Building Sight:
Claude-Nicholas Ledoux's
Coup d'oeil du théâtre de Besançon

Rodolphe el-Khoury

Paradoxical Eye

Claude-Nicholas Ledoux's engraving entitled *Coup-d'œil du théâtre de Besançon* is one of the most familiar icons of eighteenth-century architecture [fig. 1]. Its current notoriety is largely due to a quasi-surrealist quality which has facilitated its ahistorical assimilation into popular culture as a generic icon of ocular esoterica, along with other enigmati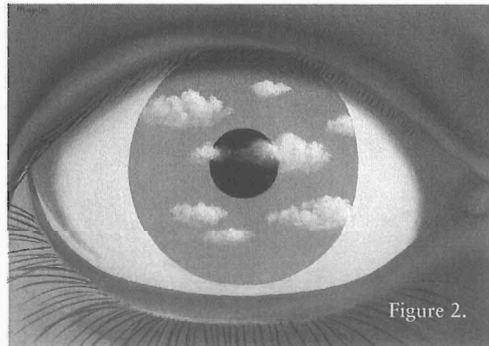c eyes by Dali, Max Ernst and Man Ray. Magritte's *The False Mirror* (1935), a close-up representation of an eye which bears an unmistakable resemblance to Ledoux's [fig. 2], comes to mind as another striking analog, although the surrealist fascination with the scotomizing eye couldn't be more antithetical to Ledoux's homage to the "transparent mirror of nature."[1]

Figure 2.

The iconography of the eye features many variations on this particular motif—a frontal view of an oversized and stylized eye—especially in the eighteenth century, when the all-seeing orb, framed in isolation or disembodied and floating in space, became a staple of Masonic symbolism [fig. 3]. The repetition of a cliché thus could hardly justify the anachronistic rapprochement between Ledoux and the surrealists. Yet the comparison with Magritte is not altogether gratuitous: some structural affinities suggest that Magritte's picture might be a parody of Ledoux's, a self-conscious transformation of a fairly well-known precedent. The similarity is in the consistent ambiguities of the representations: artfully contrived contradictions in which the classical conventions of pictorial illusionism, traditional allegorical iconography, and the logic of vision collide in a paradoxical icon.
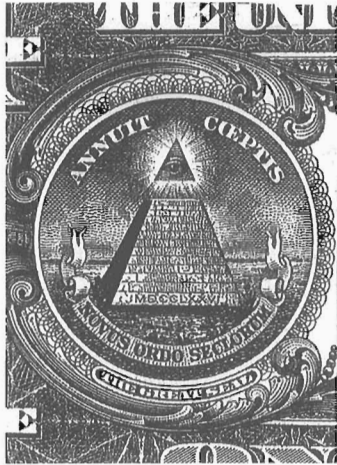
Figure 3.

It is evident that the light ray is unorthodox: due to the ambiguity of the composition, its spatial relationship to the other elements remains unsettled, if not contradictory. Many readings are possible here and none are particularly privileged: 1) the ray originates from the eye and projects outwards; 2) the ray is directed towards the eye, shining from an external source point outside the pictorial field; 3) the ray represents the overhead lighting of a space that is seen reflected in the eye; 4) the ray is projected through the pupil, originating from a source beyond and above the eye. As soon as one interpretation is corroborated by certain clues, another detail undermines its plausibility with contradictory evidence: if the ray belongs to the reflected image, one must ask how and why it escapes the boundaries of the reflecting surface to extend across the lower-right section of the picture. If the ray is originating from the eye, one would expect it to emanate from the pupil rather than from an unlikely source under the eyelid, or a flat arc which would only support the initial reading of a reflected image, and so on. Any attempt to read the light ray within the conventional framework of perspectival illusionism and mimetic verisimilitude leads to the Baroque labyrinth of spatial contradictions that became the staple of Escher and Magritte.

No less difficult is the spatial construction of the image in the pupil: is it a reflected image? If so, then one would expect to see, as dictated by convention, the reflection of the artist who has recorded this optical phenomenon. However oblivious of the viewer who remains strictly external to the field of representation, classical mimesis would indeed extend its naturalism into the space of the painter when mirroring devices bounced the optical field back in the direction of the viewer [fig. 4].[2] Since no one is in sight in this virtual space, another option becomes likely but no less implausible: the pupil is transparent and the image represents a scene beyond. While the reflective eye transgresses the limits of classical mimesis in its assault on the logic of optics, its transparency exceeds the tacit boundaries of verisimilitude when it implies an architectural space within a cyclopean eye. In both instances we are left with a connotation of opacity while the artifact is ostensibly aiming at a representation of transparency.

"The best points of entry in an attempt to penetrate an alien culture can be those where it seems most opaque," noted Robert Darnton in his cultural history of the eighteenth century.[3] The density of Ledoux's *Coup d'œil* no doubt reserves many "insights"

for us. But in order to get beyond its enigmatic opacity, we have to proceed hermeneutically, shifting the attention back and forth between the particular artifact and the wider cultural context. We shall begin with the light ray; where else could one find a more suitable point of entry into the culture of the Enlightenment?

Rational Light

The light ray figures prominently among the emblems of the eighteenth century. Light had of

Figure 4.

course been a favoured subject of the allegorical imagination since antiquity, but not until the 1700s did it acquire the figurative concentration and direction that we now associate with the artifice of the spotlight. The machinery of theatrical "lighting" did not fully develop until the nineteenth century with Drammond's lime light and a panoply of shaping mirrors and lenses; but technological figures had already inflected the metaphorics of light since the sixteenth century. The condition of possibility for the "lighting" technology had been set up, epistemologically, in the emerging notion of an adjustable light—a material condition that can be manipulated for intended effects—as opposed to a self-evident, neutral, and homogeneous medium of visibility.[4]

The symptoms of this epistemological mutation are already evident in the paintings of Caravaggio and Rembrandt, in which Hans Blumenberg identifies the calculated "staging of lighting" with the technical accentuation of vision.[5] But the metaphysics of the new optical consciousness are not fully articulated until the *Encyclopédie* where the archetypal bond between light and truth is explicitly restructured. In d'Alembert's introduction, truth is denied the natural facilitas which had asserted its self-evident luminescence. Truth has to be revealed, actively pointed out and rescued from the overshadowing proximity of error; it is precisely the illusory belief in its natural self-presentation that left the past centuries in darkness: "Natural luminosity cannot be relied on; on the contrary, truth is of a constitutionally weak nature and man must help it back on its feet by means of light-supplying therapy."[6]

Figure 5.

The therapeutic spotlight is displayed in the frontispiece by Cochin of the *Encyclopédie* [fig. 5]; the allegorical personification of theology is the direct recipient of the treatment.[7] In this *mise-en-scène* of enlightenment, the patient has not yet fully recovered; she is shown still kneeling beside Truth, Reason, and Philosophy who are all gathered to assist in her rehabilitation. Philosophy makes sure she is properly exposed to the beneficent beam which shines through, all the more intensely, as the clouds dissipate around a radiant Truth. A lengthy essay could be written on the hermeneutics of this complex allegorical scene; suffice it here to point out the precise orientation and delineation of the enlightening beam beside and in contradistinction to the ambient radiance of a luminescent truth. The juxtaposition of the two kinds of light sharpens their iconographic differences and their semantic divergence. Also critical is the articulation of the beam in the overall composition: as in Ledoux's picture, it is shown receding into the distance, evidently in compliance with the rational and metric framework of a perspectival vision. The distant light source is somewhere above, outside the pictorial field; in both cases, it could as easily be an oculus in a domed ceiling as some metaphysical point in the abstract realm of the supreme being. The iconographic clues seem to imply both possibilities at once in a traditional conflation of dome and heavens.

While in Cochin's drawing, the dome is faintly delineated in the background, in Ledoux's we can only infer its existence from certain clues. In Cochin's drawing the beam is framed by a circular entablature supported by free-standing columns, at the top of a stepping architectonic formation. The same pyramidal composition is repeated in Ledoux's drawing, including the crowning circular colonnade and the tiered structure below as if to represent the vacated stage set of Cochin's tableau vivant.

Although Ledoux is known for such *clins d'œil*, quotation is here unlikely and moreover inconsequential.[8] More meaningful is the unconscious and persistent repetition of
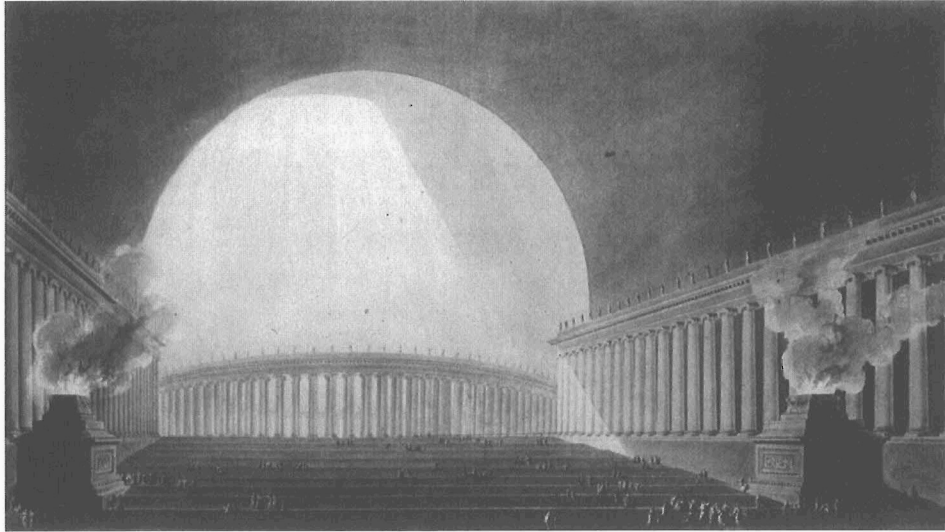
Figure 6.

a paradigmatic structure which consistently implicates architecture in the representation of the focused and measured ray of direct lighting. The repetition would claim a more structural foundation to this conjunction, a *raison d'être* beyond the fortuitous twists of a picturesque imagination and the strategic but provisional alliance in allegory.[9]

Architectural Light

Perhaps the most evocative setting of this conjunction should be credited to Charles de Wailly. In keeping with the period's optical sensibility, his project for the "adaptive re-use" of Soufflot's Ste Geneviève provides only overhead lighting, as it was tellingly considered to be most suitable for the character of didactic programmes [fig. 7].[10] Especially ingenious is his theoretical positioning of the circular colonnade above the exterior of the dome to frame the ocular aperture of the celestial
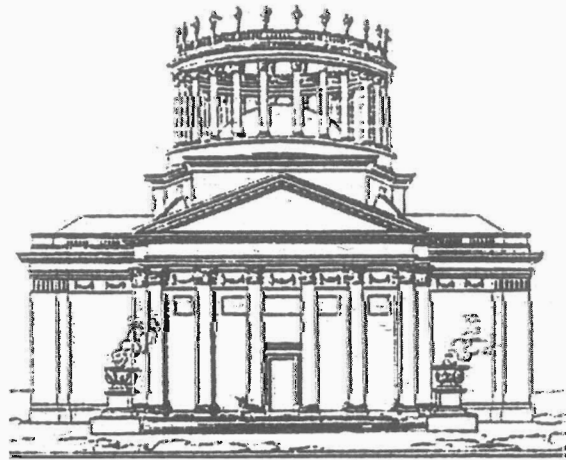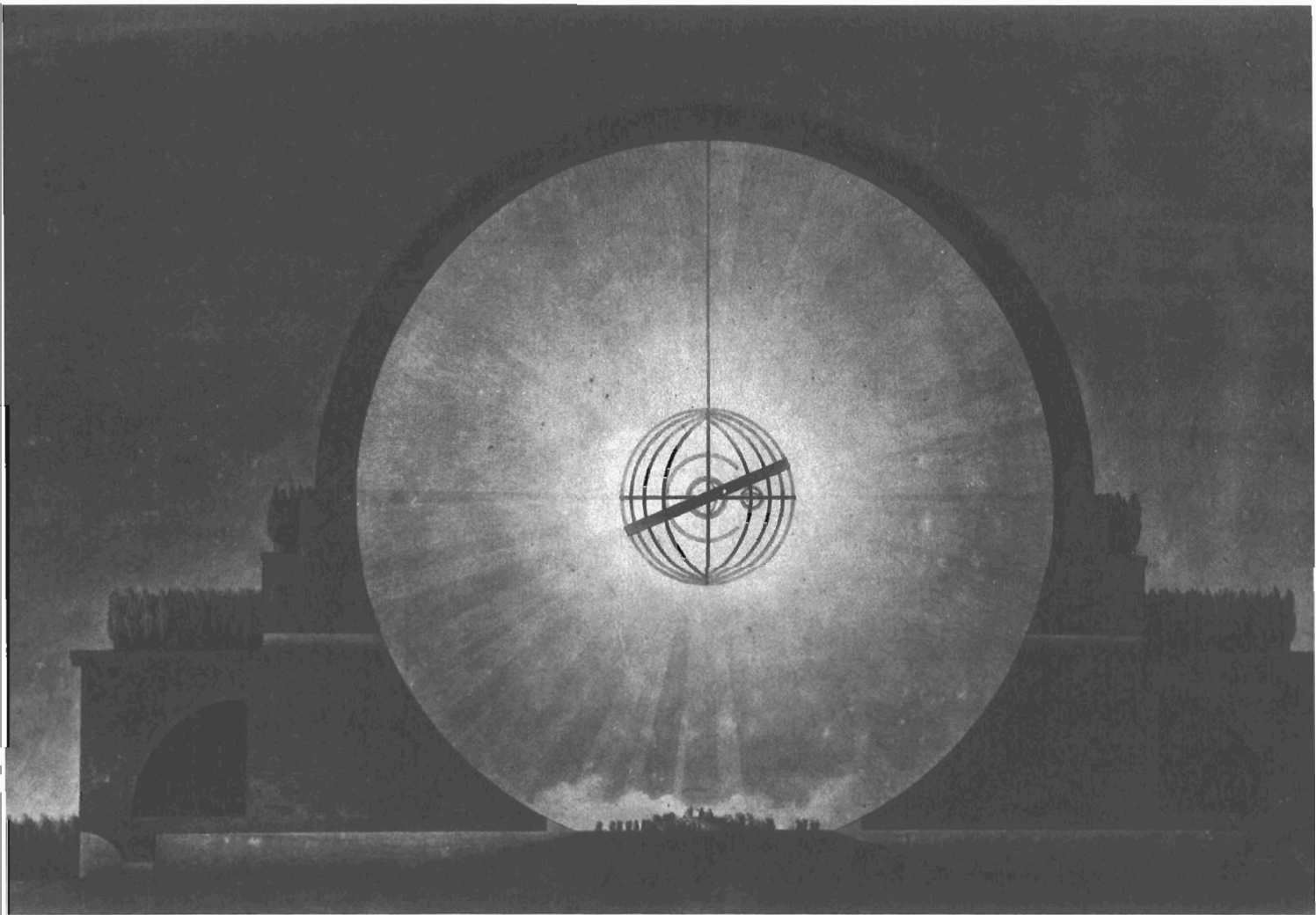

Figure 7.

Figure 8.

cupola. The architectural frame captures a section of the sky, momentarily turning a neutral and homogeneous background into a finite and rhetorically charged detail in a picturesque composition of architectonic masses.[11] Thus fabricating and framing the focused and directed beam inside and the captured and delineated sky outside, de Wailly's Panthéon turns light into a visible and concrete entity that is integrated into the metric framework of the architectural apparatus.

Examples of the symbolic instrumentalization of light are abundant in the architecture of the Enlightenment, but nowhere is this technology more effective or more visually coercive than in Etienne-Louis Boullée's *Cenotaph for Newton*—a project which could surely rival Ledoux's *Coup d'œil* in present-day popularity [fig. 8]. Here the whole structure is conceived as a lighting device which creates contrasting effects by exploiting—and perverting—the diurnal process: within the controlled environment of a spherical structure, natural daylight contributes to the illusion of a nocturnal sky and an artificial light source substitutes for the sun at night. The building is literally an optical apparatus dedicated to the fabrication of light for a tailored visual experience. Here, the presupposed medium of visibility is technologically manipulated as a variable and measurable construction unit in the "prefabrication of vision."[12]

Architectural Eye

In the conjunction of the eye, the light ray, and architecture, Ledoux may accordingly be formalizing the prosthetic function of architecture: its capacity to reproduce and extend the mechanisms of the eye and consequently transform the visual field. Architecture had self-consciously assumed this role since the reign of Louis XIV, when new technologies multiplied its optical applications,[13] and a constellation of socio-cultural factors gave a new momentum and political motivation to the power of the visible and the culture of visibility.[14]

Next to a panoply of new optical instruments, architecture thus came to epitomize the technology of vision, especially when accessory pyrotechnics and artificial lighting extended its spectacular efficacy into the night—a realm that had been previously indifferent to the rhetoric of perspective.[15] With the help of engineering, architecture began to reshape the environment, at the scale of the domestic interior as well as the city and landscape, into a friction-free optical medium in which the gaze could freely indulge in power and desire. The interiors of Versailles may have initiated the process with the unprecedented importance assigned to the decorative mirror while outside, the *mise-en-architecture* of the vanishing point was stressed. The *galerie des glaces* set up a still more ambitious amplifier for the broadcast of the gaze in a medium of pure visibility:
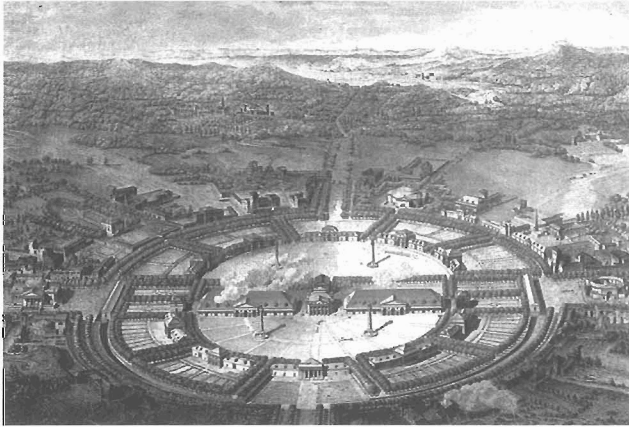
Figure 9.

here "each gesture is doubled, each movement is observable from all sides, each presentation represented. And seen in the infinitely reflective depths of the mirrors, across the expanses of the garden's length, is the reflected double of infinity."[16]

Ledoux's ideal city of Chaux aligns with Versailles in technological implementation of vision.[17] Here the architectural lubrication of the gaze takes on a new form [fig. 9]. In addition to the unrelenting *percées* which allow the *coup d'œil* to plunge into the opaque depths of nature, heedless of topography and forest,[18] the breakdown of the traditional city fabric into a looser field of atomized blocks provides for a new mode of visual appropriation: the no less voluptuous or conquering promenade of the gaze around free-standing structures in a rarefied open space.

Considering this history of strategic complicity between architecture and vision, the image of an architectural eye no longer seems so opaque or implausible. Some evidence has indicated that the picture in Ledoux's eye may not have been intended solely as a reflection. An alternative interpretation, earlier dismissed for lack of verisimilitude, would have it as an actual space behind a transparent pupil. The concave architectural configuration may therefore be representing the interior cavity of the spherical eye. However fantastic, this reading would be entirely consistent with the prosthetic accomodation of vision in Ledoux's architecture. The moment the pupil becomes transparent, architecture and the eye, which otherwise could reassert their respective autonomy in the play of reflections, are momentarily collapsed into a single apparatus. In the synthetic orb, the coincidence of their optical structures is spatially and allegorically demonstrated. Ledoux hints at this convergence in his description of the theater at Besançon. The stated ambition is to model the contour of the proscenium after the geometry of the eye, since it is "the first frame," through which the world is seen. But the *Coup d'œil du théâtre de Besançon* pushes the analogy beyond the matching contours of the frames of vision.[19] In this representation—not to mention in the syntactic twist in its title[20]—the total coincidence between building and eye speaks more profoundly of the visual function of architecture. Ledoux's *Coup d'œil* suggests that architecture is a kind of eye, a technological process in which the environment is made visible.

Notes

1. A fragment of Ledoux's relentless apostrophe to the eye: "Will you not, transparent mirror of nature, help unfold steadfast truths for us? you will unveil passions, express characters, and your eloquent language will teach more than the methodical tradition that leads us astray." Ledoux, *L'Architecture considérée sous le rapport de l'art, de la morale et de la législation*, Paris, 1804, p. 217. Typical here is the conflation of the receptive and active functions of the eye: sight is not merely a passive instrument of mediation between the mind and external world but also a projective agent which has an active role in the construction of reality.
All translations from the French are by the author and Nadia Benabid, unless otherwise indicated. Published translations are used whenever available except when judged unsatisfactory.

2. See Michel Foucault's analysis of Velasquez' *Las Meninas* in *The Order of Things* (New York: Random House, 1970).

3. Robert Darnton, *The Great Cat Massacre and Other Episodes in French Cultural History* (New York: Vintage Books, 1985) 78.

4. Georges Teyssot noted the iconography of the new visual paradigm in Joseph Suvé's staging of the origin of drawing in *The Invention of Drawing* (1791). The use of the lamp to cast the mythical shadow "illustrated the shift of the discussion and heralded the appearance of the definitions 'natural' and 'artificial' light." Georges Teyssot, "'The Simple Day and the Light of the Sun'; Lights and Shadows in the Museum," in *Assemblage* 12 (August 1990): 61.

5. Cf. Hans Blumenberg, "Light as a Metaphor of Truth," in *Modernity and the Hegemony of Vision*. Ed. David Michael Levin (Berkeley: University of California Press, 1993), 53.

6. Hans Blumenberg, "Light as a Metaphor of Truth," 52.

7. In keeping with the anti-clerical tone of the *Encyclopédie*, theology was indeed bound to be cast in the role of the patient suffering from light deprivation. In any case, the Christian doctrine of divine manifestation in self-evident truths was bound to lose its luster in the new visual paradigm. The church remained one of the privileged sites for the deployment of lighting effects. As Teyssot has observed, they were for a sense of mystery rather than objective clarity, "by concealing the floodlight opening, so that the visitor might receive the light as an excited revelation and be moved to reflect upon the sacred mysteries." Teyssot, "'The Simple Day and the Light of the Sun: Lights and Shadows in the Museum," 61.

8. The reference may indeed be to the Roman theater, via Vitruvius' description of a "colonnade to be built at the top of the rows of seats" and Palladio's *Teatro Olimpico* (Vicenza, 1580-85) which has a similar feature, but which serves a merely decorative purpose. The motif was nevertheless pervasive, and frequently featured in contemporary theater design. It is used to support the mezzanine balcony in Gabriel Dumont's project that was reproduced in the *Encyclopédie* and functions as a proscenium in the *Comédie Française* by Joseph-Marie Peyre and Charles de Wailly (Paris, 1771). Often welcome as a structural support, it is consistently set up as a framing device, especially in painting, where the landscape is often viewed through the free-standing peristyle of a circular ruin.

9. The same configuration is also found in Boullée's project for a museum of 1783 and is echoed, more or less literally, in other late-eighteenth-century designs [fig. 6].

10. Georges Teyssot has examined the architectural implications of this didactic imperative in the context of the museum. Here, the metaphorics of light are complicated, inflected, and expanded by the technical and

symbolic exigencies of display, with respect to spatial orientation and chronological structure. While overhead lighting could be very effective in supporting a historical narrative of progressive enlightenment—the self-conscious ideological agenda of the museum—it could also conflict with the lighting effects that were already built into the paintings. As noted by Teyssot, the *Directoire* ignored De Wailly's ambitious designs for a top-lit "Grande Gallerie" (1793), in favour of "a homogeneous space, isotopic, permeable and transparent." Here light could reassume a pseudo-natural neutrality, so as to highlight the artificial accents of its painterly representation. In the museum, architecture could not endulge in the theatricality of the spotlight; this privilege was reserved for painting. Georges Teyssot, "'The Simple Day and the Light of the Sun: Lights and Shadows in the Museum," 76.

Most of the projects inspired by Ste. Genviève or proposed for its transformation into a "Panthéon"—including Quatremère de Quincy's (1791)—opted for overhead lighting in contradistinction to Soufflot's quasi-Gothic illumination of the building with large windows along the nave. Overhead lighting was also *de rigeur* in more private or humble settings that had the slightest moral or didactic overtones to their programme. Hence Ledoux's following commentary: "No Windows! The House of the Abbée de Lille must be illuminated from above! it is a temple of Glory!" [*Quoi! des croisés! la maison de l'abbé de Lille doit être éclairée par le haut! c'est un Temple de gloire!*] Quoted in Ozouf, "L'image de la ville chez Claude-Nicolas Ledoux," *Annales*; E.S.C. no. 6 (Nov.-Dec. 1996): 1283.

11. De Wailly states his compositional intentions very explicitly: "The clouds which will be seen through the columns and thereby incorporated into the architecture will create picturesque effects." Quoted in Mark, K. Deming, "Le Panthéon Révolutionnaire," in *Le Panthéon, symbole des révolutions : de l'église de la nation au temple des grands hommes* (Montréal: Centre canadien d'architecture; Paris: Caisse nationale des monuments historiques et des sites; Picard, 1989) 60.

12. A notion borrowed form Blumenberg's "Optik der Präparats," emphasizing how visual possibilities are shaped in advance by lighting technology: "'an optics of prefabrication' is being developed, which eliminates the freedom to look around within a general medium of visibility." Hans Blumenberg, "Light as a Metaphor of Truth," 54.

13. The improvements in the manufacturing of plate glass, new devices for artificial lighting—interior and exterior—the end of the Venetian monopoly on mirrors, were but a few of the material changes in architecture. See Philippe Perrot, *Le Travail des apparences, ou, Les transformations du corps féminin XVIIIe-XIXe siècles* (Paris: Éditions du Seuil, 1984) 63.

The unprecedented importance that the mirror assumed in the decorative program of the aristocratic residence is symptomatic of this fundamental shift.

14. Louis Marin's *Portrait of the King* Trans. Martha Houles (Minneapolis: University of Minnesota Press, 1988), is a classic among many treatments of this topic. It demonstrates how Louis XIV's absolutism and the scopic regime reinforced each other with the production of the "king effect" in a variety of visual media.

15. See Wolfgang Schivelbusch, *Disenchanted Night: the Industrialization of Light in the Nineteenth Century* (Berkeley: University of California Press, 1988).

16. Allen Weiss, *Mirrors of Infinity; The French Formal Garden and Seventeenth-Century Metaphysics* (New York: Princeton Architectural Press, 1995) 72.

17. Marly is perhaps a better analog, its *allée* of free-standing structures having supposedly inspired the "*système pavillonaire*" of the institutional buildings at the end of the *Ancien Régime*.

18. Mona Ozouf has noted the architectural implementation of the empowered eye in the birds-eye view of the Chaux: "It may very well be that this city is fenced in by the forest, but nothing stops the gaze from over-reaching its limits to prolong itself in all directions. The line intersecting the great diameter of the city also cuts through the Loue, the woods, the Doubs, and why not, the canal of Geneva and Swiss meadows... Nothing resists the enormous blooming of this world; topographic accidents are effaced and the impenetrable forest, itself, unfurls wide paths that the gaze is delighted to take." Mona Ozouf, "L'image de la ville chez C.-N. Ledoux," *Annales E. S. C.* no. 6 (Nov.-Dec. 1996): 1276.

19. Anthony Vidler noted the precise agreement of the contours: "The frame of vision formed by the eyelid as it cuts the pupil across the top, follows exactly that of the proscenium, rounded at the sides, flattened at the top." Anthony Vidler, *Claude-Nicolas Ledoux: Architecture and Social Reform at the End of the Ancien Régime* (Cambridge, Mass: MIT Press, 1990) 176.

20. The title of the illustration, *Coup d'œil du théâtre de Besançon* implies that the theatre itself is looking.