

PART III: THE BEAUTIFUL NECESSITY, A STUDY OF THE POLITE ¹

CHAPTER SIX: THE VITRUVIAN TRIAD

Well-read men are obsessed with Politeness. Elias Canetti, Auto da Fe.

Evil only upsets people now and then, but the visible signs of evil hurt them from morning until night. Diderot, Rameau's Nephew.

Introduction

The central problem of Garbett's *Treatise* is contained in one question:

...whence the necessity of architecture proper? ²

1. The phrase: *beautiful necessity* is taken from Claude Bragdon (1978). He took the phrase, rather appropriately in the present context, from Emerson: *Let us build altars to the beautiful necessity.*

2. *Treatise*, p. 3.

This question forces the confrontation between a society and its architectural setting. As a consequence the subject of architectural theory becomes politically involved at this point. But answers to questions like the one just quoted are invariably unstable and their value always relative. They cause discourse to become permeated with contemporary and personal beliefs and preoccupations. It is important to keep this in mind.

Similarly, when asking his reader to consider the question why society needs architecture, Garbett was just as concerned with removing the interference of effete explanations concerning the nature and purpose of architecture as providing new ones himself:

Observe it will be no answer to say, that it is man's nature not to be satisfied with the supply of necessities, but to seek luxury, and to admire the beautiful. That will not do. ³

3. *Treatise*, p. 3.

Man's nature, qualified in Garbett's vocabulary to stand for an irreducible and instinctive lust for luxury, is no longer able to satisfy as an explanation for society's need for architecture. The concept of human nature had to be further qualified to answer the questions which the concept of human nature begs: why is man not satisfied with the supply of necessities, why does man admire the beautiful? and especially: why does he appear to *need* beauty? Those were the questions which now had to be answered.

On a very general level, the rules of explanation had been altered in the nineteenth century. This was in great part due to the rise of popular science. Recent developments in physiology and psychology were able to take the process of explanation a step further and Garbett wanted to make full use of these opportunities. The object of the following section of this dissertation is threefold. Firstly it is to analyse the question quoted above, dissecting the substructure of assumptions upon which it rests. The second objective is to trace the answer Garbett prepared to his own question and the last is to assess the implications of

that answer on architecture. The next four chapters of this dissertation will constitute an analysis of the first chapter of Garbett's *Treatise*.

We start off with an inquiry into Garbett's definition of architecture, investigating the semantic oppositions erected to contrast architecture with its social opposite, *mere* building. This shows us what exactly it was that Garbett wanted society to need. To analyse Garbett's concept of architecture we have to look carefully at each of the three elements of the Vitruvian Triumvirate, *Firmitas, Utilitas and Venustas*. The first chapter of this section tries to seek out the role played in Garbett's definition by the concept of structure. The following chapter launches into an investigation into Garbett's use of the concept of utility; the use of use. That leads to a discussion on Garbett's Functionalism and its relation to nineteenth century utilitarianism, ending up with the use of beauty and the ethics of architectural space. The last chapter in this section assesses the

practical implications of the concept of an architectural politeness.

The definition of architecture

When we begin to analyse the question, *Whence the necessity of architecture proper*, we have to take account of the assumptions upon which Garbett's view of the world rests. The question begs clarification on two points: a. What does Garbett mean with the word architecture? The answer to that will describe an icon which will serve as the foundation of all his prescriptions to architects. The second question, b., is related to the first, but focuses on the word necessity: What are the premises which apparently make architecture an social imperative?

Definitions of the word architecture are generally normative and even prescriptive; they set up an icon of the good which is the first step of a program in which specific actions are deducible from the premises contained within that

definition.⁴ Every definition of architecture therefore relates theory to practice by way of intentions. These intentions are not always the result of a discursive and consistent logic where things would add up without reference to the social, religious, political and philosophical circumstances in which the definition arose. Every definition is in that sense a dogma, its constitutive elements are made to add up by violence. In order to answer his own question therefore, Garbett had to provide a definition of architecture which would imply, or at least prepare for its social necessity. The aim of the present chapter is to argue that that lead was provided by Garbett's organic conception of architecture.

The quotation introducing the *Treatise's* first chapter entitled: "Definition of architecture - its necessity, uses and requirements," is Sir Henry Wotton's well known paraphrase of Vitruvius: *Well building*, writes Wotton, *hath three*

4. van Leeuwen (1982) pp. 1-7.

conditions; *Commodity, Firmness and Delight*.⁵

That is also Garbett's point of departure: *Architecture*, the latter writes, *is the art of well building; in other words, of giving to a building all the perfection of which it is capable. This differs in no respect from another definition lately put forth, 'the art of the beautiful in building;' for those who have undertaken to investigate the abstract nature of beauty, appear not to have arrived at any more definite conclusion than that it consists in perfection of any kind; so that, whether we speak of the beauties of a building, or its perfections, we mean the same thing. The term beauty is often restricted, in architecture, to those merits of a building which are not necessary to its use, or its mechanical perfection; and hence the classification of the aims of architecture*

5. Henry Wotton (1624) Part I. cf. Vitruvius: *Haec autem ita fieri debent, ut habeatur ratio firmitatis, utilitatis, venustatis*. Granger ed. I, iii, 2.

*under three heads- Fitness, Stability, and Beauty. Nothing can be called architecture which does not aim professedly at all these three objects...if there be any structure which professes to embody only two of these requirements (no matter which two), that is not architecture at all.*⁶

Any analysis of this passage must start with the last sentence. The one condition needed to make architecture even possible, Garbett argues, is that Vitruvius' *Firmitas, Utilitas and Venustas* must be seen as strictly interdependent. Each element in that definition is seen as no more than a special case of the other. That correlation is made possible through the use of the idea of perfections. Perfection is here used as a meta-quality by which each one of the three conditions of good building can be translated into the other.⁷ The point was

6. *Treatise*, p. 1.

7. The notion that beauty constitutes perfection can be traced back to

that perfections when made synonymous with beauty, as it had been in the middle ages in the slogan *Pulchrum et perfectum idem est*, would be able to lift beauty into the sphere of social imperatives by being applicable to the other two conditions of good architecture.

Architecture and the argument of design

Garbett's use of the words purpose, design and perfection is closely dependent on Christian logic. His concept of good architecture, with its insistence on

Greek philosophy where ethics and aesthetics were combined in the concept of beauty, where beauty made up part of yet another philosophical trinity: Beauty, Goodness and Truth; beauty being the signature of truth and therefore good. The actual synonymy of beauty and perfection can be traced to the Medieval *Pulchrum et perfectum idem est*. W. Tatarkiewicz (1980). I have also consulted John Passmore (1970).

perfections, its revelation of *design* and its emphatic deliberation of *purpose*, recalls the concept of deity. The words design and purpose relate Garbett's architectural theory to theology, more specifically to natural theology.

Natural theology has been appropriately defined as the reasoned account of natural religion which, in turn, is defined as *man's conscious recognition of purposive intelligence in the universe of things, similar to that exercised by himself*.⁸ Natural theology argues and generally accepts the existence of God not in the first place through Revelation but as a hypothesis required by reason and logical extension. It sets out to prove the existence of God by virtue of the argument of design. As has already been mentioned in chapter 2, design and the presence of a designer, can only be assumed on the basis of an analogy with human industry. But natural theology is not

8. Clement C.J. Webb (1970) p.1, quoting a letter from Dr. Henry Wilde.

just a reasoned account of religion, it is an account of experience generally. The theologian expresses wonderment at the intricacy and obvious purposiveness of nature and on that basis expresses a need for God as nature's primary postulate to explain his experience of nature.

Garbett's specified intention was to base the precepts for architectural design on an analogy to nature, the second book of *God*. It is not for nothing that Garbett talks of nature as God's language of symbols.⁹ He is implicitly forced to take God's existence as a given because it is only the concept of God that can imbue nature with purpose. On that basis Garbett is able to distil a course of architectural action from his experience of nature. Garbett's *Treatise* is therefore related to natural theology in that it emphatically recognises the purposive character of nature. Garbett provides what is essentially a reasoned account of

9. cf. *Treatise*, p. 8.

architecture's complete dependence on the phenomenological laws of nature. The *Treatise* is the architectural equivalent of Paley's *Natural Theology*, proving the existence of architectural principles, that is, the existence of absolute standards for architecture on the basis of analogy between the creativity of God and the creativity of man. In other words he turns the tables around. Where Paley needed the evidence of human design to provide an analogy to prove divine providence, Garbett uses divine providence to justify the existence of architectural principles. Those absolute standards are represented by the concept of perfection.

Perfectibility

Perfections, with which Garbett completes the concept of architecture, are superlatives projected beyond experience. In Judeo-Christian theology, especially as it was infected by Platonic and Neo-Platonic thought, perfection stands for God. Again, the logical basis for the consigning of certain attributes to deity lies in the analogy between the

concept of God and the (human) experience of his product: nature. Garbett's definition of good architecture uses a very similar model to project imaginable superlatives to which architecture must strive. Those superlatives are only possible on the condition that the Platonic/Neo-Platonic conception of the world is a truth, i.e. that perfection is possible.

Having used the words purpose, design and perfection in his definition of well-building, Garbett makes the word architecture stand for the product of a providential activity. Good architecture expresses a desire for purpose and demands a proof of that purpose in appearance. The word design then, which is another word for purpose, consciously relates each of the three conditions of well-building to each other through its assumption of intentionality. The definition of architecture therefore must cover all possible purposes and must remove architecture from the separating

activity which would have it reduced to *mere decoration*.

The correlation between the three necessary conditions for well-building is a continuation of the organicism hinted at in Garbett's preface. That organicism had as its main objective the demonstration of the connection between beauty and use or beauty and purpose, a theme which Ralph Waldo Emerson had already elaborated in his Essay on Art:

*Art, writes Emerson, now in a critical spirit, makes the same effort which a sensual prosperity makes; namely to detach the beautiful from the useful, to do up the work as unavoidable, and, hating it, pass onto enjoyment. These solaces and compensations, this division of beauty from use, the laws of nature do not permit. (...) The art that thus separates itself is thus separated.*¹⁰

The Kantian desire to separate beauty from use, that is from interest, would imply a trivialisation of beauty into something optional and luxurious. It tends to

10. Emerson (1883) p. 81.

separate from content. To counter this trivialisation Garbett had to join the growing clamour in the world of architectural theory which actively opposed the insidious act of separation which divided architecture from building.

Architecture versus building and useless versus useful

The problem with Ruskin's *Seven Lamps of Architecture*, as far as Garbett was concerned was precisely the attempt to sever beauty from use by trying to distinguish architecture from building. Their separate and contrasted existence would instigate the destruction of architecture.

Ruskin's justification for making the distinction between architecture and building in the opening lines to "The Lamp of Sacrifice" does not even attempt to hide the underlying motives.¹¹ By

11. *It is very necessary, he writes, in the outset of all inquiry, to distinguish carefully between Architecture and Building. To build, - literally to confirm, - is by common understanding to put together and adjust the several pieces of any edifice or receptacle of a considerable size. Thus we have church building, ship building, and coach building (...) but building does not become architecture merely by the stability of what it erects; and it is no more architecture which raises a church, or which fits it to receive and contain with comfort a required number of persons occupied in*

themselves the two words -architecture and building- already differ sufficiently for there to be no real reason to insist on an emphatic hierarchy of meaning. Even so, Ruskin forces them into *différance* for the

*certain religious offices, than it is architecture which makes a carriage commodious, or a ship swift. I do not, of course, mean that the word is not often, or even may not be legitimately, applied in such a sense (as we speak of naval architecture); but in that sense architecture ceases to be one of the fine arts, and it is therefore better not to run the risk, by loose nomenclature, of the confusion which would arise, and has often arisen, from extending principles which belong altogether to building, into the sphere of architecture proper. Let us therefore, at once confine the name to that art which, taking up and admitting, as conditions of its working, the necessities and common uses of the building, impresses on its form certain characters venerable or beautiful, but otherwise unnecessary. Thus, I suppose, no one would call the laws architectural which determine the height of a breastwork or the position of a bastion. But if to the stone facing of that bastion be added an unnecessary feature, as a cable moulding, that is architecture. It would be similarly unreasonable to call battlements or machicolations architectural features, so long as they consist only of an advanced gallery supported on projected masses, with open intervals beneath for offence. But if these projecting masses be carved beneath into round courses, which are useless, and if the headings of the intervals be arched and trefoiled, which is useless, that is Architecture. It may not be always easy to draw the line so sharply, because there are few buildings which have not some pretence or colour of being architectural; neither can there be any architecture which is not based on building, nor any good architecture which is not based on good building; but it is perfectly easy, and very necessary, to keep the ideas distinct, and to understand fully that Architecture concerns itself only with those characters of an edifice which are above and beyond its common use. J. Ruskin, *Seven Lamps*, pp. 31-32)*

sake of his program.¹² He needs two forms of architecture, a greater and a lesser. That is why he sets architecture and building up as supplementary opposites. First he brings the words together by pointing out their semantic vicinity. Then he separates the two words again after contaminating each with a value relative to the other. Ruskin is a particularly good example of Nietzsche's evaluator, he practices a Machiavellian linguistics in which the motto is: distinguish and rule.¹³

The key word in his definition of architecture, and therefore in his distinction between architecture and building is *fine*. Architecture proper, writes Ruskin, must not be allowed to squander, by *loose nomenclature*, its status as a *fine art*. The distinction between fine-arts and arts, between arts and crafts is primarily a social division, its philosophical division is instituted at the desire for arts to separate

12.Derrida (1981) especially Barbara Johnson's useful introduction p. viii ff.

13.Nietzsche (1969) p. 85.

itself. Ruskin's definition of architecture is shaped by the wish to avoid the crisscrossing of social strata's.¹⁴

Ruskin uses the word *uselessness* to describe the added feature which distinguishes architecture from building. He does not, of course, really mean *uselessness*. He wishes to use the word *useless* to indicate a certain refinement of *usefulness*. It is an aristocratic *uselessness* he alludes to, a *fine* *uselessness*, a use which confines itself to *higher* preoccupations similar to Kant's concept of *dis-interest*. Plain *usefulness*, in Ruskin's dictionary, has all to do with sweat and physical labour. The hierarchy of values by which *usefulness* is graded and described is crowned by the negation of itself: the highest form of use is *uselessness*, that is an intellectual and moral *usefulness*. Ruskin's

14.Ruskin's desire to have everyone socially clearly stratified and recognisable in their status, is well known. cf. for example *Praeterita*, Vol. i, Chapter 1

attempt to tie down the meaning of architecture more precisely is intended to exclude from the word's circumference what Garbett was later to describe as the *lower beauties of architecture*. The word Architecture had to be kept free from any undesirable social contamination.

The distinction between building and architecture was instituted at around the same time as architecture was undergoing a process of professionalisation. For many architects the distinction between architecture and building was motivated by social or professional ambitions. Architects wanted to be associated with a particular sort of *intellectual* activity, not so much with the groundwork. Ruskin's distinction between architecture and building fortuitously overlapped with the social concerns of architects. Ruskin's distinction between architecture and building was however more directly concerned with establishing an icon of architecture modelled on the metaphysical hierarchies of Platonism and related Christian thinking. Ruskin wanted

to stress architecture's intellectual "higher" status. Architecture was separate from all that was low and manual. Art was concerned exclusively with beauty, and beauty, to the Platonic man is an independent quality, absolute, irreducible, divine and isolated: a static form, well removed from the hustle and bustle of everyday life, where beauty had been expressly forbidden.¹⁵ The organic interdependence of the Vitruvian triad, making beauty dependent on what Ruskin had just rejected as building, would thus be a disintegrating influence on that sense of absolute beauty. Such an approach to architecture would make architectural beauty a relative value and destroy the Platonic ideal to which we know Ruskin subscribed.

Garbett's insistence on the interdependence of Wotton's or rather Vitruvius' three conditions of well-building,

15. Ruskin, *Seven Lamps*, "Lamp of Beauty," § XXI

leads him to reject the polarising tendencies of his age:

The distinction between architecture and building is a distinction of very recent origin; for it is an idea quite peculiar to the present age, and nearly confined to the English nation, that building may be unarchitectural. Never, till very lately, was the notion entertained of erecting buildings professedly with no design beyond convenience and stability. I say professedly, because a very slight examination will, in most cases, detect the complete hollowness of this profession, and will beget a doubt whether, in any case, the pursuit of these two ends alone, to the exclusion of every other, is really possible in the nature of man. Without pretending, however, to decide whether this is possible or not, we may observe that the mere proposal of it necessarily removes the design in which it is proposed entirely out of the province of architecture; and thus it happens that we have at present in England (what was

never thought of before or elsewhere) a large amount of building which is not architecture, or at least pretends not to be so. As many profess then to build "without any attempt at architecture," there has hence arisen a habit of restricting the term Architecture to that which they do not attempt,-viz., to those objects of well building which are not included in or essential to use and stability. Now, this is a most pernicious habit, calculated to lower while it affects to raise the sphere of the art; tending, in fact, to reduce it...to decoration, and its professors to mere decorators. The art which engrossed great part of the attention of a Phidias, a Michael Angelo, and a Wren, and the whole mind of a Palladio, is something more than decoration.¹⁶

The passage anticipates, and to some extent exposes, the logical problems that Pevsner would later get into when, following Ruskin, he wanted to divide

16. *Treatise*, p. 1-2.

architecture and building along a line vaguely intersecting the connection between Lincoln Cathedral and the sadly unwanted bicycle shed.¹⁷ It is not that Garbett wants to do away with such hierarchies. To put a bicycle shed on the same level as Lincoln Cathedral would have been a provocation also to him. Garbett was certainly not less of a snob, if snob is the right word, than Ruskin or Pevsner.

Structure and genesis: John Robison and Alfred Bartholomew

In order to prove the use of beauty, the whole concept of architecture had to be reconsidered so that the aesthetics of

17. Both Ruskin's definition and Pevsner were recently juxtaposed in Hyman and Trachtenberg (1986) p. 41. For Pevsner's definition of architecture see the intr. to his *Outline of European Architecture*, many editions. The logical problems of this definition have been discussed by T.A.P. van Leeuwen (1982) 1-7.

architecture could be seen to be based on qualities that were integrated in the whole substance of the building rather than those merely grazing its surface. Garbett was certainly not the first to attempt this.

The division between architecture and engineering had become a progressively complicated issue during the nineteenth century. This was largely due to the tortuous attempts to justify that division conceptually. As the gap between the two disciplines widened, a small number of theorists became aware of the dangers inherent in such a division. They argued that although the architects had initiated their own isolation, they themselves were ultimately going to be the worse off for it. This line of normative thought, through three successive generations was represented by Samuel Ware, Alfred Bartholomew and Edward Lacy Garbett. One thing they had in common was their enthusiasm for the writings of John Robison, the Scottish professor of mechanics and the author of

an impressive series of articles on mechanical engineering and architecture for the 3rd edition of the *Encyclopedia Britannica*.¹⁸

Robison had formulated the idea that structure was the originating and providential principle of every aspect of architecture, including the aesthetics of architectural form. He may well have arrived at this formula through indirect knowledge of Carlo Lodoli, either via the engineer Robert Mylne or Giovanni Poleni.¹⁹ He will also have been influenced by

18. These were later published by Brewster, see Robison (1822).

19. Lodoli's ideas had gained wider currency in Italy from where they had indirectly infiltrated England, particularly through the rather problematic interpretation of Francesco Algarotti. Lodoli's disciple Francesco Algarotti was a well-read author in England, his various popular explications of Newtonianism running into several editions. A treatise on

Painting which was published in 1764, was also translated into English. His *Saggio sopra l'architettura* of 1753 was surprisingly never translated into English. I have never come across a mention of Memmo's *Elementi d'Architettura Lodoliana* in the architectural theorists I have consulted. see also Edgar Kaufmann Jr. (1966) p. 159-175; Joseph Rykwert (1976) 21-26, reprinted in Rykwert (1982) pp. 115-122; Rykwert (1980) pp. 288-337 as well as Rykwert (1981) pp. 49 ff.; Greenough's connection with Lodolian functionalism and his admiration for Garbett in the same breath may represent two branches of the same historical development re-fusing. cf. Georg Germann (1987) pp. 214-223; Kruff (1985) pp. 179 ff. Lodoli's connections with English thinking are tenuous however and because of his own Socratic reluctance to publish, his ideas have been heavily polluted. Only the engineer Robert Mylne has hitherto been incontrovertibly identified as one

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of his disciples in England. Eileen Harris (1987). Bartholomew and Ware certainly were well-acquainted with the works of Robert Mylne; having said that, Bartholomew did not include the particular pamphlet in which Mylne expressed his own debt to Lodolian ideas in his Bibliography. John Robison, through his mechanical interpretation of architectural form was similarly well-acquainted with Mylne's ideas, using his works as illustrations to his own arguments, so that a connection between a watered down version of Lodolian functionalism and the Robison-Ware-Bartholomew-Garbett lineage of English architectural structuralism certainly cannot be discounted. Furthermore, Francesco Milizia's absorption of Algarotti's interpretation of Lodoli would certainly have worked their way through to Garbett who quoted Milizia extensively on several relevant issues. At the same time another dubious link is indicated by Bartholomew's wild enthusiasm for

the architectural mathematicians Christopher Wren and Robert Hooke. Wherever he got the idea from, Robison's followers sought to reunite the two disciplines of architecture and engineering. They believed that a return to a structural approach to architecture would eventually bring contemporary practice to develop a system of building as self-consistent, as *pure* as the architecture of the Greeks and the

Piranesi: The astonishing labours of this wonderful artist engraver and architect, will ever excite admiration: every architect should have always beside him in his study, some of the very best of Piranesi's engravings, in order to banish from his mind every inroad of meanness, either in design or drawing. (...) more insight into the construction of the Roman buildings, may be gathered from Piranesi's delineations, than from any other published works. In: Specifications, § 196-197.

Gothicists; a system where even the decorations were derived from a single unifying structural principle. This idea had also been forwarded by two antiquaries and scholars of architecture William Whewell and Robert Willis. In Germany the idea had been worked out by Bötticher and Hirt, to teacher's at Schinkel's Bauakademie.²⁰ Garbett's exact relationship to Bötticher is unclear. Some of the resemblances between their ideas are too striking to be ignored, suggesting either that Garbett knew of Bötticher's *Die tektonik der Hellenen*, Berlin 1874 (1844-52) or that Bötticher knew of the latest developments in English theory, having consulted Bartholomew, Willis or even Robison.

Whatever the case regarding Bötticher, Garbett's merit was to distil from Alfred Bartholomew's treatment of structure in his *On the Decline of*

20. on Bötticher see W. Herrmann (1981) pp. 26-40. C. van Eck (1994) pp. 163-180.

*Excellence in the Structure and in the Science of Modern English Buildings*²¹ the idea that a new style of construction would lead to a complete, pure and uncontaminated style of architecture. For Bartholomew structure was the single most important explanatory principle of his world; it embodied an aesthetic from which every other criterion or quality, such as style, beauty, goodness, truth and above all purity could be distilled:

21. *Bartholomew was probably the first to enumerate a principle now generally accepted by writers on art, viz. that the condition of true taste in architecture have always been intimately associated with those of structural excellence, and that, whenever the latter have been disregarded, the former have suffered in consequence.* Eastlake (1970) p. 215. See also G. Germann (1972) p. 128; Pace (1942) pp. 99-102 and Pevsner (1972) pp. 86-94. Alfred Bartholomew's *Specifications* was first published by John Williams in 1840. The preface is dated 1839. The second more common edition (which I have used) came out with the same publisher in 1846. Later it enjoyed renewed popularity when it was reissued in 1872. Incidentally the same date as Eastlake's *A History of the Gothic Revival* was published. The issue in 1872, was not, however a mere reprint, the new title may serve as an indication to the degree which Bartholomew no longer was himself: *Specifications for Practical Architecture..With an Essay on the Structure and science of Modern Buildings Upon the Basis of a work by A. Bartholomew, Thoroughly revised, corrected and greatly added to by Frederick Rogers*, 8o. pp. 415. It was published by R.A Sprigg, Atchley & Co., London 1872. This edition obviously met demand as it was reissued by Lockwood & Co. (the same publishers who issued the later editions of Garbett). A second revised addition with further additions was published in 1886 and a third in 1893.

*I hope to be able to prove satisfactorily to most candid and inquiring minds, THAT PURE TASTE IN ARCHITECTURE HAS IN PAST AGES BEEN PURELY STRUCTURAL; and that a departure from this wisdom is the true cause of the TASTE (or to speak more properly the WANT OF TASTE) in modern architecture being so VARIABLE, SO CAPRICIOUS, SO MUCH QUARRELLED ABOUT, SO MUCH QUESTIONED, AND SO SHORT-LIVED.*²²

Bartholomew declared Gothic architecture to be the apogee of a *refining philosophy* in which everything superfluous was cut away to produce pointed arches *by necessity*.²³ The possibility of necessitarian design by instituting the concept of structure as the organising principle of architecture constituted a forceful attraction to Garbett. Emerson had similarly insisted on *necessity* as the agent of purpose linking

22. *Specifications*, § XVI, The modulations in the typography are his.

23. *Specifications*, § XX - XXV.

cause and effect.²⁴ Structure as the causal principle of architecture promised a cogency and a self-consistency which could beat off the loose and seemingly arbitrary appeal of skin-deep nostalgic fashions in style. Structural necessity binds processes to a purpose and gives their formulation into prescriptions something scientific, something positive.

Because of the necessitarian causality structure makes possible, it becomes a religio-scientific concept in Bartholomew's thinking, binding the processes of the world into one omniparous system. By establishing a direct link between form and function, structure is allowed to determine every aspect of architecture even its historical development.²⁵ Once Bartholomew was

24. For example, when Emerson writes that *No man can quite exclude this element of Necessity from his labour.* Emerson (1883) p. 77.

25. *All these points of structure were the keys to everything else in architectural design: excellence of workmanship, intrinsic material, and the wisest structure of the time, were united with such artfulness, and with such beauty of thinking, that the several styles*

able to explain that, he turned around to the architectural establishment of his own time and stuck his finger deep into the wound, accusing architects of not being concerned with structure but with peripheries such as the mere outward forms, the *pelleterie* of architecture, as he called it, that is, only the visible aspects of style.²⁶

The cause of the problem, according to Bartholomew, was language. The misconception of what constituted the essence of architecture in modern England could be reduced to talking about architecture using the wrong language.²⁷ Those architects and

of architecture in different ages and in different countries were as highly wrought and beautiful as they were distinct, and were constantly progressing in science, with the exception of those minor fluctuations which at times threw art back for a season, till it revived and thrived again more beautifully. In: *Specifications*, § XXVI.

26. *Specifications*, preface, § XXX.

27. *I know that this doctrine [of structure as the basis of architecture] cannot be understood by the superficial un-architectural writers upon architecture and upon architectural taste; to them convenience, adaptation to the purpose, duration, and the other cardinal properties which are to be found in all the works of the Almighty, and which every wise man endeavours to imitate in his buildings, pass for coarseness and common-place vulgarity; they forget that all the inventions in Architecture have resulted from the*

writers who were not conversant with structure as the *sine qua non*, the very essence of all architecture, talked of architecture using heretical categories.

*calls of necessity and utility; the discoverers of them designing and elaborating as new wants demanded their efforts: under this feeling, they produced works in the highest degree artistic, without claiming to be artists; while all the works which have been professedly undertaken upon artistic principles, to the conformation of which no motives of structure have led, and consisting only of old inventions worked up afresh, (but of necessity degenerate as all secondary works are,) have been constantly questioned upon the very artistic grounds upon which they were professedly formed. The unstructural pretender to architecture, gives names to that which he would have us imagine to be taste; he would surprise the ignorant with a confusion of classical terms. Bartholomew, *Specifications*, § XXVIII-XXIX. W.H. Leeds is singled out as the main representative of this class of critic, even though: he can perhaps be least quarrelled with, than most upon the score of some of his opinions with regard to external forms, the Pelleterie of architecture. But this does not stop Bartholomew throwing Leeds' own words back into his face: No doubt this gentleman himself gives very wholesome advice when he says, 'No doubt shallow smatterers, superficial dabblers, half educated pretenders, ought to be exterminated.' *Specifications*, § XXX. The quotation comes from Leeds' *Essay on Modern Architecture*. (Which I have not been able to consult) The fault Leeds is made to represent is a common one, he does not allegedly know what he is talking about, Bartholomew continues: *It is a sad penalty for a man of ability to pay, a harsh squeezing in the partition into public notoriety, to join those far gone in architectural shallowness who depreciate a knowledge of masonry and the intrinsic means by which have been constructed all the existing Buildings upon which could have been formed his taste and theirs: were I to go to him in his old capacity in the book-trade and to deride the structure of his day-book or ledger, or insult his knowledge of the fabrick of different kinds of paper, or speak flippantly of his knowledge of Pica and Nonpareil, he would perceive immediately the folly and impertinence, and would not scruple to tell me that my idle tongue is active upon a subject which I do not understand.**

The contemporary crisis in architecture was, as far as Bartholomew was concerned, caused by ignorance of the fact that structure constitutes the *metaphysical* basis of architecture. One can even go further than that. Structure was not only the grammar of architecture, in Bartholomew's world it was seen as the grammar of existence generally. The Vitruvian trinity was to be seen as a divine principle which spoke the language of the Almighty!

...convenience, adaptation to the purpose, duration, and the other cardinal properties (...) are to be found in all the works of the Almighty²⁸

Architecture is but a special distillation of a ubiquitous architectonic. An architectural crisis erupts as soon as this principle, this rigidity, is lost sight, that is, when architecture is thought of in terms of wrong categories, such as *artistic*

28. *Specifications*, § XXVIII-XXIX.

principles and unnecessary names. Artistry in architecture, by which he means ornamental clothing, stands for a form of decadence as the result of a blatant mistake of category. Because of this, everything in modern architecture oozes a progressive decline relative to the perfections of both Greek and Gothic *firmitas*. Once architecture was no longer thought of in terms of the architectonic, but in terms of visual effect etc. decline ensued: *by necessity*.

The programmatic similarity between Bartholomew's essay on the decline of architecture in England and Emerson's essay on *Art* is striking. Both are concerned with the prevention of aesthetic insulation, with the abolition of a distinction between, in very general terms, form and substance, beauty and its causal substructure, its purpose. Their common concern provided the groundwork for Garbett's two architectures: an architecture of surfaces, of hollow appearances, and an architecture of deeper causes, based

and built on principles. Confining one's precepts to the copying of forms, creates a nostalgic but shallow historicism of surfaces. A penetration through the first into the second by causal analysis will ultimately show a way forward, a real progress.

How then does Garbett use the word *architecture proper*, quoted at the beginning of this chapter?

*All that relates to the appearance of buildings and their parts has been termed architectural design, or sometimes, "architecture proper," as not being reducible to the principles of any other art. (...) The present treatise is intended to confine itself to this, as far as it can be separated from the other branches, which, however (especially as regards the branch of construction), is not always possible.*²⁹

²⁹ *Treatise*, p. iii-iv
Jacob Voorthuis

This passage is meant as a development of Ruskin's use of the phrase *architecture proper*.³⁰ When read in the light of the last sentence just quoted, architecture proper stands for that part of architecture where utilitarian and constructional needs have already been incorporated into the development of an aesthetics of architecture. Architecture proper now has to concern itself with the visual refinements of those necessities. With Ruskin architecture proper stood for the severance of architecture from building. Ruskin demanded the complete bisection of socially graded activities. Building was concerned with physical necessities, Architecture with intellectual and moral ones. As far as Garbett was concerned the severance of beauty from construction, of the physical from the intellectual and moral was *not always possible*. This was in fact an understatement. While reading the text, it soon becomes clear that such a severance was never possible. With every

³⁰ *Treatise*, p. 2-3.

precept Garbett formulated, the correlation between the three conditions of well-building was re-emphasised and strengthened. Whenever Garbett used the phrase *architecture proper* it had always be understood to incorporate architecture's roots in social purpose and structure. Even so, Garbett does concede different gradations in *architecture proper*. Where Garbett speaks of the *lower beauties of architecture*, Ruskin would speak of *mere building*.

To recapitulate, the concept of architecture was sharpened to a program whereby it was possible to integrate beauty with all the purposes of architecture. The separation of the concept of beauty from use and therefore from other conditions of good architecture such as adequate construction would lower architecture instead of making it more superior. Only a fully integrated definition of architecture, whereby everything is interrelated would

make architecture a social imperative rather than a mere luxury.