernists, or more recently revived as a model for late modernism. Which is to say that, throughout his posthumous life, Ledoux has acted as a bellwether for modernity in architecture through his idiosyncratic combination of geometrical purity, iconographical inventiveness and Enlightenment ideology.





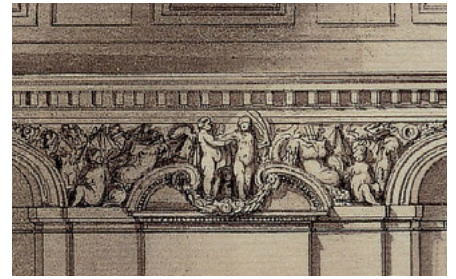


CLASSICISM

1. CLASSICAL MAXIMS

Left page:
Martin Drolling,
*Portrait of Claude-Nicolas
Ledoux*, 1790. Paris,
Musée Carnavalet.

Top:
Detail of the drawing by
Jacques-François Blondel
for the new grand staircase
for the Château de Blois.



“For the moralists you should open up Cicero’s dialogues on old age, friendship, and the nature of the gods; in this way you will substitute the real for the false and encourage the practice of all the virtues. For the farmer you should open up the treasures of Columella, the *Works and Days* of Hesiod, and the *Georgics* of the poet of Mantua, already Gallicised by our own Virgil [the Abbé Delille]. But where will all these efforts lead? Where indeed! They will familiarise you with the celebrated men of letters, and those divine minds who guide my own audacity.”
[148]¹

Claude-Nicolas Ledoux was born in the village of Dormans, Marne, on 27 March 1736.² His father, Claude Ledoux, a merchant, and his mother, Françoise Dominot, were, if not poor, of modest means and Ledoux was fortunate, after attending the parish school, to obtain a scholarship from the diocese of Soissons to study in Paris. He was to remember the first thirteen years of his life in the countryside of Champagne with affection and nostalgia for its solid rural honesty. His professional career was always to be linked to the reform of agriculture, and the re-settlement of society in natural surroundings became a pre-occupation of his later years. When, as an old man, he dreamed of a utopia in Franche-Comté, it was to be filled with images of a lost childhood, juxtaposed with the rustic festivals, seasonal



Louis Michel
Van Loo,
Dénis Diderot,
writer, 18th century.
Oil on canvas,
81 × 65 cm.
Paris,
Musée du Louvre.

occupations and the artisanal practices of village life. Concerned, like Rousseau, with the proper bases for a natural morality in education and upbringing, Ledoux found in his own upbringing a model for that of society in general.

Despite his later distrust of academic formulae, Ledoux's three years at the Collège de Beauvais in Paris, from 1749 to 1753, introduced him to a world that he was never, in imagination at least, to leave: that of the classics, ancient and modern and of the sciences of progress and reform; it also provided him with the skills of a geometer, and the company of other upwardly mobile professionals and their future patrons, private and public.³ In this college of Jansenist foundation, Ledoux lived in common with the masters and fellow scholars, wearing the obligatory blue and white robes and acquiring a life-long taste for Greek and Latin poetry and rhetoric. The effectiveness of the didactic method devised by Charles Rollin, which depended on a series of exemplary "morceaux choisis" extracted from the great books of history to exemplify moral and social virtues, was attested to by Ledoux's continuing and inveterate sciolism. His writing and his designs were to be larded with classical references and half-remembered quotations. On the evidence of his magnum opus, *L'Architecture considérée sous le rapport de l'art, des mœurs et de la législation*, published in 1804 two years before his death, his reading was wide if conventional: Homer, Plato, Virgil, Ovid, and

Horace were his poetic models; Plutarch, Pliny, Tacitus and Caesar provided his anecdotic knowledge of history; Cicero, Aristotle and a host of lesser Roman writers furnished a knowledge of *l'ancienne rhétorique*; Hesiod, Xenophon and Columella were cited for their teachings on rural life and agriculture. To this, a few of the “moderns” contributed by the Jansenists, were added: Racine and Pascal were seen as the twin supports of classicism and metaphysical enquiry; Fénelon’s *Télémaque* supplied the figure of Mentor for the reforming architect instructing a prince; Fontenelle’s *Entretiens sur la pluralité des mondes* anticipated Ledoux’s reveries of the future; La Fontaine’s *Fables* and La Bruyère’s *Caractères* evoked parables and physiognomical images.⁴

This “utopia of the schoolroom,” where history was taught without tears and where the golden sun of antiquity coloured nature and art alike, furnished the context for much of Ledoux’s work, real and ideal. Classical precedent was not so much followed as it was used to legitimate his own inventions: etymology authorised the toll-gates or *barrières* of Paris to be re-named “Propylaea” [16]; neologisms offered the potential of creating and naming entirely new institutions – the “Oikéma” or House of Pleasure [199–204], the “Panaréthéon” or House of Virtue [309–314], the “Pacifère” or House of Peace [113] – a technique also used by Rétif de la Bretonne and later by Charles Fourier. Classical references similarly

provided precedents for unprecedented or unfamiliar designs: the example of “Roman charity” was adopted for a new system of poor relief in the Market of Chaux [165]; a shocking sexual licence from Horace was criticised by Plato [202]; appropriate allegories were selected to characterise new building-types; maxims and precepts were engraved on the walls of monuments for popular instruction. These lexical tactics were reinforced by the exercises in style and rhetoric repeated incessantly in the classroom and taken by Ledoux as the foundations of his design method. Thus Ledoux elevated the commonplace routines of writing and speech – transposition, précis, amplification, and figurative discourse – into architectural procedures. Transposition was the means by which everyday surroundings were endowed with exotic aura; the countryside of Franche-Comté, for example, was at once seen through the conventional descriptions of the Roman campagna, and in the poetic guise of Arcadia. Amplification was a favourite trick, as Ledoux used telescopic and microscopic vision to make small things large, microcosms to macrocosms. The architect, he held, “will provide for the smallest object that which the largest admits.” [16–17] But figural invention was his most absorbing pastime, as “the figurative style” [16] was applied to every subject and programme, not simply in the text of *L’Architecture*, but as literally applied to the buildings, themselves conceived as rhetorical periods.

Allegories and emblems were attached to walls in the form of bas-reliefs, and in many cases, the entire building was envisaged as a figurative translation of its function, like a three-dimensional illustration to the *Traité des tropes* of Dumasais, the standard book of rhetoric for the later 18th century.⁵

These early *exercices de style* were given aesthetic focus in the ten years after 1753 by Ledoux’s experiences, first as an apprentice engraver where, as Jacques Cellier, his friend and biographer noted, he engraved battle scenes to defray his expenses, and then in the École des Arts of Jacques-François Blondel.⁶ His formation as engraver contrasted with other would-be “artist-architects” of the period – Etienne-Louis Boullée, who considered himself a painter, or Charles de Wailly, for example – and explains Ledoux’s insistence on the constant revision of his plates, following the model of Piranesi, as well as his self-conscious emulation of the plates of the *Encyclopédie* for those of *L’Architecture*, where page by page, a perspective vignette surmounts an “analytical” dissection of the object in plan, section and elevation.⁷ This training equally influenced his distinctly individual handling of line, three-dimensional solids, light and shade with the burin rather than with the brush.

His architectural formation with Blondel, that also no doubt included periods in the ateliers of Pierre Contant d’Ivry and Louis-François Trouard, was,