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ARCHITECTURAL HISTORICISM IN THE NINETEENTH CENTURY: A STUDY OF BRITISH AND FRENCH TEXTS

by

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A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE

MASTER OF ARCHITECTURE

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ABSTRACT

This thesis presents an exploration of the phenomenon of historicism as it presents itself in nineteenth-century architectural theory. Chapter One discusses the treatises of Boullee, Ledoux and Soane in the philosophical environment of neo-classical culture in Britain and France. Each of the remaining four chapters concerns itself with the work of one major theorist, alternating between British and French contexts in the following order: A. W. N. Pugin, H. Labrouste, J. Ruskin and E. E. Viollet-le-Duc. The evolution of the historical outlook is allied with developments in science and philosophy and traced from the dissolution of Enlightenment neo-classicism through the transcendentalism of stylistic Revival to the picturesque eclecticism and structural rationalism of the late nineteenth century. Thus the thesis suggests a re-evaluation of the generative factors and transhistorical rhetoric of the Modern Movement, perceived as a product of history, and as such subject to critical investigation.
ACKNOWLEDGEMENTS

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INTRODUCTION

The phenomenon of historicism involves a complex set of issues which are intimately bound up with the modern culture of modernity of the last two centuries. The view of history which emerged in the nineteenth century was dependent on the acknowledgement of a rupture with continuous tradition forced by political and sociological developments and an awareness of the relativity of all cultures, combined with a need to obtain a meaning from an analysis of the past for present use. Therefore historicism oscillated between a view of the past as a series of changes, a succession of styles which were the products of other ways of life and therefore unavailable, and the desire to find a cumulative meaning or law in this historical evolution in the absence of the "past in the present" of normative tradition. Stylistic revivals, predicated on the selection from history of a unified and associative paradigm, were gradually superseded by less naive efforts to range over the totality of historical production and find a more exact method of application of the accumulation of the past to the needs of the present. It is the extreme deterministic interpretation of the historical outlook which needs to find a controlling and unifying order in history, to see history as "God", which Popper has criticized in his book "The Poverty of Historicism," and which animated and generated the Modern Movement in architecture at the beginning of the twentieth century. The
oscillation in the definition of historicism between the relativism and unavailability of the past and its necessary connection with present action and decision-making I would view as paralleling the oppositional quality of modern culture where the middle ground of "common sense" seems to have evaporated. Thus, bound up with the notion of the historicist outlook, seen as one aspect of the analytical culture of modernism, and running through the discussion as a series of repeating themes, are the recurrent oppositions of subject vs. object, analysis vs. synthesis, particular vs. general, art vs. science, and imagination vs. reason. The nineteenth century is regarded as the location of development of these oppositions of which historicism is one symptom among many, and this thesis therefore presupposes what Robin Middleton has suggested:

... that our view of the Modern Movement is in the nature of a caricature devised to contrast it more strongly with the nineteenth century and that neither has ever been properly understood; until we grasp the true evolution of our present architectural ideas we can neither assess them nor use them to proper and full effect. ¹

Gadamer has proposed that the tremendous proliferation of philosophical and historical theories in nineteenth-century Germany is the result of the fragmented identity of the country at that time;² new methods of analysis, developed among a local federation of states, were unhindered by a strong tradition of "sensis communis" or accepted norms. Indeed German philosophy, and particularly that of Hegel, remains an influence on this discussion of historicism which must be acknowledged, but emphasis has been placed on the interaction between
the new theories of history and the more established cultural environments of Britain and France, the main contributors to the philosophy of the eighteenth century. The preoccupation therefore is with connection more than rupture; with the threads of continuity linking the nineteenth century both to its Enlightenment forebears and its Modern Movement descendents.

The discussion commences at the turn of the century, concentrating on the encroachment made by the analytical methods developed by British and French philosophers on the normative tradition of classicism. The empiricist emphasis on the sense perception of the individual shifted concern from the discussion of beauty residing in objects themselves to that of beauty residing in the psychological reaction of the observing subject. The synthesis of neo-classical culture, which had sustained itself in the face of such analysis throughout the eighteenth century by virtue of its hierarchical nature, eventually subsided after the French Revolution into the fragmentation and discontinuity of the nineteenth century. It is suggested that the treatises of Boullee and Ledoux in particular, in their dissection and interrogation of the classical ideal in response to the new philosophical and social developments, form a prelude to the ensuing tendencies of historicist analysis.

The impact of the Industrial Revolution was first experienced in Britain, challenging a neo-classical system which had never possessed
the theoretical and political underpinnings of the French Academy with the need to respond to new building programs. Proponents of the Gothic Revival in the early nineteenth century used the paradigm of Mediaeval Architecture as the antithesis of classicism, and Colquhoun has suggested that Gothic architecture, in addition to being open to the empirical methods of archeological research, was seen to contain the principles of process and evolution on which the critique of classicism was based. In addition, the Mediaeval paradigm was juxtaposed against the drabness of the nineteenth-century urban environment as a metaphor of village life in the more hospitable and stable social structure of the Middle Ages. Thus to the Gothic Revivalists "the backward-looking habit was not ... a form of escapism; it was ... a necessary corollary to present action."

The Academic tradition in France which had subordinated a set of diffuse influences to the neo-classical system during the 18th century, widened its focus under the pressure of archeological research to the picturesque eclecticism of the late nineteenth-century, with elements drawn from Greek, Gothic and Renaissance precedent in addition to that of classicism. In Britain a return to a form of eclectic decorum based on Renaissance models and in contrast to the ferocity of the earlier Gothic Revival, could be seen by mid-century, and it is suggested that the theories of Ruskin could be regarded in this context as proposals for a revival of a Renaissance paradigm of eclecticism rather than as an elaboration of the Gothic Revival debate.
Direct visual reference to Medieval motifs did not appear in France until encouraged by the eclecticism of the latter part of the century, by which time the positivistic tone of Viollet-le-Duc's work signaled a new attitude. The French structural interest in the Greek and Gothic paradigms—a continuous preoccupation of seventeenth and eighteenth-century theory within the neo-classical system—influenced an abstraction of principles from both these models, favored as the most elementary that history had provided. The preceding stylistic revivalism and eclecticism were rejected in favor of a more radical form of historical analysis which sought essential qualities in the formation of "style," not "another style."

The discussion therefore concludes with an apparent opposition between the picturesque eclecticism of fragments of the critique exemplified by the attitudes of Ruskin and the late Academism of the nineteenth century, and the abstraction of a set of connecting principles outside history which led Viollet-le-Duc to formulate his synthesis. However it is suggested that this opposition is misleading; that the abstraction of the Graeco-Gothic Ideal, which Viollet-le-Duc proposed and which formulated an instrument of synthesis for the Modern Movement, was rooted in its time and place, in particular to the philosophical context of Comte's positivism and its opposition to Academic conservatism.
Eclecticism was subordinated to the ideal of the tectonic frame in combination with particular material and functional demands in the rhetoric of the modern movement, but I would suggest that the more complex and evocative works of modern architecture depend on the interplay between the ideal model proposed by scientific method and the phenomenal reality of experience, therefore on the system of connection and on the fragments to be connected. The program of nineteenth-century historicism from stylistic revival to the fragmentation of eclecticism and the formation of a set of principles abstracted from history is therefore seen to be a progression or radicalization of historicism but not a revolution.

The historicist's search for an objective scientific method might be regarded as an impossible attempt to cancel the historicity of interpretation no less than the Romantic's assumption of absolute moral or religious values as criteria for judgement. Such criticism calls into question the common distinction by which Romantic history, like Carlyle's and Ruskin's is seen as less central to the development of modern historical methods than scientific historicism.5

Therefore the Modern Movement contains within its own program the possibility of a critique of the specific principles which were provided by its historical analysis, in a continuation of the spirit of critical enquiry out of which it was forged.
NOTES


2. Gadamer, "Truth and Method."


CHAPTER ONE: THE SENSATION OF ORDER
BOULLE, LEDOUX, SOANE

The foundations of the critical culture we inherit today were laid by the philosophes of the eighteenth century, who began to apply the newly developed analytical methods of science (philosophy's assertive offspring) to an investigation of the basic presuppositions of their society. The main thrust of this enquiry centered around the theological teachings of the Christian churches and culminated in philosophy proclaiming its independence of traditional metaphysics.

It was a time when emphatic contempt was reserved for Mediaeval culture: the control of the Catholic church over knowledge during the Middle Ages was seen as inimical to true philosophical speculation, and even the painstaking debates of the scholastics were dismissed as spurious erudition by Hume. A prevalent distaste for Gothic architecture (the pejorative appellation "Gothick" being synonymous with barbarism) and its identification with disorder, caprice and tastelessness were symptomatic of this intellectual climate. As Peter Gay puts it:

It never occurred to the philosophes that one might appreciate the art of the Christians without surrendering to their myth. ¹

The tradition of Renaissance humanism which followed the middle ages and persisted for four centuries until after 1700 formed the basis of
the philosophes' education. Religious tenets (now divided by the Reformation into those of a Catholic church and its Protestant critic) and a revived interest in classical learning had been fused into a synthesis which was seen as an assertion of man's importance as a cultivated being within God's hierarchy. The seventeenth-century scientists still believed in a God who was the fabricator of their universe and who accounted in the mind of the philosophes' particular hero, Isaac Newton, for the irregularities observed in the system of planetary movement he postulated in his major work, "Principia."

The intellectual elite of the eighteenth century who had begun to perceive religion as form of myth-making and to question the integrative power of the church were doing so from within this humanist tradition and have been described as cuckoos in the Christian nest. Many of the French philosophers had been educated by the Jesuits and their anti-clericalism contained the minute observation of the initiate. The Reformation was perceived in France as a critical step in religious history, and Protestant Britain was looked to by many as a likely model of a more tolerant and enquiring society. History was seen as a fall from the philosophical debate of Greece and Rome into the trough of the dark ages from which society was slowly emerging by turning the classical component of humanism against its Christian counterpart.
Whereas classical anthropomorphism involved the projection of a
generalized human personality on the natural surroundings, eighteenth-
century deism viewed nature as revealing the order of a more remote
God, and eighteenth century atheism refused any speculation regarding
a metaphysical cause of order in the natural world. The Mediaeval
view of nature as the allegorical representation of Christian values
and the Renaissance view of the natural world as a mechanism of God's
creation were superseded by an organic or vegetal metaphor with its
implications of a less appreciable whole and a more obscure source of
order. The concept of "natural law" as a regulator of man's actions
was substituted for that of God's law in the new morality of societal
consensus—a natural law which while remaining the subject of debate
and eluding precise definition was used as an instrument of criticism
against society's traditions, now seen as artificial if not
arbitrary. To these modern pagans death was no longer the occasion of
abject repentance and judgement but as a heroic statement; salvation
was situated in the remembrance of future generations, not in Heaven.

What posteriority is for the philosopher, the other world
is for the religious man.2

The new orientation was largely the result of the investigative
methods of science which had cut its ties with philosophy and emerged
as a separate discipline. The rationalism of the seventeenth-century
philosophers Descartes and Spinoza, where the investigation proceeded
according to an a priori abstract structure of order such as
mathematics, formed the scientists' initial models. Descartes had
posited an autonomous reason, a mind separate and distinct from matter. In its presupposition of a unifying ordering system Cartesian rationalism had superficial ties with neo-classicism but very important basic differences. The systems of the rationalists were open to criticism, could be supplanted and were therefore inimical to the authority of the past advocated by classical culture. If the rationalists formed the same conclusions as those of the neo-classicists for a time, it was for very different reasons.

... philosophy, which represents the dominant tendency of our century, wants to regain the time it has lost and take revenge on the scorn which our forebears expressed towards it. It seems that it (philosophy) regards Antiquity as an Oracle which has exhausted itself and which it is useless to interrogate further. 

By the eighteenth century the ambitious systems of rationalism were being called into question by a new method of investigation called empiricism which while committed to enquiry sought limits to reason and refused to base its observations on a priori systems. The reliance on localized observation from which general conclusions could be drawn, evident in the work of Bacon and Newton in the seventeenth century, formed a model for eighteenth-century scientific investigation, and British empiricist methods were gradually emphasized at the expense of those of French rationalism. The system of Descartes, supplanted by many of Newton's findings, was seen as a particular casualty of empiricism and as a victim of its own ambition.

Newton's modesty caught the imagination of the philosophers—
likened his work to picking up pebbles on the seashore—and his theories were popularized by Voltaire almost a century after their initial publication in Britain, contributing to the Anglomania evident in France in the late eighteenth century. His major work, "Principia," had united celestial and terrestrial phenomena of motion in a single system of laws, and his subsequent work, "Opticks," was an investigation of colour and light. Locke and Hume, the Enlightenment proponents of empiricism, proposed observation as the sole method of gaining knowledge, which is then made totally dependent on the sense perception of the observer. Locke's theories emphasize the notion of the mind as *tabula rasa* or white paper, having no innate knowledge of morality or God. Sensation of phenomena gave rise to simple ideas which could be combined to form more complex or abstract concepts, all based on the observer's original sensory experience.

The emphasis of the rhetoric of unadulterated empiricism on individual perception if pursued to its logical conclusion would result in complete subjectivity, relativism and scepticism—a conclusion hinted at only by the more radical pronouncements of Hume and Rousseau. Of course the methods of both the so-called rationalists and empiricists relied on a combination of both hypothesis and observation in order to formulate and test their theories. The rationalist Descartes acknowledged that he could not have done without "a store of experience to serve as matter for my reasonings," and empiricist Newton's "Principia" involved a combination of observation and
abstract mathematical calculation. The use of hypothesis was favoured by empiricist philosophers as a method of explaining their theories regarding human perception. Condillac in his adaptation of Locke's theories of sensation used the construct of a "statue man" in which each sensation was awakened one by one, Rousseau's "primitive man" was acknowledged by him to be hypothetical for the sake of argument. The debate regarding the complex symbiosis between rationalism and empiricism continues today in the philosophy of science, but there is agreement that both are needed for research and therefore not mutually contradictory positions. The difference, therefore, is one of ambition and rhetoric rather than kind, empiricism striving to limit its hypotheses and therefore the extent of knowledge, rationalism favouring bolder hypotheses and greater speculation.

The gradual triumph of empiricism in the eighteenth century bespoke a commitment to prudence and restraint in the claims made for autonomous reason and was saved from dwindling to a total restriction of knowledge in a sea of isolated probabilities—-in short from the scepticism of Hume who denied causation and spoke only of observed frequencies—-by the underlying and unacknowledged cultural hypotheses of the philosophers which enabled them to make use of their newly acquired knowledge. Systems of a priori rationalism were replaced by an appeal to the ordering of enlightened pragmatism. If the eighteenth century was the Age of Reason, it was the reason of common sense, the Aristotelian/scholastic tradition of "sensus communis," not
abstraction. The sturdy practicality of Cicero's Rome was preferred to the idealism of the Greeks. Because of the restricted number of people involved in the philosophical and scientific discoveries of the time, the still-manageable store of knowledge at their disposal, and their similar education and references, the perception of the society of philosophes as a cultivated conspiracy to agree on fundamentals does not seem untenable. Diderot could still attempt to encompass in the thirty-five volumes of the Encyclopédie the state of world knowledge. Prudence and caution were advocated, religious morality was replaced by a form of judicious self-interest in which good was associated with pleasure, evil with pain.

Philosophy, in making the sense-data of central importance to the relationship between man and his surroundings—the senses writing their images on the blank screen of the mind, as it were, (Popper has referred to empiricism as the "bucket" theory of the mind)—granted autonomy to sensation which was assumed to be undifferentiated between individuals. In theory, people were equal at birth, devoid of innate ideas, and only their experiences made them different, not the interpretation of those experiences. Edmund Burke in the opening chapter of his "Enquiry into our Ideas of the Sublime and Beautiful" (1756) equivocates:

It is probable that the standard of reason and taste is the same in all human creates ... the manner of perceiving external objects is in all men the same, or with little difference.

Variation in perception between individuals is attributed not to
difference in innate sensibility but to difference in judgement which
with application and diligence can be improved and refined.

It is known that the taste is improved exactly as we
improve our judgement, by extending our knowledge, by a
steady attention to our object, and by frequent
exercise. 8

The standards of judgement which formed this discerning ability of
taste, a form of "sixth sense," were agreed on by a cultivated elite
and subjectivity was refined through a normative and social filter.
Although the preceding century had seen improvements in the lot of the
masses and a rise in the level of education, the gap between the upper
and lower levels of society was still great enough to justify the
subsequent criticism levelled at the casual snobbery, smugness and
superficiality evident in the writings of the philosophes. They
partook of the pleasures of a civilization they affected to despise,
formed part of the established thought of their time, and were largely
unaware of the potential consequences of their critical activity.

This cultivated and urbane club was cosmopolitan by nature and the
commerce of ideas between Britain and France in the late eighteenth
century was brisk. The French acted as popularizers of British
innovations; Voltaire promoted Newton's theories of planetary
movement, Condillac those of Locke regarding sense perception. Of the
three architectural theorists under consideration, Boullee seems to
have travelled little outside Paris but may have met Soane there in
1778. In his lectures Soane reveals his familiarity with the French
neo classical theory of Laugier, Fremin and Cordemoy. Ledoux had
spent the years 1769-1771 travelling in Britain where he was
influenced by the architecture and landscape gardening of the
Palladians. All three were members of their national
academies—unions that had been founded to replace the Mediaeval
guilds, assert the rights of the professions and encourage discussion
and setting of standards. The British Royal Academy, for whose
students Soane's lectures were prepared during the first decades of
the nineteenth century, had been founded in 1762 and was controlled by
aristocratic dilettantes due to the royal disinterest in the arts.
The French Academy, founded earlier in the mid-seventeenth century,
had succeeded in substituting the centralized authority of the court
for the original tyranny of the guilds. The treatises of both Boullee
and Ledoux were completed during the lull in architectural production
following the French Revolution (1789)—Ledoux's draft may have been
completed during his time in prison during the early 1790's—and both
acknowledge their frustration with the system of government
patronage. Their treatises were written at the close of careers that
had seen the cancellation of public commissions due to lack of funds
and political instability during the decades before the revolution.
Boullee suggests competitions with open jurying as a more equitable
method of awarding public projects, "so that the men destined for
architecture might be encouraged by the hope of receiving rewards for
their efforts." Ledoux bemoans the fact that architecture has
always been controlled by royalty and bureaucracy who presume to
interpret the will of the people. In contrast to the more
autobiographical and theoretical treatises of Boullee and Ledoux, Soane's text is that of a practitioner lecturing within the walls of the Academy and therefore imparts a more orthodox version of neo-classicism, but he is also careful to point out the limitations of the system.

In the work of all three authors there is unanimous rejection of the idea of an architecture based solely on repetition of classical models: Soane counsels avoidance of "servile copying of the Italians and Greeks," suggesting that if mere limitation of the ancients were required,

... there would be little study required to make an architect; the practice of architecture would then be merely mechanical, little more than routine. Boullee advises that "one shouldn't presume that what only remains is for us to imitate the ancients ... ruins of ancient temples ... these examples are not wide enough to give us a complete account of our art." Ledoux, as usual is more forthright.

I would tear the banner which has covered for so many cultures a petrified practice that in the hands of the most talented develops into more than a circumscribed precept which must remain invariable.

Although Soane in his lectures gives prominence to a discussion of the classical orders, he is careful to distinguish between their varying interpretation by preceding theorists, and Ledoux cautions: "those who circumscribe their inspiration within the five orders are misled." According to Boullee, Perrault's distinction between positive and arbitrary or customary beauty failed to rescue
architecture from the mercy of mere whim and caprice because of the central importance given to the orders in that argument. He proceeds to displace proportion as the first principle of architecture, since "faults in proportion are apparent only to the connoisseur," and concludes that when Vitruvius defines architecture as the art of building, "he is talking as a workman and not as an artist who possesses a knowledge of his art."

While agreement prevails on the division of architecture into art and science (Soane defines it as "partly an art and partly a science; it consists of the Theory and Practice of Building."), Boullee's main concern is to establish the principles of an art in the true sense of the word which he views as being in its infancy:

How little, in effect, until these days, has the poetry of architecture been considered.

Both he and Ledoux emphasis what architecture can learn from the fine arts, Ledoux advising that "if one wishes to be an architect, one should begin by being a painter ... who, in the middle of the desert, offers abundance." Both evince an envy of the artist's greater freedom in the imitation of nature, which Boullee defines as being the main aim of art.

The concern to establish an aesthetic theory of architecture--aesthetics being a word first used in the eighteenth century by Alexander Baumgarten—with principles that would "have their basis in nature," is central to Boullee's Essai and his discussion of man's
perception of the external world is redolent of the sensualist philosophy of the time.

Let us listen to a modern Philosopher who tells us, "All our ideas, all our perceptions come to us via external objects. External objects make different impressions on us according to whether they are more or less analogous with our human organism."22

The dualism of eighteenth-century empiricist philosophy is encapsulated here in that while asserting the primacy of sense perception, Boullee's sense of sight is poised between the anthropomorphism of a classical view of nature assuming an order of Platonic ideal forms underlying the surface incrustations of the natural world, and the sensuous appreciation of change due to movement and light. Regularity, Boullee's primary law of architecture, is supplemented by those of symmetry and variety:

Regularity produces in objects the beauty of forms; symmetry their order and composition; variety the appearances by which they change before our eyes.23

Boullee's main agent of the sensuous variation which he thought necessary in architecture in addition to regularity and symmetry was light:

The light, in ranging over the assemblage of elements, produces bold, striking and varied effects.24

Variation could be produced by the shadows of the sun's daily movement or by the gradual coloration of the seasons; autumn tones are regarded as cheerful whereas the sombre emptiness of winter arouses notions of the sublime. In discussing the control of internal illumination in churches, while pointing out that public liturgy makes their
requirements very different from those of the dark temples of the ancients, Boullee seems enamoured of the ability of light to confound the observer:

It is light that produces impression ... if I could avoid direct light and arrange for its presence without the onlooker being aware of its source, the ensuing effect of mysterious daylight would produce inconceivable impressions.²⁵

Soane, a friend of the artist Turner and an admirer of his experiments with light reflection and refraction, shows a similar interest:

In galleries and extensive rooms with large Cornices and coved Ceilings, light is often introduced very advantageously above the Cornice, so that the Window is not seen from below; by this contrivance a pleasing kind of demi tint is thrown over the whole surface of the Ceiling.

The architect will do well to examine and reflect on the different means adopted by painters of introducing light into their Studios. The "lumière mysterieuse," so successfully practiced by the French artist, is a most powerful agent in the hands of a man of genius, and its power cannot be fully understood, nor too highly appreciated.²⁶

In discussing an emerging theory of architecture which having disposed of the emblematic presence of the orders proposes laws which while ceding primacy of place to the principle of order begins to incorporate notions of change and variety, the theories of Burke regarding aesthetic perception, particularly that of the Sublime, might be worth noting. He identifies two basic instincts in man which react with stimuli from the outside world; the desire for self-propagation and the desire for self-preservation. Objects stimulating the desire for self-propagation and arousing feelings of
pleasure and tenderness are termed Beautiful and have qualities of smoothness, clarity and delicacy. Objects stimulating the desire for self preservation and arousing feelings of delight are termed Sublime and have qualities of vastness, power and obscurity. The delight afforded by Sublime objects is distinguished from Beauty's pleasure and results from the removal of a source of pain:

When danger or pain press too clearly, they are incapable of giving delight and they are simply terrible; but at certain distances, and with certain modifications, they may be, and they are, delightful.²⁷

The Beautiful is thus allied with familiarity and sociability in a rather diminished and sensuous version of classical normality; the Sublime with remoteness and solitude. Although he contrasts these qualities as opposites, Burke allows that they may be found co-existant:

In the infinite variety of natural combinations, we must expect to find the qualities of things the most remote imaginable from each other united in the same object.²⁸

Burke's invocation of dark woods and druids in his discussion of aspects of the sublime suggest the mystery of the past as one possible agent. Boulée cautiously evinces an interest in some aspects of Mediaeval architecture and confesses a desire to unite the beauties of Greek architecture with

... I will not say the beauties of Gothic architecture, but the methods of art known and practiced by the Goths alone. These include ... the concealment, by the delicate means of art, of all the stresses in their churches, so that the buildings appear to support themselves miraculously.²⁹
The sublime enigmas of the past had a fascination for the eighteenth century, particularly ruins with their suggestion of process, growth and decay. Soane's illustrations which accompanied his more technical lectures show many of his own buildings under construction, empty and unroofed, like vast deserted Roman ruins. (Fig. 1) Ambiguity and difficulty are part of the sublime experience; Boullee's project for a Gateway to the City of the Dead (Fig. 2) provokes confusion due to his choice of an artificial datum level:

   An idea, as new as it was daring, came to me. I would create buildings that gave the illusion of being buried. ...
   As I considered the problem, I realized that only low and sunken lines would be appropriate. ...
   I decided that my sunken architecture would be exemplified in a building that was satisfactory as a whole yet gave the appearance that part of it was below ground.30

The suggestion of a double reading, of the incomplete fragment of a vast project with a remote and inaccessible centre are all at variance with classical ideals of unity and stability. The immensity and duality of the sublime experience is ultimately cathartic, opening up the observer to a world beyond that of societal indoctrination and in its incorporation of the remote and the difficult may be seen as a rule for avoiding rules, a safety value from the pressures of neo-classical legislation.

During the Enlightenment the discoveries of Newton evoked the essence of the sublime experience: the mystery and immensity of the universe. While for Boullee the form of the sphere combined to the highest degree his three architectural laws of regularity, symmetry
and variety—"from whatever side we look at this shape, no trick of perspective can alter the magnificence of its perfect form"—it is also the most mysterious and scaleless. Alfred Vogt in an investigation of the possible Palladian influences on neo-classical architecture has suggested that Palladio may have initially advanced the analogy between the perception of the earth, moon and sun as spheres (available knowledge in the sixteenth century) and the classical dome. A statement from the introduction to his fourth book reads as follows:

And when we observe this beautiful structure of the world ...
... can we doubt that the small temples which we make ought to resemble the greatest one, which has been created by one single word of His infinite goodness?

However Boullee in his project for a cenotaph in honour of Newton aims to outdo such small domed temples whose lineage can be traced back to the Roman Pantheon and to express the totality of the sphere by removing the classical screen and portico as supporting and scaling elements (Figs. 3, 4). The temple is now a testament to the near-deification of Newton and his discoveries:

Sublime Mind! Vast and Profound Genius. Divine Being! Newton. ... I conceived the idea of surrounding you with your own discovery, and thus, somehow, surrounding you with yourself.

The sphere is ambiguous and has many possible readings: externally as the completion of the classical dome form, as planetary levitation commenting on Newton’s laws of gravity, or as the rising cranium of the hero scientist emerging to the enlightenment of discovery. Internally it presents the immense universe itself to the precarious
observer. This form is similarly used by Ledoux and his etching for the cemetery of his model town of Chaux (Fig. 5) shows the sphere of the earth among those of the other planets emerging from the clouds in a possible allegory of the Enlightenment's version of itself. Elsewhere in his text it is the cranium of the architect, not the scientist, whose "radiant head rises above the clouds which disfigure the original truths; he marches alone among the prejudiced."\textsuperscript{34}

In contrast to Boulée's use of the word "character" to describe the effect of an object on the observer (the "imposing character" appropriate to a church, for example), Ledoux announces that "the architect shows his character in his works."\textsuperscript{35} For Boulée, taste conveys the cultivated discernment identified earlier as being agreed on by the philosophes, whereas in Ledoux's writing we find that "taste does not support the exclusive as it dictates its laws to the town, to the village."\textsuperscript{36} He charges the architect with a vast project where "everything is in his realm, politics, morality, legislation, worship, government."\textsuperscript{37} His proposal for the ideal town of Chaux, illustrated in more than half the etchings in his treatise, was the ambitious expansion of his original government commission to build a salt-works at Arc-et-Senans, a village in western France near the Swiss border.

The settlement is founded on the vision of a fortuitous conjunction of nature's generosity and man's commerce:
... one sees the important factories, fathers and mothers of industry, giving birth to communities. A town will rise up to encircle them. 38

The wages of the workers would be spent in "vast shops, (which) under their ample peristyles, display the treasures of all climates." 39 A variety of buildings for health and recreation are provided in addition to the church and civic centre, and the environs of the town "are decorated with habitations consigned to leisure and pleasure and planted with gardens rivalling Eden." 40 Ledoux experimented with new forms of family and communal living in these projects for workers' houses, presenting Rousseau-esque visions of

... heads of families (that) would govern by trust, loving affection and good example, rather than by moral schooling, propagating lessons of wisdom. ... Surrounded only by virtue, they would know nothing of evil. 41

The Enlightenment fascination with the acquired knowledge of experience as opposed to innate knowledge was beginning to be applied to an interest in the education of children as less hypothetical versions of the "statue-man" and the "noble savage," foreshadowing the rise of the novel of childhood remembrance. As the town of Chaux contains no library or educational facility at a time when four fifths of the French population were still in illiterate, the environment both natural and architectural can still be seen as having an educative and communicative purpose.

Etchings of many of the Palladian houses at Chaux depict a communal chimney rising through the central domed space (Fig. 6). Ledoux claims the end of "the influence of the Vatican on the Palaces of the
North, while Soane stresses in his lectures that "much depends on local climate, materials and modes of living." While advocating the use of Alberti's edition of Vitruvius, he admits that

... with regard to the domestic house we can derive little or no useful information from the remains of Ancient Buildings or from the principles of Vitruvius ... the Climates of Greece and Italy rendered fires less necessary than they are in ours.

Ledoux's text makes little attempt to propose a traditional set of architectural principles but is in large part a disjointed travelogue through the town of Chaux, beginning as the narrator, a Traveller, ("nothing is strange to the man who travels, he gets profit from everything.") is led through the subterranean labyrinth of the saltworks where upon emerging into the light, a young architect shows him plans, sections and elevations of the treatise's first project, "The Bridge over the Loue." (Fig. 7) The prose, with many allusions to the winds of change and the floods that no rampart or ditch can withstand, is that of an architect seeking to gain favour with the new regime, and his image of bridge supported by what appear to be boats may assume an unintended irony in that light. His efforts appear to have been successful, since his treatise was published on its completion in 1804, whereas Boule's Essai, with its more sober mixture of republican and royalist sentiment, remained unpublished in the Napoleonic era: Soane's orthodox presentation of the neo-classical case was published by the trustees of his museum in 1929.

Thus the empiricist analysis of classical tradition, predicated on the
psychological impression produced by the form on the observer and not on its essence, could not be anchored for long by tenuous contemporary notions of communal taste and judgement. No dividing line could be drawn between the manipulation of the physiognomy of the classical paradigm and the fabrication of a subjective repertoire of symbol and allegory where the arbitrariness of the sign was completely revealed. Whether the dissection of classical syntax by Boullee and Ledoux constitutes an extension or the irreperable rupture of caricature, the movement of light and smoke across their compositions (Fig. 8) may be seen a preliminary erasures of that tradition which eventually were allowed to spin, twist and irremediably mutilate those frozen lists and recipes that the classical mind had struggled to keep alive for centuries.46
NOTES


2 Diderot, "Correspondence," Vol. 1, p. 67 (Feb. 15th, 1766).


5 See, for example, Popper, "Conjectures and Refutations. The Growth of Scientific Knowledge."


8 Ibid., p. 22.


11 Ibid., p. 28.


14 Ibid., p. 11.

15 Rosenau, op. cit., p. 38.

16 Ibid., p. 41.

17 Soane, op. cit., p. 17.

18 Rosenau, op. cit., p. 27.


20 Ledoux, op. cit., p. 113.

22 Ibid., p. 34.  
The "modern Philosopher" is thought to be Condillac, adaptor of Locke's theories.

23 Ibid., p. 38.

24 Ibid., p. 43.

25 Ibid., p. 51.

26 Soane, op. cit., p. 35.

27 Burke, op. cit., p. 33.

28 Ibid., p. 121.

29 Rosenau, op. cit., p. 52.

30 Ibid., p. 80.

31 Ibid., p. 35.


33 Ibid., p. 83.

34 Ledoux, op. cit., p. 20.


36 Ibid., p. 27.

37 Ibid., p. 17.

38 Ibid., p. 1.

39 Ibid., p. 5.

40 Ibid., p. 1.

41 Ibid., p. 5.

42 Ibid., p. 15.

43 Soane, op. cit., p. 8.

44 Ibid., p. 123.
45  Ledoux, op. cit., p. 59.

46  Porphyrios, "The 'End' of Styles," from: "Oppositions," No. 8, Spring 1977, p. 120.
Fig. 1 Constructional Drawing
Scane

Fig. 2 Gateway to a City of the Dead
Boullee

Fig. 3 Cenotaph for Newton. Elevation
Boullee

Fig. 4 Cenotaph for Newton. Section
Boullee

Fig. 5 Cemetery of City of Chaux. Elevation
Ledoux
Fig. 6 Bridge over the River Loue. Ledoux

Fig. 7 Worker's Building, Chaux. Ledoux

Fig. 8 Pyramid Boullee
CHAPTER TWO: THE GOTHIC IDEAL

A. W. N. PUGIN

There is none worth living for but Christian Architecture and a boat.¹

Prior to the nineteenth century, history was seen as the purveyor of models of imitation, as a pedagogical tableau in which human nature and ideals, although obscured by contingent events, were nevertheless seen as constant. The Enlightenment philosophes still held to this view of history as exemplary, hence their view of the Middle Ages as a period of interruption in the tradition of the ancients. As Collingwood says:

... for the crusade in favour of reason was still a holy war ... in this spirit Voltaire was a monastic historian writing for monks.²

The eighteenth-century English landscape garden with its calculated presentation of objects of association and reverie favoured the Gothic style for its pavilions and ruined follies. As part of a didactic tour of history, the Gothic ruin was an occasion of mystery and a salutary lesson in the triumph of civilization over barbarism, forming like the artificial waterfalls and hills an extension to the picturesque topography. When Mediaeval architecture began to make its way from the "bottom of the garden" as it were, to the house (Walpole's Strawberry Hill (1747) and Beckford's Fonthill Abbey (1796)
for example), such private projects were inhabited fancies of which John Soane allows in his lectures:

In grand, romantic, mountainous parts of the country, enriched with torrents, lakes and rivers, castellated Mansions ... may bring back pleasing recollections of ancient times, and make the spectator feel the pleasure of concordance, from the similarity of the emotions produced by the two objects.³

However the mere presence of the sublime enigma of the Middle Ages in the Enlightenment garden, indicative of a growing curiosity in the sensation produced by contemplation of the past, can be seen as that of a Trojan horse inside the walls of neo-classicism. At the beginning of the nineteenth century the Gothic cathedrals were discussed as landscape or petrification of a forest, but also as the symbolic recreation in stone of a race memory of sylvan worship.

The columns have been compared to natural basaltic pillars, and if the exterior, with its countless towers and pinnacles, appears not unlike a forest, the whole prodigious structure, on a nearer approach, looks like some magnificent natural creation.⁴

For this northern people, having been accustomed during the gloom of paganism to worship the deity in GROVES ... when their new religion required covered edifices, they ingeniously projected them to make them resemble groves ... ⁵

This activation of Gothic architecture from enigmatic landscape to one redolent of the intentions of a particular society is indicative of an emerging attitude to the past evident in the turn-of-the-century writings of the Romantics and influenced by the philosophy of Immanuel Kant. Setting out in his Critiques to question the Enlightenment empiricism of Locke and Hume in which the subjective consciousness was
viewed as a passive receiver of data from the external world through the senses was emphasized, he proposed that the mind has innate ideas which align empirical data in accordance with its structure of categories—i.e. that it discovers what it itself has partly made, the sense organs being filters, not luminous and transparent. Reality was knowable, but by a process of transcendence of the subjective mind, not by observation alone. While Kant claimed that he had limited knowledge to make room for faith, the new metaphysics based on a self-consciously active confrontation with the infinite or sublime idea underlying the veil or mask of the natural world lacked the communal base of traditional organized religion. The natural world was a collection of symbols of a deeper reality which was also mind—symbols which were instruments of self-discovery rather than participation, mobile and manipulable, the beginnings of modern semiotic theory.

One source of imaginative transcendence of the subject's time and place was history, beginning to present itself as a series of cultural alternatives which the observer could endeavour by imaginative empathy to view from the inside. The horizon of study widened to include more sympathetic views of ages hitherto regarded as barbaric, where human nature was seen "not as a datum but as a problem." The ultimate result of the historical outlook—the relativism of all cultures—was prefigured in its early manifestation of the cults of ruins:

All men are attracted to ruins. This feeling derives from the fragility of our nature—a secret conformity
between these ruined monuments and the rapidity of our existence.7

An initial step in the freeing of history from the blinkered gaze of neo-classicism was the rehabilitation of Gothic architecture, now seen as the unifying emblem of a past way of life, and its presentation as a worthy object of investigation. As the writings of the Von Schlegel brothers and Goethe were promoted in France by Madame de Stael and elaborated on in Britain by Coleridge and Carlyle, Gothic architecture was appropriated in each country as a symbol of nascent national consciousness—nationalism being individualism writ large. An interest in locality grew, questioning both the classical models as products of the Mediterranean region and the eighteenth century picturesque collections of Chinese and Byzantine exotica. Physical geography became a datum against which to measure the history of one's own race and consciousness, an investigation simultaneously familiar in space and remote in time. Far from the climatic conditions responsible for the Corinthian column with its Greek palm tree origin, this "northern people" had created forests of rock, and as Chateaubriand says, "The forests of the Gauls in turn passed into the churches of our fathers, and our forests of oak have thus preserved their sacred origin."8

In addition Gothic architecture had the advantage of being under-legislated, lacking a system of rules and precepts, a screen of ideology, Richard Payne Knight declaring: "there are no rules, no proportions—and consequently no definitions ...."9 The historical
outlook while predicated on an imaginative hypothesis regarding past life, sought to legitimize itself by the scientific method of observation, hence the relevance of a command of archeological detail in sustaining and modifying speculation about the past. The study of built artifacts as primary historical documents could be used by the individual researcher as a critique of traditional versions of history. As hypothesis and experiment, rationalism and empiricism, are inextricably linked in scientific methodology, so the supposed antipathy between the Romantic imagination and so-called realistic description collapses, the one requiring the other in order to sustain itself. Therefore the individual observer of history is a lone investigator excavating a bottomless pit of documentation, proposing theories subject to modification and supersedence.

The intellectual creations of the past, art and history, are no longer automatically part of the present, but are objects of research, data from which a past can be made present. 10

The essence of historicism is the substitution of a process of individualizing observation for a generalizing view of human forced in history. 11

The increasing preoccupation with national history and its artifacts was evident in Britain when Augustus Welby Northmore Pugin formulated his architectural theories during the first half of the nineteenth century—so much so that Stendhal regarded archeology as a British export to France, although Arcisse de Caumont began in the 1820's to classify the Mediaeval buildings of Normandy like botanical specimens. Antiquarian investigation of Gothic architecture had been
under way since the late eighteenth century; Thomas Rickman in 1817 proposed its classification into the three styles or periods of Early Norman, Decorated and Perpendicular, and Walter Scott, author of the Waverley novels, had produced two books on the archeology of the north of England. Pugin's father, a French nobleman who had fled the revolution and found employment as a draughtsman in the offices of neo-classical architect John Nash, designed Gothic fancies and houses for a living while researching and publishing antiquarian studies of Gothic architecture in his spare time. He was accompanied by his son on study trips through the countryside of Britain and France, and after early excursions into theatrical and furniture design, the younger Pugin was hired by neo-classical architect Charles Barry in 1834. His expertise in Gothic detailing and decoration, continuously augmented by his own research and employed initially on the interior design of a school project, was to prove invaluable in his contribution to Barry's competition entry for the design of the new Houses of Parliament.

It was a measure of how much public acceptance had been gained for the national associations of Mediaeval architecture that the competition assessors should have specified either the "Gothic or Elizabethan style" in their rules of entry which stated that "the peculiar charm of Gothic architecture is in its associations; these are delightful because they are historical, patriotic, local and intimately blended with earlier reminiscence." The more competitive cost of masonry in
covering several acres of London real estate was an additional factor, as was a stipulated deference to the mediaeval structures which had survived the fire of 1834—Westminster Hall and St. Stephen's Chapel. In Barry's design, Pugin's fifteenth-century interior and exterior decoration covered a neo-classical plan—a combination which won the competition and helped to launch his career as an architect. A year prior to this success, Pugin had become a convert to the Catholic religion.

The notable revival of interest in organized religion in Britain and France at the beginning of the nineteenth century is the product of several factors involving Kant's renewal of the notion of faith among many other social and political forces. The French Revolution, which had led to a temporary disestablishment of the Catholic religion in France, was seen as the dangerous outcome of the secularizing tendencies of the philosophes and a warning of the danger of abstract models of societal reform. Chateaubriand's "Genie du Christianisme," published in 1802, extolled the pictorial and sensual fascination of the Christian liturgy in a revivalist vein. In Britain the eighteenth-century enclosure of the commons and the beginnings of the industrial revolution led to rapid and unprecedented urban growth particularly in the manufacturing centres of the north; in the first half of the nineteenth century the total population had doubled to 21 million, half of the urban population of 10 million being migrants from rural areas. The effect on the British countryside of the
collapse of feudalism was chronicled in William Cobbett's elegy, "Rural Rides." Fears of civil unrest among the new city dwellers were widespread, and the church authorities were seen by Parliament as potential allies in the conversion of the workforce into ordered religious congregations. As Carlyle intimated, "Believe in God so that ... the Manchester operatives be got to spin peaceably."12

In 1818 a commission was set up by Act of Parliament to give building grants to these new urban congregations and over one million pounds was spent on 174 churches during the next twenty years. Spurred by the Catholic Emancipation Act of 1829 permitting public worship for the many adherents of that religion among the new working class and by the rise in non-conformism, the Church of England was led to re-examine and revive some of the features of its Mediaeval liturgy, thereby moving it closer to Catholic ritual. The competition among religious organizations for congregations among the new urban population had the effect of an increased emphasis on performance and on the "visible church." Most of the new churches funded by the commission were erected for the smallest sum possible and consisted of austere meeting-houses with a facade veneered in Gothic motifs. About this "Commissioners' Gothic," as it was known, Pugin has this to say in "Contrasts:"

... and I hesitate not to say, that a more meagre, miserable display of architectural skill never was made, nor more improprieties and absurdities committed, than in the mass of paltry churches erected under the auspices of the commissioners ...13
The book "Contrasts," printed at his own expense in 1838 (no publisher would handle the first edition due to its anti-Protestant tone), was Pugin's initial polemic against the society of his day and presented a visual comparison between fifteenth and nineteenth-century Britain. Using contemporary satirical techniques and influenced by the cartoons of Cruickshank, an illustration of the city of London of 1840 with its factory chimneys and prisons was juxtaposed with its Catholic counterpart of 1440 showing Mediaeval city walls and spired skyline. (Figs. 1, 2) The accompanying text attempted a critique of neo-classical historical convention by inverting its own implicit polemic; barbarism, Pugin claims, lies not in the Middle Ages but in the ensuing decadence of Renaissance revivalism.

We are just emerging from a state which may be termed the dark ages in architecture.\textsuperscript{14}

We must learn that the period hitherto called dark and ignorant far excelled our age in wisdom. ... Such have been the results of the revived pagan system which began with the classicism of the sixteenth century, was fostered in the mythological palaces of the Grand Monarque, and only attained its climax in the great French Revolution, when its principles were fully worked out in the massacre of the clergy, the open profession of infidelity ...\textsuperscript{15}

Stained glass is contrasted with the clear glass of reason; the opulence, mystery and polychromy of Catholic worship with the austere secular auditoria of Protestantism which emphasize the performance of the preacher (Figs. 3, 4). The vitriol of Pugin's anti-establishment attach has led to accusations of his being the original perpetrator of
the so-called "ethical fallacy" in architecture, but as Peter Collins has pointed out,

... it is evident that as soon as architects became aware of architectural history ... as soon as they became uncertain as to which of a wide variety of tectonic elements they might appropriately use, they were obliged to make basic decisions involving moral judgements, and to discuss fundamental problems which their more fortunate forebears had disregarded.

A proposition opposed to accepted tradition requires accompanying justification that the norm does not, and however intemperate and vehement its defence of Catholicism, Pugin's "Contrasts" is a plea for the new historical outlook and the adventure of personal investigation, based on a religious tradition forming a pragmatic alliance with the continuities of nationality and climate.

It is only by communing with the spirit of past ages, as it developed in the lives of the holy men of old, and in their wonderful monuments and works, that we can arrive at a just appreciation of the glories we have lost, or adopt the necessary means for their recovery ... if the renunciation of preconceived opinions on these subjects, and the consequent loss of present enjoyment derived from them, be considered a great sacrifice, does not the new and glorious field that is opened up offer more than an equivalent ... What delight to trace a trace of native artists hitherto unknown ...

His nostalgia is for the "faith, zeal and above all the unity of our ancestors," where the church ensured patronage and a stable social hierarchy.

The opening pages of the book emphasize that Mediaeval architecture deserves consideration because of its attention to functional and climatic considerations, claims ranking higher than "mere beauty or antiquity."
It will be readily admitted that the great test of architectural beauty is the fitness of the design to the purpose for which it was intended, and that the style of a building should so correspond with its use that the spectator may at once perceive the purpose for which it was erected ... different nations have given birth to so many varied styles of Architecture, each suited to their climate, customs and religion.  

The superiority of the paradigm of Gothic architecture in adhering to these principles of fitness to customs and climate was elaborated in two later books, "True Principles of Pointed or Christian Architecture" (1841) and "An Apology for the Revival of Christian Architecture in England" (1843). Pugin's oft-quoted two great rules for design are as follows:

First - that there should be no features about a building which are not necessary for convenience, construction or propriety; second - that all ornament should consist of enrichment of the essential construction of the building.  

If these are essentially the principles of Vitruvius, modified slightly to "Commodity and Firmness equals Delight", then the applicability of such general precepts to modes other than those of classicism is evident. Pugin's contempt is reserved for the facadism of contemporary products in both the cheap Gothic and classical styles (Fig. 5). The Greek model is seen as the imitation in stone of a wooden structure whose builders "lacked sufficient imagination or skill to conceive any departure from the original type." The "painted masks" of classicism are rendered grotesque by deformations due to varying programs, and "Vitruvius would spew if he beheld the works of those who glory in calling him master."
In contrast to the Greek temple where the outdoor colonnaded ritual of the congregation took place around a dark enclosure accommodating priest and idol only, the Christian church requires shelter for an illuminated internal ritual, and a bell-tower for the summoning of the congregation to worship. Pugin ridicules the attempts of Baroque and neo-classical architects to merge this vertical feature with the temple facade (Fig. 6).

A tower composed of a number of small porticoes set over one another, and placed in front of a mock temple, is a most glaring absurdity; nor is a tower of this description, starting out of nothing at the top of a portico, any better.26

Classical architecture is not viewed as being any better suited to commercial purposes, "for it is more absurd to see two or three tiers of windows introduced in the shell of a Greek temple, the roof of which is broken by numerous stacks of vainly disguised chimneys."27 (Fig. 7) Soane's recently-completed Bank of England comes under attack here (his London residence, entitled "The Professor's House," was used in "Contrasts" as an example of nineteenth century domestic decadence) for its eccentricity, its attempt to give scale to an extended security wall using classical elevational devices such as blind porticoes, and its "stone urns and amphorae to hide chimneys stacks and rooflights."28 Climatic conditions which rendered chimney stacks and rooflights necessary equally made mediterranean colonnades and shading devices superfluous:

In the first place, what does an Italian house do in England? Is there any similarity between our climate and
that of Italy? Not the least. (29)

The roof pitch which Pugin considered suitable for disposal of snow and rain in northern climates is then superimposed on the drawing of a classical facade in order to drive home the absurdity of the situation. (Fig. 8)

Therefore, while the generalized mask of classicism must distort itself and devise expedients to conceal irregularity, Gothic architecture satisfies Pugin's principles of convenience, construction and propriety by being able to use irregularity and embellish it:

Strange as it may seem at first sight, it is in pointed architecture alone that these great principles have been carried out, and I shall be able to illustrate them from the vast cathedral to the simplest erection. Moreover, the architects of the middle ages were the first who turned the natural properties of the various materials to their full account, and made their mechanism a vehicle for their art. (30)

Universal classical decorum is here replaced by Puginian propriety, a respect for the particularities of site and programme and a flexible democracy inclusive of the "vast cathedral" and the "simplest erection." The Gothic church fulfills the requirements of Christian liturgy regarding planning and entry requirements, and allows for full vertical expression of the tower (Fig. 9).

There stood the tower, not formed of detached and misapplied portions of architectural detail stuck over one another to make up a height, but solid buttresses and walls rising from a massive base, and gradually diminishing and enriching as they rise, till they were terminated in a heaven-pointing spire surrounded by clusters of pinnacles, and forming a beautiful and
instructive emblem of a Christian's brightest hopes. These towers served a double purpose, for in them hung the solemn-sounding bells to summon the people to the offices of the church, and by their lofty elevation they served as beacons to direct their footsteps to the sacred spot.\textsuperscript{31}

Other vertical elements such as the pinnacles which carry the buttresses above the roofline also have a dual function both symbolic and functional, or, as Pugin says, "mystical" and "natural:"

... their mystical intention is, like other vertical lines and terminations of Christian architecture, to represent an emblem of the Resurrection; their natural intention is that of upper weathering, to throw off rain.\textsuperscript{32}

The structural role of the pinnacles as a counterpoint to the lateral thrust of the buttresses is also mentioned (Fig. 10). It is pointed out that in secular architecture the chimney, so often suppressed behind the classical cornice, can move to the outer wall, acting as a buttress and freeing up space on the interior (Fig. 11).

According to Pugin, in classical architecture "the plans of buildings are designed to suit the elevation, instead of the elevation being made to suit the plan."\textsuperscript{33} The assertion of the primacy of discrete plan elements exercising an outward thrust on the external vertical expression of the structural bay at the expense of the roofline, implies a rejection of the upper controlling frame of the classical cornice. Pugin calls classical architecture "a horizontal architecture,\textsuperscript{34} and points out that the engaged column "can never project far on account of the cornice,"\textsuperscript{35} whereas "a buttress, by means of water tables, can be made to project such a distance as to
produce a fine effect of light and shade."36 Similarly in the use of chimneys as elevational elements, "a great variety of light and shadow, and a succession of bold features, are gained in the building."37 Having strenuously rejected the absurdity of "an edifice that is arranged with the principal view of looking picturesque,"38 Pugin betrays some of his intention in these lines:

To advocate Christian architecture merely on the score of its beauty, can never prevail with those who profess to think that all art and majesty is concentrated in a Greek temple.39

Behind the attempt to give legitimacy to the picturesque beauty of Gothic architecture through functional and constructional considerations may lie an affinity with the supremacy of the vertical line in elevation and with the effects of masses in the sunlight, free to advance and retract without the controlling datum of the classical facade. Phoebe Stanton, in her article on Pugin, suggests that "in his writing and building, in of his noisy emphasis on religious revivalism, his main concern was for his aesthetic principles."40

Pugin proposes a Grand Tour of the British countryside in opposition to the Mediterranean journeys favoured by the academies.

The peasant's hut, the yeoman's cottage, the farmer's house, the baronial hall, may be each perfect in its kind ... the student should visit village and town, hamlet and city; he should be a minute observer of the animal and vegetable creation, of the grand effects of nature ... and so well did the ancient builders adapt their edifices to localities, that they seemed as if they formed a portion of nature itself, grappling and growing from the sites in which they are placed.41

Such a tour would be an individual excursion where "each county should
be indeed a school ... where those who run may read, and where the
volumes of ancient art lie open for all enquiries," unregulated by
the organized educational establishments which Pugin despised.
Proposed without his knowledge for membership of the Royal Academy
later in his career, his name was rejected. His characterization of
architects offices needing to be "stopped up, and fused as they serve
wasps' nests in the country," can hardly have helped.

... we are wandering in a labyrinth of experiment ... (44)

It should be remembered that the whole restoration has
been a series of experiments, everything has to be
created from the employer to the artisan.45

Earlier in this chapter the shift from implicit communality to
explicit individual research due to the abandonment of norms was
discussed in the light of the new view of history. Pugin's Gothic
experiment required him to formulate a complete architectural
strategy. As his archeological research developed over the course of
his career, he was led to continual modification of earlier opinions.
An early affinity with fifteenth-century Tudor detail evident in the
elevations of the Houses of Parliament and in the illustrations of a
Mediaeval house in the first edition of "Contrasts" (Fig. 12) was
rejected later as being too decadent and in 1841 he settled on the
fourteenth-century style as being the apotheosis of Gothic
architecture. In his preface to the second edition of the book,
explaining the number of revisions that had become necessary during
the five years since the original publication, he states:
It is not by any means surprising that the author, standing almost alone in the principles he was advocating should have adopted some incorrect views, in the investigation of a subject involving so many perplexing difficulties.46

Since by his own admission he stood almost alone in his principles it must be remembered that his revival was not only of a personalized vision of Gothic architecture but also of the Catholic liturgy and was based on an obsession with ritual;

... the artist felt the glory of the work he was called upon to compose; it was no less than erecting an alter for the performance of the most solemn rites of the Church ...47

In his battle to "create a client," Pugin displayed his lifelong antipathy to the taste of the Catholic clergy of his day for Roman statuary and cheap display and many battles with his clients regarding ceremonial and religious matters. Towards the end of his life he developed a mania for the re-enstatement of rood screens which completely remove the altar from the view of the congregation and had not been in use for the previous two hundred years. As Cardinal Newman, a fellow convert but not a fellow-traveller, wrote:

Something more might be said for his view of the subject, had there been an uninterrupted tradition of Gothic architecture from the time it was introduced until the present day; but this even is not the case. Mr. Pugin is notoriously engaged in a Revival—he is disentombing what has been hidden for centuries amid corruptions; and as first one thing, then another is brought to light, he, like a true lover of the art, modifies his first views, yet the speaks as Confidently and dogmatically about what is right and what is wrong, as if he had gained the truth from the purest and stiffest fonts of continuous tradition.48
The theoretical basis of activity, in addition to being modified by historical research was influenced by Pugin's efforts in practice to relate Gothic architecture to the building techniques and material realities of the nineteenth century, the construction of over a hundred churches in his fifteen-year career avenging his father's shadowy presence in Mr. Nash's neo-classical office and confirming the Victorian reverence for practical activity. The criticisms of external meanness of detail and lack of weight which he had levelled at Commissioners' Gothic were in turn levelled by others at his own efforts when compared to the work of contemporaries such as Butterfield or Street. He was accused of being more interested in detail than in the whole: Ruskin advocated that he was not to be hired for cathedrals but for the design of finials. Although in an appeal to Victorian financial pragmatism he had emphasized the applicability of Gothic architecture to nineteenth-century programs on the grounds of flexibility and cost, he struggled continuously with the modest budgets of his clients, and was said to favour "starving his roof to gild his alter." In 1846, on the coast at Ramsgate, he began to build a private laboratory free from client control—his own church, dedicated to St. Augustine, which remained unfinished at the time of his death in 1852.

Regarding the applicability of Gothic architecture to the technical innovations of his day he equivocated in his writings:
The whole history of Pointed Architecture is a series of inventions ... we do not want to arrest the course of inventions but to confine these inventions to their legitimate use ... in a word, we should neither cling pertinaciously to ancient methods of building, solely on the score of antiquity, nor reject invention because of their novelty ...  

Application of invention is advised according to sound and consistent principles which ultimately remain obscure. Iron is approved of for its structural potential, yet the Crystal Palace of 1851, for which he designed the Mediaeval Court as part of a series of historical tableaux in the Great Exhibition, was dismissed in letters as "the glass monster" and "the crystal humbug (Fig. 13)." Although rejecting the use of metal as a casting material for ready-made ornament and mass production, his short career can be seen as the epitome frenetic Victorian productivity where Mediaeval methods could find little place. The last eight years of his life were occupied with the treadmill of interior decoration for the Houses of Parliament and the re-usable metalwork patterns produced to his designs enabled to work to continue after his death in the spirit if not the letter of mass production. During his last days, bound to finish an enterprise that had begun his career and that he had already come to disown, he wrote to John Hardman, his business partner:

... I am really ashamed of our things ... As we gain knowledge conviction of failure is inevitable ... I believe we know too much. Knowledge is power but it is misery ... Still I almost sigh for the old simplicity when I thought all the old cathedral men fine fellows ... I shall turn an anchorite at last, with a companion. A new order, a development of hermit.  

A late intimation perhaps of his underestimation of the complexities
of revivalism not present ten years earlier in the assured statement:

... revivals of ancient architecture, although erected in, are not buildings of, the nineteenth century ... the architecture of the nineteenth century is that extraordinary combination of classic and modern styles particular to the day, and of which we can find no example in any antecedent period.\textsuperscript{51}

The chimera of complete revivalism described here reveals itself when connected to the contingencies of its time and place in either drawing or built form. There is no revival only transposition, an elaboration of the self-consciousness Pugin despised in Renaissance and neo-classical architecture, eclectic in result if not intent and demonstrative of historical relativism in built form if not in rhetoric.

Pugin's rejection of the neo-classical vision of the urban stageset which had superseded the Mediaeval town has been mentioned previously. In "Contrasts," Nash's church on Regent Street (Fig. 14), attempting to articulate a difficult junction between existing facade lines as a piece of urban design, is unfavourably compared to a Mediaeval church which is freestanding and the origin of an earlier, more modest settlement.\textsuperscript{(Fig. 15)} His application of Gothic architecture to nineteenth-century conditions is also that of the Mediaeval rural vernacular to the industrial city: the names of his churches alone—St. Mary's, Derby (1837), St. Wilfred's, Hulme, Manchester (1839–42), St. Chad's Cathedral, Birmingham (1839)—portray their simultaneous location in two worlds. Part of his unwritten program may have been the provision of an intimate stage for village
memory and ritual for a first generation of newly-disenfranchised peasantry, a transposition centering on the church tower and domestic chimney as twin totems amid a maelstrom of change.
NOTES


6 Collingwood, op. cit., p. 91.

7 Chateaubriand, "Genie du Christianisme," Bk. 3, Pt. 2, Chap. 3.

8 Ibid., Bk. 3, Pt. 2, Chap. 3.


12 Carlyle, "Past and Present," Bk. 3, Chap. 5.

13 Pugin, "Contrasts," p. 49.


15 Pugin, "Contrasts," p. 16.

16 Two books dealing with this topic are "The Architecture of Humanism" by Geoffrey Scott (1914) and "Morality and Architecture" by David Watkin (1977), both advocating a return to a normative tradition.


19 Ibid., p. 6.

20 Ibid., p. 2.
21 Ibid., p. 1-2.


23 Ibid., p. 2.


25 Ibid., p. 5.


27 Ibid., p. 49.


31 Ibid., p. 50.

32 Ibid., p. 9.

33 Ibid., p. 62.


36 Ibid., p. 4.

37 Ibid., p. 52.

38 Ibid., p. 62.


44 T. L. Donaldson, from a lecture delivered at University College London (1842), quoted in: Collins, op. cit., p. 119.

46 Pugin, "Contrasts," Preface, p. iii.

47 Ibid., p. 44.


50 Stanton, "Pugin," p. 194.

Fig. 6 Classical Churches.
Pugin

Fig. 7 Domestic Classical.
Pugin

Fig. 8 Regional Classical.
Pugin

Fig. 9 Medieval Church.
Pugin
Fig. 10 The Pinnacle. Pugin

Fig. 11 Medieval Domestic. Pugin

Fig. 12 Medieval House. Pugin

Fig. 13 Medieval Court at Great Exhibition 1851

Fig. 14 Nash's Church at Regent Street. Pugin

Fig. 15 Medieval Cathedral. Pugin
Disorder ... had invaded the camp of the classicists; the need to return to sources and principles of architecture, which had caused some to take the mediaeval road, led others all the way to Greece.¹

A persistent fascination in France with the technical virtuosity of Gothic architecture was manifest in the architectural treatises of the eighteenth century, a body of theory with which Pugin, being bilingual, would have been familiar. Middleton in an essay on French treatises of the eighteenth century has proposed that Perrault’s controversial colonnade for the west facade of the Louvre may be an early built example of this structural concern, with "its slender widely-spaced columns (which) were intended to evoke the arrangement of shafts in a Gothic cathedral."² However, the work of Cordemoy and Fremin, later popularised by Laugier in his "Essai sur Architecture" (1753), made it clear that Gothic effects of leanness and lightness would be reserved for internal consideration and subordinated to an external expression of classical gravitas.

I think that on the interior of our churches we would do well to imitate and perfect Gothic architecture, reserving Greek architecture for the exterior.³

This was a matter of engineering principles applied to the design of vaults and domes usually supported by freestanding columns rather than any attachment to the appearance of the pointed arch. Soufflot’s
domed interior for the church of Ste. Genevieve was designed with the help of engineers from the Department of Bridges and Roads in order to make it as structurally daring as possible, and both Boullee and Soane advocated Gothic interior effects in the production of "lumiere mysterieuse." As Frampton in his discussion of the Graeco-Gothic ideal says:

The problem was how to combine the Platonic formal order of antique classical architecture with the sublime spatial peristylar purity of the Gothic nave.4

Structural debate took place under the controlling agency of the French Academy, a forum for theoretical speculation since its inception in the mid-seventeenth century, having denied the architect his previous role as master mason under the Mediaeval guild system. From modest beginnings where small weekly gatherings would discuss contemporary issues the Academie Royale d'Architecture in the eighteenth century took on a more educational and honorific role with an architectural curriculum and an enrollment of twenty to thirty students, all of whom were virtually guaranteed employment in France's highly centralized public works department upon completion of their studies. In 1720 a competition system was organized in which a grand prize of three years' study in Rome was awarded to one student each year. At the beginning of the nineteenth century a reorganization of the Academy in the wake of the French Revolution united the architectural department with those of painting and sculpture and created an apparently autonomous educational facility, the Ecole des
Beaux-Arts, granting it official statutes in 1819. Government control through the Academy was exercised from 1819 to 1836 by the Secretary Perpetual of the Ecole, Quatremere de Quincy, and between 1820 and 1850 enrollment grew from fifty students to over two hundred, established on the Rue Bonaparte site occupied by the Ecole to the present day.

Increased government control during a period of political instability and stagnation in public building, together with the dramatic increase in the number of students and the conservative policies of Quatremere de Quincy, may account for the crystallization of the Ecole's training during the early nineteenth century. The desire to catalogue principles of architecture was accompanied by a search for transmissible educational techniques, compositional strategies related to standard design elements was stressed and Durand's books on design methodology, originally written for students at the Ecole Polytechnique, were widely read. However a completely monolithic interpretation of the schools' output and intentions during those years would be erroneous. Quatremere de Quincy was challenged openly several times during his secretaryship on matters regarding prizegiving and increased student participation in juries. The Ecole acted as a central administrative and educational body but architectural apprenticeship was spent in the ateliers of various independent architects who most likely were former students of the same establishment. Thus an opponent of the system would remain
within it while failing to advance and gain honours, ensuring the
ability of the Academic tradition to sustain and modify itself in
response to internal and often unacknowledged factional opposition:
debate had none of the public documentation of the British "Battle of
the Styles" but was contained within the walls of the Academy.

... in France the attack on the system was waged from
within the system itself ... 5

One of the most salient characteristics of nineteenth
century French artistic trends is the increase of
theories within the stable framework of tradition. 6

The title of this chapter is therefore not intended to suggest a
permanent condition of political confrontation between the Academy and
the Romantics but rather to single out one incident of modification
whose implications, while initially suppressed, led to new
developments in student work and eventually to reforms in the Ecole
itself. The agent of contention was part of the school's own
educational apparatus—the study period at the Academy in Rome, now of
five years duration, awarded to the Grand Prix winner each year. The
recipient during that time would undertake a study of antique models
culminating in a fourth-year restoration project and a fifth-year
design that would exhibit all that had been learnt in Italy. The
opportunity for archeological study within the neo-classical
curriculum, although initiated as an elaboration of the upheld ideal,
actually furnished information for its analysis and criticism.

Henri Labrouste was a talented student of six years' standing when he
won the Grand Prix in 1824 and began his five year Italian sojourn. During that time he amassed enough archeological evidence to convince himself that the immobile vision of the classical ideal was untenable and to inform the Ecole of his findings. In his own words, "I felt I had to confront the monument's ruins with the text."  

What I have been taught is good, but what I have understood and felt in front of the buildings is better.

His was the first fourth-year envoi based on the study of a Greek archeological site— that of Paestum, a fifth-century Doric colony near Naples which had been discovered in 1740. The drawings of three temples which he sent back to Paris in 1829 as his fourth-year envoi caused controversy because of their novel restorations and their contradictions of Delagardette's previous theories (1798) as to their dating, construction and use.

The first temple of Hera 2 (Temple of Neptune) (Fig. 1), closest to the Greek model and previously dated latest in the series was placed earliest by Labrouste, while former opinion of its being a galleried space open to the sky was contradicted by his reconstruction of a roofed central space supported by the superimposed orders on which the gallery hypothesis had depended. (Fig. 2) Labrouste put forward the view that economical exigencies had led the new Greek settlers to reduce the diameter of their columns, the superimposition of slender orders ensuring an adherence to proportional systems while saving building material. The second temple, that of Athena (Ceres), was
presented with a sheet of construction sections through the junction between the column capital and pediment (Fig. 3). The third temple of Hera I, renamed the "portique" by Labrouste (Figs. 4-6) was presented as a secular civic building, its hipped roof replacing the pedimented temple facade as a cover for a modest warehouse structure with a central row of columns. The longitudinal section (Fig. 7) was taken through the centre line of the internal columns, showing their outline only, while rendering techniques were lavished on the display of shields and implements hanging from the screen wall behind.

The fact that Labrouste depicted the Green temples as polychromatic structures was not radically new to the Ecole: such speculation had existed since the end of the eighteenth century and initial proponents included Quatremere de Quincy himself and J. J. Hittorff, a German painter. The insidious sophistication of the proposal lay in the altered dating of the buildings whose sequence no longer proposed a gradual recovery of the Greek ideal by emigrants in a foreign land, but its metamorphosis through interaction with local customs and materials into another form of architecture over a period of hundred years. Therefore the reconstruction of the third temple as a marked structure showing the most deviance from the original model was central to the controversy. Quatremere de Quincy shared with many eighteenth-century theorists an enthusiasm for Greek architecture which although much admired for its robust qualities was to be seen as a prototype of the more sophisticated Roman model, the most mundane
rank in the classical decorative hierarchy being occupied by the Doric order. Labrouste's envoi studied this regional Greek architecture for its intrinsic merits and not as a forerunner of Roman architecture: as Viollet-le-Duc later wrote, "he did not deign to look at Greek antiquity through the classical lens ... (which) undermined the academic foundations of family, property and religion," describing Labrouste's reconstruction in the same letter as "purely and simply a revolution on a few sheets of double-elephant paper."9

The studies made by Labrouste of the existing ruins at Paestum were the most thorough ever made by a pensionnaire – Quatremère de Quincy upon receipt of the drawings dispatched a commission to the site in order to verify their accuracy and engaged in correspondence with Horace Vernet, Director of the Academy in Rome, who took the student's side in the matter. The detailed quality of the observations allowed the observer to make the seemingly preposterous and imaginative reconstructions submitted. Labrouste's text which accompanies the drawings indicates his methods of investigation:

To have these monuments appraised at their true value I tried only to represent them exactly and to study them with conscience ... I travelled through Sicily and brought back the materials I lacked for my reconstruction.

... One finds the same architecture and the same construction in these monuments (of Paestum) as in the monuments of Sicily ... the people of Sicily originated in the same country, as can be seen from their having used the same architectural forms, as well as the same means of constructing monuments,10

The connecting link for research material was made with Sicily, a
regional outpost even further from Rome than Paestum and was based on
cultural local constructional and cultural considerations. A pivotal drawing
in the expression of Labrouste's new attitude is the longitudinal
section through the third market building, taken so that the building
itself is reduced to a structural organism framing the emphasized
ephemera of shields and trophies with an accent on everyday use which
simultaneously demythologises history and renders it more remote:

(It was) ... the simultaneously discovery that
architecture in itself was a physical structural entity,
not inhabited by any physical ideal and that it had no
eternal form, but evolved in form with the passage of
time and from place to place. This, of course, was the
Romantic realization, and architecture's crisis during
the 1830's paralleled that of literature or painting.11

The meaning of history lay now not in the reconfirmation of ideals but
in its cumulative progress, in which in the manner of Hegel's
dialectic each historical period had played a necessary role. The
followers of Saint-Simon saw the past as a spiral alternating between
organic and critical phases, Greek and Gothic periods belonging to the
former category, Roman and Renaissance/neo-classical periods to the
latter, and viewed the present as a transition between the criticism
of the Enlightenment and emerging nineteenth-century organic
synthesis. Auguste Comte, a one-time follower of Saint-Simon viewed
his age as the supersedence and synthesis of theological and
metaphysical speculation by the positivistic achievements of
scientific enquiry in a more direct development from the
acknowledgement of history as an instrument of speculation about the
future, emphasized by Comte's dictum "savoir pour prévoir" (to know is to predict). Since the progress of humanity towards knowledge was regarded as history's principal lesson, the positivists foresaw the power of the church being displaced by a political alliance of scientists, artists and industrialists. The Saint-Simonists went so far as to posit a corporate identity and social coherence for this new elite based on the organizational paradigm of the mediaeval church—a rejection of the a priori models of society for which the French Revolution was fought and a proposition formulated in a context not dissimilar to that of Pugin in Britain, but far more worldly and knowing in its stated aims. In France the goal was acknowledged to be the advance of humanism, predicated on the appropriation from the past of the structural organization of religion and not its content.

Such speculations appealed greatly to the intellectual elite of the day and underly the plot and structure of Victor Hugo's novel "Notre Dame de Paris," published in 1831. As a young reviewer, Hugo had criticized Walter Scott's novels for the lack of animation of their historical setting and set out to write an epic both in and about history. Narration set in the fifteenth century alternates with more discursive interludes on matters of interest to the author such as architecture and history. The narration concerns the same topics and is infused more subtly with references to the present, the cathedral of Notre Dame becoming the main character in the book. It hybrid nature is stressed since it was built as the Romanesque period evolved
into that of the Gothic style.

Yet these buildings of the transition from Romanesque to Gothic may repay study just as much as the pure types. They express the nuance of the art that would have been lost without them: the grafting of the pointed arch onto the rounded arch... This central, generative church is a sort of chimera among the old churches of Paris: it has the head of one, the limbs of another, the croppers of a third; something of all of them.¹²

The rehabilitation of deformity is extended to the cathedral's alter ego and inhabitant, the hunchback Quasimodo, a living gargoyle for whom the building is "the egg, the nest, his house, his country, his world." A redefinition of the classical notion of beauty and unity is offered here, whereby the internal generation of Gothic architecture is regarded not as disorder but as another kind of order.

The trunk is immutable, the vegetation capricious.¹³

In the chapter "Paris a Vol de l'Oiseau" the reader is invited to reconstruct imaginatively a bird's eye view of fifteenth century Paris from the cathedral tower, to "look, by day through that astonishing hedge of spires, towers and belfries... and make the Gothic profile of old Paris stand out sharply against an azure horizon, or wreath its contours in a winter mist, clinging to innumerable chimneys."¹⁴

Upon further investigation it is noted that the city is a labyrinthine chronicle in stone, a geological stratification of success aspirations.

Each wave of time lays down its alluvium, each race deposits its own stratum on the monument, each individual contributes his stone... Time is the architect, the nation the builder.¹⁵

The bird/reader from the tower promontary may hover above this
horizontal distribution or plumb the depths of the labyrinth in the alternating cycle of empathy and distance with which the historian views history. The discursive chapters of Hugo's novel which were written with an aerial view in order to "pursue the system of the historian and the intention of the artist through the creation as such of the poet," illuminate Hugo's concern with contemporary events, but the narrative chapters also resonate with hindsight, each scene of mob violence foreshadowing the post-revolutionary instability of the nineteenth century. The novel, whose writing was delayed due to the riots of 1830, is both an imaginative reconstruction of the past and a knowing commentary on the present. The principal discursive chapter, entitled "Ceci Tuera Cela" (This Will Kill That) had as its subject the history of architecture and according to Neil Levine in his article on Labrouste was proofread by him before publication. The main premise of the chapter is that architecture and religion have both lost their collective social role, this gradual decay originating the fifteenth-century invention of the printing press--the title refers to the murder of the building by the book. The Renaissance of revival of ancient knowledge which was initially assisted by the printed word is dismissed by Hugo as "the setting sun which we take to be a dawn."

When Vitruvius's treatise was found in St. Gall, Switzerland, by a scholar friend of Alberti's, "scholarship set up the ideal of an exact and textual subservience to the antique, Vitruvius provided the code,
and printing disseminated it.\textsuperscript{20} The initial eclecticism of the Renaissance which was encouraged by the retrieval of a document was also allowed to achieve a gradual synthesis tempered by the limited availability of the printed word. It is interesting to note that the power of the text survived for three centuries--John Soane in his lectures could still admit to his students that a close reading of Vitruvius had led him to discover errors in his earlier built works. It was a second revolution, the impact of the new cotton industry on the supply of cheap paper, that led to the rise of the novel and the newspaper for the mass audience of the nineteenth century and gave Hugo's hindsight in 1832 a certain poignancy. The liberating effect of cheap paper on the spread of ideas is compared by Hugo to a flock of birds that will survive the flood when the building drowns, transferring the centralizing power of the church over knowledge to the artist and scientist and giving them a new awareness of their respective roles.

This was the presentiment that as human ideas changed their form they would change their mode of expression, that the crucial ideas of each generation would no longer be written in the same material or in the same way, that the book or stone, so solid and durable, would give way to the book of paper, which was more solid and durable still.\textsuperscript{21}

The apparently total triumph of the printing industry, the "second tower of Babel," is mitigated by Hugo with the words, "when the eighteenth century came to an end, it has destroyed everything ... in the nineteenth century it was to rebuild,"\textsuperscript{22} thus adding to past reconstruction and present commentary speculation about a future
synthesis which would arise from the ruins.

Henri Labrouste's fifth-year envoi for the Ecole in 1830 involved the design of a bridge on the frontier between Italy and France as an application of his increased knowledge of the antique to contemporary French life. (Fig. 8) The perspective view of the stark structure submitted turns its back on Italy and faces homeward to France where after graduation Labrouste entered and won many competitions for civic buildings which were never built. The students in his atelier failed to win any of the Ecole prizes and he was not elected to the Academy until 1868. The "Revue Generale d'Architecture", France's first architectural periodical which commenced publication in 1840, published many student projects from the more radical ateliers such as that of Labrouste, where innovative planning arrangements were often accompanied by unrefined eclecticism in elevation. One such project for a Chamber of Deputies led the Academy jurists to report:

Undoubtedly there are ingenious combinations in the working together of various parts, but what strikes one at first glance is an outward appearance that proclaims anything but a chamber of deputies. Certain parts resemble fortress walls, others greenhouses, orangeries, pleasure pavilions. It makes, all the same pretty watercolours. 23

The author of the project concerned, Constant-Dufex, was later to become a professor of perspective at the Ecole. Although reforms were made at the Academy in Rome to prevent a recurrence of the Labrouste incident—Quatremere de Quincy informing Horace Vernet by letter in 1829, "The architectural division and the Academy as a whole, are
struck by the danger that exists in our times, in opening the way for innovations—another adventurous reconstructions were made, including those of Theodore, Henri's brother (Fig. 9), and by mid-century a branch of the Academy had been established in Athens.

Labrouste's built oeuvre comprises two libraries in Paris and a number of minor projects, the Bibliothèque Ste. Genevieve (1850) being the only major freestanding commission he was awarded in his lifetime.25 (Figs. 10-12) One of the city's first public libraries and built on a constricted site, the initial desire on the part of the architect for a garden forecourt becomes subsumed within the building interior as a personal allegorical programme of decoration.

I would very much have desired that a large space planted with big trees and decorated with statues were laid out in front of the building, to shield it from the noise of the street outside and prepare those who come there for contemplation. A beautiful garden would undoubtedly be an appropriate introduction to a building devoted to study, but the tightness of the site did not permit such an arrangement and it had to be foregone. Thus the garden which I would have loved to traverse in order to arrive at this monument I painted on the walls of the vestibule, the only intermediate space between the public square and the library. My painted garden is not so fine as beautiful allees of chestnut and plane trees but it has the advantage of offering trees always green and always in bloom ... without regard for the climate in Paris. I can, in this fertile soil of imagination, plant trees of all regions, and place next to Bernard the palm of the Orient, near Racine orange trees in flower, behind La Fontaine the oak and the rose, and next to Poussin the myrtle and the laurel.26

The library's upper reading room with its tent-like billowing vaults in green and blue continues the outdoor theme, influenced by student
studies of the murals at Pompeii. In contrast to the pavilion-like quality of the interior the external elevational expression consists of an austere repetition of the structural bay in stone, distilled from numerous Renaissance and Baroque influences (Fig. 13) and are examples of Labrouste's concern with the articulation of construction voiced to the students of his atelier:

As soon as they know the first principles of construction I tell them that they must derive from the construction itself a reasoned expressive ornamentation. I tell them repeatedly that the arts have the power to embellish everything. 27

The decorative programme for the infill panels between the structural piers takes its theme from the interior function of the building and consists of an external projection of the building's interior elevations. The bookcase module is represented by lines bisecting the panels between which, incised in red, are lists of the names of the authors contained in the library—a chronological catalogue of the growth of knowledge beginning with the Figure of Moses and ending with that of Berzelius, the contemporary Swiss chemist.

This seemingly impassive accumulation of names unites the elevation with the internal garden allegory where movement proceeds from the dark vestibule "garden" to the bright "garden" of the first-floor reading-room. Both are chronological accounts of man's progress to enlightenment through knowledge, the elevation resembling Comte's calendar issued a short time later in which each day was dedicated not to a saint but to a notable Figure in the history of scientific
investigation. The building synthesizes a whole history of ornament and symbolism in Labrouste's mind, and the crypticism of the elevations masks a highly charged personal hieroglyph.

In 1847, when Ledoux's treatise was re-issued in two volumes by Ramee, the awkwardness of his internal planning arrangements was noted, and his ideas of "architecture parlante" summarily dismissed in a review by Vaudoyer:

He thought he had discovered something marvellous in making the house of a wine-grower in the shape of a barrel; no doubt he would have made that of a drinker in the shape of a bottle, etc.\textsuperscript{28}

To nineteenth-century observers such naive attempts to literally extend classical rhetoric to more mundane and vernacular themes such as human occupations were futile, pushing classicism beyond its means and leading through disjunction to devaluation of both the ideal and the contemporary contingency. Ledoux's rhetoric in the music hall had been superseded by a new language, accessible by rules of its own making, to an autonomous architectural initiate. Delaborde in a posthumous nineteenth-century critique of Labrouste's work cautiously suggested that "by attempting to condense the meaning of everything, one arrives at the point of making the stones speak an almost totally enigmatic language,"\textsuperscript{29} to which twentieth-century historian Levine replies: "Delaborde found the stones mute when they were no longer intended to speak."\textsuperscript{30}
NOTES


13. Ibid., p. 91.


15. Ibid., p. 129.
For an interesting discussion of spatial ideas in Hugo's work, see Victor Brambert, "Victor Hugo and the Visionary Novel." A general account of Hugo's architectural interests can be found in a book by Jean Maillon, "Victor Hugo et l'Art Architectural."

Hugo, op. cit., p. 27, (Note).

Levine, op. cit.

Hugo, op. cit., 197.


Hugo, op. cit., p. 189.

Ibid., p. 199.

Quoted in: Van Zanten, op. cit., p. 222.


Levine, op. cit., p. 401.
Fig. 6 Temple of Hera I, Perspective, Labrouste.

Fig. 7 Temple of Hera I, Section, Labrouste.

Fig. 8 Bridge to Link France and Italy, Perspective, Labrouste.

Fig. 9 Temple of Hercules, Cora, Elevation, Theodore Labrouste.
CHAPTER FOUR: THE IDEAL FRAGMENT

J. RUSKIN

Venetians ... they were exiles from ancient and beautiful cities, and had been accustomed to build with their ruins, not less in affection than in admiration: they had thus not only grown familiar with the practice of inserting older fragments in modern buildings, but they owned to that practice a great part of the splendour of their city, and whatever charm of association might aid its change from a Refuge into a Home.¹

The voluminous writings of John Ruskin on art, architecture and other related topics dating from the 1830's until the 1880's reflect the unease that began to erode the initial optimism of the Romantics regarding their rejection of neo-classicism and which could no longer be ignored by the latter half of the nineteenth century. Born into a wealthy middle-class family, he earned a degree at Oxford and spent much of his free time travelling in Europe where his favourite destinations were Northern Italy and Switzerland. The passion for Alpine scenery which he shared with many of his contemporaries had begun during a childhood stay in the mountains for health reasons. As a committed tourist he made records of his travels in the form of diaries, notes on geology and sketches, his early literary influence being Carlyle, his artistic hero, the artist J. W. M. Turner. By his mid-twenties he had published the first volume of what was to become the five-volume series, "Modern Painters," which throughout the 1840's and 1850's continued an exploration of the characteristics of the
"modern landscape" centering on a defense of Turner's controversial paintings.

In these books the rejection of an imitation of classical norms is emphatic:

All classicality, all middle-aged patent-reviving, is utterly vain and absurd ... (Young artists) ... they have no business to ape the execution of masters; to utter weak and disjointed repetitions of other men's worlds, and mimic the gestures of the preacher without understanding his meaning or sharing his emotions.²

Consider this subject well, and you will find that custom had indeed no real influence on our feelings of the beautiful except in dulling and checking them.³

The limitation of past models would be replaced by an imitation of nature in a direct confrontation between the artist's eye and the natural phenomenon. The conventions of the classical landscape, presenting a domesticated agricultural foreground assured of human use and reflecting man's ease with himself, and those of the middle ages, presenting a walled contemplative garden full of useful plants against a background view of the distant mountains (Fig. 1) were thought to be no longer applicable to modern life. Ruskin allows that excursions beyond the walls for the purposes of hunting and falconry were not uncommon among mediaeval communities for whom mountain scenery held both an attraction and a repulsion. However, the neo-classical paintings of Claude with their topography of ruins were rejected as the antithesis of modern landscape (Fig. 2), ironically since it was precisely the lure of sublime mystery carried through in the program of the English garden which drew Ruskin's modern observer beyond the
now-claustrophobic neo-classical foreground into the foothills and
direct confrontation with the mountain scenery.

... as the admiration of man is found, in our times, to
have in great part passed from man to mountains, and from
human emotion to natural phenomena, we may anticipate
that the great strength of art may be warped in this
direction ... In the Greeks it (sense of Divine) created
... the faithfully believed gods of the elements; in
Dante and the mediaevals it formed the faithfully
believed angelic presence: in the modern, it creates no
perfect form, does not apprehend distinctly any divine
being or operation, but only a dim, slightly controlled
animation of the natural object, accompanied by a great
interest and affection for it.4

This "interest and affection" for the natural object in its own right
is to be realized by its artistic perception with the innocent eye of
childhood, devoid of any cultural associations or conventions in a
continuation of the preoccupations of the eighteenth-century
empiricists from whom Ruskin quotes in his earlier volumes:

With this romantic love of beauty, forced to seek in
history, and in external nature, the satisfaction it
cannot find in ordinary life, we mingle a more rational
passion, the due and just results of newly-awakened
powers of attention.5

The attention to visual "reality," particularly to the mechanics of
selective focus since the perfection of the camera in the 1830's, led
to experimentation with the past conventions of representing depth in
painting, and Ruskin informs us that "the sight of a great painter is
an authoritative as the lens of a camera lucida ..."6 The
traditions of linear perspective and particularly those of aerial
perspective--tonal gradation and diminution of detail in the manner
of stage set "flats"--were challenged as the gaze of Ruskin's modern
observer moves further behind the picture plane into the landscape, lengthening the depth of focus, increasing the number of objects delineated in an optical democracy, thereby heightening the ambiguity of the spatial reading. Thus, while detail in the neo-classical background is considerably reduced with distance, Ruskin discusses a modern blurring of lines which maintain a tonal richness deep in the picture and which he terms "The Law of Evanescence." (Fig. 3)

As the distance increases, the confusion becomes greater until at last the whole front of the house becomes merely a flat pale space, in which, however, there is still observable a kind of richness and chequering caused by the details in it, which though totally merged and lost in the mass, have still an influence on the texture of that mass: until at last the whole house itself becomes a mere light or dark spot which we can plainly see, but cannot tell what it is, nor distinguish it from a stone or any other object.

It is not mist between us and the object, still less is it shade ... it is a confusion, a mystery, an interfering of undecided lines with each other, not a diminution of their number.

This solidifying of the background extends to the former transparency of the atmosphere so that the distinction between solid and void is blurred," and in this nature is never distinct and never vacant, she is always mysterious ... and hence in art, every space or touch in which we can see everything, or in which we can see nothing, is false."

What ultimately remains unclear for both Ruskin and his readers is the extent to which this naive "realism" with its new laws of perception remains bound up with the imagination of the artist Turner, the only
producer thus far of the modern landscape. The dependence of the "Law of Evanescence" on Turnerian cloudiness and the solidifying effect of his brushwork technique reveals a dilemma central to the Romantic exhortation of an imitation of nature which would be answered by each artist in a different way. As Rosenberg says: "Realism was the basic intention of Romantic art. Their worship of imagination began with their cult of fact." 9 Ruskin rejects the prosaic Dutch genre scenes as being too realistic but also the excessive projection of the imagination on natural scenery favored by some of the early Romantics, for which he coined the term "Pathetic Fallacy." The only "eye" which has for him the required combination of insight and restraint and has achieved the "right of being obscure" is that of Turner, and the impossibility of the "innocent eye," of tracing a dividing line between perception and imagination, realism and Romanticism, is admitted in later writing:

You do not see with the lens of the eye. You see through that, and by means of that, but you see with the soul of the eye.10

The artist is a telescope, very marvellous in himself. The best artist is he who has the clearest lens, and so makes you forget every now and then, that you are looking through him.11

Thus Ruskin's attempt to propose a theory of realistic beauty would have meaning and could be regulated by laws gave way to an open admission of the individual personality of Turner's genius whose works have the "obscurity of phophkey" and are "dark with abundant meaning."12 Having visited the original mountainous locations of
many of the paintings he had studied, he found that Turner had altered the composition and details to achieve his desired effects, and that in doing so—

He only did right in a kind of passive obedience to his first vision, that vision being composed primarily of the strong memory of the place itself, which he has to draw; and secondarily of memories of other places, associated in a harmonious and helpful way, with the new central thought ... all great inventors, ... their imagination consisting, not in a voluntary production of new images, but in an involuntary remembrance, exactly at the right moment, of something they had actually seen.¹³

Each work by Turner becomes an individual interpretative insight into the modern landscape of mystery.

And we find that whereas all the pleasure of the Medieval world was in stability, definiteness and luminousness, we are expected to rejoice in darkness, and triumph in mutability ... We find, however, together with this general delight in breeze and darkness much attention to the real form of clouds, and careful drawing of the effects of mist; so that the appearance of objects, as seen through it becomes a subject of science with us ... Assuredly much of the love of mystery ... must come under that definition so long ago given by the Great Greek, "speaking ingeniously concerning smoke."¹⁴

Upon completion of the series "Modern Painters" at the close of the 1850's Ruskin's interest began to shift from the mountain sublime to the human life in the valleys, a movement which had begun with a series of articles entitled "The Poetry of Architecture" (1837), serialized in Loudon's "Architectural Magazine." These were published under the pseudonym "Kata Phusin" (According to Nature) and concerned the rural vernacular architecture of Britain and Italy. "The Seven Lamps of Architecture and Painting" (1849) and "The Stones of Venice"
(1851-53) both betray Ruskin's fascination with Italian Gothic architecture, the former being a series of meditations on desirable architectural attributes, the latter a guide-book through the history and architecture of Venice. Such tourist guides were aimed at the nineteenth-century middle-class traveller, not the neo-classical dilettante of the Grand Tour, and Ruskin with such a publication could fill a need for information on Gothic architecture which was not yet "on the map," as it were. It is very obvious in these books that while the consideration of architecture forced Ruskin to a consciousness of history and past human culture which he had not thus far explored in the first two volumes of "Modern Painters" where artists were discussed individually and not historically, the version of the past he presents is still noticeably didactic in the manner of Carlyle's "Past and Present." The tourist is ushered through the architectural and historical events by Ruskin, a rather overbearing guide who has stated prejudices such as his unequivocal admiration for the Gothic architecture of Venice quite emphatically at the beginning of the tour.

The Mediaeval city of Venice emerges from these pages as a bustling port, a marketplace between the cultures of East and West, North and South. The accumulation of Classical, Byzantine and Gothic influences is apparent in the hybrid nature of the architecture--Ruskin's beloved St. Mark's, called "a treasury of bits" by Henry James, is described by Garrigan in her book "Ruskin on Architecture" as a hill-village,
"the very archetype of eclecticism,"—while he himself does not conceal the complex origin of this architecture culture he admires:

Now observe: those old Greeks gave us the shaft; Rome gave us the arch; the Arabs pointed and foliated the arch ... Venice ... a city which concludes, within the circuit of some seven or eight miles, the field of contest between the three pre-eminent architectures of the world.\textsuperscript{16}

The Doge's Palace (Fig. 4) "the central building of the world,"\textsuperscript{17} is considered to be a supreme example of the Venetian Gothic style which Ruskin describes as "an architecture of incrustation."\textsuperscript{18} Venice's unique location on a constricted island site had meant a restriction on the weight of individual units of building material which were required to be transported by boat. Stone was used sparingly and the predominant brick walls were faced with thin slabs of precious materials which formed an elevational plane into which windows, balconies and fragments of older buildings were inserted. Thus the buildings had profiles without complex articulation on their upper stories but often had continuous arcades at ground level. Ruskin in his discussion of the "Lamp of Power," an application of the eighteenth-century notion of the Sublime to architecture, uses the Doge's Palace as an example of a combination of infinities—that of the unbroken wall surface of the Romans or Egyptians and that of the repetitious arcade. The surface veneer, likened to armour on a body, expresses its decorative as opposed to structural role by its exposed rivets and fixings and by the shallowness of its carving, mere incised lines picked up by the Italian sun. The main scaling element in these
vast expanses of wall is the differentiation in the colouring of the marbles and stones, a natural geological veneering combined into rich abstract patterns of Oriental influence in contrast to the drab black and brown of everyday Victorian life.

The sculpture and mouldings (of the Doge's Palace) are all white; but the wall surface is chequered with marble blocks of pale rose, the checkers being in no way harmonized, or fitted to the forms of the windows; but looking as if the surface had been completed first, and the windows cut out of it.19

The ornament of Pisan Romanesque was admired also, where "there are no ornaments more deeply suggestive in their simplicity than these alternate bars of horizontal colours;"20 Ruskin comments also on the integrative power of the twisted corner column of the Doge's Palace (Fig. 5) in perceptually framing the insubstantiality of the upper story slabs.

The professed admiration for structure implied rather than expressed, for clothing rather than anatomy; "I do with a building as I do with a man, watch the eye and the lips: when they are bright and eloquent, the form of the body is of little consequence."21 The secular urbanity and eclecticism of Venetian Gothic would then seem to be at odds with those of Northern Gothic architecture, a fact admitted in later writing by Ruskin:

All these influences working together, and with them that of classical example and tradition, induced a delicacy of expression ... a carefulness of touch, a refinement of invention, in all, even the rudest, Italian decoration, utterly unrecognized in those of Northern Gothic which ... cannot for an instant be separately regarded as works of accomplished art.22
He was also aware that the cathedrals of the North, despite his reservations, were the products of sophisticated workmanship executed under the control of a master mason who may have used template patterns. Upon reading Willis's "Architecture of the Middle Ages," he noted that the stone carving had slowly evolved its deep relief and detailed representation of natural forms and was therefore the product of a conception of natural beauty transferred to stone and not the direct imitation of a primitive shelter made from the joining together of growing trees as had sometimes been speculated.

It was a gradual and continual discovery of a beauty in natural forms which could be more and more transferred into those of stone, that influenced at once the heart of the people and the nature of the edifice.  

It comes therefore as rather a surprise to find that in the chapter entitled "The Nature of Gothic" from "The Stones of Venice" its distinguishing features are listed in descending order as Savageness, Changefulness, Naturalism, Grotesqueness, Rigidity and Redundancy. We are reminded of "this wildness of thought and roughness of work; this look of mountain brotherhood between the cathedral and the Alp," and of the mountains, "those great cathedrals of the earth, with their gates of rock, pavements of cloud ..." This return to the "Mountain Sublime" is made complete with the statement:

An architect should live as little in cities as a painter. Send him to our hills, and let him study there what Nature understands by a buttress, and what by a dome. There was something in the old power of architecture, which had it from the recluse more than from the citizen.
We are forced, for the sake of accumulating our power and knowledge, to live in cities... we cannot all have our gardens now... then the function of our architecture is, as far as may be, to replace these, to tell us about nature.27

The information regarding nature supplied by Greek architecture in the form of its prior wooden construction is regarded as decadence, the only proper natural ornament being the representation of growing and living forms, and the abstract Byzantine elevational patterning of Venice being ignored, it seems, for the moment. The "live" and "realistic" Lombardic griffin (Fig. 6) is contrasted with that of classical convention (Fig. 7), and the Gothic spirit is animated "not by the love of knowledge but the love of change."28 The naturalism described here seems more allied with features of Northern Gothic as does the category of "Rigidity" in its discussion of structural lightness:

(Rigidity) ... the peculiar energy which gives tension to movement, and stiffness to resistance ... in the Gothic vaults and traceries there is a stiffness analogous to that of the bones of a limb, or fibres of a tree: an elastic tension and communications of force from part to part, and also a studious expression of this throughout every visible line of the building.29

Perhaps the key to this ambiguity lies in the equation of the word "Gothic" in Britain at the time with radicality and any questioning of norms, implicit in the statement, "I've used the word Gothic in the most extended sense as broadly opposed to classical."30 The most advanced aspect of Ruskin's critique of the nineteenth-century mercantile economy and the factory system was his myth of the
spontaneous and vital Gothic artisan, untrammelled by convention and
free to express himself in his carving:

I believe the right question to ask, respecting all
ornament, is simply this: was it done with
enjoyment—was the carver happy while he was about it?31

Ruskin's emphasis on the process by which Gothic architecture was
produced and on the conditions under which all art is created
emphasized the ironic distance between the Middle Ages and the
nineteenth century and made the possibilities of simple revivalism
more remote than ever. Thus, as Helsinger says; "Insofar as both
Carlyle and Ruskin accept this dual historical aim, to present and
reform, history is inseparable from cultural criticism."32

Ruskin did make efforts in the manner of Pugin—whose influence he
strongly denied—to demonstrate the pragmatic qualities of Gothic
planning for all types of modern building programme:

Undefined ... it can shrink into a turret, expand into a
hall, coil into a staircase, or spring into a spire, with
undegraded grace and unexhausted energy ... And it is one
of the chief methods of Gothic builders, that they never
suffered ideas of outside symmetries and consistencies to
interfere with the real use and value of what they
did.33

He suggests that the complete adoption of an existing and available
paradigm would free architects "from the agitation and embarrassment
of that liberty of choice ... from the accompanying necessity of
studying all past, present and even possible styles," and facilitate
the controlled invention of "a child within a walled garden, who would
sit down and shudder if he were left in a fenceless plain."34 Four
styles are presented as being appropriate for revival—those of Pisan
Romanesque, early Italian Gothic, Venetian Gothic, and English
earliest Decorated, of which the last, because of its national
associations is almost offhandedly recommended as the most suitable.
Ruskin does not seem to be able to overcome his distaste for the deep
carving, shadow, and grey stone of Northern Gothic, nor the religious
affiliations on which Pugin had lain so much emphasis. He regarded
the buttresses of contemporary Gothic revival ecclesiastic buildings
as "convenient breaks of blank surfaces, and general apologies for
deadness of wall. They stand in the place of ideas ..." Equally
rejected is the earlier" decorated grid" style of the Houses of
Parliament—"an effeminate heap of stones ... the absurdest and
emptiest piece of filigree ... an eternal foolscap in freestone," and a satire of Pugin's ornamental designs appears under the title
"Foolish Foliage."(Fig. 8) Although he was careful not to make
definitive recommendations regarding the adoption of a particular
style, Ruskin's illustrations of Venetian Gothic buildings led many
speculative developers to experiment with similar motifs until he
eventually came to regret his influence on "nearly every cheap
villa-builder between this and Bromley." In all there are only
two nineteenth-century buildings which he is on record as having
complemented, one being Butterfield's Church of All Saint's, Margaret
Street, London (1850-59), the other the Museum at Trinity College,
Dublin (1853-57) by Deane and Woodward.(Fig. 9) Modelled on a
Renaissance Venetian Palazzo, this building he regarded as "the first
realization I had the joy to see, of the principles I had, until then, been endeavouring to teach." He later advised the same architects on their design of the National History Museum at Oxford, but was deeply disappointed with the result. The hand-carving of the capitals, some of them to his own design, brought home a realization of the centuries of skill behind similar Mediaeval efforts, and the thought that "how soon all architecture may be in vain, except that which is not made with the hands." 

Ruskin did not regard with much hope the quest for a new style, the "fruitless experiments," where "every architect among us shall invent a new style for himself, and have a country set aside for his conceptions." 

We want no new style, but we want some style." Paxton's Crystal Palace, re-erected as a museum at Sydenham in 1853 he regarded as an ingenious gadget but not architecture, which it has always been made clear in his work is differentiated from engineering or handicraft such as boat-building. The structure is referred to as a "giant cucumber frame" and a "magnified conservatory," infinitely extendable "until you have encompassed us all ... with endless perspective of black skeleton and blinding square ... and still I ask you, what after this?" Ruskin feels that iron as a material lacks the ability to convey structural weight, a criticism which he had also levelled at the ornamentation of the later English Perpendicular Gothic style in which the carving of the tracery had
disintegrated into a delicate filigree.

(Therefore) ... if architecture is to maintain "consistency of style" it will be felt right to retain, as far as may be, even in periods of more advanced science, the materials and principles of earlier ages.44

Ruskin's distaste for the anatomical qualities of structure, whether in the form of Gothic buttresses or the iron frame, limited his appreciation of Viollet-le-Duc's studies of Gothic architecture: the "Dictionnaire Raisonné" which he bought in 1884 was criticized for ignoring sculptural aspects while showing "the skeleton of a Gothic building to be as wonderful as that of an animal."45

When humanity and history were the main things in the architect's mind, his broad surfaces were everything to him, and his limiting lines unimportant. But when construction became principal with him, and the story subordinate—the shaft and arched rib became everything, and the wall nothing—until it was found that, in fact, a building might be constructed out of nothing but ribs, a mere osseous thorax of a building instead of a living body.46

... when I do not know how we can become children again and renew lost life. The stirring which has taken place in our architectural aims and interests within the last few years is thought by many to be full of promise. I trust it is, but it has a sickly look to me. I cannot tell whether it be indeed a springing of seed or a shaking among bones.47

By 1860 the prevalence of Carlyle's idealism in British philosophy had given way to the pragmatic empiricism of John Stuart Mill, a minimalist philosophy based on the cult of fact with similar aims to the positivism of Comte in France. The science of biology began to attract the interest of the philosophers, particularly after the publication of Darwin's research, "The Origin of Species"(1859) and
"The Descent of Man" (1871). Debate centered on the implications of the work; the seeming instability of species and therefore of any form of scientific taxonomy, the fragility of any assumption regarding a controlling design of the universe and the doubtfulness of man's hitherto-certain place in the hierarchy of nature. It was the philosopher Herbert Spencer in his ambitious adaptation of Darwin's theories to the social sciences who raised the equation of societal law and the natural law of struggle and competition.

Ruskin, while accepting Darwin's findings, refused to accept the premise of survival as the sole basis for existence, believing that "the powers of nature consult quite other ends than the mere continuance of oaks and plum trees on the earth." It was, however becoming increasingly difficult for him to find evidence of a Divine Presence in nature and the mountains.

Darwinian biology broke down that absolute distinction between species on which any stable system of symbolism based on the essential nature of animals and plants must rest.

Belief began to shift from the Evangelicalism of his upbringing to a humanism where "man is the sun of the world." For a temperament like that of Ruskin which had always decomposed the work of art or architecture in his criticism, and assumed that each detail reflected the whole in the microcosm, this meant a valuation of human scale and nearness for its own qualities, a commitment to social engagement from which the mountainous heights had begun to be seen as a escape.

... the human mind ... should enjoy itself most surely,
in an ant-like manner, and be happy and busy with the
bits of sticks and grains of crystal that fall into its
way to be handled, in daily duty.51

The move from the heath to the valley cottage, from Wordsworth to
Dickens, meant an acceptance of the domestic foreground and the
"heroism of the hearth" in works of Art.

... the second characteristic is Domesticity. All
previous art contemplated men in their public aspect, and
expressed only their public thought. But our art paints
their home aspect, and reveals their home thoughts. Old
Art waited reverently in the Forum. Ours plays happily
in the Nursery; we may call it briefly, conclusively—the
art of the nest.52

In the public lectures which he began to give in the 1850's, Gothic
architecture is no longer a topographical accumulation of naturalistic
sculpture but a hill-village, an aggregation of human aspiration, as
revealed in his discussion of the spire at Coutances (Fig. 10):

... and you will see immediately that they are literally
domestic roofs, with garret windows, executed on a large
scale, and in stone. Their only ornament is a kind of
scaly mail, which is nothing more than the copying in
stone of the common roof-shingles or house-roof ... But
the main thing I wish you to observe is the complete
domesticity of the work; the evident treatment of the
church spire merely as a magnified house-roof ... all
good architecture rises out of good and simple domestic
work ...53

Concern for humanity meant a synthesis of the direct experience of
natural phenomena and a reinterpretation of their traditional
associations, parallelling developments in nineteenth-century
philology where "the iconographic tradition on which both the artist
and critic are presumed to draw is a full historical language of
Ruskin under the influence of Muller's "Science of Mythology" began to evolve a personal interpretation of traditional philosophies based on the religious typology of the Bible and the synthesis of mythic consciousness as a reflection of a substrate of collective unconsciousness, perceiving, "however darkly, things which for all ages are true."55

I've become a Pagan, too; and I'm trying hard to get some substantial hope of seeing Diana in the pure glades; or Mercury in the clouds.56

If it (the myth) first rose among a people who dwell under stainless skies, and measured their journeys by ascending and descending stars, we certainly cannot read their story, if we have never seen anything above us in the sky but smoke; nor anything round us in the night but candles ... we shall be able to follow them into this last circle of their faith only in the degree in which the better parts of our own being have also been stirred by the aspects of nature, or strengthened by her laws. It may be easy to prove that the ascent of Apollo in his chariot signifies nothing but the rising of the sun. But what does the sunrise signify to us? ... if the sun itself is an influence, to us also, of spiritual good ... (it) becomes then, in reality, not in imagination, to us also, a spiritual power.57

Ruskin's later interpretations of Turner's landscapes began to concentrate, not on the artist's direct confrontation with natural phenomena but on his reinterpretation and often ironic reversal of traditional Christian iconography. While he felt that "much time is wasted by human beings, in general, on establishment of systems,"58 he himself had used categorization and the enumeration of laws in his writings as an arbitrary starting-point for his meditations, and admitted to having difficulty "keeping my 'Seven Lamps' from becoming Eight,—or Nine—or even a quite vulgar row of footlights."59
During the 1860's he developed a method of taxonomy for botanical plants that would be based on their appearance and not on a microscopic affinity, with a system of naming associated with Greek mythology in an attempt to promote a "science of aspects" rather than dissection.

The Pre-Raphaelite Brotherhood, a group of painters who were championed by Ruskin during the 1850's, evinced a similar interest in their conscious juxtaposition of Biblical and literary themes with models obviously drawn from the real life of the nineteenth century. Their technique was a painstaking stippling of pure colour on a wet white ground and led to a strange clarity where all parts of the painting seemed equally in focus in a shallow space, superficially very different from the clouds of Turner, whom Ruskin began to call "the first Pre-Raphaelite," but sharing their novelty and difficulty.

A similar return to "the spirit but not the ignorance of the Middle Ages" was attempted by William Morris, who came under the influence of Ruskin's teaching at Oxford an attempted to apply them to Victorian production methods. When concern had been voiced regarding the low standard of industrial design evident in the Crystal Palace exhibits of 1851, the German architect Gottfried Semper had been consulted by Prince Albert as to a complete reform of design education in Britain. While Morris recognized the realities of the machine and endeavoured to combine industrial and handicraft production with a high standard
of design in his company, he could not resolve the tension between theory and practice; his products were of a quality that could only be afforded by an affluent elite, while being undersold by cheap mass-produced imitations. He founded the Society for the Protection of Ancient Buildings in 1877, of which Ruskin became a member—"The Stones of Venice" was written in part as a plea for the preservation of Venice's architectural heritage. Besides his lecturing commitments, Ruskin also attempted his own plan of social and political reform, founding the Guild of St. George of which he was the only member, and engaging in minor commercial experiments of a charitable nature.

Morris's textiles and furniture were produced primarily for smaller country houses, in the design of which a new eclecticism became evident around 1880. The divisions between rival Gothic Revival and Classical factions evident earlier in the century merged in domestic work into a vernacular style known as "Queen Anne," influenced by seventeenth-century Dutch architecture, and in public work into a broad eclecticism centering on Renaissance themes. Ruskin asserted his distance from the architectural profession in refusing the offer of a Gold Medal from the Royal Institute of British Architects in 1874. The growing emphasis on professionalization and educational standards led to questioning of the apprentice system which had until then been the customary method of architectural training, and in 1870 the Royal Academy in a bid to revise their curriculum appointed Phene
Speirs, a graduate of the Ecole des Beaux-Arts. He evinced a belief that the resurgence of interest in Renaissance motifs was part of a Europe-wide movement, and that "the most eminent men of the 'Queen Anne' school are the greatest admirers of the four great architects of France—J. L. Duc, Duban, Vaudoyer and Labrouste."

One of Ruskin's unsuccessful projects in his guise as the Guild of St. George was the construction of a road known as the Hinksey Road in the Oxfordshire countryside with the help of some of his students:

The Oxford Road failed, partly because of the soil, partly because of the laziness of the undergraduates, and partly because Mr. Oscar Wilde would insist on stopping and lecturing upon the beauties of the colour of soil that turned up.

The next generation, it seems did not share Ruskin's desire to discuss any communal basis of meaning in art, being content to publicize only the autonomy of artistic technique and to regard personal autobiographical references in their work as a private affair. Regarding his "Arrangement in Grey and Black" the painter Whistler declared:

To me it is interesting as a portrait of my mother; but what can or ought the public care about the identity of the portrait?

A similar title by the same artist, "Nocturne in Black and Gold" (Fig. 11), was described "flinging a pot of paint in the public's face," in a review by Ruskin, but at the turn of the century Marcel Proust perceived him as a forerunner of aestheticism, driven by Victorian
moralism to anchor sensuous delight to traditional forms of meaning. In attempting to convert the Victorian philistine to the beauty of art using the recognized technique of sermon, Ruskin in his emphasis on artistic technique and his ultimate inability to communicate any communal criteria of meaning in the modern landscape, may have been paving the way for the aesthete, the up-ended philistine, and the new religion of art where, in Yeat's words "the poet's church is one where there is an altar but no pulpit."
NOTES


3. Ibid., Vol. 12, p. 27.


5. Ibid., Vol. 5, p. 326.


7. Ibid., Vol. 6, p. 93.


11. Ibid., Vol. 36, p. 213.

12. Ibid., Vol. 3, p. 611.

13. Ibid., Vol. 6, p. 41.


17. Ibid., Vol. 9, p. 34.

18. Ibid., Vol. 9, p. 323.

19. Ibid., Vol. 8, p. 183.

20. Ibid., Vol. 9, p. 348.

21. Ibid., Vol. 12, p. 89.

22. Ibid., Vol. 12, p. 199.

24. Ibid., Vol. 10, p. 188.
25. Ibid., Vol. 6, p. 432.
26. Ibid., Vol. 8, p. 136.
27. Ibid., Vol. 9, p. 411.
29. Ibid., Vol. 10, p. 239-40.
30. Ibid., Vol. 8, p. 230.
31. Ibid., Vol. 8, p. 218.
34. Ibid., Vol. 8, p. 259.
37. Ibid., Vol. 10, p. 459.
38. Ibid., Vol. 18, pp. 149-50.
39. Ibid., Vol. 8, p. 265.
40. Ibid., Vol. 16, p. 348.
41. Ibid., Vol. 8, p. 252.
42. Ibid., Vol. 12, p. 418.
43. Ibid., Vol. 16, p. 349.
44. Ibid., Vol. 8, pp. 66-7.
45. Ibid., Vol. 33, p. 53.
46. Ibid., Vol. 23, pp. 94-6.
47. Ibid., Vol. 8, p. 194.


51. Ibid., Vol. 5, p. 184.

52. Ibid., Vol. 19, pp. 200-1.

53. Ibid., Vol. 12, p. 42.

54. Helsinger, op. cit., p. 3.


57. Ibid., Vol. 19, pp. 302-3.

58. Ibid., Vol. 5, p. 18.

59. Ibid., Vol. 8, p. 138, (Note).


63. Ruskin, op. cit., Vol. 29, p. 160. (Letter, 22nd July, 1877.)
Fig. 1 The Medieval Landscape
Ruskin

Fig. 2 The Neo-classical Landscape
Ruskin

Fig. 3 The Law of Evanescence,
Ruskin

Fig. 4 The Doge's Palace, Venice.
Ruskin

Fig. 5 Doge's Palace, Detail,
Ruskin
Fig. 6 Lombardic Lion
Ruskin

Fig. 7 Classical Griffin
Ruskin

Fig. 8 Foolish Foliage
Ruskin

Fig. 9 Museum, Trinity College, Dublin,
Deane & Woodward

Fig. 10 Spire at Coutances
Ruskin

Fig. 11 Nocturn in Gold and Black
J. M. Whistler
Although initially Britain had taken the lead in archeological research, by the 1830's public figures in France were beginning to protest about their government's neglect of the country's Mediaeval monuments. In 1830 Arcisse de Caumont founded an antiquarian society in Normandy which began to publish research papers on Gothic architecture and Hugo's novel "Notre Dame de Paris"(1831) was regarded by Ste.-Beauve as "a beacon lit on the high towers" for the Gothic cause. By mid-century an exchange of information between Britain and France was possible--Pugin republished Montalembert's relevant French research in the appendix to the second edition of "Contrasts."(1841) Restoration and preservation of Mediaeval monuments, not a matter of priority with the French government, was initially left in the hands of amateurs, but in 1837 the Commission des Monuments Historiques was instituted under Prosper Merimee with a view to setting standards and improving expertise. Victor Hugo served as a member of the Commission for ten years after its inception. In 1839 Merimee entrusted the restoration of the abbey church at Vezelay to a young acquaintance named Eugene Emmanuel Viollet-le-Duc.
Viollet-le-Duc, born into a wealthy family, had refused on principle to enter the Ecole des Beaux-Arts and had embarked on his architectural self-education in a Rousseau-esque manner with a series of sketching trips through the European countryside, having been employed since 1834 as a teacher at the Ecole des Arts Decoratifs in Paris. His career as a restoration architect with the Commission involved several large projects during the following twenty years; in 1845 he won a competition for the restoration of Notre Dame cathedral and the addition of a presbytery (Fig. 1), an extensive undertaking which was to occupy him for over ten years. Other major restorations completed include those of the old city and ramparts of Carcassonne in southern France, and that of the chateau at Pierrefonds near Paris. Viollet-le-Duc's rather self-confident attitude to the restoration of a building—a process which Ruskin thought to be akin to total destruction—is summed up in these words:

... to restore a building is not only to preserve it, to repair it or to rebuild, but to bring it back into a state of completion such as may never have existed at a given moment.²

Unlike Ruskin, the fact that the restored murals at Notre Dame "are the work not of a believing society but of a single man,"³ did not seem to worry him in the least.

During the Second Empire, when he was associated with the court of Louis Napoleon and supervising many restoration projects, Viollet-le-Duc published two major architectural works: the "Dictionnaire Raisonné de l'Architecture Francaise du XIᵉ au
XVIème Siècle," (10 Vols., 1854) and "Discourses on Architecture,"
(Vol. 1, 1863, Vol. 2, 1872). The Dictionnaire presented a catalogue
of architectural elements of the Middle Ages for contemporary use, but
the Discourses, based on a course of lectures given when he was a
teacher, allow us a greater insight into the author's ideology, the
first volume being a chronological history of architecture, the second
a series of observations on contemporary materials and building
programs. It is obvious from the tone of these lectures that
Viollet-le-Duc stands firmly within the the Graeco-Gothic tradition
discussed earlier in Chapter Three⁴, a French tendency towards the
admiration of the tectonic frame which was now being linked with
late-nineteenth-century positivism to form a program of action:

The links between philosophy and science in this period
are plain enough. Comtism, comprising under this head
the groups of doctrines based on science and history, and
Hegelism, jointly suggested that human history was a part
of natural history and that natural history was
characterized by the process of change—according-to-law
which we term growth.⁵

Greek civilization emerges from the pages of the Discourses as the
cradle of a race of artists revered by Viollet-le-Duc for their
creativity and their expertise in rational experimentation. The
country's position of trade between East and West, later filled by the
Venetians, is commented on:

The Greeks always had the faculty of quickly assimilating
the elements they derived from others. They were always
magnificent pirates, casting all they took—whether
things or ideas—into their melting-pot, to transform
them into a Greek product, and exhibit them to an
astonished world, which was then no longer able to refer them to their origin.6

It is important to note here that emphasis is laid on the act of transformation itself—on the Greek genius—rather than on any sources which might have come their way. This is allied with Viollet-le-Duc's assertion of the autonomy of art and his idealization of the city-state as a democratic self-regulating haven for artistic genius where the examples of Venice, Florence and Sienna are quoted in addition to that of ancient Greece. During an initial attempt to define terms, Viollet-le-Duc posits the empiricist definition of art as that which "act(s) on the senses and produces impressions."7 However, an analogy between architecture and music is favoured, since, unlike either painting or sculpture, neither of these disciplines show a reliance on the imitation of nature.

Therefore in discussing the origin of Greek architecture the notion of its evolution from an original form of wooden construction is completely rejected. Viollet-le-Duc allows that such constructional references to previous material tradition may have occurred in the architecture of earlier civilizations such as that of the Egyptians whose stone motifs were based on earlier papyrus constructions and lotus-flower capitals:

This mode of ornamentation is explicable among a people who seek to preserve traditional forms hallowed by religious associations and maintained by a powerful theocracy, but it has been inadmissible in our Western civilization ever since the subvention of Greek genius.8
This supposition that the Greek temple is the imitation in stone of a wooden hut is of the same order as that which refers the architecture of our Gothic churches to the forest avenues of Gaul and Germany. Both are fictions well adapted to amuse the fancy of dreamers, but ... at best useless when we are called upon to explain the derivation of an art to those whose vocation it is to practise it.⁹

This "subvention of Greek genius," which will involve architectural principles relevant to contemporary pedagogy meant the derivation of Greek form from the nature of the stone material itself, and this hypothesis is supported by a discussion of the process of wooden construction from which the Greek methods of trabeation are seen to differ markedly. Therefore architecture is seen by the Greek artist as an experiment in stone, an investigation of material potentialities, and a method of construction made art.

Sceptical as a philosopher, he is no sceptic as an artist: he regards matter as susceptible of definite scientific treatment, which he verifies by experiment ... The result he has obtained is then for him the only possible one.¹⁰

The anthropomorphism of the resulting Greek structural module is based not on a reference to human scale but on an analogy of the organism of stone construction with that of the human body:

Greek architecture may be best compared to a man stripped of his clothes, the external parts of whose body are but the consequence of his organic structure, of his wants, of the framework of his bones, and the foundation of his muscles.¹¹

If Art, which to the Greeks is "a religion, or rather a belief,"¹² is bound up with the ideality of structure, nature is now seen as the
contingency with which the ideal self-contained model is faced—the particularities of topography, location and orientation—and not as a model of imitation. The Greeks "loved Architecture as art, but they were also lovers of nature ... of light; they used coquetry ... in the arrangement of an edifice: they avoided monotony ..." Coquetry involved a consideration of the setting of the structure like that of a precious gem with a picturesque sensibility that favoured an approach to the edifice from an oblique angle and often from below. (Fig. 2)

In their architecture ... the Greeks took account of the light, the transparency of the air, and the features of the environment; they paid particular attention to the arrangement of the angles of buildings, which stood out in silhouette against the sky or against the blue depth of the mountains.  

The example of the Erectheum is favoured over that of the Parthenon in a discussion of the Acropolis, since that building's assymmetry involves a richness of orientation and a diversity of reading depending on the angle of approach. This Greek genius in siting is contrasted with the organization of a nineteenth-century city, "these deserts of stone, of wood, and iron," and it is suggested that excursions th the ruined settlements of the Mediterranean are popular and refreshing "for those dead cities are ... more peopled than the streets of Lyons or Manchester."  

Viollet-le-Duc's appraisal of the architecture of the Middle Ages parallels his description of Greek architecture and suggests that "there is every reason to believe that Greek artists would have a much
more cordial understanding with those of the Middle Ages than the Romans, who have ranked as their allies, while in reality they are their oppressors. 16 The "organic" phases of the Saint-Simonists are now seen as points of origin which have been rendered obscure and decadent in the ensuing "critical" phases. Here Viollet-le-Duc strikes a new note in the analysis of Gothic architecture: the autonomy of the artist in the Middle Ages is stressed. Gothic architecture, no longer the hieratic production of a community of belief, is the creation of a group of self-governing artists who had broken free of the religious stranglehold over architectural production during the preceding Romanesque Period and "formed a corporate body, which in the domain of the arts possessed its privileges and franchises which no one thought of interfering with." 17 The work of the artist belongs to this secular corporation, a democratic union in work, a fusion of the individual and the collective which derives its inspiration from within itself and whose symbol of government is the cathedral, "a civil quite as much as a religious edifice." 18 Again, this emphasis on self-containment means that any possible origin of Gothic architecture outside that of its own process is suppressed:

The secular school may be regarded as a kind of reaction of modern ideas against tradition—a vigorous effort towards civilization as the modern mind conceived it, namely, incessant progress. 19

... these new principles are based not on the improvement of traditional types, but on science—on the observation of laws hitherto unrecognised in the art of construction. 20
... observing and experimenting, it accomplished in architecture ... a veritable revolution.\textsuperscript{21}

The aspect of this revolution that Viollet-le-Duc stresses is the structural daring and boldness of the Gothic masons from the thirteenth to the fifteenth centuries who produced by degrees an architecture without walls, (Fig. 3) an autonomous skeleton possessing a dynamism lacking in Greek structure.

The entire system consists of a framework which maintains itself, not by its mass, but by the combination of oblique forces neutralizing each other.\textsuperscript{22}

The directness of the Gothic frame—"sincerity is one of the conditions essential to style in the arts,"\textsuperscript{23} is favoured over the Greek model because of its increased structural complexity, and hence its superior applicability to contemporary building programs. In addition the structural module, located outside the system of construction itself, relies on the scale of a human being. The decorative aspect of Gothic architecture is separated from its structural program and classified as "a servile and ultimately outre imitation of nature,"\textsuperscript{24} although an important principle of localized connection can be derived from its subject matter:

The ornaments are designed solely from the local flora, for architects wish everything to be of home production, and borrow nothing either from a foreign art or from a past.\textsuperscript{25}

The contrast between the "primitive sincerity" of the Greek and Mediaeval artists with those of Rome could not be greater: in fact
Rome is regarded as having possessed no native artistic ability, depending on and ultimately abusing that of the colonized Greeks in order to further its political aims. This race of colonists and administrators developed new civic building types to whose outward envelope the elevational frame of the Greek portico is made a mere decorative appendage, a non-structural statement of entry. The complex planning arrangements where often each room shape seeks separate expression within the overall structural poche, which Viollet-le-Duc refers to as a "casting," are regulated by the formula of symmetry:

The Roman Building has this peculiarity, that it cannot be studied for itself; it is always in connection with a vast system ... it is part of a whole.26

The original state of this architecture of the citizen which "may be compared to a man clothed: there is the man, and there is the dress ... we have the structure ... and we have also the carving, the adornment,"27 Viollet-le-Duc would not wish to restore, preferring instead the unconcealed beauty of Roman ruins. (Fig. 4)

In a fashion similar to the preceding analogy between Greek and Gothic architecture, the governmental and political emphasis of the Romans is allied with what is seen as the contemporary political subjection of architecture where "towns and cities have become deserts for thought; they have the wearisome monotony of solitude without its grandeur."28 The guise of colonial administration in this case is assumed by the French Academy, the symbolic reminder of the political
and artistic absolutism of the seventeenth century, and a coterie favouring the city of Paris above the French regions.

... the struggle between centralization and dispersion was in many ways more fundamental than the better-known debates about monarchy and republic. 29

... that this plea for decentralization should be joined to a defence of the Gothic revival against the Classicism of the Academy is more than co-incidental. 30

Writing in the second volume of the Discourses in the early 1870's, Viollet-le-Duc suggests that Academic education is largely unrealistic, with little grounding in practicality, and is directed towards employment in the capital city when many of the graduates find themselves in employment in the provinces. At that time Viollet-le-Duc had experienced the Academic system at first hand: in 1856 when Henri Labrouste had ceased to teach, he had taken over some of the students from his atelier for a time. The atelier system, which he regarded as one of the Ecole's few concessions to practicality, had begun to languish by the 1860's in contrast to the energy it had exhibited during the earlier part of the century.

These ateliers, in competition with each other, and even directed by teachers whose principles were often opposed to each other, occasioned a ferment of intellectual activity which has produced distinguished talents and independent characters. The whole of the school ... was at that time endeavouring to counteract these liberal tendencies ... but it did not always succeed in doing so. 31

Academic oligarchy and rampant eclecticism are no longer seen as distinct alternatives, since the Ecole des Beaux-Arts, according to Viollet-le-Duc, seems in the 1870's to be drifting without a central
educational purpose. The prevalence of the eclectic style in France is noted, as is Britain's growing affection for Renaissance and Italianate styles:

Now ever since the sixteenth century it has been admitted that the study of architecture is virtually Archeology—that is the arts of former times and the examination of the practical appliances indicated by experience and tradition. This is unfortunate; but there is no help for it ... The Renaissance displayed more enthusiasm than reflection in its devotion to Pagan Antiquity; its procedure was like discoverers of some buried city, who fall into raptures over the beauty of every fragment, and heaping its remains together without order, do not wait to discover whether they belong to one or several buildings, ... or what is their relative value as works of Art.\textsuperscript{32}

The study of precedent is made more complicated by the "invasion of documents" which has supplanted the architect's eighteenth-century library containing "a copy of Perrault's translation of Vitruvius, a Vignole, a Palladio,"\textsuperscript{33} together with a few books on building construction. There are "libraries and museums (which) enable us to contemplate architectural monuments covering nearly the whole earth, belonging to all ages and civilizations,"\textsuperscript{34} but the diffuse references of the nineteenth-century eclectic school are dismissed as "a macaronic language ... whose meaning no one can decipher."\textsuperscript{35}

The Revolution did more than remove some of the cogs; it broke up the whole machine. And although an attempt has been made since to gather up and reunite the pieces, these fragments only embarrass us.\textsuperscript{36}

... we have entered a transitional phase; we are investigating, searching into the past, and accumulating an abundance of materials, while our means and appliances have increased.\textsuperscript{37}
Therefore while archeological studies "are calculated to serve as a solid basis for modern art," a method of composition or a set of principles must be found to which the eclectic tendency can be subordinated, a system enabling architects, "when many pebbles have been collected, labelled and classed ... to distinguish those which contain precious stones from so many others whose only merit is that they have found their way into the collector's bag."  

... in our art there is no invention; we can only submit to analysis elements already known—combine and adapt them, but not create ... 

It is this analytical spirit of nineteenth century, "true science which classes and selects after having compared," which will enable a method of practical application to emerge from the speculation of archeological study.

But the thing to be deplored is the persistence of the belief that the study of the past is injurious now that we can apply analytical methods to architecture as we do to the sciences. 

The speculative chronology of archeology will be transformed by analysis, it is suggested, into a useful taxonomy of architectural elements based on the extraction from history of the most general principles form the art of the past, principles which exist independently of form:

In every investigation the best possible method is to be employed ... putting the easier before the more difficult, the general before the particular, the simple before the compound. 

The more regular and civilized society becomes, the more is the artist compelled ... to revert to first principles
... to lay hold of and display them in naked simplicity before the world.\textsuperscript{44}

In this case the analysis is predicated on the fact that the faculty of reason transcends time and place: the only road "that does not lead to false conceptions ... is the road marked for all ages by human reason ..."\textsuperscript{45} Principles having the most general practical application are thought by Viollet-le-Duc to be that of the program and that of the constructive process itself:

In art as in philosophy--and they are allied--even eclecticism has had its day; we no longer deem it advisable to welcome all views, but only those which are rational, dictated by the experimental method and by a course of logical deductions.\textsuperscript{46}

The synthetic design resulting from these deductions, Viollet-le-Duc predicts, will be the possessor of "style," which is inspiration subjected to the lens of reason, hypothesis subjected to testing. Inspiration, or "the active imagination," is the combining faculty of the memory or "passive imagination," and style is defined as "the effect of the active imagination regulated by reason."\textsuperscript{47} Greek and Mediaeval architects are regarded as superb laboratory scientists anchoring the transformations of their active imagination by procedures of testing and experiment; "hence we may say that the brutes have style."\textsuperscript{48}

Youthful architects will do wisely to anticipate the day, which is not far distant, when their work will be brought before the tribunal of criticism, which is not archeological, exclusive, or enthusiastic, but which simply demands the reason of things.\textsuperscript{49}
If a phenomenon called "realism" marked the aesthetics of the positivistic environment of these writings, it has been pointed out that such realistic intent had been a basic tenet of the Romantic program since its inception, and was initially pitted against the idealism of the classicist vision:

But one should remember that realism is not reality, it is simply the level of lifelikeness that readers find acceptable in a given time. Comparisons with what actually happens in life are beside the point; the only comparisons worth making are with previous conventions and with the expectations of contemporary audiences.50

The realism of the late nineteenth century lay in an expression of frustration with the seeming impossibility of self-transcendence which had been a source of optimism for the early Romantics. The "objective" narration of "Madame Bovary"(1856) conceals behind its peculiar impersonality the personality of the author, Flaubert, who observed regarding the heroine of his novel: "Madame Bovary, c'est moi."

... to say that 'Madame Bovary' has no style is not true; it does not share the stylistic selectivity and exaggeration which is the mark of artistic behaviour as opposed to normal behavior.51

Therefore the syncretic eclecticism of transcendental Revivalism which it was felt had exhausted stylistic tradition was rejected, and the new symbolization was not that of any orientation but that of the power of the orientative drive itself to structure an order which would maintain a sense of identity in a changing world. Thus the subject of a Cezanne landscape is not the mountain, the village, or the road; it is the self-contained style expressed in its own
brushwork techniques.

The transcendental hero is armoured; the objectist hero is naked. He must seize a shield, almost at random, from the world around him.\textsuperscript{52}

For many, including Viollet-le-Duc, the shield was that of scientific method, an orientative drive predicated however on the transcendental quality of the faculty of reason which would enable a procedure of testing with regard to the creations of the artistic imagination to take place.

For this reason the new style was both impersonal and individual, and the art of the past was neither a tradition to be triumphantly exploited ... nor the source of styles and forms to be imposed from without. Rather, it became a model, and the artist's task was not to imitate it but to grasp its essence.\textsuperscript{53}

The illustrations of the buildings of the past in Viollet-le-Duc's Discourses are often sectional, whether depicting the forces at work in the Gothic buttress, (Fig. 5) or the organization and construction of the Venetian palace, (Fig. 6) moving behind the facade to the internal program in a manner which never seemed of interest to Ruskin. Both men however shared a liking for the Doge's Palace in Venice and agreed on the crucial role of the corner columns of the building in conveying the appearance of solidity--the "skillful treatment of the angle" was emphasized as an important feature of building by Viollet-le-Duc. (Fig 7) However the argument in the Discourses suggests that "we need not concern ourselves with the decorative detail"\textsuperscript{54} but with the general features of the building.
For the second volume of the Discourses Viollet-le-Duc produced several illustrations of his own designs proposing the application of Gothic structural principles to the larger spans of contemporary public building types such as assembly halls and markets. The designs favour bold cantilevered iron brackets in place of the masonry supports of Gothic architecture. (Figs. 8, 9) A complete cast-iron transposition of the Gothic style such as that of Boileau's church of St. Eugene (1855) was never favoured by Viollet-le-Duc for reasons of acoustics, and thermal properties of insulation and expansion.

"Reformers," Boileau was admonished, "and I mean those who truly reform, are prudent, and above all else they have a thorough knowledge of what they are reforming ... 55 Viollet-le-Duc, being a geologist and lover of stone, favoured cast-iron in combination with masonry, "something between a Madeleine and a railway station ... a hypogea and a shed," 56 where "the distribution of active forces must replace the agglomeration of passive forces." 57 Accordingly Labrouste's Bibliotheque Ste. Genevieve was preferred to the Crystal Palace and its affinities with Mediaeval architecture were stressed:

Are there not, for example, the closest relations between the recently constructed library of Ste. Genevieve and the Great Salle du Palais in Paris, which was burnt at the beginning of the seventeenth century? 58

The illustration of a draper's emporium where the cast-iron structure is filled with glazed tiles in patterns influenced by Islamic architecture,—the British and German use of terra-cotta and glazed tile was remarked on at the Universal Exposition in Paris in 1867—is accompanied by the suggestion of an offsite prefabrication process for
these new lightweight materials.

If "style" is the expression of force under control, "a locomotive therefore has style."59 and conveys an integrity which in Viollet-le-Duc's opinion many architectural structures lack, justifying the contemporary encroachment of the engineer on the territory of the architect. In his first lecture of his short-lived course at the Ecole des Beaux-Arts in 1863--the same year in which the Impressionists' "Salon des Refuses" was held--Viollet-le-Duc hypothesized about how those other possessors of "style", the Greeks, might have fabricated a myth capable of inspiring painting or sculpture out of the man-made power of steam in an attempt to show how scientific developments might broaden the scope of the modern imagination:

The locomotive would have as a father the personification of fire and as a mother the personification of water ... its features would express a powerful and blind physiognomy corresponding to the nature of its strength; its limbs would represent the alliance of force and flexibility, last, as in the more recent Greek representations of Hercules, its feet and its head would be given wings.60

In the same lecture it is pointed out that in contrast to the attenuated and generalized quality of Hindu myths, those of the Greeks are personalized, "scaled to the proportions of the town, the family, the single field, and even the individual ..."61

Viollet-le-Duc admired the British genius for domesticity and practicality--"The English ... do not have the classical prejudices
familiar to ourselves. In 1854 he travelled to Britain with Prosper Merimee and was awarded an honorary membership of the Royal Institute of British Architects. The British method of architectural training, gradually being professionalized with the addition to the apprenticeship system of a syllabus of evening classes and a program of study trips, he regarded as more intelligent than that of the French Academy. The phenomenon of suburban housing on the outskirts of London, a product of speculative development, is also proposed as model for the solution of Parisian inner-city congestion and high apartment rents. The British ownership of the home, Viollet-le-Duc suggests, is productive of an interior richness behind the drab serial quality of the elevation.

The attachment to hearth and home produces the love of diligent work, order and a wise economy.

While the British system of private housing is recommended, the particular domestic planning solutions of other countries will not be applicable to the French way of life. While "the English have had the good sense to preserve certain traditions of the Middle Ages which sanction irregularities of plan," the resulting picturesque diffusion and isolation of the cell is regarded as being very different from the compactness of the traditional French house. However Colquhoun has pointed out that Viollet-le-Duc's affection for the villa is evident in the suburban nature of his Parisian hotel design (Figs. 10, 11) in the second volume of the Discourses. In contrast to previous tradition, the house block begins to assert itself independently of the supporting network of service
accommodation and street frontage, emphasizing the demands of the
interior and eliminating the "outdoor room" of the courtyard to which
internal order had been subjected previously. Colquhoun draws the
following conclusion from this development:

... it is possible to trace the typical modern movement
notion of the plan developed from inside to outside,
spreading out centrifugally from a single nucleus, to
Viollet-le-Duc's rejection of the Beaux-Arts, with its
use of the code of the plan as a constitutive element in
the conceptualization and control of architectural
space.65

However as suggested in Chapter Two, it would seem that an earlier
example of this tendency to favour the rural dispersion of the Middle
Ages at the expense of the urban containment of neo-classicism could
be seen in the planning principles of the Medieval manor which Pugin
had illustrated in "True Principles of Pointed or Christian
Architecture" of 1841.(Fig. 12)

Assurances are given in the Discourses, however, of the French
preference for density of accommodation in contrast to that of the
British for dispersal; thus Viollet-le-Duc regards French Mediaeval
architecture as a suitable model of domestic planning because of its
localized reference and decries the Grand Tours of the Academy
students where "they return with portfolios filled with studies made
without discrimination or order, and put themselves to work without
having set foot in one of their country's own monuments."66

The main features of architectural programs change but
little, for the needs of mankind in a civilized condition
are the same with very trifling variations; but climate,
traditions, manners, customs, tastes, cause these
In 1852 Viollet-le-Duc published a series of articles on regionalism for the "Revue Generale d'Architecture," and in 1875 he compiled a book called "Habitations Modernes," an eclectic collection of examples of European domestic architecture by contemporaries such as Labrouste and Guimard. By that time he was in the habit of spending his summers in the house he had built for himself at Lausanne in Switzerland. (Fig. 13) The design is a modest interpretation of the chalet prototype, and belies its owner's preoccupations only in the emphasis on the roofline given by a somewhat exaggerated eaves detail, and in the extensive murals of natural scenery on the internal wall surfaces. Viollet-le-Duc called the house "La Vedette," from the Italian "Vedetta", meaning "a knight or sentry in a lookout turret."

The nineteenth century has been referred to as the age of "architecture in the museum," an age in which, as Colin Rowe has observed, "the architect was now heir to all ages, and for him not only the whole of nature, but the whole of history had become present—and available." However, after the stylistic exhibits had been pulled into focus, classified and labelled, the selected set of principles which, it was intended, would contain the components of "style," were based on a faculty of reason not transcendent of time as place but situated as a response to a particular set of demands. Like Ruskin, Viollet-le-Duc uses history as a critical weapon, but the emphasis in the Discourses on the autonomy of artistic creation, its
separation from a larger context of communal meaning and its preoccupation with its own technique meant that this method of criticism, unlike that of Ruskin, was being offered as preparation for a particular course of action. The symbolic qualities of the architecture of the past were regarded as outmoded, "at best useless when we are called upon to explain the derivation of an art to those whose vocation it is to practise it," and the pragmatic instrument of a transmissible educational system was proposed in opposition to the picturesque eclecticism of the academy. Architecture was now the product of a confrontation between the generality of ideal structural model and the material particularity of constructional technique and physical context.

Therefore the structural concerns of the Graeco-Gothic tradition, subsumed within neo-classical external expression during the preceding centuries, had come into the open; as examples of purer structural models, possessors of "style," Greek and Gothic architecture were selected from the range of exhibits, the latter being regarded as a more complex development of principles held in common by both. Viollet-le-Duc's statement, "Construction is the means; architecture is the result," is discontinuous and unresolved. The production of meaning will not be addressed directly but is referred to in absentia by the punctuation between the two halves of the statement. Thus it is in the articulation of this punctuation, of the joint that both separates and unites, that the possibility of meaning now lies;
the "limiting lines" of Ruskin's structural module have assumed a hermetic unifying significance reliant on the individual personality of the artist as the producer of "the connective tissue of an idea. that marks the intersection of thoughts."71

Thus the "middle ground" of neo-classical decorum was rejected as a chimera and Ruskin's eloquent "broad surfaces" were seen as blank claustrophobic enclosures no longer relevant to a new situation. The decadent drapery of Rome is confronted, not with the skeleton or "osseous thorax" envisaged by Ruskin, but with the animated free-standing physique of the Greek statue. In Viollet-le-Duc's new landscape the foreground is occupied with the opposition of field and cellular clusters, ideal and contingent, while the architecture of the citizen, that of Rome, recedes to a ruined state at the bottom of the garden.
NOTES


10. Ibid., p. 80.

11. Ibid., p. 81.

12. Ibid., p. 76.

13. Ibid., p. 254.


15. Ibid., p. 68.

16. Ibid., p. 77.

17. Ibid., p. 239.

18. Ibid., p. 280.

19. Ibid., p. 303.
20. Ibid., p. 274.
22. Ibid., p. 270.
23. Ibid., p. 282.
24. Ibid., p. 237.
25. Ibid., p. 270.
26. Ibid., p. 118.
27. Ibid., p. 81.
28. Ibid., p. 68.
35. Ibid., p. 335.
38. Ibid., p. 484.
39. Ibid., p. 140.
40. Ibid., p. 172.
41. Ibid., p. 145.
43. Viollet-le-Duc, "Discourses," Vol. 1, p. 456, quoting from the
scientist Bacon.

44. Ibid., p. 177.
45. Ibid., p. 8.
48. Ibid., p. 178.
52. Ibid., p. 296.
53. Ibid., p. 310.
57. Ibid., p. 67.
59. Ibid., p. 184.
61. Ibid., p. 25.
63. Ibid., p. 298.
64. Ibid., p. 367.


Fig. 1 Notre-Dame Presbytery, Viollet-le-Duc

Fig. 2 Greek Siting Viollet-le-Duc

Fig. 3 Elevation of Gothic in France Viollet-le-Duc

Fig. 4 Roman Ruins Viollet-le-Duc

Fig. 5 Gothic Structure Viollet-le-Duc
Fig. 6  Venetian Palace
Violllet-le-Duc

Fig. 7  Corner Column
Violllet-le-Duc

Fig. 8  Modern Market
Violllet-le-Duc

Fig. 9  Stonework and Cast Iron
Violllet-le-Duc
Fig. 10 Traditional French Hotel
Viollet-le-Duc

Fig. 11 Modern French Hotel
Viollet-le-Duc

Fig. 12 Medieval Mansion
Viollet-le-Duc

Fig. 13 La Vedette
Viollet-le-Duc
Meaningful expression was the real issue facing the nineteenth-century architect. The question of style was only a subset of the problem. With an apparently unlimited variety of forms available, the dilemma was how to ascribe meaning to any one, how to ensure comprehension.\footnote{1}

In the search for meaning certain recurrent themes emerge from the examination of texts presented here—concerns common to theorists who proposed different solutions to the dilemma of historicism. One was habitability, the notion of building primarily as a dwelling for the needs of mankind rather than those of rhetorical or honorific expression. The relevance of the classical model, originally a mere ambulatory enclosure around the priest and icon, to the modern religion of the congregation with its human demands for light and heat, was questioned. Internal cellular requirements for the placement of windows and chimneys had begun to strain the classical mask. A renewed interest in vernacular architecture and the unselfconscious ideology of hearth and nature manifest in the myth-making of primitive cultures sought to criticize the emphasis on public rhetoric and empty display which, it was felt, had led society to the dilemmas of the nineteenth century.

Allied with this "back to basics" ideology was the emergence of the new primitivism of the machine—the chimney of factory production exercising as great an influence on the demise of neo-classicism as
that of the home. When in the early twentieth century these images of house and factory were conflated as part of the ideology of the Modern Movement and were seen as being particularly apposite to the main programs of the post-war rebuilding: that of the factory and that of workers' housing.

Two metaphors punctuated the theoretical discussions: that of the house-laboratory, a prototype elaborated during the period anticipating 'serial reproduction,' and that of the machine, an industrial model of organic and economic coherence. The devices of Ernst Neumann, la Delage and la Voisin in 'Towards a New Architecture,' and the aeroplane of El Lizzitsky, joined the primitive hut in the showcases of the evolution of architectural species ...²

It is on this emphasis of productive processes in the discussion of human habitation that much of the criticism of the Modern Movement pioneers is centered. From the pristine whiteness of the twenties a gradual softening of contours can be seen—the encroach of decoration culminating in the "texture" of fifties Brutalism. Regional concerns which surfaced in the nineteenth century critique of classical internationalism, only to be subsumed under the new internationalism of the machine, also gradually reappeared. In the past two decades, the main criticism of the Modern Movement has come from two sources: the so-called "Realism" of Venturi and the "Rationalism" of Rossi. The common concern being to establish some evaluation of architecture's communicative and symbolic capabilities in an implicit critique of the Modern Movement's neglect of any stated intent in this regard.
Regarding this debate as to the possibilities of meaning in contemporary architecture, I would suggest that attention to the communication possible between members of the architectural profession might prove a more relevant starting-point, accepting in internalized discussion the importance of the history and theory of architecture as a source of common reference, considered not as an obstacle to action, but as a basis for enlightened practice.
NOTES


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