

## CHAPTER EIGHTEEN: GOTHIC; THE DEATH OF A STYLE

### The science of Gothic

*The Gothic, throughout its career, nobly imitated nature in one particular, which the classic system never attempted. In the organisms of Nature, and those of the Gothic system (but of no other), do we find a most rigid economy of material, accompanied by no economy at all of workmanship,- often none of manual labour, but never any of mental labour. The most lavish expenditure of labour (or at least of thought) seems to have been considered no waste, if effecting the smallest saving of material; and the whole decorative system consisted in removing superfluous matter not conducive to strength.*<sup>1</sup>

The Gothic had continued the Roman process of cutting away at the substance of buildings; the advance of science was

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1. *Treatise*, p. 239-240.

tackling the waste-problem. However, the contemporary admiration for this slimness, without its cause being properly understood had simply become an excuse for inexpensive building. That is well illustrated by the motivation for the choice of Gothic as the style for the commissioners churches: it was thought cheap.<sup>2</sup> But it is precisely where Gothic stands for religion and for religious buildings that this tug of war between a desire for permanence and the admiration for Gothic economy began to bother the architectural conscience. The loud despair at the flimsiness of church buildings and Pugin's well-known disenchantment with his own creations as mentioned earlier, illustrate this fact adequately. Economy and cheapness are two different concepts, thinly divided by the fact that they both refer to the same thing, but on the basis of different attitudes. It was felt that financial considerations born out of meanness rather than prudence were being allowed to corrupt the ideology of economy.

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2. Port (1961).

The waste of materials in Greek temples was no waste in the ordinary sense, it was the *conspicuous waste*, not merely of a science in its infancy but the exuberance of visual, religious and social sophistication. The waste of materials was a necessary corollary to faith, an act of sacrifice to eternity. This need for waste was undermined by the scientific excellence of Gothic builders. The sacrifice of material was therefore transformed into a sacrifice of mind. Since then however, the ideal of economy had merely evolved into the compromise of permanence. Society's symbolism had lost its way in the urgency of commercial enterprise and social upheaval.

### **The Gothic architects: Parental influence**

Garbett's knowledge of Gothic architecture is impressive. This is not surprising. His grandfather had been something of a Gothic scholar, publishing several articles in the various publications prepared by John Britton. His father Edward William Garbett had, in 1834 written a little pamphlet in which, among other things, he defended

the authority of his opinions concerning the restoration of the abbey church at Bath on account of:

*A constant and professional experience and study of old English edifices throughout a period of twenty-five years, the information of my father gathered during twenty years still further back; our well known connection with one of the most splendid edifices of our land [Winchester Cathedral], and the result of his labours and superintendence there; my own designs and erections in the Old English style, which have been thought not unworthy of public approbation; and the advantage which I have enjoyed in intercourse and communication with gentlemen of the most generally acknowledged purity of taste..*<sup>3</sup>

This statement, combined with the substance of the arguments in favour of carefully considered restoration of the said church, show that much of young Garbett's

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3. Edward William Garbett (1834) p. 29.

thorough architectural education must have come from family tradition.

The exact extent of his father's or grandfather's influence is rather difficult to gauge exactly. Apart from a few remarks made in the publication just mentioned, his father has left us no detailed account of his architectural principles. There are, however, a number of ideas offered by him which bear more than a striking resemblance to viewpoints held by his son. The first is the unquestionable superiority of Greek architecture over Roman an idea which would also have been upheld by Garbett's Grandfather who designed ably in the Greek style; another is that harmony, or consistency in a design is best achieved by the efforts of a single mind. The last is a warning against the dangers of imitating one school of thought to the exclusion of others, an idea which was ultimately derived, from Reynolds' *Discourses*. All this encourages the view that part of the reason for Garbett's reliance on theories propounded by people of a much earlier generation than his own is due to the

education he received from his father and grandfather.<sup>4</sup>

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4. E.W. Garbett (1834) p. 8: *..about the same period that the labours of Stuart and his associates introduced the knowledge of the architectural remains of Greece, at once differing from the established models, and exhibiting in many respects an unquestionable superiority...;* On p. 12, commenting on the unity of style shown by particular parts of the abbey church, he writes: *as the offspring of one mind, a peculiar harmony may perhaps be expected;* finally on p. 7, he writes concerning copyism: *..the exclusive devotion to that minute and confined system of rules gathered by Palladio and other restorers of the Ancient classic school in Italy from the remains of Roman art, which, besides reducing the study of architecture to a dry and uninteresting science, had confined the works of its more recent professors in many instances to pedantic and frigid copies of certain models. (..)the injuries,(.) which*

As to Garbett's father's ideas on Gothic architecture, they are best illustrated by his church at Theale (1820-22) which was closely modelled on Salisbury Cathedral, a fact which conforms to the conditions imposed by his son on the use of precedent. The object of imitation must be looked for among the real stuff, the cathedrals, and not among the parish churches which were, in most cases, no more than frames for empty and unmeaning forms built by illiterate rural masons.<sup>5</sup> All things considered, it is safe to

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*proceeded from this exclusive adherence to one school..*

5. Alfred Bartholomew's church designed for Kentish town, was similarly modelled on cathedral architecture, judging from Pevsner's discussion of it, it must have been a less successful interpretation than the much lauded church at Theale by E.W. Garbett. See Pevsner (1972) p. 86. A description of Bartholomew's church occurs in the fifth volume of *The Civil Engineer and Architect's Journal* (1842) p. 324.

hazard the conjecture that much of the substance of Garbett's *Treatise* represents the cud, long chewed by the family and modified to an unknowable extent by Garbett himself.

But this family tradition was not arrived at spontaneously. In fact, Garbett's honest declaration of his sources show just how much of his analysis depends for many of its facts on secondary sources. The names mentioned in the *Treatise*, especially with regard to Gothic scholarship, read like a thorough bibliography, including everything that at the time was respected for its thoroughness and excluding much of what was considered to be mere apology, or, what is just as likely, theologically unsound, such as the younger Pugin and the Ecclesiologists.

### **The vault dissected: the mysteries of the arch**

*Why does the archway not collapse even though it appears to have no support? It is because the stones all want to fall down together.* Heinrich von Kleist.

Gothic architecture in Garbett's *Treatise* is not eulogised for the sake of advocating its revival, far from it. Gothic as a style for the present was dead, as dead as the Greek, more dead even, and it could not be honestly resuscitated. Like the chapter on Greek architecture, this act of exemplification was meant as a retrospective confirmation of his abstract principles, a teleological re-interpretation of history to merge his thinking, about unity versus variety, contrast versus gradation and the subordination of form, with tradition and within the context of those principles to re-evaluate the Gothic system. Some of his assertions were, as we have seen, considered subversive to the esteem in which Gothic architecture was held as encapsulating English identities and represented by the comfortably bucolic Parish church.

The death of Greek architecture had been caused by the introduction of the arch: *one constructive change, the introduction of oblique pressure destroyed*

*it.*<sup>6</sup> The introduction of the arch not only killed the Greek system but it also threw architecture into a state of confusion, a misguided struggle against truth: *The arch was introduced by the Etruscans or Romans: but its necessary attendant, the prop, was struggled against for fifteen centuries.*<sup>7</sup> The half columns, stuck on the facade of the Colosseum, are not just a huge ornament, they in fact serve as buttresses and constitute a *huge lie* as the fact of their being dressed as columns disguises their true purpose.<sup>8</sup>

Because of the introduction of the arch, architecture had to have time to disregard the old and systematise this new system of construction. All periods of mixed construction therefore are, by definition, periods of struggle, to get rid of the old, and to integrate the new. Architecture would only be able to return to the narrow road of truth and achieve a true character once it was realised that arches required

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6. *Treatise*, p. 168.

7. *Treatise*, p. 169.

8. *Ibidem*.

the buttress to be unmasked and openly admitted to: *It is this that marked the grand restoration from falsehood to truth.*<sup>9</sup> Within this context Garbett makes the valid observation, which was also made by every subsequent commentator on A.W.N Pugin's principle advocating not constructed decoration but decorated construction, that it is a principle not only applicable to good Gothic architecture but to all good architecture.<sup>10</sup> This is the only reference Garbett ever makes to the younger Pugin.

Garbett follows Samuel Ware in shifting the starting point of the Gothic system from the invention of the pointed arch to the introduction of the pointed vault.<sup>11</sup>

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9. *Treatise*, p. 170.

10. Hitchcock (1954).

11. Ware published a paper he had read to the Society of Antiquaries in 1812 in the *Archeologia* of 1814, Vol. XVII. under the title "Observations on Gothic Vaulting." Garbett refers to a different title: *his admirable "Tract on Vaults" Treatise*, p. 171

*Vaulting*, he writes, *[is] the all pervading MOTIVE- the final CAUSE of Gothic architecture, that to which all its members subserve, for which everything else is*

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showing he derived it from Ware (1822). For a brief discussion on Ware see Pevsner (1972) p. 21 & Colvin (1978) George Saunders in the same volume of *Archeologia* published a paper he had read for the Society of Antiquaries in 1811 entitled "Observations on the Origins of Gothic Architecture." According to Pevsner (1972) p. 21, Saunders was the first to lay emphasis on the Vault as the 'generating station' of the Gothic style. Garbett does not mention Saunders however, but attributes the idea to Ware whose first tract entitled: *Observations on Vaults and on the origin of the principal features of decorative architecture*, contains a detailed history of the vault quoting Robison, M.L. Dutens, *Récherches sur le tems (sic) le plus reculé de l'usage des voûtes* as well as M. Bossut's *Traité de mécanique*.

*contrived, and without which the whole apparatus would be aimless and unmeaning...*<sup>12</sup>

A very detailed handling of the Vault ensues, acknowledging its debt to Ware, Bartholomew and, naturally, to Robert Willis' "On Gothic Vaulting," even using a variation of the latter's famous illustration of Henry VII's chapel in Westminster Cathedral.<sup>13</sup>

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12. *Treatise*, p. 171.

13. Robert Willis (1800-1878) For a sketch of his life see Frankl (1960) p. 529 ff. and Pevsner (1972) who devotes a chapter to him. Garbett claims to have written much of his text on vaulting in ignorance of Willis' excellent essay on vaulting, *Treatise*, p. 194. He proceeds to put this right in a note. The essay is Willis 1842) and sets out to explain how medieval masons constructed vaults. He goes into great detail concerning rib vaults and it is on this account that Garbett makes use of his *meticulous accuracy*. Pevsner, *Op. Cit.*, p. 54. See also Mark (1977) which ignores Robison, Ware, Saunders, Bartholomew, all of whom published their structural approaches

An important observation within the discourse on vaults is his reference to a widely held debate concerning the properties of the catenary. Ware had identified the catenary principle as the proof of the structural sophistication of the gothic architects, even suggesting that its discovery was the cause of the Gothic. The pointed arch and the cross-section of the gothic vault were to be seen as easy-to-draw geometrical variations of the catenary. The imaginary line of gravitational pressure to which the building was subject and which followed the catenary principle, was then incorporated within the excess masonry (the walls and the flying buttresses) supporting the vault.

Bartholomew in his *Specifications*, analyses the arch on this principle. During meetings of the Freemasons of the Church he used to illustrate the principles of the

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before Willis. When Garbett criticises Willis' nomenclature of Gothic, in fact preferring the names proposed by Thomas Rickman, he is referring to Willis (1844).

catenary and the diminution of mass using vertebrae of animals. In a series of editorials in *The Builders* concerning Westminster Bridge and signed by a medal with the letters F.Q he argues that:

*The ancient freemasons appear to have been intimately acquainted with the catenarian principle of construction....They found that they could nearly imitate the form of the chain curve, by drawing with little trouble, with the compass, a pointed arch; but knowing that a weight appended from the centre of the catenary draws it still more nearly into the form of the pointed arch; when they reversed the curvature and put it into absolute work, they added to the vertex of the arch a weight, which they usually carved into the form of an ornamental boss.<sup>14</sup>*

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14."F.Q" The Opening articles on the Westminster Bridge in *The Builder*, II, 51 (Sat. Jan. 27, 1844) 37-38; II, 52 (Sat. Feb. 3, 1844) 49; II, 53 (Sat. Feb. 10, 1844).

Garbett does not however enter into much detail in the *Treatise*, merely acknowledging that Wren's contemporary and colleague the scientist Robert Hooke was the first to have (re)discovered the principle.<sup>15</sup> While discussing the vaulting of Henry the Seventh chapel, Garbett writes:

*This property of arches (by which each pressure concentrated on a point calls for a cusp at that point, and each cusp calls for a concentration of pressure on it) may be shown by the catenary, which becomes an inverted Gothic arch whenever a weight is suspended from one link. Hooke's discovery, "ut pendet continuum flexile, sic stabit contiguum rigidum inversum," is a motto never to be forgotten in Gothic Building. A French street lamp, or a spider's web, may thus teach the architect important lessons; and perhaps the equilibrium of some of the boldest vaultings was insured by experiments on systems of chains representing the ribs inverted.<sup>16</sup>*

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15. *Treatise*, p. 191.

16.Ibidem.



This is an idea which he derived from the complex pattern of structuralist thinking covering the English seventeenth century, the French and Italian eighteenth centuries but which was directly transmitted to him through Robison, Bartholomew, Ware and Willis. Ware had given the most systematic treatment of the idea and probably anticipated, be it in a less spectacular way, Gaudi's method of vaulting as employed in his Sagrada Familia (1903-1906) in the vault of the Burlington arcade of which he was the architect.<sup>17</sup>

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17. See Collins (1979) pp. 367 ff. In it he mentions several antecedents to Gaudi's use of the system but fails to mention either Garbett, Ware, Robison, Gregory or indeed Hooke! They are: Giovanni Poleni's *Funicular Analysis of the Dome of St. Peters*, 1748; Heinrich Hübsch, *Theoretical Speculations for the use of Hanging Chords*, 1838; J. Millington's *Catenary Analysis*, 1839 and Julien Guadet's *Parabolic Arches*, 1903. (Translation of the Titles by Collins) He does not emphasise the size of the tradition of

As to the country of origin of the Gothic vault, he is content to follow the

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this principle, from the time of Robert Hooke and David Gregory in the seventeenth century. See the bibliography on Ware. The first systematic treatment of the catenary beyond Robert Hooke's brief reference is Dr. David Gregory's paper in the *Philosophical Transactions of the Royal Society* of 1697. Another important contribution on arches is Gwilt (1811), which mentions Dr. Bernoulli as the discoverer of the mathematical nature of the catenary curve. Gwilt also mentions an article by Bougouer in the transactions of the French academy dated 1734, entitled "Sur les lignes courbes propres a former les voûtes en dôme," *This theory has since been followed by Belidor and others on the continent, and the late ingenious Mr Atwood in this country* (p. ix) He also mentions coming across the theory in *The Transactions of the Royal Irish Academy* for 1798 in a memoir by Young on the Gothic Arch (This differs to the reference in Pevsner (1972) pp. 16-17.)

remarks made by William Whewell and German scholarship as represented by Georg Moller, de Lassaulx and Carl von Wiebeking that the Germans were responsible for the first imperfect steps.<sup>18</sup>

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18. William Whewell (1794-1866) For a brief treatment of Whewell see Pevsner (1972) Chapter VII and Frankl (1960) p. 537 f. The full title of Whewell's publication is *Architectural Notes on German Churches with notes written during an Architectural Tour in Picardy and Normandy*, Cambridge, 1830. The second edition of 1835 and the third of 1842, appeared unchanged but were supplemented with *Notes on the churches of the Rhine*, by Johan Claudius von (or de) Lassaulx. It must have been either of these editions that Garbett referred to as he makes a mention of M. de Lassaulx and quotes him in a note on p. 187: *M. de Lassaulx well observes of the German Freemasons, that the vague ideas entertained of their profound science and their lost secrets, have no foundation; that they were simply men of sound common sense, determined to excel in their art (..) it*

As vaulting is the generating principle of Gothic architecture in general, it is not surprising that Garbett takes the whole thing to its logical extreme. He quotes Wiebeking who states that all wooden ceilings were no more than temporary models, put in position in order to allow the masonry a number of years to settle before imposing the enormous weight of the permanent stone vault.<sup>19</sup> Consequently all

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*was not so much geometric science as statical common sense... Later Garbett refers to the artists of that eventful age that, It is generally supposed that they formed a corporate body, who, entirely devoted to this art, and under a rigid discipline, requiring inviolable secrecy as to its principles, went with their gangs of masons from place to place, wherever a church (or rather a monastery) was at hand. In: Treatise, p. 238.*

19. *Treatise*, p. 215 Karl Friedrich von Wiebeking, not referring to his *Mémoire sur l'état de l'architecture civile dans le moyen âge et sur les moyens, par lesquels les monuments de ce temps ont été exécutés avec exactitude*. Lu dans la séance de l'Institut Royal de France le 21 Juillet 1824 par le chevalier de Wiebeking. Munich, Le XIV. Octobre MLCCCXXIV, but to the four volumes *L'Architecture civile théorique et pratique, enrichie*

wooden roofs are condemned when used in connection with Gothic architecture. Their use in modern Gothic is the result of ignorance, their designers perpetrators of deception.

In his division of the Gothic system into periods he follows Rickman completely.<sup>20</sup>

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*par l'histoire descriptive des édifices les plus remarquables.* See Kruff (1985) The former publication was a manifesto based on a popular view of the Gothic Freemasons, to organise the profession on a similar basis, a plea taken up by Bartholomew's Freemasons of the Church. Wiebeking's essay is accompanied by a project for a museum in London.

20. Thomas Rickman (1776-1841), *An Attempt to Discriminate the Styles of Architecture in England from the Conquest to the Reformation*, London, 1817. This was originally published as a paper in James Smith's *Panorama of Science and Art*, Liverpool, 1815. Later Garbett was to propose his own nomenclature (see below). Rickman and Whewell undertook a tour of Picardy and Normandy together in 1831. Garbett must have derived much if not all of his knowledge on the churches of these provinces from Whewell and from the paper Rickman wrote under the title "Four Letters on the Ecclesiastical Architecture of

The latter also introduced Garbett to the observation that:

*in the complete Gothic, every horizontal line meeting a vertical one, either terminates or changes direction, while the vertical continues its course unaltered. In the pure Greek,' Garbett continues, precisely the reverse takes place; all vertical lines are stopped by the first horizontal one they meet, while the horizontal continue from corner to corner of the building.*<sup>21</sup>

The idea fits rather well with Garbett's ideas on constructive unity and the differentiation of styles on the basis of their statical principles. He concludes that the difference between Greek and Gothic architecture consists not in the proportion of horizontal lines to vertical ones, but rather in their respective continuity. This defines their respective characters of grand repose and romantic aspiration or growth.

At one point Garbett makes a detailed comparison of Amiens and Salisbury, trying

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France," *Archeologia*, XXV, 1833. See Pevsner (1972) p. 34.

21. *Treatise*, p. 229.

to define Englishness (emphasis on the effect of the exterior) and Frenchness (emphasis on the effect of the interior) in Gothic architecture. In the process he mentions George Downing Whittington at once revealing the source for his critique.<sup>22</sup>

Lastly I should like to mention Garbett's treatment of Wren's St. Stephen Walbrook from a Gothic point of view, which occurs in a discussion about the merits of the octagon in building for a more even dispersion of pressures. The discovery of the octagon for this purpose is given to Alan de Walsingham, who introduced it to Ely Cathedral after the fall of its central tower in 1322. The discussion of Wren's classical work from a Gothic point of view, immediately suggests a comparison with Soufflot's Ste. Geneviève (1755-1792) which was also built incorporating Gothic scholarship and Wren's influence.<sup>23</sup>

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22. *Treatise*, p. 200 ff. Whittington (1809) Chap. VI. For brief discussion on Whittington see Frankl (1960) p. 498 f. and Pevsner (1972) p. 18-19.

23. *Treatise*, p. 217; For Soufflot and Wren see Pevsner (1981) pp. 363-6.; Hitchcock (1975) pp. 14-16.; Germann (1972) pp. 73-80 and Petzet (1961).

One could elaborate endlessly on Garbett's discussion of Gothic architecture, but the archaeological aspect of the *Treatise*, is derivative and takes second place to the *Treatise's* real purpose, which is normative. Suffice it to say that he concludes his analysis with a description of what the *complete Gothic* should consist of, namely:

*1, Universally pointed arching, each arch being composed of several ribs or mouldings (...); 2, Ribbed vaulting; 3, Apparent buttresses; 4, Pillar-clustering, with reference to the ribs (...); 5, Pinnacle-clustering; 6, Window tracery with subordination (of principal and minor tracery bars) and, lastly, Foliation or foiling, an universal though seemingly non-essential ornament.*<sup>24</sup>

But more interesting than the pinnacle of Gothicity is the morbid fascination with its rupture and subsequent decline. The doctor is generally not interested in health

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24. *Treatise*, p. 220.

above and beyond its use as a standard to measure disease. Garbett's contribution to the enormous growth of architectural histories of his time, is, like Bartholomew's essay on the decline of excellence primarily an analysis of corruption. This is simply explained by their normative intentions to avert the impending crisis and return architecture to the dignity it enjoyed with the Greeks and the Gothicists.

### **History and the division of magnitude**

The vicissitudes of style through time are caused by the superimposition of several processes.

Garbett's ideas on the historical development of a pure style and the progress of architecture are described in terms of popular analogies with biological processes, such as growth and ageing. Such analogies applied to the rise and decline of the institutions of civilisation are as old as time and do not even need the proximity of Gibbon's *Decline and fall of the Roman Empire*, to be explained, even though Gibbon is mentioned by nearly every architectural historian in the

nineteenth century. The Gothic, as such died of the corruption inherent to old age:

*The art [of architecture] had before, in the After-Classic decline, shown all the indescribable but unmistakable symptoms of old age, - that picturesque but graceless decrepitude so exactly opposite to the equally indescribable charm of youth: but it had never before fallen into this dotage that characterises the After-Gothic whether amid the blaze of Flamboyant tracery, or the Perpendicular panelling and fan-work, or the vegetating luxuriance of German hood-work... Those who think the Gothic system fell a prey to classical pedantry, a retrograde principle, or what they are pleased to call "vandalism" are greatly mistaken. There was nothing forced, fanciful, retrograde, or abnormal in the change from Florid Gothic to the Classical "Renaissance." The former was not superseded by the latter. It had fair play, and the field to itself. It fell by its own inherent principles of decay, and left the field vacant, before the perceived absence of true architecture rendered the importation of a new style necessary. (..) [That style] is rightly named a "renaissance," though it was not the renaissance of architecture. That we admit to have taken place already, not in the sixteenth century, but in the first half of the thirteenth.*

Interesting in this context is Garbett's distinction between architecture and style

as a nostalgic application. The renaissance of architecture occurred with the rise of the Gothic, the renaissance as we know it is merely a nostalgic attempt at reversion through the medium of acquired associations.

The birth, rise, perfection, decline and ultimate death of a style needed to be subsumed within a greater development of Garbett's super-stylistic concept of architecture which could follow Fergusson's wonderful diagram of linear historical development. The curious likeness it bears to Laurence Sterne's diagram illustrating the plot of Tristram Shandy's pre-natal autobiography may be fortuitous, although both try to represent the same contingencies affecting constant progress. Garbett's explanation of this super-stylistic development, connecting the Greek with the Gothic, is represented by an uninterrupted Bolero-like anabatic process showing how structural elements are subject to a continual cell-division from magnitude into multitude:

*In one respect,(..) the fall of the Gothic architecture perhaps differed from that of the Classic, and was more complete. It was a fall out of which nothing could be expected to arise, - a fall not of a style or system merely, but, in a sense, of the entire art. It was the end of a progress in one constant direction, which had run through the whole history of European architecture, quite independently of the changes from style to style.(...) This was the progress from magnitude to multitude...the apparatus of the art, in its second complete phase, consisted of diminished and multiplied derivatives from the chief structural members of the first phase. Even the sorry little "tobacco-pipe shafts" (as Goethe calls them) of the expiring Gothic, were the direct lineal descendants (however degenerate they may seem) of the massy columns of Karnac and Selinus, - derived by an uninterrupted process of reduction and multiplication of parts..(...) Art,(..) after counting her age by centuries, had then completed her world-long career, - had, at length, worn herself out. The process could*

*be carried no further; complication had reached its limit, - in the finite divisibility of the material, - in the finite capacity of man, - and the finishers of those piles should have inscribed on them, "Architecture is Finished; henceforth be content to copy."<sup>25</sup>*

### **Transcending the perfect**

Superimposed on this irrevocable course from magnitude to multitude is the process indicating the advancement of Truth or rather of Purity, which in Garbett's vision had experienced two peaks, the Greek and the Gothic. The concept of historical development in terms of rise and decline must uphold the view that change can be valued in terms of good and bad, must be set against a standard of the true in its meaning of goodness and of which the symptom is its inherent beauty.

Everything anticipating that standard aspires to it in its effort to throw off its imperfections, but that process does not halt itself once the standard has been reached, for everything which comes after

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25. *Treatise*, p. 236-37.

aspires to transcend that perfection and, over-reaching in its attempt to continue progress, necessarily falls into decline.<sup>26</sup>

Perfection is absolute, it resides in the immutable, the unchanging and the a-priori. This is no paradox and there is no need to reconcile the immutability of perfection with the inevitability of its succession in history, after all perfection is *achieved* relative to a set of premises, by the search after *truth*, the moment that perfection is reached it is superseded by the ambition of architects and the impatience of an ignorant public:

*Advance, writes Garbett, is constant as long as there is room for each artist to make a considerable improvement, visible to the vulgar, not so refined as to elude the public gaze. But it is obvious that as a style or school advances, and gets nearer its proposed truth, there is less and less room left for great improvements, or rather for great changes; for the greatness of an improvement is not proportional to the greatness of the change. At length there is no room for great steps, but the only possible improvement is*

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26. It was this concept which Geoffrey Scott attacked cf. Scott (1980).

*in points of detail and exquisite refinement,- in the size of a moulding, the turn of a curve, - in things that the vulgar eye cannot perceive. (...) Then comes the cry, "Is architecture stagnant? Can architects do nothing but copy?" The weak, time-serving artist is seduced, and breaks his allegiance to the Truth, the Aim of the School. He will make a bold step. He will pass for a genius. He makes a change, not for the sake of Truth, but for the sake of change. He makes a considerable step, a step visible to all, and therefore a false step. The deed is done. The point is turned. The school has culminated. It is a declining school.<sup>27</sup>*

Real genius, as opposed to those eager for public approbation, is able to broaden or alter that set of premises, thus shifting the goal posts of perfection. That is how the paradox of the changelessness of perfection and the inevitability of advance is resolved and the two ideas are related to each other.

The problem with the perfection of a style, is that the appreciation of its perfection is not synchronised with the fact, just as theory in his view of processes always follows genius. Like the idea of youth: the young do not, in their innocence,

appreciate youth, this is left to the old, who see in it, not achieved perfection but the lost potential of it. This is inherent to ideas of good and bad. Corruption is latent in the architect who capitulates to an ignorant public, of which he himself is a part. The public, in their innocence, cannot appreciate perfection. Thus due to the opposing forces of change and the ideal of changelessness, the concept of decline is created to enforce the asserted truth of principles and the belief in progress towards perfection.

### **The death of a style**

Greek architecture died, as we have seen, as a result of the introduction of the arch. This was not the only cause. The baroque character of Hellenism shows how even the Greeks succumbed to the temptation of trying to transcend perfection:

*In the decline of taste, in all countries and in all arts alike, everything is ornament, if not fitter, and no beauty is seen in the pure*

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27. *Treatise*, p. 142-3.



*noble breadth and simplicity of the earlier productions.*<sup>28</sup>

The introduction of *ionicism* from Asia and the still later adoption of the Corinthian order into Greek architecture, neither of which were indigenous even though both were perfected by their adopted country, serve to warn the reader against the gradual supremacy of ornament and the invidious domination of the lighter classes of form which were ousting the graver classes: *The Corinthian order, with all its elegance, indicates the approach, if not the commencement, of the decline in Grecian art.*<sup>29</sup>

Only through the Doric order can Greek architecture claim to be pure. That purity, being represented by consistency, is best achieved by the efforts of a single mind. The invention of the Doric order is consequently attributed to a single architect: the mythical Dorus.

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28. *Treatise*, p. 164.

29. *Treatise*, p. 164.

*As the Homeric poems have triumphantly refuted the attempts to regard them as compilations, so is there in the Doric order, and especially in its oldest examples, that perfect consistency and unity of idea that proclaims it to be, in all essential points, the production of one mind...and on this point we are constrained to receive the tradition of Vitruvius, that, whatever number may have aided in its progress, it had one inventor, the greatest mind that has ever been directed to architecture.*<sup>30</sup>

The proposition follows up on the title of the *Treatise*, which speaks not of Greek architecture, but of Greek architects. It is a deliberate distinction facilitating the vision of the process of design as an essay in pure reasoning as deducible from a set of axioms and premises, best performed by just one mind, so as to show consistency in the generation of an idea and unity in the result. After that process, the resulting system, such as in this instance the Doric order, is up for grabs, to be perfected and

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30. *Treatise*, p. 166.

inevitably brought to culmination and subsequent capitulation by other minds. Every system, however good, is thus bound on an irrevocable course towards eventual decline. Even the Parthenon which is commonly seen as the apotheosis of Greek architecture, in fact shows a tendency towards ionicism, and is consequently considered less pure than earlier examples such as *That which crowns the rock of Corinth*.

### **After-Gothic**

As far as the Gothic is concerned, once the system of construction was perfected in the early thirteenth century, each country seized on its own emphasis, and, concentrating on that to the exclusion of everything else, unbalanced the *health* of architecture as a whole.

The Germans, for example, seized on the idea of growth in pursuit of a *budding and sprouting expression*, their chief vice became interpenetration, letting everything overgrow *until the buildings became*

*covered with tracery*.<sup>31</sup> The French, on the other hand, seized on the expression of aspiration:

*by a slight change in the prevailing forms of flowing tracery, they converted the loops or leaves into flame-like forms, till the flamboyant appeared not vegetating as in Germany, but blazing from the foundation to the bristling finials*.<sup>32</sup>

The English were merely confused, thinking, erroneously, that an abundance of vertical lines would increase the expression of aspiration, thus *they were led to convert all the flowing lines of the window tracery into vertical ones*, producing a style *less rich and certainly less varied than any of the other After-Gothics*.<sup>33</sup> That, at least, was one theory.

The other, which Garbett appears to favour in the end is that the Perpendicular

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31. *Treatise*, p. 230 & 234-235.

32. *Treatise*, p. 230.

33. *Treatise*, p. 231. The term After-Gothic was taken over from Willis (1835).

style might have arisen through the extreme and rational application of the principle of constructive unity *according to which a style is pure and perfect in proportion to the exclusiveness with which a certain mode of construction pervades, or appears to pervade, every feature from the greatest to the least.*<sup>34</sup> In the Gothic system this principle is arching, so that every hint of trabeation such as a horizontal beam should be avoided. In fine Gothic architecture the stone is treated as though it were flexible, in that no dependence is placed on its rigidity; that flexibility, if real instead of metaphorical, would soon show up any hint of trabeated construction in the various forms of Gothic: *In the Perpendicular style alone do we find tracery which, if converted into a flexible material, would undergo no change of form.*<sup>35</sup> And to prove that this consistency in applying the principle of constructive unity is what moved the English Gothicists to overreach the Gothic to become

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34. *Treatise*, p. 231.

35. *Treatise*, p. 232.

Perpendicular he cites the *crinkle-crackle* of Henry the Seventh's Chapel, which use perpendicular tracery throughout except in the flying buttresses, *for here statical principles rather required the voiding to be effected by circles, as in the spandrils of the Pont-y-Prydd and iron bridges.*<sup>36</sup>

The corruption which the Perpendicular nevertheless represents, does not therefore stem from its departure from the constructive wisdom of Gothic science, instead *the grand error of the 'Perpendicular' was in its introduction of a graver class of form in details than prevailed in Main features.*<sup>37</sup>

But as the Greek style had been given the final coup de grâce by the introduction of the arch, so the expiring Gothic was given the finishing stroke by the return to beam and lintel construction and the introduction of the tie:

The loss of *constructive unity*, the return to universally *mixed* construction, as in the

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36. *Treatise*, p. 164 & 232.

37. *Treatise*, p. 233.

Ante-Gothic ages, completed the downfall.<sup>38</sup> And now we are again in a period of crisis, of arbitrary choices, slowly working out and assimilating the principles of tension, which one day will burgeon into a new style of architecture.

### **Evolution**

To understand Garbett's ideas on historical progress they need to be seen within the context of contemporary thoughts on change and progress. Charles Darwin's ideas on evolution were not to become public until 1859, so that they may be safely excluded from the argument here, or can they? There were quite a few evolutionary theories in circulation long before Darwin institutionalised the idea. We have to take two factors into account when discussing Garbett's diagrammatic representation of history.

The first is a rather curious and in fact problematic reference made in later life, saying that he was taught a version of the evolutionary theory during his stay in

Jamaica in 1845, by a surveyor named Potts. This might conceivably have affected his view of historical processes. Unfortunately he never tells us exactly how this theory was supposed to work; nor can we safely assume that he extrapolated from this theory his own ideas on historical development.

The other factor is Lyell's immensely popular book on Geology, which came out in 1835 and which discusses the ideas of Lamarck quite fully. Garbett's knowledge of Geology and his later critique of Sir Charles Lyell's geological theories on the origin of the earth and the anti-catastrophe theory, do suggest that he was familiar with the book and therefore conversant with the theories of Lamarck. This is especially interesting as Lamarck's four laws of evolution project a conception of progress which, whatever their conscious relation to Garbett, exhibit a close resemblance on a number of points with regard to the latter's view of historical development. I am further tempted to bring the laws themselves into

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38. *Treatise*, p. 236.

the picture as they were discussed in relation to Emerson and Greenough:

*1. Life, by its own forces, tends continually to increase the volume of every body that possesses life, and to enlarge the dimensions of that bodies parts, up to a limit which life itself brings about.*<sup>39</sup>

This theory in particular coincides with the ideas Garbett entertained on the fall of the Gothic system and the saturation point which a particular style reaches in the advancement of truth. The idea also distantly reflects the undercurrent of the Malthusian circle as defined in Malthus' *Essay on the Principle of population* (1798 & 1803) which says that a period of economic growth is accompanied by a population explosion which subsequently exhausts the economic potential, causing mass-

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39. Metzger (1954) pp. 140-141, n 49. and are taken from Lamarck (1835) Vol. I, pp. 151-152.

starvation creating the room for another period of economic expansion.

*2. The production of a new organ in an animal body results from the supervention of a new want that continues to make itself felt, and of a movement to which this want gives birth and which it encourages.*

This law systematises Garbett's ideas concerning the perfectibility of styles through the desire for form during the search after truth. In anticipation of perfection this desire is represented by a lust for truth. Beyond the saturation point of a style's perfectibility that desire changes into an arbitrary and desperate wish for novelty and change, usually for the sake of public approbation and individual ambition.

*3. The development of organs and their force of action are constantly in proportion to the employment of those organs.*

Each style, as becomes clear from Garbett's analysis of them has its own preoccupations, its own emphases and develops exclusively along those preoccupations. The want for truth,

searched for by the exclusive pursuit of the principle of contrast caused the eruption of the Doric order. The various national variations of the After-Gothic similarly developed according to this principle.

*4. All that has been acquired, laid down, or changed in the organisation of individuals, in the course of their life, is conserved by generation and transmitted to the new individuals which proceed from those which have undergone these changes.*

The close resemblance between this law and Garbett's view of the accumulation of traditions along the line of advancement of truth and purity, betrays the ubiquity of this principle, which, indeed is closely reminiscent of Edmund Burke's organic conservatism.<sup>40</sup> There is with regard to three of the laws no need to conclude a too definite connection between Lamarck and Garbett. To a large extent these views of

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40. Van Pelt (1991) 14-16. Through this book I was given the reference to Smith (1985) pp. 102-154, see also my own Voorthuis (1992) 23-34.

progress were endemic and could be established on any number of analogies.

The Lamarckian principle of desire for change as the principal agent of progress in a species, constitutes a variation on the one which Darwin was later to dub the principle of natural selection. It is rarely noted that Darwin's theory of *Natural* selection was in large measure inspired on his analysis of *Artificial* selection, the principles of which were common knowledge in a still largely agrarian culture. Architectural development was considered an artificial process in that it presupposed a self-conscious sense of purpose. The interesting thing about that is that the theories of Lamarck and Darwin converged in this principle of *artificial selection* which needs desire on the part of the selector to bring any development about; this is also the point at which they submerged into popular culture. The specifically Lamarckian agent of want, will or desire, can be represented by the animal-breeder who selects his mating stock to follow up the qualities he desires for the development of

his stock. And that was an ample analogy for the architect and the rational development of architecture.

### **The Future**

What then of the future? It is the future which the book is supposed to mould and support. Having acknowledged Bartholomew's discovery of the existence of three systems of building, and having noted that two of them have already been developed into architectural styles, he offers the third for consideration: *..the third is ours:*

*To this third system of constructive unity, there is no old style adapted. None was invented for it. It is a new thing, and its treatment must be new, new, because subject to old principles; and to be effected only by a patient search into those old principles.*

That justifies his detailed analysis into the principles of the Greek and Gothic architects, it is these which have to be generalised to become flexible to new purposes. On top of that every pure style had to struggle against old prejudices:

*The method of tying building together (said Wren), instead of giving the arches, &c., sufficient butment, is contrary to the principles of sound architecture. Yes, contrary to the only two systems of architecture known to him or to us, but not therefore contrary to all possible systems. A Greek would have condemned thus the method of wedging stones together by lateral pressure; and after this method was introduced and used in all buildings, it was fifteen centuries before architects could be brought to admit the appearance of this lateral pressure. For a still longer period has tension been a principle of building, and yet not of architecture; much longer has the tie been struggling for admission and been refused.<sup>41</sup>*

Quoting William Whewell on the need for a system to be bound by a single principle uniting the whole, he formulates the challenge to architects which is to systematise the tie into an architecture. And

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41. *Treatise*, p. 262.

Garbett has already seen some glimmerings in the distance:

*There is a class of buildings tending towards a new style of construction - becoming less mixed in this respect - and approaching a consistent use of tensile covering, to the exclusion of every other.*<sup>42</sup>

Unfortunately Garbett does not tell us outright what he means by this class of buildings, whether he includes engineering works in this category or not. Later he would publish a design for a method of roofing himself, which certainly is based on the idea of tying walls together, but it is hopelessly impractical. And he was certainly no supporter of Joseph Paxton's Crystal Palace when it was completed a year after the *Treatise* was published. All this makes it unclear as to what he means by this new class of buildings. For the moment however, we have still to struggle as a new style will certainly not grow by itself:

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42. *Treatise*, p. 261-62.

*There is, among other art-destroying fallacies, a notion now prevalent, that architectural styles sprung up by themselves, and that if we wait long enough, in process of time a new one may grow up, we know not how. (...) Let us not deceive ourselves: a style never grew of itself; it never will. It must be sought and sought in the right way. We may blunder on in a wrong path for ever, and get no nearer the goal...*<sup>43</sup>

But if tension will eventually give us a style, that is, if we go about it carefully enough, this is still a long way away. There has therefore to be an interim solution to supplement the long term ideal. Because of the prevalence of mixed construction he offers his contemporaries the Hübbschean and Barry-esque solution of Italy: *a country which has never attained a system of constructive unity*, but which, precisely because of its persistent use of mixed construction techniques, developed a range of appropriate styles based on

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43. *Treatise*, p. 263.



classical details, possessing a *pliancy that may be bent to all the purposes probably that can ever be required in buildings of mixed construction.*<sup>44</sup> He recommends the continuation of a process that started with the Italian Renaissance, or as he calls it the Florentine, Roman and Venetian schools, which he likens in character to the Doric, Ionic and Corinthian orders respectively.<sup>45</sup>

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44. *Treatise*, p. 260.

45. A similar thing was suggested by the architect E.B. Lamb who advised a continuation on Gothic, rather than its revival. See Lamb (1846); Crook (1987) p. 134; Kaufman (1988); Summerson (1970), p. 72. where he quotes Lamb: *The very latest Gothic or best Tudor, might (...) have been carried on much longer, and would have acquired fresh spirit and energy. By continuing the same spirit which marked the works of preceding ages, we should, in a short time work out a style accommodated to our requirements.* Garbett would have disapproved of the substance on which this process of extension and revivication was to be

As far as the imitation of the Greek and the Gothic is concerned Garbett remains firm. Even if the two pure systems are too good to be given up *far more are they too good to be abused and caricatured. If they are worth copying at all, they are worth copying completely; and this can never be done but by copying their construction as well as their decoration.*<sup>46</sup> His father's church in Theale, Berkshire, and Leo von Klenze's Walhalla, may, perhaps, be cited as examples of what he means.

But the object of the *Treatise* was not the advocacy of a particular style but a plea for architects to take the narrow road of a more abstract truth and honesty. Garbett's theory was an attempt to generalise architecture into a moral philosophy. In fact Garbett ends his treatise with a motto he would like to see engraved on everybody's compasses: *one which I*

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*practised.* Even so, the underlying principle is, rather ironically, identical.

46. *Treatise*, pp. 260-61.

*suspect to contain nearly the whole theory of art, and one which makes the humanisation of architecture semantically complete:*

*SEEK NOT TO SEEM WHAT YOU WOULD BE,  
BUT TO BE WHAT YOU WOULD SEEM<sup>47</sup>*

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47. *Treatise*, p. 264.