

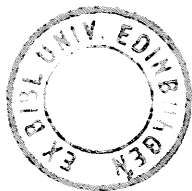


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Pre-Victorian Origins of Modern Architectural Theory



Two volumes : volume one text

PRE-VICTORIAN ORIGINS OF MODERN ARCHITECTURAL THEORY

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1972

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## Preface

This investigation began as an attempt to understand the origins of the philosophy of architecture that I encountered first as an architectural student and then as an architect in practice in Canada. These ideas, which could be labelled simply 'naive functionalism', clearly stemmed from the teaching of Walter Gropius and the other "pioneers" of the modern movement. They are conveniently presented in a book first published in 1940, and still in print, by J.M. Richards, An Introduction to Modern Architecture. Richards argued that architects in the nineteenth century were "out of touch with life"<sup>1</sup> and had "forgotten what architecture was really for". Modern architecture was simply the "revival of architecture as a live art", "the honest product of science and art", and aimed once more at satisfying "real needs".<sup>2</sup> The popular idea that modern architecture was the same as "functionalism" Richards denied. "Functionalism" he defined as the idea that "good architecture is produced automatically by strict attention to utility, economy, and other

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1. J.M. Richards, An Introduction to Modern Architecture, Harmondsworth, (1940), 2nd ed. 1953, p.11.

2. Ibid., pp.10 f.

purely practical considerations".<sup>3</sup> This apparently implied an unacceptable determinism, but it is evident that he found it difficult to suggest an acceptable alternative. He concluded that engineering was functional but architecture was something more. He then explained that, in fact, engineering was something more as well, and that the distinction between the two was entirely artificial: a further product of the Victorian decline. Following this confusing turnabout Richards returned to the idea of architecture "as an art"<sup>4</sup> and mentioned "the charm of simplicity and precision" and "the natural qualities of materials themselves" as characteristics of modern architectural aesthetics. Perception had been "blunted by the vulgarities of architectural clichés"<sup>5</sup> but he foresaw "a new connoisseurship coming into play".<sup>6</sup> After this brief venture into taste he returned to materials and methods and the history of the modern movement, and concluded by describing the modern architectural scene and some modern buildings without any further attempt to explain what there was to modern architecture beyond "functionalism" and good taste. He did however note that it was important that modern architecture keep "the sincerity which is at present its special virtue" and in a curiously perceptive sentence warned that "it must not become merely decorative: an imitation of itself".<sup>7</sup> Richards supported his explanation of modern

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3. Ibid., p. 37.

4. Ibid., p. 41.

5. Ibid., p. 42.

6. Ibid.

7. Ibid., p. 13.

architecture simply as "the revival of architecture as a live art"<sup>8</sup> as it had been before the nineteenth century by a quite remarkable description of the earlier history of architecture:

...seventeenth- and eighteenth-century architects did not simply copy the past, any more than did mediaeval architects; and style was something more than a costume into which the carcass of a building had to be forced. They designed their own buildings according to the needs of their own day; they thought first of convenience and spaciousness and dignity, and their style was only a natural veneer of manners: a set of conventions, corresponding more closely to the accepted conventions of dress than to the assumption of fancy costume.<sup>9</sup>

While this description could be applied, as Richards did apply it, to a simple Georgian house, it hardly seems an adequate or even honest description of the chief works of the major architects of the seventeenth and eighteenth centuries, from Bernini and Borromini to Wren, Hawksmoor and Vanbrugh, or even Burlington, Chambers and other more sober exponents of an art that was above all else concerned with "imitation of itself". Nor on the other hand did the limits of his description do justice to the intentions and performance of the better Victorian architects who were even more conscious of "the needs of their own day" and whose concern for "convenience and spaciousness and dignity" was second to none. Besides their buildings, books such as Robert Kerr's The Gentleman's House (1864), and J. J. Stevenson's House Architecture (2 vols., 1880) are proof of their concern for these qualities in design. If, as it seems, Richards's argument was and is representative, then modern architectural theory rests on shaky intellectual foundations.

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8. Ibid., p. 10.

9. Ibid., p. 17.

A further motive for this investigation was my growing curiosity about the narrow limits of modern architecture as defined by its chief historians. Interest was growing in figures like Häring and Scharoun as well as in the deviations of Le Corbusier and Aalto from the strict canon of the International Style. It seemed worth asking how rich and diverse were the sources from which modern ideas flowed.

A particular problem, which became one focus of the study, was the curious similarity between some pre-Victorian designs, specifically designs published by J. M. Gandy in 1805 and 1806, and the plain, white, rectangular buildings of the 1920's and 30's, a similarity pointed out by Summerson in his essay "The Vision of J. M. Gandy".<sup>10</sup> The question arose, were there theoretical connections between the two periods? Summerson wrote of Gandy as "a frustrated Wordsworth of architecture" and described (and illustrated) the "sensational fascination" of his cottage designs, with "their sharp prophecies of functionalism and cubism".<sup>11</sup> These buildings were the work of a remarkable designer and proved an introduction to a remarkable period.

The study of the background to modern architectural theory has a more than purely personal value. Architects in practice, trying to fulfil complex responsibilities in limited time, tend to grasp at any justification for the forms they design, though these may, in fact, reflect little more than simple expedience and current fashion. "Functionalism" has been a convenient

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10. In J. Summerson, Heavenly Mansions (1948), New York, 1963, pp. 111-134.

11. Ibid., pp. 122 f.



justification for half a century; it has too often served to excuse architects from serious consideration of any more profound responsibility in design. A more substantial intellectual basis for design than the modern movement provided is still needed.

In addition to its critical function architectural theory serves an important constructive aim: it helps to direct attention to the fundamental problems with which the architect must cope. It isolates the conflicts that the architect, intellectually as well as practically, is committed to reconcile: the opposing demands of individual and community, profession and public, utility and beauty. Here the major creative effort must be made according to broad priorities established by the architect himself.

Both critical and constructive aims can best be served by demonstrating the substantial links between modern architecture and its past. The strength and weaknesses of contemporary architecture are not just a reflection of the varying potentials of individual architects but the position that architects hold today, in relation to the rest of the community. Architecture is a product of its history; it can only be understood against a historical background.

## Summary

Modern architectural theory was a product of the encounter between the classical tradition, formed on Greek and Roman ideas in the Italian Renaissance, and the subjective aesthetics of eighteenth century Britain. Resulting ideas and buildings of the early nineteenth century were the precursors of the architecture and theories of the 1920's and 30's.

The development of classical architectural theory is studied in the writings of the philosophers and architects who contributed its leading ideas. The relative importance of the two basic themes, 'reason' and 'experience', was established by Plato and Aristotle. The consequences of their ideas and priorities for architecture can be seen in the treatises of Vitruvius and Alberti. 'Reason' as the way to absolute beauty became the cornerstone of Renaissance theory, while 'experience', subjective and therefore relative, was rejected as leading only to inconsistent and erroneous opinion.

In the seventeenth century the critical heritage of the Greeks bore new fruit in the rationalism of Descartes and his successors, and particularly the British 'empirical' philosophers of the eighteenth century. Criticism of classical theory by Perrault, Cordemoy and Laugier in France led to a more rigorous 'rational' theory, still essentially classical in its emphasis on the absolute qualities of building forms. In Britain rational analysis of subjective 'experience' led to a comprehensive aesthetic theory based on the association of ideas and most fully expounded by Archibald Alison in 1790.

Further consequences of the rationalism of this period were the revolutionary economic and political changes which shook France and Britain and had far-reaching consequences for architecture. Most advanced in Britain, these changes together with the new aesthetic theories had their most direct architectural effects on the design of smaller houses. The many books of cottage and villa designs published around 1800 record both the architecture of the period and the ideas on which it was based. Particular attention is given to the writings of J. C. Loudon as the most comprehensive exposition of advanced pre-Victorian theory.

The development of architectural ideas in Victorian and modern times shows both continuity with earlier streams of thought, and significant changes in particular as the failure of traditional theory to cope with social change became critical. The writings of Pugin, Ruskin, Fergusson, and Morris reveal the scope of Victorian theory and its contribution to modern thought. The transition from Victorian to modern architecture is shown in a comparison of Lethaby and Muthesius that also exposes a significant divergence in the tendency of their ideas. Their ideas led directly to the architecture of the early modern period. A final comparison of early modern and pre-Victorian ideas and buildings exposes the limitations of modern architectural theory.

29 September 1971

I The Classical Tradition

## 1. The Roots of Classical Theory in Greece and Rome

That architectural theory begins with Vitruvius is apparently an accident of history. Other writers of his own day dealt with the subject, and he acknowledged his debt to twenty-five Greek writers on various aspects of architecture and another twelve who dealt solely with machinery.<sup>1</sup> But none of these other works have survived, and they are known principally from Vitruvius's list. Consequently, in later centuries Vitruvius acquired tremendous authority as the unique source of classical architectural thought.

In his own day he was an obscure figure, and only moderately successful by his own report.<sup>2</sup> Nonetheless he hoped his treatise would make him known "even to posterity".<sup>3</sup> He wrote (on internal evidence) not long after Cicero, around 30 B.C.,<sup>4</sup>

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1. Vitruvius, VII, Preface, 11, 12, 14. The editions referred to are The Ten Books on Architecture, tr. M. H. Morgan, New York, 1960; Vitruvius on Architecture, ed. and tr. F. Granger, 2 vols., London, 1962.

2. VI, preface.

3. Ibid., tr. Morgan, p. 168.

4. Before 27 B.C., according to Granger, p. xiv; before 23 B.C., according to A. Boethius, "Vitruvius and the Roman Architecture of His Age", Dragma Martino P. Nilsson Dedicatum, Lund, Sweden, 1939.

and his text bears witness to the classicizing tendencies of the age of Augustus.

In addition to earlier writings on architecture Vitruvius referred to the Greek philosophers from Thales to Epicurus<sup>5</sup> who not only influenced him but were a source for later theorists. What is referred to below as the classical tradition in architectural theory was a creation of the Italian Renaissance, classical in its inspiration, but neither exclusively Greek nor Roman in its content. It drew instead both upon Vitruvius and upon the extant knowledge of Plato and Aristotle to create an amalgam of ideas that began a new and influential tradition.

Consequently, a study of the origins of architectural theory must deal not only with Vitruvius but with the (sometimes more intelligible) ideas of the classical philosophers as they related to architecture. Their origins lie in the pre-history of philosophy and the early construction and use of buildings.

At the beginnings of architecture and philosophy before the seventh century B.C. there was an "undissolved relation between man and nature",<sup>6</sup> a wholeness that characterizes primitive thought. For architecture that wholeness took the form of the fusion of art and ritual. The essence of early religion was 'actualization'; the image in an Egyptian temple was not a representation or a symbol: it was the god himself. The important criterion for the performance of ritual was its correctness; the temple architects were also priests, whose aim in design must

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5. VII, Preface, 2.

6. Henri Frankfort et al., Before Philosophy, Harmondsworth, 1963, p. 262.

have been to ensure the correct setting for the god and his ritual.

In these circumstances there can have been no distinction between sacredness and sacred function, or indeed between sacredness and beauty - they were identical. Nor can there have been a distinction between the theory that guided the designer and sacred doctrine: the latter comprehended both form and function. For the Greeks this was also true; their first important works of architecture were their temples, whose function as the dwellings of the gods was to achieve an image of divine perfection. This perhaps may explain the emphasis on utility in Greek philosophy when first it deals with the arts.

The common roots of philosophy and the arts in the mythopoeic past led also to the emphasis placed by some early philosophers on the moral and social implications of actions and artefacts. Both Socrates and Plato found the weaknesses of the Athenian state disturbing, and they consequently paid particular attention to education and occupations which they criticized in terms of their effect on society. The arts, in particular, were judged not by autonomous standards, but in terms of their usefulness and social influence.

This emphasis on social function was, however, at odds with another tendency in Greek thought. As developed by Plato this has become known as the 'Theory of Forms': the view of the world of our senses as an imperfect and ephemeral shadow of a real but unknowable world of unchanging, immaterial perfection, best exemplified by the ideas and forms of geometry.

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Socrates's model for general discourse on life and the world was the craftsman, who applied the appropriate means in order to achieve a desirable end which became embodied in the finished product. This description he extended to include the absolute or supreme end: the 'Good in itself', and the means by which this was approached: 'good actions'.<sup>7</sup> The highest end was wisdom and the appropriate means was the practice of philosophy. Compared with philosophy and wisdom, the manual arts and their products were considered by Socrates to be very humble indeed.

Two standards of criticism were thus applied by Socrates, a relative functional standard and an absolute moral or ethical standard. As reported by Xenophon he accepted the implication of the relative standard, that widely differing qualities might be appropriate to different circumstances. His example was a breast plate: good proportions meant a good fit, he said, even if to an ill-proportioned man.<sup>8</sup>

Dealing specifically with building, he argued that the 'good' and the 'beautiful' were both relative to use. A house that was comfortable at all seasons of the year, and strong and secure, was "presumably at once the pleasantest and the most beautiful."<sup>9</sup>

But the arts and crafts he ranked very low in the whole range of human activity, at the top of which he set the philosopher engaged in the pursuit of wisdom. He called them the 'il-liberal arts' and argued that they weakened both the body and the

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7. Katherine Everett Gilbert and Helmut Kuhn, A History of Esthetics, Bloomington, 1953, p. 16.

8. Xenophon, Memorabilia and Oeconomicus, tr. E. C. Marchant, London, 1923; Memorabilia III, x, pp. 231 ff.

9. Ibid., III, viii, pp. 221, 223.



mind, and as well deprived the craftsmen of time for their friends and for civic duties.<sup>10</sup> Recapitulating a little later in this discussion he concluded,

...that for a gentleman the best occupation and the best science is husbandry, from which men obtain what is necessary to them.<sup>11</sup>

This Spartan ideal assumed a society in which slaves were available to do the work that gentlemen disdained (but the ideal itself survived the end of antiquity to become one of the characteristic themes of eighteenth-century Britain).

Plato elaborated the idea of the social function of art, especially in the Republic where he discussed the "ancient quarrel between philosophy and poetry".<sup>12</sup> Both gave rival statements of truth, but only philosophy with its superior objectivity could be allowed to prevail. Therefore he reluctantly concluded that poetry should be expelled from his ideal state. Art in general he treated as dangerous because of its misleading charms, its substitution of illusion for reality. The more these were evident, he felt, the more they threatened to lead the observer away from the most profound beauties of reason. And in the Laws, when he later concerned himself with more practical measures for the government of a state, he praised Egypt where music, painting, and the other arts had been unchanged for thousands of years. He referred with approval to rigorous legislation by which the Egyptians discouraged innovation and change in the arts.

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10. Xenophon, Memorabilia and Oeconomicus, tr. E. C. Marchant; Oeconomicus, IV, 2-3.

11. Ibid., VI, 8 (Socrates was comparing Athens to Sparta).

12. Plato, Republic, tr. A. D. Lindsay, London, 1969, 607b; p.311.

...it was, and still is, forbidden to painters and all other producers of postures and representations to introduce any innovation or invention, whether in such productions or in any other branch of music, over and above the traditional forms.<sup>13</sup>

...as regards music it has proved possible for tunes which possess a natural correctness to be enacted by law and permanently consecrated.<sup>14</sup>

On the other hand Plato recognized a social value for the arts, including architecture. The craftsmen were to be forbidden,

...to leave the impress of that which is evil in character, unrestrained, mean and ugly, on their likenesses of living creatures, or their houses, or on anything else they make.<sup>15</sup>

A beautiful and appropriate environment, on the other hand, would have a beneficial effect on the youth of the state, bringing them to love and to live in harmony with reason.

We must search for such craftsmen as can excellently pursue the nature of the beautiful and the fitting, that our young men may be benefited on all sides like those who live in a healthy place, whence something of the beautiful works will strike their eyes and ears, like a breeze that brings health from salubrious places, and lead them unawares from childhood on to love of, resemblance and harmony with, the beauty of reason.<sup>16</sup>

As well as emphasizing art as a social influence, Plato repeated Socrates's identification of utility and beauty. In the Hippias Major he presented Socrates as saying "that what is useful and efficient for some good purpose is beautiful".

We consider the origin and fashion and place of each thing, and if it be useful, so far as it is useful and when and where it is useful we call it beautiful, but what is quite useless, ugly.<sup>17</sup>

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13. Plato, Laws, tr. R.G.Bury, 2 vols., London, 1942, 656 D,E; v. I, p.103.

14. Ibid., 657 A.

15. Republic, 401, tr. Lindsay, p.84.

16. Republic, 401 b, tr.G.M.A.Grube, and quoted in G.M.A.Grube, Plato's Thought, Boston, 1958, p.183.

17. Plato, Hippias Major, 295 B, tr.E.F.Carritt, quoted in E. F. Carritt, Philosophies of Beauty, Oxford, 1931, pp.11 and 10.

Even more important for later art theory was the 'Theory of Forms', foreshadowed by Socrates but fully developed by Plato, especially in the Republic. This theory was the belief that, independent of the world of phenomena, there existed unchanging and universal absolutes such as absolute beauty, from which the beauty we experience derives any reality it has.<sup>18</sup> The theory was advanced in various versions by Plato to deal with a variety of problems concerning the nature of existence and our knowledge of it. (That he and Aristotle also presented serious criticisms of the theory in no way detracted from its influence on later ages.) So far as the arts were concerned with the sensuous and ephemeral aspects of experience, they were unworthy of respect. Their only worthwhile aim was to seek to embody, however imperfectly, those aspects of experience which most clearly approached the unchanging perfection of the forms. These were best exemplified by the forms of mathematics, simple harmonic ratios, and the simple geometric figures.

How then does the mind grasp the truth? For whenever it tries to examine something with the help of the senses, it is clearly deceived.

- True.

- Is it not in mathematical reasoning, if anywhere, that something real becomes clear to the soul?

- Yes.

- And mathematical reasoning is most successful when the mind is not troubled by hearing, sight, pleasure, pain or any of those things; when it is alone as far as possible and without concern for the body; when with the least possible contact or association with the body it reaches out towards reality.<sup>19</sup>

Socrates, who was the speaker in this passage, compared mathematical reasoning to the effort made by the mind of the philosopher

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18. G. M. A. Grube, Plato's Thought, p. 1.

19. Plato, Phaedo, 65 b, trans. G. M. A. Grube, and quoted in G. M. A. Grube, Plato's Thought, pp. 15-16.

when he tried to grasp the nature of the just, the beautiful or the good: "...the purest knowledge will be that of the man who approaches each subject as far as possible with thought alone..."<sup>20</sup>

A further development of the theory, suggested in the Republic, was the existence of an 'Idea of Ideas' in the realm of forms or ideas, which was 'The Good'.<sup>21</sup> Not only was it the source of the power of knowing the objects of knowledge, but the source of their very being and existence.<sup>22</sup>

This, then, which imparts truth to the things that are known and the power of knowing to the knower, you may affirm to be the Form of the good. It is the cause of knowledge and truth, and you may conceive it as being known, but while knowledge and truth are both beautiful, you will be right in thinking it other and fairer than these.

Then you may say of the objects of knowledge that not only their being known comes from the good, but their existence and being also comes from it, though the good is not itself being but transcends even being in dignity and power.<sup>23</sup>

Even the reality of beauty itself then was subordinate to the supreme reality of 'the good'.

Not only did the theory of Forms support the hierarchy of human activity described by Socrates, and criticism of the arts based on utility, particularly social utility, but also it implied that artists should embody in their works those qualities expressive not of the transient features of immediate experience but of the timeless, unchanging, and eternal. Aesthetic pleasure as such was recognized by Plato in the Laws as a particular and personal standard for judgement which he distinguished from

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20. Ibid.

21. Republic, 506 ff.

22. Republic, 509; cf. A. O. Lovejoy, The Great Chain of Being, New York, 1965, pp. 39 ff.

23. Republic, 508, 509, tr. Lindsay, p. 203.

the utilitarian standard, but only in order to make it clear that the utilitarian standard must be supreme.<sup>24</sup>

Now in practice there appeared in later centuries some difficulty in reconciling these different standards. As long as artists were content to accept a humble station and occupy themselves with simple utility no problem could arise. But artists aspired (in Plato's own day as well as later) to a much higher status, and in particular they attempted to embody directly in their works the qualities which philosophers approached through pure reason. But practical utility and the representation of ideal forms were not necessarily consistent aims, and in practice one had to give way before the other, so that in the tradition following on from the Greeks, a distinction grew between the utilitarian crafts and the pure arts.

While Aristotle rejected the theory of Forms as presented by Plato, he further developed the idea of utility, and in so doing advanced what was later to be one of the most influential interpretations of beauty. Beauty and utility had already been associated in the ideas of Socrates and Plato. Aristotle, with his particular interest in the detailed study of the natural world, saw utility in terms of the function of natural organisms. In the Parts of Animals he defined utility as fitness for some purpose; first he suggested that in no animal "is Nature or Beauty lacking", then he explained,

I add 'Beauty', because in the works of Nature purpose and not accident is predominant; and the purpose or end for the sake of which those works have been constructed or formed has its place among what is beautiful.<sup>25</sup>

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24. Laws, 667, 668.

25. Aristotle, Parts of Animals, I, v; tr. A. L. Peck, London, 1937, p. 101.

The beauty seen in nature was the visible correspondence of the forms of organisms to the function which they served and therefore the end for which they were created.

This notion of end or purpose was for Aristotle one of the fundamental causes needed to account for the existence of any entity. He saw it as determining the course of development of any growing or created thing, and he saw ends in general as the goals which determined the course and results of all productive activity. One example he gave was the building of a house. The process of building, he said, follows the pre-existing form. The house does not become what it is as a consequence of the process of formation. "The process is for the sake of the actual thing, the thing is not for the sake of the process."<sup>26</sup> More generally, he identified art with the logos or essential plan of the product, not yet embodied in matter. Art then (it is apparent that art was not distinguished from craft or technique) consisted in the embodiment in matter of a pre-existing form or plan.<sup>27</sup> Excellence was the successful realization of the plan in the work. Utility and beauty were identical with the realization of the end, purpose, or plan, in accordance with which the work was constructed.<sup>28</sup> Later ages disregarded the subtleties of Aristotle's argument but repeated, almost as a cliché, that fitness for purpose is beauty.

Also expressed by Aristotle, a commonplace in his own day, was the idea that excellence in art is the mean. "An expert in

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26. Ibid., I, i, p. 61.

27. cf. Aristotle, The Nicomachean Ethics, tr. H. Rackham, London, 1947; VI, iv, 3, for the application of this idea specifically to architecture.

28. Ibid., II, vi.

any art," he said, "avoids excess and deficiency and seeks and adopts the mean..."<sup>29</sup> The mean he saw as a standard, to be used as such by the arts. The idea of a 'standard' applied particularly well to architecture in an age when the system of the orders required the repetition of large numbers of basically simple but highly refined forms (for instance the Doric columns of the Parthenon). The mean as standard was supported by his meticulous study of nature. Individual plants and animals, he found, all varied in detail; though they were of the same species, all were imperfect. He concluded that perfection existed in the typical only, in the generalized type created by excluding individual characteristics from a composite portrait of the species. This was the ideal pattern - the plan that guided the process of creation. In later ages, when the classical influence was strongest, as in early fifteenth-century Italy, this idea of the mean or typical, given increased authority and wider currency through Aristotle, became the artist's accepted goal.

The result of all this philosophical activity was that from the Greeks of the classical age, particularly from Plato and Aristotle, came these two notions about beauty and art. First was the idea that the important criterion for the success of art was, not the pleasure it gave to men, but its usefulness. Beauty, in this view, meant suitability for use. Second was the idea that behind the appearance of beauty must lie its unchanging and eternal reality - 'the beautiful'.

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29. ...an expert in any art avoids excess and deficiency, and seeks and adopts the mean...the way in which every art or science performs its work well is by looking to the mean and applying that as a standard to its productions (hence the common remark about a perfect work of art, that you could not take from it nor add to it...).

Ibid., II, vi, 9, p. 93.

Utility meant usefulness to society in Plato's political writings, while in Aristotle's hands it was understood in terms of physiological function. The 'beautiful' implied the existence of an unchanging and absolute standard which lay behind or beyond all apparent beauty - an ideal which men could hope only to approach, never to grasp.

In the application of these ideas to the arts lay a problem for later ages. Utility, however much it may in theory be derived from some unchanging ideal, in practice must be based upon empirical assessment of actual performance in a real context. On the other hand for judgements based on absolute standards the immediate context of the work is irrelevant. There arises a conflict between what may be called extrinsic and intrinsic values in art; in architecture particularly between values derived from experience and reason, or between the sensible and the rational. Beauty (and, following Plato, 'the Good') may be identified with the eternal form or idea of which material constructions are imperfect representations. However it may also be identified with their successful performance in the context of this world. From the first view follow later theories of architecture based on proportion, symmetry, and geometry (and much later structural theory) - all formal qualities intrinsic to the object. These qualities are treated as though the constructions were detached from any particular context of use and appreciation. From the second view follow empirical judgements according to 'functional' and also romantic and picturesque theories, which examine the effect or performance of the work in relation to a context of use or response from which it is inseparable.



This conflict between empirical and purely rational values in art corresponds to the more fundamental conflict between 'this-worldly' and 'otherworldly' views of existence which Lovejoy traced to contradictory themes in Plato's writings. The Plato of the Dialogues was, Lovejoy wrote, "the main historic source of the indigenous strain of otherworldliness in Occidental philosophy and religion...." He influenced not only the Neoplatonists, but also "the Schoolmen, the philosophers and poets of the Renaissance, of the Enlightenment, and of the Romantic period...".<sup>30</sup> In these works Plato,

...insisted that philosophy, the highest knowledge, is concerned, not with things that change, not even with the constant general laws of concomitance and succession which hold good of these things and their changes, nor yet solely with the truths of mathematics, but with a transcendental realm of pure noumena of which the natural world is only a dim and distorted shadow....<sup>31</sup>

But Plato also gave to Western thought a "peculiarly exuberant kind of this-worldliness".<sup>32</sup> In the conception of an Idea of Ideas, the Good, he found "the necessitating logical ground of the existence of this world;" and "of the necessity and worth of the existence of all conceivable kinds of finite, temporal, imperfect, and corporeal beings."<sup>33</sup>

While Lovejoy was concerned with the specific conception of the universe as a "Great Chain of Being" and its later history, his distinction between 'this-' and 'otherworldly' explains the ground of the later conflicts between architectural theories

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30. A. O. Lovejoy, The Great Chain of Being, p. 35.

31. Ibid., pp. 37-8.

32. Ibid., p. 45.

33. Ibid.

formed in the classical tradition and deriving their basic concepts from the philosophy of classical antiquity.

It is worth noting that according to Lovejoy the conflict between the two views of existence became apparent to philosophers only towards the end of the eighteenth century, when Schiller expressed the contradiction as a paradox in his Letters on the Aesthetic Education of Mankind (1795). Schiller brought back Plato's two conflicting principles, that of immutable Perfection and that of unlimited Creativity. These characteristics man shared - he was at once both rational and sensuous.<sup>34</sup> The tension between the two tendencies was the mainspring that drove the Romantic Movement. It will be shown to have been an essential force in the creation of modern architectural theory.

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Later Greek writers placed a higher value on the purely pleasurable qualities of art than did Plato, but it was the earlier theory that had most influence on the thought of post-medieval centuries. Roman thought followed the Greek precedents closely including the later Hellenistic preference for connoisseurship in place of more fundamental inquiry. Cicero (106-43 B.C.), a Roman given more than most to philosophical thought, had a passion for building and delighted in the embellishment of his villas with carefully chosen painting and sculpture. His interest in art lay, however, in the effect created, not in basic questions of purpose and value. He discussed at length and with originality the practical problems of oratory, for instance, but dealt with the problems of imagination and beauty with superficial

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34. Ibid., p. 302.

formulae and Greek platitudes. He noted that beauty resulted from fitness for purpose, and also defined it as proportion of parts and agreeableness of colour.<sup>35</sup> The hull and rigging of a sailing ship follow the demands of function,

yet they all have such a graceful appearance that they appear to have been invented not only for the purpose of safety but also for the sake of giving pleasure.<sup>36</sup>

And similarly the pillars and pediments of temples and colonnades "are the product not of beauty but of actual necessity."<sup>37</sup> Cicero's conclusions, though not the depth of his argument, followed Aristotle.

A more significant contribution to aesthetics came with the otherworldliness that dominated speculative thought in the later Empire, together with a new interest in the inward aspects of artistic creation. Plato's 'Forms' were given new meaning and importance in the writings of Plotinus (born c. 205 A.D.).<sup>38</sup> For Plotinus works of art were greater, not less, than works of nature (for Plato they had been emphatically less), because he saw the ideal Form operating within the artist's mind.

On what principle does the architect, when he finds the house standing before him correspondent with his inner ideal of a house, pronounce it beautiful? Is it not that the house before him, the stones apart, is the inner idea stamped upon the mass of exterior matter, the indivisible exhibited in diversity?<sup>39</sup>

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35. Cicero, Tusculan Discussions, IV, xiii, 31, tr. Carritt, quoted in Carritt, Philosophies of Beauty, p. 36.

36. Cicero, De Oratore, tr. H. Rackham, London, 1942, III, xlvi, p. 143.

37. Ibid.

38. Gilbert and Kuhn, A History of Esthetics, p. 113.

39. Plotinus, The Enneads, tr. Stephen MacKenna, London, 1957, I, 6, 3, p. 58.

Plotinus's interpretation of the relation between Form and appearance gave a supreme dignity to the artist and rescued art from the subordinate role allowed it in Plato's thought. It also brought a return to the somewhat mystical emphasis on number and geometry that Plato had drawn from the Pythagoreans. His emphasis on indwelling perfection contributed to the easy assimilation of Plotinus's philosophy by the philosophers of the Christian Church.

To St. Augustine (354-430 A.D.), for whom order and number were the determinants of beauty, violations were particularly apparent in architecture.

One is shocked at any unnecessary inequality in the parts of fabricated things. One is not content, for instance, if a house has one door on the side and another in the middle but not quite. On the contrary, one is satisfied if there is a window in the middle of a wall and a window at each side of it at the same distance from the middle.<sup>40</sup>

In his emphasis on form and ideal order can be seen the dominant note of the classical tradition as received and modified by the Christian philosophers of late antiquity and the middle ages.

This emphasis on the absolute and transcendent - the otherworldly - became in turn a starting point for the theorists of renaissance Italy.

The other starting point was the much more pragmatic architectural tradition transmitted by Vitruvius. His aesthetic theory was based in part (as noted above) on now vanished Hellenistic sources.<sup>41</sup> Modern students find it obscure and difficult to follow; the definitions of terms are unclear and the argument (especially Book I, chapter II) as a whole has the

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40. St. Augustine, De Ordine, II, quoted in Gilbert and Kuhn, p.133.

41. See above, p.1.

flavour of received doctrine rather than of current practice. Later ages found his treatise a source of information about the detail of ancient buildings (often misinterpreted due to the lack of original illustrations) and also of useful knowledge of construction. Of the theoretical comment, however, only his succinct summary of a building's necessary qualities, firmitas, utilitas, venustas, became firmly embedded in later tradition.<sup>42</sup>

The three categories - stability, convenience and beauty - suggest a progression from unformed matter, through utility or function to visual pleasure and beauty. The crowning category, beauty, proceeds from the abstract formal qualities of number and proportion. Stability depends on the generous provision of suitable materials, convenience on the proper siting and convenient internal arrangement of the building, while beauty is a consequence of good taste and, most important, correct proportioning and symmetrical arrangement of the building's parts. The importance of this hierarchy Vitruvius confirmed in the preceding section (I, iii) when he dealt with it in reverse, beginning with abstract Order and ending with Economy.

In III, i, he further emphasized the importance of a system of proportions in which the dimensions of part to part and part to the whole of the building are simply related. This relation followed according to Vitruvius from the use of a module, which he defined as a small unit of measurement. The dimension of every part of the building was then made an integral multiple of this module, so that the whole and every part were systematically linked in dimension.

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42. Vitruvius, On Architecture, tr. Granger, I, iii, 2.

This theory and technique of proportion, and his emphasis on obscure formal qualities and the rules by which they were achieved, both served to underline the importance of abstract form and order to the architects of later centuries.

In the same passage Vitruvius used the human body as a paradigm of proportionality; his description was the source for the Renaissance drawings of the 'Vitruvian figure', a man inscribed in a circle and square with arms and legs outspread.

Vitruvius failed to anticipate the greatest achievements of Imperial Roman architecture, or the changes in its theory. The great moulded concrete structures of the following centuries, such as the Pantheon and the Imperial Baths in Rome, marked a turning away from the austerity of Augustan architecture towards a much more complex handling of space that anticipated the Baroque. These changes in architecture (and in the state itself) were accompanied by striking changes in theory. L'Orange has described how classical emphasis on proportionality gave way in the third century A.D. to the Plotinian idea that beauty emanates from the soul and so pervades and illuminates the body.<sup>43</sup> Both ideas lay within the streams of thought that derived from the original Socratic attempt to think clearly about the nature of things by distinguishing means from ends.

One stream, flowing from Socrates through Plato's moral and political writings, emphasized the end, absolute and transcendent, uniting the qualities of beauty, truth, and goodness. Experience of this world gave way to pure reason as the path to beauty.

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43. Hans Peter L'Orange, Art Forms and Civic Life in the Late Roman Empire, Princeton, 1965, pp. 27f.

The other, expressed in Aristotle's fascination with the fulness and variety of the natural world, sought a route to ultimate meaning and stability through experience. Variety and individuality were seen as the means by which the ends of nature were achieved; form was determined by function. This was an aspect of Aristotle to which the Renaissance architects failed to respond. In their effort to re-establish architecture as an elevated and intellectual pursuit they suppressed any suggestion that so mechanical a quality as function (or utility) could be a major element of design theory.

The identity of form and function, and the notion that particular forms all strive toward the realization of a unique function, found renewed life in the eighteenth century. Kant and Goethe in particular contributed to the widely influential Naturphilosophie,<sup>44</sup> which sought to explain the form of natural organisms in terms of 'plans', 'types', or 'ideas' which shaped growth in accordance with some destined purpose. Through critics like Coleridge and Ruskin, and through the influence in America of the sculptor Horatio Greenough, these ideas of form, function and organic growth became part of modern architectural thought.

In the Platonic conception of Forms and the Aristotelian understanding of function lay a basic problem. Plato and Aristotle paid little attention to the processes by which the world is experienced and knowledge formed. Their conclusions followed more from the nature of language and the process of

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44. Charles Singer, A Short History of Scientific Ideas, Oxford, 1959, pp. 384 ff. and 501 ff.

naming things, than from direct experience of the material world. Yet ideas are grounded in our experience of the sensible world. To understand it, the process of perception and hence the changing and relative nature of experience required examination. Feelings such as pleasure, which Plato considered of little importance, demanded a parallel and perhaps prior study. The unique relation between form and function of the individual organism, implicit in Aristotle's argument, was overshadowed by the multiple and complex relations between the many forms and functions of human society.

Vitruvius survived the fall of the classical world as the sole representative of ancient architectural thought. His immense authority for the architects of Renaissance Italy was reinforced by the renewed interest in Platonism of the fifteenth century. For the architects of the Renaissance, as a consequence, problems of perception, feeling and imagination were at first overshadowed by the search for perfect beauty.



## 2. Classical Theory in Renaissance Italy

The survival of Vitruvius's treatise through the Middle Ages and its rediscovery in the early fifteenth century can be seen as evidence of the strength of the classical tradition. The wealth of surviving Vitruvian manuscripts<sup>1</sup> demonstrates beyond all doubt that he continued to be consulted as an authority on building through the Middle Ages. The existence of condensations of his work suggests that it may indeed have been used as a text for the training of masons. On the other hand there is almost no evidence beyond the Vitruvian texts for the actual content of medieval architectural theory before about the twelfth century (beyond that offered by the buildings themselves). Even from the twelfth century on documents such as Villard de Honnecourt's notebook (ca. 1235), Gervase's account of the rebuilding of the Canterbury choir (1170-75), Suger's account of St. Denis (1140-44), and the various expert commissions who were consulted on problems at cathedrals from Milan

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1. See C.H. Krinsky, "Seventy-eight Vitruvius Manuscripts", Journal of the Warburg and Courtauld Institutes, 30, 1967, pp. 36-70, for a description of the surviving texts. See also F. Granger's discussion of Vitruvian mss. in the introduction to his translation (above, Chapter 1, n.38).

(1391-1400) to Gerona (1417),<sup>2</sup> leave us without any clear conception of the way in which design decisions were made and explained to laymen, or of any comprehensive basis for the critical discussion of architecture.

The most that can be observed about medieval theory is that there did exist a general foundation of classical philosophy recorded and studied in manuscript, and as well a strong classical vocabulary of forms, still evident in the buildings. Interrupting the continuity of the classical tradition was the emphasis on Christian symbolism in the building programs of the great structures of the age and the alien tastes and heritage of the peoples of northern Europe.<sup>3</sup>

Despite the survival of Vitruvius, and especially in Italy of ancient building forms,<sup>4</sup> the classical tradition was greatly attenuated through the middle ages. Interest revived in ancient Rome between 1300 and 1500. First in literature, with Petrarch and Boccaccio, and in philosophy, then in the visual arts, a new interest in the arts combined with the revival of classical learning. Its influence on architecture is usually dated from the building of the Foundling Hospital in Florence, designed by Brunelleschi, between 1419 and 1424.

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2. For an account of sources of medieval theory see P. Frankl, The Gothic, Princeton, 1960, chap. 1; also J. S. Ackerman, "Ars sine scientia nihil est; Gothic Theory of Architecture at the Cathedral of Milan", Art Bulletin, 31, 1949, pp. 84-111.

3. See W. Worringer's much criticized but stimulating Abstraction and Empathy and Form in Gothic, discussed by Frankl, The Gothic, esp. p. 673.

4. See A. Boethius, The Golden House of Nero, Ann Arbor, 1960, p. 165.

From the twelfth century onwards, especially in Italy, growing commerce and secular patronage of the arts provided the basis for a renewed interest in the material and intellectual culture of the ancients. Conscious Florentine identification with Republican Rome in the later fourteenth century when it was under the threat of Milanese aggression greatly stimulated interest in the Roman way of life and in any surviving records of the earlier period.<sup>5</sup> A new emphasis was given to direct knowledge of original classical sources by Florentine scholars. For architecture these sources were both the surviving remains of ancient monuments and Vitruvius's treatise.

One aspect of the medieval building tradition provides a necessary background and contrast to Renaissance architectural thought. However intellectually gifted and literate the medieval architects might be, they were by tradition, and usually by their own background and training, bound to the building crafts. Their great strength as designers was their intimate knowledge of the craft of construction which made possible the daring manipulation of form and space in the great medieval buildings. In the Greek hierarchy of activities, however, the manual crafts were ranked very low compared with the intellectual pursuits, with philosophy ranked highest.<sup>6</sup> The authority of classical values in the fifteenth and sixteenth centuries impelled artists from Alberti to Vasari to establish the intellectual credentials

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5. H. Baron, The Crisis of the Early Italian Renaissance, 2 vols., Princeton, 1955.

6. See above, chap.1, p.4.

of their arts so that they might command the respect given to philosophy in antiquity. But the initial contribution to the birth of Renaissance architecture was entirely practical - Brunelleschi was trained as a craftsman and his work can be interpreted as spanning the transition from medieval to Renaissance. The task of creating the requisite theory fell to others.

The key figure in the architectural theory of the Renaissance was Leon Batista Alberti (1408-72).<sup>7</sup> He belonged to the new class of scholar-artists who were breaking free of the medieval tradition. They wished to win a higher social standing and improve the arts by establishing clear principles soundly based on antique precedent.<sup>8</sup> Alberti's practical work in architecture and painting Vasari thought overrated, an effect he attributed to the excellence of Alberti's many books, on perspective, painting, sculpture, and other subjects as well as architecture. They were, he said,

written in such a manner, that no artist of later times has been able to surpass him in his style and other qualities as an author, while there have been numbers, much more distinguished than himself in the practice of art...<sup>9</sup>

Alberti's Ten Books on Architecture<sup>10</sup> recreated classical architectural theory in the Renaissance context.

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7. See P.-H. Michel, Un Idéal Humaine au XVème Siècle; La Pensée de L.B.Alberti, Paris, 1930, for a general account.
  8. P.O.Kristeller, "The Moral Thought of Renaissance Humanism", Renaissance Thought II, New York, 1965, esp. p.50.
  9. G.Vasari, Lives of the Most Eminent Painters, Sculptors, and Architects, first pub.1550, tr. Mrs.Jonathan Foster, 5 vols., 1850-1852, vol.II, p.41.
  10. L.B.Alberti, de re aedificatoria libri decem, Florence, 1485. Except where otherwise noted, the translation and page references given here are from the reprint of the 1755 edition of Giacomo Leoni's English translation (first pub. 1726): L.B.Alberti, Ten Books on Architecture, ed. J.Rykwert, London, 1955.

Alberti undoubtedly owed his inspiration and the form of his treatise to Vitruvius. Not that he accepted Vitruvius uncritically; in the spirit of the age he compared and criticized a variety of authorities and then presented his own conclusions. The tone of the two authors differed significantly: Vitruvius wrote at the end of a long and, he implied, unrewarded career. He felt that architecture was in decline and wrote to preserve the Hellenistic tradition in which he had been trained. Alberti wrote more confidently and creatively; with the inspiration and the authority of the past before him he also filled his treatise with a sense of the new beginning in which he and his contemporaries were consciously engaged.

Despite the superficial similarity of the two works - both ten 'books' long, ranging in content from the choice of materials to the abstract theory of beauty - Alberti's treatise showed its independence of Vitruvius from the first chapter. Both began with general principles, but while Vitruvius plodded through the abstruse Greek terminology he inherited, Alberti presented a lucid exposition of the nature of design. Vitruvius's discussion of important principles is largely confined to the first and third books, in a fairly consistent progression from the general and abstract to the particular and practical. In contrast Alberti's most complete discussion of the theory of beauty comes in Book IX, almost as an afterthought. The practical foundations of both treatises are on the other hand very similar; Alberti considered questions of ~~site~~ site, orientation, materials, structure and the various classes of building with which the architect had to deal, though he omitted Vitruvius's later

treatment of the machines of war, and dials and clocks. Throughout Alberti showed respect for Vitruvius's practical knowledge, and quoted him on such subjects as the properties of various woods (in Chapter VI). Vitruvius was just one among many ancient authorities that he cited on such topics, and he often added to their advice his own experience. On other questions, for instance the education required by an architect, he disagreed emphatically. He thought it ridiculous of Vitruvius to expect the architect to be learned in law, music, oratory and astronomy as well as other subjects which might be of only peripheral importance. The arts which were absolutely necessary to the architect were, he said, painting and mathematics.<sup>11</sup>

On the key question of design and its philosophical roots, Alberti placed even more emphasis than did Vitruvius. The culmination of his treatise is the elaborate theory of proportion (in Book IX) from which he drew the architect's rules for design.

From Alberti's comprehensive discussion of the theory and practice of building, three topics are of importance here. The first two, both explicitly discussed by Alberti, are the nature of design, and the nature of beauty. The third, treated reluctantly and outwith his theoretical principles, is the place of individual experience in the appreciation of architecture. Alberti's discussions of design and beauty show his intention to establish abstract reason as the basis for design and the fountainhead of beauty, while his passing references to actual

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11. IX, 10; p.206.

experience of architecture reveal the suppressed contradiction in his argument.

The nature of **design** Alberti dealt with at the very beginning of his Ten Books, when he distinguished the work of the architect from that of the skilled craftsman. In the hierarchy of the arts, some are "followed for Necessity, some...for their Usefulness," and some, he said, "because they lead us to the Knowledge of Things that are delightful." Architecture was one of these; an art that went beyond utilitarian ends to bring both "Pleasure and Honour".<sup>12</sup> Having claimed the highest dignity for architecture, and having distinguished it from the purely utilitarian arts he then separated the architect from the simple craftsman in these terms:

...the manual Operator being no more than an Instrument to the Architect. Him I call an Architect, who by sure and wonderful Art and Method, is able, both with Thought and Invention, to devise, and, with Execution, to compleat all those Works which...can with the greatest Beauty, be adapted to the Uses of Mankind....<sup>13</sup>

The key to the architect's distinction is his ability to design, "by thought and invention" and "with the greatest beauty". This may have been so important to Alberti because he wrote in the first few decades of the architectural Renaissance when the medieval confusion of designer and craftsman was still widespread.<sup>14</sup>

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12. Preface, p. ix.

13. Ibid.

14. Pevsner gives the evidence for the appropriation of the word "architect" by the clergy in the later middle ages and the lack of a clear distinction between the 'architect' and the mason: N.Pevsner, "The Term 'Architect' in the Middle Ages", Speculum, XVII, 1942, pp. 549 ff.

The nature of design Alberti set out in an explicit definition that clearly based it in the intellect:

...we consider that an Edifice is a Kind of Body consisting, like all other Bodies, of Design and of Matter; the first is produced by the Thought, the other by Nature; so that one is to be provided by the Application and Contrivance<sup>15</sup> of the Mind, and the other by due Preparation and Choice.

Both are necessary: the architect provides the design, the "experienced Artificer" forms his material "after a just Design." Further, considering design in relation to the different sorts of buildings, he perceived "that the main Point was the just Composition and Relation of the Lines among themselves, from whence arises the Height of Beauty";<sup>16</sup> design was clearly the application of reason to the task of ordering the form of a building so as to produce beauty.

Alberti enlarged on the same point in I,1 where he introduced the main body of his work by briefly discussing "Designs; their Value and Rules". He argued that design comprised just those aspects of a building - arrangement, number, proportion and order - that were completely separable from the matter of the building and could be conceived entirely in thought and imagination.<sup>17</sup> "The Design," he concluded, was "a firm and graceful pre-ordering of the Lines and Angles, conceived in the Mind,

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15. p.xi.

16. Ibid. This seems to be an accurate history of his thought. Although he briefly mentions the nature of beauty in Book VI, the detailed account of it comes surprisingly late, halfway through Chap.IX, in Book V.

17. "Nor has this Design any thing that makes it in its Nature inseparable from Matter; ...we can in our Thoughts and Imagination contrive perfect Forms of Buildings entirely separate from Matter....", p.1.



and contrived by an ingenious Artist."<sup>18</sup> The fulfillment of the Design was, therefore, "the Height of Beauty".

Full consideration of the nature of beauty comes late in the Ten Books, in IX, 5-7, though the topic is mentioned briefly in VI, 2 and VI, 4. The reappearance of beauty in Book IX appears to have followed the maturing of Alberti's ideas as implied in the Preface (p.xi).<sup>19</sup> It is convenient to follow this order, because in his first consideration of beauty Alberti made a further distinction between beauty and ornament,<sup>20</sup> which elaborated the earlier distinction between architecture and the crafts.

Considering "Beauty and Ornament, their Effects and Difference" in Book VI, chapter II, he defined beauty as

a Harmony of all the Parts, in whatsoever Subject it appears, fitted together with such Proportion and Connection, that nothing could be added, diminished or altered, but for the Worse.<sup>21</sup>

He noted that nature seldom produced anything that was in itself perfect. Nor, he implied, did art. However he suggested that by painting, trimming, polishing, and adding ornament it was possible to compensate for deficiencies. Ornament he defined as "a Kind of an auxiliary Brightness and Improvement to Beauty".<sup>22</sup>

18. p.2.

19. It may be that sections of the treatise were circulated before the whole was complete and Alberti was therefore forced to include his later ideas on beauty in the most appropriate section then to hand.

20. Wittkower discusses this in relation to Alberti's treatment of the column: R.Wittkower, Architectural Principles in the Age of Humanism, 3rd ed., 1962, pp.33 ff.

21. p.113.

22. Ibid.

Beauty was "proper and innate" whereas ornament was "added or fastened on". This clearly implied that beauty was independent of ornament, that the closer the architect came to a perfect handling of the rules of beauty, the less he needed ornamental embellishments.<sup>23</sup>

In VI, 4 he elaborated the distinction between ornament and beauty by considering the sources of the two. He began by explaining that the delight we find in things "beautiful or finely adorned" must be the result either of "the Contrivance and Invention of the Mind," "the Hand of the Artificer," or "derived immediately from Nature herself."<sup>24</sup> Mind, it seems, chooses and distributes the elements of the work whereas the hand is responsible for their fine execution. Nature in effect provides the basic qualities of matter which are the raw materials for the craftsman and those qualities which the mind of the architect chooses and distributes: "Heaviness, Lightness, Thickness, Clearness, Durability, &c."<sup>25</sup>

The distinction between beauty and ornament makes it clear how important it was to Alberti to reserve to the architect an almost purely intellectual function by dissociating him from any aspect of the work which was dependent upon manual skill, and equally to maintain the distinction between the absolute and unvarying character of beauty, and the vagaries of taste and pleasure.

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23. Compare for instance Alberti's view of the column, which he considered ornamental, vis à vis the wall. The problem is treated by Wittkower, Architectural Principles, pp.33-36. See also below, p.37.

24. p.115.

25. p.116.

"Some...say that Men are guided by a Variety of Opinions...Forms must vary according to...Taste and Fancy," but he thought this only ignorance. His business was, he asserted, to expound the rules that made the architecture of the ancient Romans possible. Some of these concerned

the universal Beauty and Ornament of the whole Edifice; others the Particular Parts and Members taken separately. The former are taken immediately from Philosophy...the others from Experience...only filed and perfected by the Principles of Philosophy.<sup>26</sup>

This persistent heresy rejected, he settled down, in Book IX, to a detailed analysis of beauty in architecture. He distinguished between what pleases and what is beautiful. The first is "mere Opinion", variable, uncertain, of no importance for the architect, whereas the second is the "secret Argument and Discourse implanted in the Mind itself."<sup>27</sup> He referred to the traditional comparison of the building to an animal:<sup>28</sup> the idea that a beautiful building has an organic unity which cannot be tampered with. And he repeated that beauty and associated qualities "consist in those Particulars which if you alter or take away, the Whole would be made homely and disagreeable."<sup>29</sup> The architect's problem in design was to create this kind of order. Its source for the ancients (according to Alberti) lay in nature, and it was by copying nature that they created the three orders. Throughout the following discussion of beauty Alberti contrived to appeal to nature as the source of his principles.

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26. pp. 113, 115.

27. p. 194; "Verum animus innata quaedam ratio efficiet", 1485 edition.

28. Ibid.

29. p. 195.

In the more detailed analysis that followed Alberti set out the rules of beauty that could be applied to the design of buildings. The problem was to determine the principles by which nature strives to perfect her creations. Beauty, he said, consists in 'Number', 'Finishing', and 'Collocation',<sup>30</sup> and an additional quality which he called 'Congruity'. This he said was "the Original of all that is graceful and handsome." Congruity arises not so much from the bodies which manifest it, or their members, "as from itself, and from Nature, so that its true Seat is in the Mind and in Reason...."<sup>31</sup> It runs, he said, throughout man's life, and through every production of nature herself. More than anything else, it seemed to be the principle which determined the beauty of a structure after the rules of number, finishing and collocation had been satisfied, the "je ne sçais quoi" that the eighteenth century appealed to when rules began to prove inadequate, the "grace beyond the reach of art."<sup>32</sup>

Number referred to the number of parts and was of two sorts, even and uneven. Supports, for example, were to be provided in even numbers as they are in nature, two legs, four legs, whereas apertures should be provided in uneven numbers, as nature has provided mouths. Furthermore, studying nature he found that certain numbers are more commonly encountered than others, and these he said architects have "borrowed for the Composition of

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30. p.195; "haec in quibus omnis quam quaerimus ratio consumetur numeras et quam nos finitionem incupabimus et collutatio," 1485 edition.

31. p.195.

32. Discussed in S.H.Monk, "A Grace Beyond the Reach of Art", Journal of the History of Ideas, V, 1944.

the Members of their Edifices."<sup>33</sup> Pythagoras's saying, that "Nature is sure to act consistently, and with a constant Analogy in all her Operations",<sup>34</sup> was authority for his fascination with the properties of numbers: a Pythagorean strain in his argument which probably came from Plato. On the other hand, his references to nature and to the mean<sup>35</sup> derive from Aristotle, as Alberti's mention of him elsewhere suggests.

By 'Finishing' Alberti meant the proportions relating length, breadth and height. Here, making reference to Pythagoras, he argued that the key to the choice of proportions was the system of harmony found in music. Nature's consistent action, to which Pythagoras witnessed, led Alberti to conclude that "the same Numbers, by means of which the Agreement of Sounds affects our Ears with Delight, are the very same which please our Eyes and our Mind."<sup>36</sup> He proceeded to outline a set of proportions based upon musical concords of which he said "Of all these Numbers the Architects made very convenient Use...."<sup>37</sup> Chapter 6 is devoted entirely to numerical proportions and their applications. In this chapter Alberti added to his system of musical proportions various rules drawn from geometry and from arithmetic.

33. p.196.

34. p.196, cf. Vitruvius, III, 1.

35. p.194.

36. p.197.

37. Ibid. The use of proportions drawn from harmonic theory is discussed in Wittkower, Architectural Principles, Part Four, "The Problem of Harmonic Proportion in Architecture," esp. pp. 103-42.

The definition of collocation was left till half-way through Chapter 7. By his definition it seems to have meant equal balance about an axis, or bilateral symmetry, but he found it difficult to lay down exact rules because it was chiefly a matter of "natural Judgment which we have formerly observed to be innate in the Mind of Man".<sup>38</sup> His problem here seems to have been the lack of suitable technical vocabulary in which to express the idea.

Throughout Alberti's not entirely transparent discussion of the principles of beauty in architecture it is clear that he was striving to demonstrate that beauty was abstract, intellectual, and universal. His authorities were his own observations of the world of nature interpreted in the light of concepts and arguments that he received from the classical philosophers, notably Aristotle and Plato. He went far beyond Vitruvius in developing a theory of proportion in architecture, particularly by bringing into proportion the idea of musical harmony (which was absent from Vitruvius). In effect, he not only continued but renewed and extended the classical tradition of architectural theory to provide a new foundation for its development through what was in the nineteenth century called the "modern" period.

The third topic was Alberti's treatment of individual experience in the appreciation of architecture. This was not a topic he recognized, in fact he explicitly rejected the relevance of any personal element in the judgement of beauty. "Taste and

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38. p. 201.

Fancy", "mere Opinion", were inconsistent with the "universal Beauty" for which he argued, and he emphatically dismissed them.<sup>39</sup>

Counter to his intention to raise architecture to the philosophical level was his obligation to take some account of visual experience. In IX, 5, he asserted that our response to beauty proceeds from "a secret Argument and Discourse implanted in the Mind itself", but the nature of the process he dismissed with the comment that "whence this Sensation of the Mind arises, and how it is formed, would be a Question too subtle for this Place..."<sup>40</sup> Farther on he referred to "that natural Instinct or Sense in the Mind by which...we judge of Beauty...."<sup>41</sup> But nowhere did he describe the means by which judgement could be divorced from individual sight and feeling, and given true universality.

There is ample evidence that he himself was an acute and sensitive observer of the scene around him. For instance, he observed that in planning the heart of a city, the streets should not all be straight, "but winding about several Ways, backwards and forwards, like the Course of a River."<sup>42</sup> He adduced various reasons for this suggestion, and particularly that

this winding of the streets will make the passenger at every step discover a new structure, and the front and door of every house will directly face the middle of the street.<sup>43</sup>

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39. VI, 2, p.113; IX, 5, p.194.

40. p.194.

41. IX, 7, p.201.

42. IV, 5, p.75.

43. Ibid.

Evidently this suggestion arose from Alberti's sensitivity to the visual scene; the regard for visual experience it suggests can also be found in IX, 4, where he recommended the use of mural painting.<sup>44</sup> But it is hardly consistent with his emphasis on the mind and reason as the source of architectural judgement. The idea of winding streets was not one that appealed to later Renaissance planners, who applied classical principles rigorously and preferred the forms of pure geometry to Alberti's picturesque proposal.

The problem can be placed in a more general context. As Wittkower shows, Alberti did apply his proportional system to at least some of his buildings (as did many other architects in the Renaissance period). The question is, can one respond to these proportions directly, or are they of greater satisfaction to the mind of the architect than to the eye of the beholder? Wittkower, referring to the proportions for the interior of the ideal church, says, "it is obvious that such mathematical relations between plan and section cannot be correctly perceived when one walks about in a building." Alberti, he asserts, must have known this, and he therefore concludes that,

the harmonic perfection of the geometrical scheme represents an absolute value, independent of our transitory and subjective perception...for Alberti - as for other Renaissance artists - this man-created harmony was a visible echo of a celestial and universally valid harmony.<sup>45</sup>

It is difficult to accept that relationships that "cannot be

44. "Our Minds are delighted in a particular Manner with the Pictures of pleasant Landskips...", p.192.

45. Wittkower, Architectural Principles, p. 8.



correctly perceived" can be a "visible echo of a celestial harmony". Later Wittkower refers to "that 'polyphony of proportions' which the Renaissance mind understood and a Renaissance eye was able to see,"<sup>46</sup> and, referring to a later commentary on Vitruvius, "those who work through Barbaro's chapter on proportion - not an easy task nowadays - will put it aside with the conviction that this man expected and saw in a building proportional relationships which are outside our range of perception."<sup>47</sup> If Barbaro's vision was this acute, perhaps there was no conflict between experience and reason, but common experience, and Wittkower's first-quoted comment, suggest otherwise.

A near direct confrontation between the values of experience and those of reason came towards the end of Alberti's discussion of beauty. Having finished with collocation in Chapter 7 of Book IX, in Chapter 8 he offered some cautionary advice, "some short and general Admonitions" on building and ornament.<sup>48</sup> Earlier it was noted<sup>49</sup> that in theory ornament could be dispensed with in a sufficiently perfectly formed and proportioned edifice. Here Alberti, with ruthless honesty, acknowledged as much:

For it is undeniable that there may be in the mere Form or Figure of a Building, an innate Excellence and Beauty, which strikes and delights the Mind, and is immediately perceived where it is, as much as it is missed where it is

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46. Ibid., p.116.

47. Ibid., p.140.

48. p. 202.

49. Above, p. 30.

not; for, indeed, the Eye is naturally a Judge and Lover of Beauty and Gracefulness, and is very critical and hard to please in it....<sup>50</sup>

He had also to acknowledge that a building without ornament would be totally unacceptable, and finally advised the designer to make his structures "as handsome, and as compleatly adorned as possibly" particularly sacred ones "which no Man can bear to see naked of Ornament".<sup>51</sup> He failed to see that sight and mind may legitimately make different demands on the design.

This conflict between experience and the rules based on reason recalls earlier instances in the classical tradition. Just as Alberti had to distinguish between ornament and beauty<sup>52</sup> and between taste, opinion and instinctive judgement,<sup>53</sup> so Vitruvius also distinguished visual pleasure from beauty.<sup>54</sup> And Plato argued that "a man's feeling of pleasure...is never a proper standard by which to judge...any proportionality...we should judge by the standard of truth, never, on any account, by any other."<sup>55</sup> Alberti did his best to apply Plato's standard, but had to accept, as did Vitruvius, the compromise that makes truth appear true to sight. Nonetheless he steadfastly refused to

50. p. 203.

51. Ibid.

52. VI, 2.

53. VI, 2; IX, 5; IX, 7. Blunt discusses Alberti's distinction between taste and judgement but fails to observe the consequent difficulties. A. Blunt, Artistic Theory in Italy 1450-1600, Oxford, 1959, pp. 16 f.

54. In I, 3, Venustas... includes both the appearance of the work, which shall be grata et elegans, and the symmetria of its members.

55. Laws, 667-68.

modify his principle that beauty was subject solely to universal rules. This was to be a durable theme of architectural theory, but the influence of the sceptics, to whom Alberti referred in II, 6, who thought judgement of form and beauty to be a matter of taste not rule - relative rather than absolute - began to increase from the middle of the sixteenth century.

Because Alberti broke new ground in his theoretical writing, and because he brought to it an intellect and breadth of interest unexcelled by any of the later writers on the subject, it remains the most important produced by the Renaissance. The Trattato of his contemporary Filarete (in manuscript until the nineteenth century) was chiefly of interest for its description of the ideal city, Sforzinda, and was based, at least in part, on Alberti, though it must be noted that he also acknowledged the place of visual experience.<sup>56</sup> Serlio's treatise, published in six volumes between 1537 and 1551, with a seventh volume added in 1575, was widely circulated and influential throughout Europe; but succeeded because it was more a practical handbook of design than a theoretical work. It offered the untutored designer or builder rules of thumb, details to copy, and even plans and elevations that he could apply to his own projects.<sup>57</sup> Vignola's Regoli delle Cinque Ordini (1562), also immensely popular, presented a simple modular interpretation of the orders, and was also a vehicle for the wider dissemination of the superficial

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56. See Wittkower, Architectural Principles, p.11.

57. Heriot's Hospital, Edinburgh, was based on a plan of Serlio's: J.Summers, Architecture in Britain 1530-1830, 1953, p.333.

qualities of classical architecture. Palladio's Quattro Libri (1570) was from the British point of view perhaps the most important of the Renaissance texts on architecture (and it will be discussed later in connection with the eighteenth century in Britain). His brief theoretical comments made no significant theoretical advance on those expressed by Alberti a century before. Palladio's follower Scamozzi published the last of the Renaissance theoretical works, L'idea dell'architettura universale, in 1615, carrying the late sixteenth century mannerist tradition into the age of baroque. His treatise was not only the last, but the most academic of the Renaissance theoretical works and made no further contribution to architectural theory.

Through the century and a half following the substantial completion of Alberti's De re aedificatoria in the middle of the fifteenth century the development of Renaissance architecture was a matter of practical design, much more than theory. Other significant contributions to theory were made by commentators on Vitruvius: Cesarianus and Barbaro both discussed and interpreted the obscurities of Vitruvius's text in connection with the translations they published (in 1521 and 1567) of which Barbaro's is the most notable work, but Alberti remains the prime source of Renaissance architectural theory.

One factor in the lack of advance in Renaissance theory was the growing knowledge and expertise of the scholars and artists of the time. As investigation of the classical past proceeded, as more monuments were unearthed and measured and more manuscripts disinterred, read and translated, the creative

element in the interpretation of past tradition gave way to the reliance on established rules: the growth of the tendency known pejoratively as 'academic'. The first Renaissance academy, the fifteenth century Platonic Academy of Florence, was simply an informal gathering of scholars and writers engaged in expressing their shared interests in a great variety of ways.<sup>58</sup> But it was succeeded by others with more ambitious programmes. Palladio was educated in the much more formal academy established by Giangiorgio Trissino at Vicenza just before the middle of the sixteenth century, and was himself later a founder of the Accademia Olimpica, also at Vicenza. Looking ahead to the establishment of the French academies in the seventeenth century, it seems that the ideal of the great academies proved both an incentive to learning, and a restraint on creativity.

At its liveliest, in its beginning, the Italian Renaissance through Alberti produced a new statement of the application of classical ideas to the design of buildings. At the centre of these ideas lay the notion of beauty as something absolute, transcendent, unchanging. The architect's chief responsibility, the only one that distinguished him from a skilled craftsman, was to create beauty by the application of rules. Their seat was in the mind; he had access to them through reason. They were most clearly manifest in the proportions and harmonies of music and the simple geometrical figures.

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58. P.O.Kristeller, "The Platonic Academy of Florence", Renaissance Thought II, New York, 1965, pp. 89 ff.

Against this emphasis on the absolute, rational, eternal qualities, was the very engagement of the Renaissance thinkers with the world about them. Their empirical bent was reinforced by the teaching of Aristotle, and it was of course strongest in the visual arts. Renaissance architecture was both a visual art directed to the satisfaction of the observer's perceptions, and a highly sophisticated attempt to satisfy the pleasures of pure intellect. As theoreticians attempted to strengthen the latter at the expense of the former, the potential conflict between the two came close to the surface.

### 3. The Decline of Classical Theory in Italy, France and England

Every theory invites scepticism; the classical theory of beauty as real and unchanging, grounded in the consonances that underlie all existence, seems to have met mockery and criticism from its first appearance. Against Plato's belief in a universe of Ideas was the materialistic philosophy of the "men of science" to whom he referred in Book X of the Laws. Disbelief led to impiety and for the impious he proposed a formal inquisition.<sup>1</sup> The same sceptical attitude attended the restatement of the idea of an absolute beauty in the early Renaissance. Distinguishing between ornament and beauty Alberti referred disparagingly to those who thought that taste and opinion gave the only basis for the judgement of beauty. Nonetheless, the conviction that the perceived universe is the manifestation of an unchanging and rational structure of ideas to which we can respond formed the mainstream of architectural theory down to the nineteenth century.

Established with the authority of ancient Greek philosophers, implicit in Vitruvius, then adapted in later Roman times to the Christian cosmos, classical theory as reshaped by the Renaissance

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1. Laws, X. 884 ff., tr. Lindsay, pp. 274 ff., and also Introduction, pp. 1 ff.

carried the seal of both the ancient and the medieval worlds. As embodied in architectural theory by Alberti in the fifteenth century, the criticism it attracted was essentially negative. Between Alberti's day and the middle of the eighteenth century, however, simple scepticism began to give way to the development of alternatives to classical theory.

The first of these, created largely in France, was based on a rationalist critique of architectural forms and issued in a new rationalism which was the logical successor to the older theory. The second, the invention of British philosophers, went beyond criticism of the forms of arts, to an examination of the effects of art on its audience. Both alternatives had their roots in the Renaissance attitude.

Contrary to the implications of the idealist theory, in practice the men of the Italian Renaissance were concerned above all else with visual experience. In painting their concern was with the representation of the material world - substance, space and light - through the control of line and shadow and perspective. In architecture, as has been shown, Alberti's attention was divided somewhat uneasily between appearance and beauty. Even so, much of his practical work Vasari found unsuccessful (though he praised Alberti's writings). Alberti he thought was entirely too theoretical in his art; it suffered from his failure to anticipate the actual appearance of his designs when built.<sup>2</sup> In other words, Vasari, writing a century after Alberti, thought

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2. Vasari, Lives, tr. Foster, vol.II, pp. 40 ff.



appearance should overrule theory in design. In painting and in sculpture the expression of character and emotion became an increasingly important part of the artist's task. From the later fifteenth century Leonardo, who was the only great painter of the Italian Renaissance to leave behind extensive writings on theory, devoted considerable attention to the problem of expression,<sup>3</sup> and in so doing he turned away from the early commitment to the Platonic conception of beauty that he had shared with Alberti.

To these tendencies, already present in Renaissance practice of the arts, the reaction to the Protestant Reformation gave new impetus. One outcome of the Council of Trent's long deliberations (1545-63) on the Protestant threat was the In-  
structiones Fabricae et Supellectilis Ecclesiasticae, written by Charles Borromeo, Archbishop of Milan, soon after 1572.<sup>4</sup> These detailed instructions on church building applied the church's rejection of fifteenth century classical rationalism directly to architecture. Overly intellectual schemes for embodying ideal beauty in church buildings were to be abandoned, in favour of exploiting architecture's emotional and expressive qualities. Alberti's ideal of the circular church<sup>5</sup> was to give way to the long-naved Latin cross which symbolized the crucifix, and

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3. A. Blunt, Artistic Theory in Italy 1450-1600, Oxford, 1959, pp. 34 ff.; but see K. Clark, Leonardo da Vinci, Harmondsworth, 1967, esp. pp. 14 ff., for Leonardo's early commitment to the Platonic idea of beauty and his later change of outlook.

4. A. Blunt, Artistic Theory, pp. 127-31.

5. Ten Books, VII, 4, p. 138.

provided the best setting for the impressive liturgical processions through the church. Large clear windows were required to light the rich vestments and impressive instruments displayed in the rituals of the church, and every art of sculpture and painting was to be used to impress upon the congregation the magnificence and authority of the church and the reality of its message. In the latter half of the sixteenth century the church building was transformed from a highly intellectual demonstration of faith into a theatrical setting.

With design rigidly constrained by the directives of the church architectural theory became more archaeological and more arid, while architectural design first became awkward and uneasy, then broke free of all rules. A few architects of the later sixteenth century, notably Palladio, held fast to the precepts of the earlier period, but the great Italian architects of the next century, Bernini and Borromini, were essentially anti-classical in their attitudes and work.

As architecture in the seventeenth century moved away from reason towards visual richness and illusion philosophers and scientists advanced their critical examination of man and the natural world. Doubt was raised to the position of a first principle by Descartes; the publication of his Discours sur la Méthode in 1637 marked the end of the medieval and the beginning of the modern era in philosophy. With the growth of critical philosophy and experimental science, the question Alberti evaded of how beauty is actually experienced began to receive serious study. The new philosophy and science had little immediate

effect on architecture, though the few scientist-architects, notably Wren, Hooke and Perrault, were among those who began the fruitful investigation of the mechanical principles of construction.<sup>6</sup>

While contemporary critical tendencies led towards individualism and free thought politically France had moved towards the complete centralization of power under the absolute monarchy of Louis XIV. Colbert, who succeeded Richelieu as the king's chief minister, set about the organization of all the arts in a centralized system over which he could exercise complete control. Following the precedents furnished by the Italian examples and by Richelieu's French Academy founded in 1635 and the Royal Academy of Painting and Sculpture founded in 1648, Colbert founded a French Academy at Rome in 1666 and an Academy of Architecture in 1671 as well as others for dance, science and music. One of their tasks was the establishment and propagation of approved theories. They provided the ideal forum for the examination of classical principles in art.

Despite their conservative role, by their very existence the academies rivalled those of antiquity, and expressed the pride of the French in their current achievements. Unfavourable criticism of Homer and other ancient authors had begun in Italy at the beginning of the seventeenth century. Sophisticated baroque taste found the ancients crude and illogical. The same

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6. "...art was as little use to scientists in the seventeenth century as scientific discovery was to the artists," J. S. Ackerman, "Science and Visual Art", in H.H.Rhys, ed., Seventeenth Century Science and the Arts, Princeton, 1961, p. 68.

faults were cited in France from the founding of the first Academy in 1635; contemporary achievements in the arts were claimed to surpass the classics. A half century later Charles Perrault opened the main phase of the battle in France with his poem Le Siècle de Louis le Grand (1687) in which he praised the literary achievements of his own day. He followed this with a series of dialogues called Parallèle des Anciens et des Modernes, published between 1688 and 1697. In these dialogues he compared to their advantage modern works in all the arts with those of antiquity. Opposition to his argument was fierce and the result generally inconclusive but knowledge both of ancient and of modern authors was improved and critical scholarship greatly stimulated.

In 1673 Charles Perrault's brother Claude began the attack on ancient standards in architecture. Claude Perrault's first interest was science; he had studied medicine, anatomy and mathematics (he died in 1688 from an infection contracted while dissecting a sick camel). His first venture into architecture was an astronomical observatory, a not very successful work he designed when admitted to membership of the Academy of Science on its establishment in 1666. At about this time Colbert invited him to prepare a new French translation of Vitruvius. It was this work that led him much more deeply into the study and practice of architecture.

In his Vitruvius translation (prepared before 1668 and published 1673) Perrault assaulted one of the major elements of classical theory, the idea of the absolute and unchanging beauty

of certain proportions.<sup>7</sup> Perrault's argument appeared in a footnote to the chapter<sup>8</sup> in which Vitruvius had explained the origin of the Doric order. According to Vitruvius the first temple in this style was built by King Dorus when "as yet the determination of the exact proportions had not begun."<sup>9</sup>

Perrault commented that Vitruvius's words supported the opinion of most architects that the proportions of architectural members were

quelque chose de naturel, telle que sont les proportions des grandeurs, par exemple, des Astres à l'égard les uns des autres, ou des parties du corps humain.<sup>10</sup>

Perrault's translation of the phrase in question altered the sense to read "n'ayant encore aucune regle établie pour les proportions de l'Architecture".<sup>11</sup> His translation, he explained, expressed his opinion that

ces proportions ont esté établies part un consentement des Architectes, qui...ont imité les ouvrages les uns des autres, & qui ont suivy les proportions que les premiers avoient choisies, non point comme ayant une beauté positive, necessaire & convaincante....<sup>12</sup>

He further argued that general acceptance of particular proportions as the best was the result of their customary use and

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7. Wittkower implies that Perrault's argument was first advanced in his Ordinance des Cinq Especies de Colonnes, 1683, Architectural Principles, p.144.

8. IV, 1.

9. "cum non esset Symmetriarum ratio nata;" tr. Granger, vol. I, p. 205.

10. C. Perrault, tr., Les dix livres de Vitruve..., Paris, 1673, p.100 n.1.

11. Ibid.

12. Ibid.

consequent association with other beauties "positive & convaincante", such as those of fine materials and workmanship. Later in ~~the~~ same chapter commenting on the proportions of Doric and Ionic columns given by Vitruvius he noted that they had changed over the centuries and yet the later proportions were accepted as beautiful. This further supported his argument that the beauty of proportions was relative and not absolute. He asserted that architectural proportions did not have a natural origin as did the harmonies of music (which could be demonstrated by experiment) but depended rather on the imagination.

Perrault repeated and expanded these opinions in his treatise on the five orders published ten years later, but in the meantime the battle had been joined. François Blondel, the first director of the Academy of Architecture, was not just a prominent and influential figure but the official defender of the true tradition in theory. Between 1675 and 1683 he published his massive Cours d'Architecture Enseigné dans l'Academie Royale d'Architecture.<sup>13</sup> The archetypal academic treatise, this covered the origins, principles, and practice of architecture following not only Vitruvius but the most able of the modern writers whom he named as Vignola, Palladio, and Scamozzi. In the fifth book of his Cours, he found it necessary to devote two chapters to the examination and refutation of the idea that architectural proportions were the result of custom rather than necessity, and a further lengthy chapter to proving that "the

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13. Quotations are from the second edition of 1698.

proportions are the cause of beauty in architecture; and that this beauty is no less founded in nature than that of musical harmony."<sup>14</sup>

Blondel began his defence of the absolute beauty of certain proportions by taking note of Perrault's attack. The passage in which Perrault first advanced the offending idea was quoted in full.<sup>15</sup> Blondel then acknowledged the force of custom's influence on the actions of men by way of dignifying his condescension in replying to Perrault. He referred to the immense differences between people of different nations, climates, sex, age, rank, etc, and concluded that it was indeed possible to consider a great deal of men's feelings and opinions to be the result of habit and custom. He suggested that Perrault's own mistaken notion of beauty must also have been the result of some such conditioning process, though he acknowledged that the same charge was directed against his own opinion. Blondel closed the chapter by saying that it was of little importance to architects why their buildings pleased as long as they did please, nonetheless he would present the arguments for the opinion held by architects and writers from Vitruvius to Wotton that buildings constructed according to the rules were pleasing because their beauty was felt

...par quelque cause née avec nous & insinuée dans nostre ame par la nature que par l'opinion...<sup>16</sup>

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14. Heading to chapter XVI, p. 768.

15. Vitruvius, tr. Perrault, IV, 1, p. 100, n.; Blondel, Cours, p. 762.

16. Blondel, Cours, p. 764.



(And here he echoed Alberti's "secret argument and discourse implanted in the mind".)

The refutation he presented in chapter XV appealed to the origins of architecture and to analogies with the other arts, all of which were, he said, grounded in nature. The parts of a building were required either by necessity, convenience, or decorum and ornament. The first two he argued were on examination clearly grounded in nature. He acknowledged the difficulty of understanding just how we respond to the appropriate form and decoration of a building,<sup>17</sup> but concluded that they too were natural, "car personne, comme je crois, ne doit nier, que ces choses qui sont des estres réels ont leur fondement dans la nature en general."<sup>18</sup>

Chapter XVI opened with the comment that if it were possible to reason about architecture as one does in mathematics it would be easy to settle the argument, but since it was not, there was at least nothing to prevent him presenting his reasons for following the traditional view; "que les proportions des parties des Edifices faisoient la cause principale & essentielle de leur beauté."<sup>19</sup> Blondel then embarked on a series of descriptions of the regularities of nature as seen in mechanics, optics

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17. "Il y a un peu plus de difficulté de comprendre de quelle maniere nous ressentons ce qui se trouve dans la bien-seance & dans la decoration des batimens; et de sçavoir, si ce qui nous y plaist procede de quelque chose de réel & de necessaire qui ait son fondement dans nostre nature, plutot que dans nostre prevention & nostre accoutumance."  
Ibid., p. 765.

18. Ibid.

19. Ibid., p. 768.



(the laws of reflection), and in music. He noted that some buildings we find agreeable, but others disagreeable to the sight. By inspection and measurement of the most beautiful buildings known, Blondel claimed to have found that there were certain proportions commonly present in beautiful buildings but only rarely in disagreeable buildings. These proportions were for the most part the same as those found in musical harmony. The argument that these proportions were not in fact visible he also dismissed, saying that no more were the regularities underlying reflections, or musical harmony visible, "quoique les effets qu'elles produisent soient grands & tres-sensibles".<sup>20</sup>

It must be noted that on one point both Blondel and Perrault were agreed, and that was the importance of symmetry. Perrault's position was that symmetry was immediately visible and did therefore have a direct and natural effect on our enjoyment of buildings. Blondel failed to see any justification for the distinction Perrault made between proportion and symmetry because both he held to be rooted in nature,<sup>21</sup> but he certainly accepted the absolute importance of symmetry.

Although in retrospect Perrault seems to have had the best of the dispute with Blondel, or at least the sympathy of later generations, they were both at heart deeply committed to classical architecture and it is difficult to judge between their

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20. Ibid., p. 771.

21. Ibid., pp. 766 and 768.

positions.<sup>22</sup> Blondel, while he found it difficult to construct a logical argument in support of his position, was reasserting the belief that the natural world was regular and stable in its structure and manifestations and that this regularity and stability were the source of the highest values in art. He believed that rules based upon observable regularities in mathematics, in music and elsewhere could be formulated if it were necessary to guide the artist through the misconceptions and errors that had crept into architectural design. As far as it could be applied he was committed to reason in the defence of architecture. And his idea of beauty was rational in the classic sense of ratio.

Perrault, on the other hand, was one of the new men of science and equally committed to the use of reason. But where Blondel and the supporters of the ancients generally saw reason as the demonstration of known truths, Perrault's interest was in invention and discovery in the creative extension of tradition.<sup>23</sup> An example of his particular contribution to practical architecture was the design of the north elevation of the Louvre in 1667. Perrault, working in association with LeVau and LeBrun, devised the scheme of iron reinforcing for the stone architraves which made it possible to achieve unprecedented spans between

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22. E.-L. Boullée discussed the Blondel-Perrault dispute in his Essai and, while he criticized both, he decided that symmetry and not proportion was the fundamental law of architecture, as did Perrault. Architecture, Essai sur l'art, ed. J.-M. Pérou de Montclos, Paris, 1968, p. 68.

23. As Hautecoeur says, "Perrault croit au progres; l'age d'or n'est pas dans le passé, mais dans l'avenir," L. Hautecoeur, L'Architecture Classique en France, 4 vols., Paris, 1943-52, Vol. II, p. 489.

columns. The design the group produced was severely neo-classical in flavour, an early manifestation of the reaction against the baroque in France,<sup>24</sup> but their neo-classicism was rational rather than archaeological. It initiated a rationalist classical stream that continued on into the twentieth century with the work of Auguste Perret.<sup>25</sup>

Further deviations from classical theory followed in France, Italy and Britain from the end of the seventeenth century. The French debate about the principles of architecture continued from Perrault and Blondel onwards, with some of the most important contributions made by amateurs. With the reaction against the baroque and its undisciplined use of ornament there developed a strong emphasis upon the original function of the parts of architecture so that, for instance, columns, pediments, pilasters, arches and architraves were examined to see whether their current use in buildings was true to what was conceived to be their original and proper function. This criticism was in fact directed more towards the symbolism of architecture than it was to the actual utility of the elements and it is therefore misleading to consider it simply 'functionalist'.<sup>26</sup>

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24. The design was produced after Bernini's baroque proposal had been rejected.

25. Hautecoeur discusses the Perrault-Blondel dispute in vol. II, pp. 487-89, and also the strictly orthodox response of the academy, led by Blondel, to Colbert's request that they examine the principles of architecture, *Ibid.*, vol. II, pp. 477-87.

26. As, for instance, De Zurko does, Origins of Functionalist Theory, New York, 1957, p. 167.

Among the writers who debated this point of view a few stand out for the quality of their arguments and their influence on the later development of theory.

The Abbé J.-L. Cordemoy (1631-1713) and his critic A.-F. Frézier (1682-1773) both helped to clarify the problems of architectural criticism. In his Nouveau Traité de toute l'Architecture, published in 1706, Cordemoy praised the simplicity and daring of Perrault's long stone spans at the Louvre, and criticized the artificialities of other contemporary buildings where pilasters were applied without regard for structural sense, and pediments broken in complete disregard of their expression of shelter were ubiquitous. He advocated an architecture of columns and beams that was closer to the Greek or early Christian than to the architecture of the Renaissance. In general his criticism followed from the belief that the apparent meaning of architectural forms was as important as their function, and that the two should be consistent with each other so that appearance and reason were both satisfied.<sup>27</sup>

A.-F. Frézier, who published his disagreement with Cordemoy in 1709,<sup>28</sup> was an engineer of great practical experience. In a preliminary discourse to his three-volume work on La Théorie et Pratique de la Coupe des Pierres<sup>29</sup> he emphasized that the formation of curved surfaces in stone was essential to

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27. ed. 1714, repr. Farnborough, 1966, p. 119.

28. "Remarque sur le Traité d'architecture de Cordemoy", Mémoires de Trevoux, Sept. 1709 and Sept. 1711.

29. Strasbourg, 1737-39.

the art of construction: a view that led him into head-on conflict with the protagonists of a primitive neo-Greek architecture based on free-standing columns spanned only by beams. He conjectured that the art of stone-cutting originated, or at least had its adolescence, in Gothic architecture for which it was of great importance. (It was not a subject discussed by Vitruvius; the relative simplicity of the buildings of his time meant that less knowledge of it was required of the masons.) Despite his opposition to the (oversimplified) view of building advanced by Cordemoy, Frézier's technical expertise contributed to the structural rationalism which Cordemoy and his successors promoted.<sup>30</sup>

Marc-Antoine Laugier (1713-1760) received the intensive but also remarkably broad education of a Jesuit priest, and he became a man of letters with wide interests. Among his many works was a history of the Republic of Venice published in twelve volumes between 1759 and 1768. He seems to have had little practical knowledge of architecture, but some passing contact with building operations in Besançon, Lyons and Paris may have inspired his interest in the theory of the subject.

Laugier's Essai sur l'Architecture, first published in 1753, was particularly influential both in France and abroad. In it he derived principles for design from an analysis of the

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30. This subject has been discussed in more detail by W. Herrmann, Laugier and Eighteenth Century French Theory, London, 1962; Cordemoy by R. Middleton, "The Abbé Cordemoy and the Graeco-Gothic Ideal: A Prelude to Romantic Classicism," Journal of the Warburg and Courtauld Institutes, XXV, 1962, pp. 278-320, XXVI, 1963, pp. 90-123.

original primitive timber hut from which he believed architecture had sprung.<sup>31</sup> Using his primitive hut as the standard from which principles could be drawn Laugier argued for instance that "the column should be unattached and free, in order to express most naturally its origin and its purpose."<sup>32</sup> Pediments he thought belonged only on the short elevation (the gable elevation) of a building, they should always be triangular following the original roof form, and they should never be superimposed. Pilasters he thought an abomination, neither wall nor column, and he rejected them utterly (as had Cordemoy).<sup>33</sup> More important than his particular prescriptions, however, was the general attitude from which they sprang. Carrying Perrault's criticism of the prejudice for certain proportions in architecture to its logical conclusion, Laugier argued that the only basis for progress in architecture was the creative use of reason:

I have always believed that something wrongly used in the beginning does not cease to be wrong because it has become customary. In matters of reason and of taste, something that could be condemned once must be condemned always. In these matters the good and the bad both lead to permanent characteristics, which through the passage of time and long usage cannot be changed without complete destruction. If in the Arts one wants nothing more than arbitrary rules, then one restricts oneself to tradition; but if the practice of the Arts requires progress towards firm principles, then we must appeal from customary practice to reason, and sacrifice to the light of the latter the force and authority of the former.<sup>34</sup>

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31. The idea may be compared with Rousseau's, that the present should be understood in terms of beginnings in the remote past. cf. Herrmann, Laugier, p. 49.

32. Laugier, Essai, p. 13.

33. Ibid., pp. 35 ff.

34. Ibid., pp. 27-28.

While Laugier's appeal to the primitive hut seems naive, particularly when applied to questions of structure, it must be remembered that in the early eighteenth century the mathematical treatment of structure was itself in a primitive state. Laugier would have been aware of the experiments made on the strength of materials by Soufflot and others, and of the beginnings of a theoretical understanding of the resistance of materials to superimposed loads, but he could not have anticipated the sophisticated mathematical theory of structure which was to take shape in the nineteenth century.

Laugier further expounded his critical point of view in Observations sur l'Architecture published in 1765, especially as it touched on Gothic architecture, but his essential ideas remained unchanged. He did add a further note on proportions in which he suggested that they should be as easily perceived as possible. Clarifying this he proposed that room heights should be chosen in conformity with the most comfortable visual angle.<sup>35</sup>

One further aspect of this critical rationalism was the growing appreciation of Gothic architecture from the late seventeenth century. J.-F. Félibien published in 1699 a Dissertation Touchant l'Architecture Antique et l'Architecture Gothique. He thought that the older Gothic cathedrals lacked neither solidity nor beauty, and praised them for their lightness, delicacy, and daring.<sup>36</sup> This respect for the work of the Gothic builders

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35. Observations sur l'architecture, La Haye, 1765, pp. 9-12.

36. J.-F. Félibien, Les Plans et les Descriptions de deux... Maisons de Campagne de Plin. ... et une Dissertation touchant l'architecture antique & l'architecture gothique, London, 1707.

reflected the growth of interest in construction and structure as generating forces for architecture independent of the tradition of the orders and applied ornament.

These French developments had their parallel in Italy; for instance there is the shadowy figure of another abbé, Carlo Lodoli<sup>37</sup> (1690-1761). Lodoli was the leading thinker of a group of Venetian architects known to their contemporaries as rigoristi.<sup>38</sup> His ideas are known to us only through the publications of his students, Francesco Algarotti and Andrea Memmo, as Lodoli himself never published a statement of his architectural principles and the manuscript of the work he was preparing has been lost. However an outline of Lodoli's work<sup>39</sup> was included in a second volume of Memmo's Elementi dell'Architettura Lodoliana, when it appeared in a new edition in 1834. Lodoli's duties both in Venice and for a short period (about 1739) in Crete as Visitor General entailed his responsibility for the construction of various kinds of facilities, and his theories developed, it seems, as much out of his practical experience as from purely philosophical considerations.

As Memmo described them his constructions were entirely rational, omitting the superfluous, ignoring conventions of

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37. E.Kaufmann, "At an Eighteenth Century Crossroads: Algarotti vs. Lodoli", J.S.A.H., vol.14, no.2, April, 1944, pp.23-29; and E.Kaufmann Jr., "Memmo's Lodoli", Art Bulletin, vol.46, no.1, March, 1964, pp.159-72.

38. C. Meeks, Italian Architecture 1750-1914, New Haven and London, 1966, p.13.

39. (which E. Kaufmann Jr. suggests was Lodoli's own)



bilateral symmetry and rectangularity. In his extensions to the facilities on Crete he rerouted traffic to separate pilgrims' and friars' paths; to save money he planned narrow corridors with walls sloped outwards to allow passage shoulder to shoulder, and had doors cut through thick walls on a slant to direct traffic towards its destination. Window embrasures were likewise cut at an angle to direct daylight where it was needed and to give some amenities of view.

Algarotti gave Lodoli's principles in his Saggio Sopra l'Architettura, published in Pisa in 1753. They were that first nothing should show which had no definite function, and second, that the design should conform to the nature of the materials. In the absence of any concrete examples of Lodoli's intentions it is difficult to imagine how his buildings would have looked - how completely Lodoli had discarded the accepted forms of Renaissance architecture. To Algarotti his principles certainly seemed extreme and he was unable to accept them in their full rigour.

The argument that Lodoli influenced Laugier is based on conjecture; otherwise his influence was due solely to his personal teaching and word of mouth until the latter half of the eighteenth century when both Algarotti's and Memmo's works circulated widely. His importance lies in the evidence he provides of extreme deviation from classical theory in the first half of the century - the application in practice of rationalist ideas even before Laugier's Essai appeared.

Later in the century, a more widely influential Italian

writer, Francesco Milizia, gave a list of architectural rules which were more representative of the current state of architectural thought. They began with the need for an agreeable relation between parts and the whole (or symmetry) and included variety, convenience and the orders. Running throughout was an emphasis upon the utilitarian basis for architecture.

If architecture be the daughter of necessity, even its beauties should appear to result from such. In no part of the direction should there be any artifice discoverable; hence, everything extraneous is a proof of bad taste.<sup>40</sup>

Showing Laugier's wide influence, he concluded his list with the primitive cottage from which he said all the foregoing rules must be deduced.

France remained the country best equipped to promote the rationalist critique of architecture. The organization of the arts brought about by the creation of the academies in the seventeenth century and the foundation of the École des Ponts et Chaussées, organized by Perronet in 1747, encouraged a concentration on the rational and the quantitative aspects of construction. This high level of technical and scientific education led in due course to the practical achievements in construction that so distinguished French architecture and engineering of the later nineteenth century.

In France classical theory was refined and purified by the criticism it underwent from 1670-1750 and it emerged from the process much stronger and more durable. Consequently it was

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40. F. Milizia, The Lives of Celebrated Architects..., tr. Mrs. Edward Cresy, 2 vols., London, 1826 (first pub. 1768), p. xix.

able to survive political upheaval and the reorganization of technical education under Napoleon to emerge as the dominant theory. By and large the French, though they discussed the problem of appearance and later in the century produced the weightily symbolic architecture parlante of Boullée and Ledoux, remained committed to a view of architecture that concentrated on the building as a physical object.<sup>41</sup> But the critical philosophy which stemmed from Locke went far to make unacceptable a view which appealed to absolute standards of judgement. For this reason a far more subversive attack threatened classical theory in Britain in the eighteenth century. Nonetheless the British exponents of architectural theory contrived to adhere to classicism until the end of the century. Their writings began to reveal their weakening position from mid-century.

While there was nothing comparable to the French academy of architecture in Britain in the eighteenth century classical theory in design was well defended by amateurs and architects alike. Reaction against the influence of Italian baroque set in early in the century led by Lord Burlington and his circle. Pope wrote "Learn hence for ancient rules a just esteem,/To copy nature is to copy them,"<sup>42</sup> and Robert Morris published in 1728 An Essay in Defence of Ancient Architecture; Or a Parallel of

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41. cf. Herrmann's discussion of individual taste and universal beauty in Laugier, pp. 39-41 and appendix III, pp. 211-14. He emphasizes the resistance of both the French and the English to the relativism to which empirical philosophy led. Laugier in particular accepted the idea of absolute beauty; p. 41.

42. Alexander Pope, An Essay on Criticism, 1709 (first pub. 1711), ll. 139-40.

the Ancient Building with the Modern; Showing the Beauty and Harmony of Former and the Irregularity of the Latter. Morris

defined his aims in design as

the agreeable symmetry and concordance of every separate member centred and united in the economy of the whole, with the consentaneous agreement of apt materials, regulated and adapted in a due proportion to the order proposed.<sup>43</sup>

A specifically functional (and Aristotelian) note appears later in his text in connection with the rustication of the ground floor of buildings, a feature of design derived from the Italian Renaissance. Rustication, Morris explained, was necessary first as representing solidity, and second because through the high load exerted on the basement storey of a building the edges of the stones were more likely to fracture with settlement, and therefore it was necessary to cut them back. In this connection he remarked that "where Constraint founded on Reason is the chief End of the Intention, Beauty itself is a natural united connection dependent thereon."<sup>44</sup>

The progress of taste in British architecture was reflected in the much more defensive stance that Morris took in a later work published in 1751.<sup>45</sup> Here he reaffirmed that the basic principles of architecture were proportion, symmetry, and harmony, but included in the volume a selection of more exotic designs in a reluctant compromise with current taste. He noted that his examples were mixed in style, that "the Beauties of the

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43. R.Morris, An Essay in Defence of Ancient Architecture..., London, 1728, p.14.

44. Ibid., p.37.

45. The Architectural Remembrancer, London, 1751.

Roman Order more forcibly strike the Mind".<sup>46</sup> In a final post-script he commented on "the Peculiar fondness of Novelty, which reigns at present" and especially the 'Chinese tastes' which he ridiculed with a mock advertisement for a book on gates, styles, wickets, pigsties, etc. in the Turkish and Persian manner, by "Don Guglielmus De Demi Je Ne Scais Quoi".<sup>47</sup> Morris in his own way was attempting to defend and refine classical theory.

The most substantial classical treatise published in Britain during this century was Chambers's Treatise on Civil Architecture of 1759.<sup>48</sup> Chambers himself dabbled in Chinese architecture but his serious interest was the solid and skilful Renaissance architecture which he displayed in buildings such as Somerset House. Chambers's position as one of the leading British architects of his day and the approval with which his treatise was received (it went through three editions in his lifetime and two more in the next century) make his opinions important testimony to the state of classical theory in eighteenth century Britain.

Despite Chambers's commitment to classical architecture his theory as it emerged in his Civil Architecture was highly pragmatic. The contrast between orthodox classical theory and

46. Ibid., p. iv.

47. Ibid., p. xv.  
See E. Kaufmann, Architecture in the Age of Reason, New York, 1968 (first pub. 1955), pp. 22-28, for a sympathetic discussion of Morris's contribution to design.

48. Quotations are from Sir William Chambers, A Treatise on the Decorative Part of Civil Architecture, ed. J. Gwilt, rev. ed., ed. W.H. Leeds, London, 1862.

Chambers's pragmatism is clear when (following his nineteenth century editor Gwilt) we compare his position to that of Christopher Wren, in Parentalia. Wren allowed beauty two causes

natural and customary. Natural is from geometry, consisting in uniformity, (that is, equality) and proportion. Customary beauty is begotten by the use of our senses to those objects which are usually pleasing to us for other causes, as familiarity or particular inclination breeds a love to things not in themselves lovely. Here lies the great occasion of errors, here is tried the architect's judgement, but always the true test is natural or geometrical beauty.<sup>49</sup>

Wren, in other words, firmly rejected the judgement of the senses and the feelings in favour of judgement based upon strict reason. Chambers did not go so far as to take account of feelings or attachments, but he did give priority to the evidence of the senses to the point where he rejected "a strict attachment to harmonic relation" because this might "in appearance produce the most jarring discord."<sup>50</sup>

While Chambers's emphasis on appearance was nowhere elevated to the position of a major principle of design, still it dominated the detail of his argument at a number of critical points. In his comments on the design of architectural mouldings there appeared an emphasis on expression and perception. The different mouldings were "...meant to express something by their different figures."<sup>51</sup> They expressed to Chambers their various uses, that is support, shelter, separation, contrast and

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49. C. Wren, Parentalia, 1750, p. 351, repr. Farnborough, 1965; also Chambers, Civil Architecture, 1862, ed., p. 118 n.

50. Civil Architecture, p. 137.

51. Ibid., p. 104.

so on. Their uses he saw in terms of the visual effect they created. In assembling various mouldings to create a complete profile, as for instance the profile of a cornice, the aim Chambers emphasized was beauty, but again beauty was understood in terms of visual effect. Members, he said, should be calculated to attract the eye, create momentary pauses, and assist the perception of the beholder.<sup>52</sup>

In his discussion of the orders, Chambers introduced the significant distinction between "real" and "apparent". Considering simply the solidity of the design, that is the Vitruvian firmitas, Chambers implied that a good design must have both real and apparent solidity. For the proportions of the orders, and the exact dimensions of its constituent parts, the distinction between real and apparent becomes critically important.

There are, indeed, many who prefer the method of measuring by equal parts, imagining beauty to depend on the simplicity and accuracy of relations existing between the whole body and its members....

With regard to the former of these suppositions it is evidently false, for the real relations existing between dissimilar figures have no connection with the apparent ones....<sup>53</sup>

Considering the Doric order Chambers carried his argument further. Vignola's version of the order seemed to him the best printed example, but he criticized Vignola for failing to follow the best antique models exactly, and instead presenting them in accordance with his own rules. Vignola supposed, Chambers said, "...that the graceful and pleasing aspect of architectonic objects was occasioned by the harmony and simplicity of the relations

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52. Ibid., p. 108.

53. Ibid., p. 123.

existing between their parts...."<sup>54</sup> As Chambers had already observed, "the real relations existing between dissimilar figures have no connection with the apparent, the form and situation of the object viewed ever altering the affinity...."<sup>55</sup> This being the case he found it necessary to reject a strict attachment to harmonic proportions.

Chambers's bold emphasis upon appearance and visual effect at the expense of the absolute rules, when carried to its logical conclusion, suggested a much greater freedom from precedent than he himself was willing to accept. In the concluding sentence he retreated from the full implications of his own theory, and judiciously withdrew to a less advanced position.

When therefore a number of parts arranged in a particular manner, and under particular dimensions, excited in the generality of judicious spectators, a pleasing sensation, it will be prudent on every occasion where the circumstances subsist, to observe exactly the same arrangement and proportions, notwithstanding they may in themselves appear irregular and unconnected.<sup>56</sup>

Chambers had formed his theory on an extensive knowledge of the literature of architecture which he refers to throughout the Treatise. He was clearly more deeply influenced by the new British theories of taste, especially Burke's Enquiry,<sup>57</sup> than he was by French rationalist neo-classicism. He agreed with Laugier that architecture should be ranked amongst the highest arts but

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54. Ibid., p. 137.

55. Ibid., p. 138.

56. Ibid., p. 141.

57. E. Burke, A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and the Beautiful, London, 1756.



disagreed with him on essential principles. Referring to Laugier's distaste for pilasters, and other forms not found in the primitive prototype, Chambers commented that he wrote "...as if, in the whole catalogue of the arts, architecture should be the only one confined to its pristine simplicity, and secluded from any deviation or improvement whatever."<sup>58</sup> Burke, on the other hand, had a more profound and subversive influence.

Chambers's unpublished manuscripts, for lectures and for a second volume of the Civil Architecture, reveal that Burke's Enquiry further undermined Chambers's allegiance to the traditional point of view.<sup>59</sup> Burke raised in Chambers's mind the question of how beauty is perceived and why certain forms should be seen as beautiful. The tendency of current thought was to explain the experience of beauty in terms of individual experience: beauty was seen to be relative and not absolute. Chambers was apparently unable to resolve the conflict between this conclusion and those principles of classic theory to which he still adhered. His confusion underlined the depths of the conflict between the old absolute and the new subjective and relative interpretations based upon attempts to understand the physiology and psychology of perception. Complete subjectivity of judgement was inconceivable to Chambers, and consequently at the end of his deliberations he found it necessary to reconcile the new and the old.

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58. Civil Architecture, pp. 173-174.

59. See E. Harris, "Burke and Chambers on the Sublime and Beautiful", Essays in the History of Architecture presented to Rudolf Wittkower, London, 1967, pp. 207-13, for a discussion of unpublished material.

He referred to Perrault and Blondel and observed that "both agree in their conclusions":

...the maintainers of harmonic proportions proving their system by the measures observed in the most esteemed buildings of antiquity, and the supporters of the opposite doctrine allowing that, as both artists and critics form their ideas of perfection upon these same buildings of antiquity, there cannot be a more infallible way of pleasing than by imitating that which is so universally approved.<sup>60</sup>

By the mid-eighteenth century traditional classical theory was in decline. French rationalism and British empiricism, itself based on rationalism, were undermining belief in real and absolute beauty. The arbitrary forms and wilful contradictions of the baroque and rococo failed to satisfy theorists in search of a rigorously logical system of design. In France the rationalist critics such as Laugier analysed the form and construction of the building itself. The purified and rationalized classical architecture they sought became one of the foundations of 'modern' architecture.

In Britain the more profoundly philosophical debate underway turned attention from the substance of the building to the observer's response to its appearance. In so doing philosophy not only called into question traditional standards of beauty, but threatened to undermine the idea of beauty itself. Wren in his earlier rejection of the values "begotten by the use of our senses" and "familiarity or particular inclination" had perceived the coming threat to classical theory.

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60. Civil Architecture, pp. 257-58.

## II Pre-Victorian Theory

#### 4. New Theoretical Foundations: The Association of Ideas

British philosophy from Locke to Hume not only undermined classical architectural theory; it created the basis for a new and radically different approach to architectural design. As study of the writings of Sir William Chambers showed,<sup>1</sup> the new requirement that beauty be explained in terms of perception, as a personal experience rather than a fact of nature, had invalidated the classical assertion of the transcendent reality of beauty. Of the new principles advanced to account for the experience of beauty one in particular offered a foundation on which a new architectural theory could be constructed. This principle, the association of ideas, was essential to eighteenth century speculations; the most influential theory of taste and beauty and the most coherent and influential social theory were based on it, and so consequently was the most advanced pre-Victorian architectural theory.

Eighteenth century British philosophy was faced by the problem of explaining man's understanding and experience of the world by some comprehensive and simple hypothesis that would bear

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1. above, chapter 3, pp. 65-70.

analogy to the Newtonian system. Newton, in his Principia Mathematica (1687), had included the whole material universe within a system that was entirely mechanical in its operation, based simply upon matter and the forces operating between material bodies. One implication was that the universe had neither a fixed centre nor boundaries and consequently no absolute point of reference by which the motion or rest of bodies within it could be fixed. The philosophical problem was to produce a description of the nature of the mind and understanding that was as simple and universal as Newton's description of the cosmos. And just as the key to Newton's problem was his investigation of the forces that act between bodies and his discovery of the law of gravity, so the philosophical investigation of the mind was seen to require an exploration of the means by which experience is related to ideas and the way in which ideas are recalled and manipulated.

John Locke (1632-1704), in his Essay Concerning Human Understanding (1690), proposed that all ideas come from experience, none are innate,<sup>2</sup> and so began the attempt to give an account of the relation between sensations and understanding in purely empirical terms. Locke passed over the problem of the mechanism whereby ideas are combined, and while he devoted a chapter to the association of ideas he conceived it to be a source of error, an explanation of the unreasonableness of otherwise reasonable men.

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2. John Locke, An Essay Concerning Human Understanding, 2 vols., London, 1961, II,i,2, p.77 and passim.

Some of our ideas have a natural correspondence and connection....Besides this there is another connection of ideas wholly owing to chance or custom: ideas that are in themselves not at all of kin, come to be so united in some<sup>3</sup> men's minds that it is very hard to separate them....<sup>3</sup>

This wrong connection has, Locke said, a great influence and a great force "to set us awry in our actions as well moral as natural."<sup>4</sup>

Bishop Berkeley (1685-1753) further advanced the explanation of understanding in terms of experience. In his New Theory of Vision (1709) he constructively employed the association of ideas to explain our judgement of distance. But the real importance of association appeared with the full development of empirical philosophy by David Hume.

Hume's philosophy was pervaded throughout by association. For Locke a disturbing source of error,<sup>5</sup> association became for Hume essential. In the fourth section of his Treatise of Human Nature (1739-1740) Hume described association as the principle which enabled the imagination to manipulate and combine ideas. And in his discussion of the problems of taste and beauty he used association to explain the connection between objects and our feelings about them.

Hume concluded in his Enquiry into the Human Understanding (1748) that

Morals and criticism are not so properly objects of the understanding as of taste and sentiment. Beauty, whether moral or natural, is felt, more properly than perceived.

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3. Ibid., II, xxxiii, 5, p.336.

4. Ibid., II, xxxiii, 9, p.338.

5. Ibid.

Or if we reason concerning it, and endeavour to fix its standard, we regard a new<sub>6</sub> fact...which may be the object of reasoning and enquiry.

Hume in all his writings on beauty was at great pains to emphasize that beauty was relative and that it existed in the mind and not in the object. Further, the basis for its existence was, he argued, the association of particular qualities or kinds of objects with our own pleasure. "Our sense of beauty," he said, referring to association,

depends very much on this principle; and where any object has a tendency to produce pleasure in its possessor, it is always regarded as beautiful; .... The conveniency of a house, the fertility of a field, the strength of a horse, the capacity, security, and swift-sailing of a vessel, form the principal beauty of these several objects. Here the object, which is denominated beautiful, pleases only by its tendency to produce a certain effect....<sup>7</sup>

Hume further argued that when we observe the pleasure of advantage produced for some stranger, we also feel pleasure produced by sympathy actuated by ideas associated through cause and effect.<sup>8</sup> And he emphasized that

Handsome and beautiful, on most occasions, is not an absolute, but a relative quality, and pleases us by nothing but its tendency to produce an end that is agreeable.<sup>9</sup>

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6. XII, iii, in D. Hume, Enquiries concerning the Human Understanding and concerning the Principles of Morals, ed. L. A. Selby-Bigge, Oxford, 1962, p.165.

7. D. Hume, A Treatise of Human Nature, 2 vols., London, 1966, III, iii, 1; vol.2, p.273.

8. Ibid.

9. Ibid. De Zurko exaggerates the functionalist tendencies of this passage when he concludes that "for Hume, usefulness to society was the primary standard of judgement of works of art or problems of morality." E.R. De Zurko, Origins of Functionalist Theory, New York, 1957, p.89. De Zurko fails to appreciate the importance of association for Hume's argument, or the general direction in which that argument was tending, that is towards proving the relativity of our judgements of beauty. As the passage quoted above showed, the point for Hume was not

In Appendix I to An Enquiry Concerning the Principles of Morals (1751), "Concerning Moral Sentiments", Hume distinguished between moral and natural beauty, further clarifying his departure from the classical belief in objective beauty.

It is on the proportion, relation, and position of parts, that all natural beauty depends; but it would be absurd thence to infer, that the perception of beauty, like that of truth in geometrical problems, consists wholly in the perception of relations, and was performed entirely by the understanding or intellectual faculties. Natural beauty is analogous to fact whereas moral beauty is a species of virtue.<sup>10</sup>

As his discussion of the natural beauty of virtue<sup>11</sup> made clear, natural and moral beauty were distinguished only in that the former depended upon some 'natural affection' such as self-interest whereas the latter added to the facts of the case some sentiment by which those facts were judged. In both cases the response was entirely dependent on and thence might vary with the particular observer. He implied that proportion, symmetry, the disposition of parts, all matters treated by classical theory, were qualities to which the mind was particularly susceptible and were therefore the source of natural beauty. His comment on the circle clarifies this:

...beauty is not a quality of the circle....It is only the effect which that figure produces upon the mind, whose peculiar fabric of structure renders it susceptible of such sentiments.<sup>12</sup>

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that we tend to find useful things beautiful, but that we find them so, not for their inherent qualities, but because of the satisfaction associated with them.

10. Hume, Enquiries, p.291.

11. Ibid., pp. 214-15.

12. Ibid., p.292.



Equally, Hume said, Palladio and Perrault described the physical forms of the orders but if asked to describe their beauty would have said that it arose in the mind of the spectator:

Till such a spectator appear, there is nothing but a figure of such particular dimensions and proportions: from his sentiments alone arise its elegance and beauty.<sup>13</sup>

Here Hume attributed to Palladio his own belief in the subjective nature of beauty, for Palladio quite clearly believed the contrary, that beauty is an objective reality independent of the spectator. At the beginning of the Four Books he asserted that "Beauty will result from...the proper proportion and symmetry of the form", and, further on, discussing the form of temples (i.e. churches) that "...the most beautiful, and most regular of forms, ...are the round and the quadrangular...."<sup>14</sup> No reference to the spectator was made nor implied. It is likely therefore that Hume's distinction between moral and natural beauty, and indeed the whole of Hume's argument, would have meant nothing to Palladio. Perrault, on the other hand, had already argued<sup>15</sup> that the beauties of the form and proportion of the orders were a consequence of their long association with rich and finely worked materials in magnificent buildings.

Hume was by no means blind to the limitations of his arguments; his intention was in some measure to expose the limits of rational analysis. He seems to have accepted that he had

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13. Ibid.

14. The Four Books on Architecture, tr. I. Ware, London, 1738, repr. New York, 1965, p.1, and Ibid., p.81.

15. see above, chapter 3, pp.

not exhausted the possibilities for beauty. A popular notion in the mid-eighteenth century was that there was a beauty beyond the reach of the rules of classical art,<sup>16</sup> and Hume acknowledged the existence of something similar when he spoke of a mysterious quality which some men possessed:

This class of accomplishments, must be trusted entirely to the blind, but sure testimony of taste and sentiment; and must be considered as a part of ethics, left by nature to baffle all the pride of philosophy, and make her sensible of her narrow boundaries and slender acquisitions.<sup>17</sup>

Hume's great charm is the clarity with which he stated and defended his position. Other eighteenth century writers on taste and beauty seem by comparison to have been more confused in their ideas and more reluctant to pursue without compromise the consequences of their assumptions. Still their opinions revealed a gradual move away from the classical belief in objective beauty, subject to rules and formulae, to a compromise with the completely relativist position that Hume so persuasively argued.

This somewhat reluctant compromise came at a time when the late Renaissance architecture of Wren, Vanburgh, and Gibbs was followed by the even more rigorously classical Palladianism of Burlington and his circle. The inconsistency between contemporary theory and practice<sup>18</sup> must have been sensed by some at

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16. see above, p.32 and n.

17. D. Hume, Principles of Morals, VIII, in Enquiries, p.267.

18. In a somewhat different context Bertrand Russell wrote of the British empiricists, that

In these men there was a conflict, of which they themselves appear to have been unaware, between their temper of mind and the tendency of their theoretical doctrines.

least. Lord Shaftesbury (1671-1713) wrote that in music "Harmony is Harmony by Nature" and in architecture also are "Symmetry and Proportion founded still in Nature..."<sup>19</sup> His classical source is clear in a later passage where he argued that "...whatever in Nature is beautiful or charming, is only the faint shadow of that First Beauty..." and advised "...never to admire the Representative Beauty, except for the sake of the Original, nor aim at any Enjoyment, but of the rational kind..."<sup>20</sup> The appreciation of beauty was he thought "Innate" or "Instinct";<sup>21</sup> it was not the object of sense.<sup>22</sup>

Shaftesbury went beyond the classical position with respect to virtue, but not taste. For virtue he introduced the notion of a "Moral Sense"<sup>23</sup> by which man distinguishes between right and wrong. This idea of a special sense was extended by Shaftesbury's follower Francis Hutcheson (1694-1746), to explain the perception of beauty: "For Beauty, like other Names of sensible Ideas, properly denotes the Perception of some Mind."<sup>24</sup>

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History of Western Philosophy, London, 1965, p. 675.

Russell felt that the subjectivism of Locke, Berkeley and Hume undermined the tolerance of the world they enjoyed. But by showing the limits of rational discourse Hume in fact extended the realm of tolerance.

19. Anthony Ashley Cooper, 3rd Earl of Shaftesbury, Characteristics of Men, 3 vols., London, 1711, vol.I, p. 353.

20. Ibid., vol.II, p. 395.

21. Ibid., vol.III, pp. 412 ff.

22. Ibid., vol.III, pp. 423 ff.

23. Ibid., vol.II, p. 41.

24. Francis Hutcheson, An Enquiry into the Original of Our Ideas of Beauty and Virtue, 1726, p. 14.

Hutcheson thought that consciousness of beauty arose from contemplating "the Idea, which is then present to our Minds... altho some of these Ideas have nothing of what we call sensitive Perception in them..."<sup>25</sup> He argued that this perception of the non-sensible was made possible by the existence of a "Sense of Beauty natural to Men",<sup>26</sup> an idea he acknowledged was inspired by Shaftesbury.

The artist William Hogarth in his Analysis of Beauty, 1753, and Edmund Burke, in 1756, took similar positions on the mechanism of our perception of beauty, half-way on the path from intrinsic to extrinsic and purely relative criteria for taste. Hogarth's serpentine "line of beauty", whose path the eye followed with delight, influenced Burke's conception of a physiological response to certain physical qualities to be found in landscape and works of art which the observer experienced as sublimity or beauty.<sup>27</sup> Traditional notions of the beauty of proportion Hogarth found vague and unconvincing, and he advanced his own theory entirely based on fitness.<sup>28</sup> Fitness had also been emphasized by Hume as a source of pleasure. Both authors considered beauty to follow from our perception of the utility or fitness for its purpose of a form. It thus depended not directly on fitness but on our appreciation of potential fitness (an argument that goes far to explain the appeal of, for instance,

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25. Ibid., p.xiii.

26. Ibid., p.xvii.

27. William Hogarth, Analysis of Beauty, London, 1753, ed. J. Burke, Oxford, 1955, chap.5, passim.

28. Ibid., Chap.11, esp.pp. 85 ff.

streamlining in the 1930's and 40's). As Hume had argued, the consequent pleasure - or the perception of beauty - was the result of the pleasure we associated with satisfactory performance. While Hogarth ignored association, and instead implied that beauty denoted both physiological and intellectual pleasure, his argument also led to varying, relative standards of beauty.

Edmund Burke in his Philosophical Enquiry into the...Sublime and Beautiful (1756) argued for fixed principles of taste<sup>29</sup> based on a response of pleasure or pain to various experiences. Considering the range of human experience he thought it necessary to introduce "the sublime" alongside the beautiful, to name those experiences which excited the ideas of pain and danger.<sup>30</sup> Association he thought to be a secondary source of feelings which he attributed primarily to certain "natural powers" in different objects. The natural powers or properties caused either a tension or a relaxation of the nerves; the first was experienced as pain or fear, and the object as sublime, the second as love and the object as beautiful.<sup>31</sup> By introducing the sublime along with the beautiful Burke implied the existence of a continuous spectrum of response in which beauty was only a particular hue. The addition to the sublime and beautiful of the picturesque, first by William Gilpin about 1791,<sup>32</sup> then

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29. E. Burke, Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful, London, eighth edition, n.d. (first published 1756), p.3.

30. Ibid., p.58.

31. Ibid., pp. 244-249, 289.

32. In various works, see C. Hussey, The Picturesque, London, (1927), 2nd ed. 1967, p.112.

formally by Uvedale Price in 1794,<sup>33</sup> further widened the spectrum.

Lord Kames (1696-1782), in the Elements of Criticism, 1761, adopted a more conservative position. Beauty he divided into intrinsic and relative. Intrinsic beauty was, he said, an object of sense without the intervention of thought and understanding, whereas relative beauty was the consequence of our pleasurable response to apparent utility, or other qualities which required not just our perception but our understanding. Both were "perceived as belonging to the object",<sup>34</sup> but while relative beauty could be explained by an associative process,<sup>35</sup> intrinsic beauty - the ultimate beauty - was more puzzling: "...it seems the most probable opinion, that the nature of man was originally framed with a relish for them, in order to answer wise and good purposes."<sup>36</sup> Applying this vaguely theological explanation to architecture he concluded that

With respect then to the final cause of proportion, I see not more to be made of it but to rest upon the final cause first mentioned, namely, its contributing to our happiness, by increasing the beauty of visible objects.<sup>37</sup>

Kames's position demonstrated the persistence of the classical theory of intrinsic beauty, and the philosophical problem it posed. In fact, none of these other writers achieved the persuasive consistency of Hume.

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33. Uvedale Price, Essay on the Picturesque, 1794.

34. Henry Home, Lord Kames, Elements of Criticism, 2 vols., London, 1788, vol.I, p.198.

35. Ibid., vol.I, II, i, 5, pp. 66 ff.

36. Ibid., vol.I, p.201.

37. Ibid., vol.I, p.202.

In 1749, a year after the publication of Hume's Enquiry, a gentlemanly physician named David Hartley (1705-1757) published Observations on Man, His Frame, His Duty, and His Expectations. Hume had discussed the kind of attraction of ideas called association but had noted that "as to its causes, they are mostly unknown..."<sup>38</sup> Hartley proposed not only a comprehensive account of man's behaviour in terms of the association of ideas, but also a physiological theory of association itself, explaining those causes which Hume, in 1738, had said were mostly unknown. Conscious of the weakness of the idea of an innate "moral sense" to which Shaftesbury and Hutcheson had attributed our perception of virtue and beauty, Hartley offered a Newtonian, mechanical theory of vibrations transmitted by our nerves to the substance of the brain on which they left a physical impression. This trace constituted our memory of the experience. It could be reactivated by a later experience producing similar or harmonically related vibrations, which made possible the association of the ideas. In his brief comments on architecture he reached the same conclusion as other critics of the idea of absolute beauty, especially Perrault, that standards which had been established in the past for quite other reasons became accepted as beautiful because of their associations.

In Architecture there are certain Proportions of Breadths, Lengths, Depths, and Intire Magnitude, to each other, which are by some supposed to be naturally beautiful, just as the simple ratios of 1 to 2, 2 to 3, 3 to 4, &c in Music, yield sounds, which are naturally pleasant to the ear. But it rather seems to me that oeconomical convenience first determined the ratios of Doors, Windows, Pillars, &c.

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38. Treatise, I, i, 4, p.21.

in a gross way: and then that the convenience of the Artists fixed this Determination to some few exact ratios, as in the proportions between the Lengths and Breadths of the pillars of the several orders. Afterwards these proportions became associated so often with a Variety of beauties in costly buildings, that they could not but be thought beautiful at last. In merely ornamental parts the Beauty of Proportions seems to arise intirely either from Fashion, or from a supposed Resemblance to something already fixed as a beautiful proportion. It is easy from these principles to account for the Prevalency of different proportions, and general tastes, in different Ages and Countries.<sup>39</sup>

Here Hartley further developed the argument against the absolute beauty of proportions that had been first advanced by Perrault in 1673. The essential difference was that Hartley was prepared to support his view with a full explanation of the process - basically mechanical - whereby convenience, costly materials, fine workmanship and other qualities of expensive building were so combined in the minds of many observers that beauty was their resulting experience.

Hartley's Observations failed to receive due attention in their own day; as J. S. Mill wrote, they "were so much in advance of the age...that the philosophic world did not deem them worthy of being attended to."<sup>40</sup> He attributed their survival to Joseph Priestley, "who transmitted them as a kind of heirloom to his Unitarian followers..."<sup>41</sup> Priestley's shortened and simplified edition of Hartley appeared in 1775, but it was not until James

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39. D. Hartley, Observations on Man..., London, 2 vols., 1749, vol. I, p. 425.

40. J. S. Mill, "Coleridge", 1840, in Collected Works, vol. X, Toronto, 1969, p. 130.

41. Ibid.



Mill's Analysis of Mind was published in 1829 that Hartley received wider recognition.

Although the full impact of Hartley's ideas on architecture and architectural theory came after 1800, once established they remained persistent elements of thought through the Victorian period, as reference to later architectural writing will show.<sup>42</sup> With the appearance of Alison's Essays on the Nature of Taste, in 1790, a fully associationist aesthetics became influential, and James Mill's Analysis of the Human Mind in 1829 established the connection between Hartley's association psychology and Utilitarianism, giving it even wider recognition. Between these dates, 1790 to 1835, associationist aesthetics had its greatest influence upon architectural theory and design.

For architecture, then, the development of eighteenth century aesthetics culminated in the theory which Alison published in 1790. Alison's treatment of taste and beauty provided the foundation for the architectural theory developed in close relation to practical design first by Uvedale Price in 1794 and 1795,<sup>43</sup> then by professional designers of the Regency among the most important of whom was J. C. Loudon.

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42. For an example of their wide influence, an eminent psychiatrist and historian of psychology has noted the importance of associationism in his field:

"...associationist psychology up to the era of Freud was still the orderly, the systematic, the scientific psychology of the western world",

G. Murphy, Psychological Thought from Pythagoras to Freud, New York, 1968, p.114.

43. Uvedale Price, Essay on the Picturesque, 1794, and Essay on Architecture and Buildings, 1798.

Archibald Alison (1757-1839), a Scottish clergyman and prebendary of Sarum, published his Essays on the Nature and Principles of Taste first in 1790 and again with some additions in 1811. Based almost entirely on the theory of association, these essays gave a comprehensive account of the visual arts, interpreting response to them, and to natural landscape and other experiences, in terms of the recollection of emotions stimulated by past experiences. In his second essay, in which he considered "The sublimity and beauty of the material world" and particularly the forms of material objects, he gave as the common opinion

...that Forms in themselves are beautiful; that there is an original and essential Beauty in some particular Forms; and that this quality is as immediately discernible in them, as the Forms themselves.<sup>44</sup>

This was the traditional, classical view, with which he disagreed. Alison then listed various philosophical opinions on the matter, including ideas he attributed to Hume, Hogarth and others, all of which offered relatively simple explanations of taste, based either on particular qualities in the object which stimulate particular responses, or on our being accustomed to respond to certain forms in particular ways. Alison argued, against all these, that the sources of beauty were more complex: that beauty arose from a wide variety of associated ideas which recurred as connected trains of thought.

In the observations which follow, I shall therefore endeavour to shew, that the Sublimity of Beauty of Forms arises

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44. A. Alison, Essays on the Nature and Principles of Taste, 2nd ed., 2 vols., Edinburgh, 1811, vol.I, p. 315.

altogether from the Associations we connect with them, or the Qualities of which they are expressive to us;....<sup>45</sup>

With Alison's Essays, then, a fully associative theory of taste emerged at the end of the century's deliberations. From the point of its appearance it provided the rationale for the term picturesque which had become common in the 1780's.<sup>46</sup> The application of Alison's ideas in detail to landscape and architecture by Uvedale Price established the dominant position of the picturesque in architectural theory for the Regency, and thereafter it was a recurrent theme in British architecture.<sup>47</sup>

Because in Alison's view taste rested, above all else, on a particular spectator's individual experiences and associations he implied the impossibility of absolute unvarying standards. He himself seems not to have fully grasped this, because he aligned himself finally with Thomas Reid, who had held the contrary opinion. But as examination of the views and work of Loudon and his contemporaries will show, in the following decades an increasingly eclectic view of styles and proportions, including the possibility of discarding style entirely, followed from this philosophical prescription for complete individuality of

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45. Ibid., vol.I, pp. 317 f.

46. 'Picturesque beauty' and 'picturesqueness' were terms used frequently by the Rev. William Gilpin in his descriptions of scenery published between 1782 and 1809. As 'picturesque beauty' suggests he did not define the terms carefully; picturesqueness tended to suggest simply that a scene was suitable for painting or like a picture. cf. Hussey, Picturesque, p. 112.

47. The most recent phase of the picturesque (which is continuing) began around 1945. One view of the evidence is given in R. Banham, "The Revenge of the Picturesque", in J. Summerson ed., Concerning Architecture, London, 1968, pp. 265-73.

taste. Furthermore, his theories also implied that beauty had been almost completely devalued; it survived only as one hue of a broad spectrum of emotional responses evoked by design.

Within that spectrum, because the more abstract beauties of design were a product of the special skills and tastes of a small group of artists and connoisseurs, taste focused on 'abstract beauty' became ingrown. The arts needed to be rescued "from the sole dominion of the Artists" and therefore "Beauty of Character or Expression", to which everyone could respond without special skill and training, should prevail.<sup>48</sup>

This argument led directly to the didactic and often sentimental art of the Victorian period. Alison's argument for the moral influence of art (which fulfilled Hume's conjunction of morals and criticism as concerned with taste and sentiment rather than understanding) had a further consequence of lasting importance. It gave design a moral function in society and made the artist or designer a custodian of morals and an instigator of social improvements. This latter attitude became incorporated in the definitions of the architect as a 'professional'. Alison came to the conclusion that

...it is by means of this constitution of our nature, that the emotions of taste are blended with MORAL sentiment; and that one of the greatest pleasures of which we are susceptible, is made finally subservient to moral improvement.<sup>49</sup>

In the first and most important modern study, The Picturesque, Christopher Hussey wrote of "the devastating effect on

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48. Of Taste, vol.II, p.117.

49. Ibid., vol.II, p.435.

every standard of beauty" of Alison's theory, which "justified the most sentimental and formless excesses...produced by the nineteenth century".<sup>50</sup> The roots of nineteenth century eclecticism and didacticism are clear enough in Alison's subjectivity, his high moral aims and his preference for "Character or Expression". Hussey adopted an eighteenth century point of view for his criticism. He upheld classical taste and rejected the consequences of associationist theory. Despite his distaste he found it necessary to assert that "The truth of Alison's theory cannot be denied."<sup>51</sup> Nor could it on the premises shared by later eighteenth century men of taste. But in its denial of the relevance to taste of intrinsic qualities and absolute standards it did seem to eliminate the possibility of any further discussion of art beyond the statement that "I know what I like." More important, as a mechanistic, deterministic explanation of response it eliminated creativity. No basis for invention and novelty remained when all feeling was the result of conditioning.

Alison's point of view is not accepted or even much discussed by contemporary philosophers of art. Nonetheless, Alison's acceptance of a wide range of human response, his connection of art with morals and with society, now seems more sound than it did in the throes of the anti-Victorian reaction earlier in this century. Alison and his predecessors had produced a theory of the organic unity of design and society that after a century of the alienation of art from society now has a fresh appeal.

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50. 2nd edition, 1967, p.15.

51. Ibid.

The pervasive influence of associationism in his period extended beyond the visual arts to literature. It is significant that the Regency was the period above all others of 'literary architecture' such as Beckford's romantic folly, Fonthill Abbey (built by James Wyatt, from 1796 on, to realize a novelistic vision of the middle ages), and of imaginative literature in which architecture and landscape played a very large part. Landscape was the bridge between associationist aesthetics and architecture for Uvedale Price and landscape also was a common element between literary and architectural theory.

In Regency literature, as in architecture, the landscape was a prime source of inspiration. The "Lake Poets" took their name and many of their themes from the locality where they worked; the 'regional' novel, accurately depicting the life and landscape of a particular region, was an invention of the period. For both poets and novelists it was the associations stimulated by the landscape that gave it literary value.

Association inspired the detailed imaginative exploration of ordinary life, intensifying it in prose and in poetry by showing the profound events and feelings associated with humble circumstances. Wordsworth, in his preface to the second edition of Lyrical Ballads (1800), declared that his object

was to choose incidents and situations from common life, and to relate or describe them, throughout, as far as was possible in a selection of language really used by men... to throw over them a certain colouring of imagination, whereby ordinary things should be presented to the mind in an unusual aspect; and...to make these incidents and situations interesting by tracing in them...the primary laws

of our nature: chiefly, as far as regards the manner in which we associate ideas in a state of excitement.<sup>52</sup>

A similar approach inspired Maria Edgeworth's first novel, Castle Rackrent (1800), which has been described as "the first regional novel in English, and perhaps in all Europe".<sup>53</sup> Edgeworth's example inspired Walter Scott, whose Waverley (begun 1805 and published 1814) introduced the "ampler world of the historical novel".<sup>54</sup> A parallel can be drawn with the way in which the study and reproduction of vernacular architecture by James Malton and others formed a bridge between the rococo styles of the mid-eighteenth century and the historically accurate classical and gothic of Wilkins and Pugin in the early nineteenth century.

Scott's somewhat fanciful picture of the past gave way to the more scholarly works of novelists like Bulwer Lytton and George Eliot, just as Malton's and his contemporaries' highly imaginative versions of architecture in the gothic, Greek or cottage styles were followed by others based on meticulous study and reconstruction of the real thing.

Wordsworth's statement of his own literary theory quoted above was prompted by the co-author of the Lyrical Ballads, Coleridge, whose own early critical and philosophical writings even more fully demonstrated the importance of association in this period. But Coleridge anticipated the end of the period

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52. Quoted from W.J.Bate (ed.), Criticism: the Major Texts, New York, 1952, p. 336.

53. Introduction to Castle Rackrent, ed. George Watson, London, 1964, p. vii.

54. Ibid.

when association dominated art theory. Writing his Biographia Literaria (begun with the Preface to Lyrical Ballads in 1800 but not published until 1817) Coleridge reviewed the point of view he had earlier shared with Wordsworth, and the philosophy on which it was based. Considering the history of the association of ideas, and Hartley's theory in particular, he came to the conclusion that this mechanical explanation of mental activity was inadequate. Coleridge's aim became "to combine the concreteness and the organic vitalism that the Romantic movement prized, with the traditional values of classical rationalism and idealism...."<sup>55</sup> And so between 1800 and 1815 he turned instead to the German idealists, especially Kant and Schelling, and to the neo-Platonism of Plotinus to account for the transcendental aspects of human experience. According to Croce, it was Schelling who gave "the first great philosophical affirmation of Romanticism, and of a renewed and conscious neo-Platonism...."<sup>56</sup>

In his social criticism<sup>57</sup> Coleridge rejected rationalistic theories and especially Bentham's utilitarianism. Bentham saw the progress of society impeded only by 'vested interests' who were the traditional holders of power and authority, and he criticized existing social institutions' lack of rational principles. But past traditions Coleridge came to value as the

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55. Bate, Criticism, p. 359; cf. W.J. Bate, "Coleridge on the Function of Art", Perspectives of Criticism, ed. H. Levin, Cambridge, Mass., 1950, pp. 125-59.

56. Aesthetic, New York, 1958, p. 291.

57. especially The Statesman's Manual, 1816; On the Constitution of Church and State, 1830.



source of stability and order in a time of social upheaval.

(He attributed the French Revolution "to the predominance of a presumptuous and irreligious philosophy": to an exaggerated regard for scientific and technical progress which led to the assumption that "states and governments might be and ought to be constructed as machines" whose actions and consequences could be fully anticipated and planned.<sup>58</sup>)

Jeremy Bentham and his follower James Mill had even greater immediate influence on social philosophy than Coleridge. Bentham's "utilitarianism" was the epitome of eighteenth century rationalism applied to society, and among its foundations was Hartley's theory of association, as Mill's Analysis of the Human Mind (1829) made clear. Hartley's mechanistic psychology was used to justify the rigorous application of Bentham's principle that pleasure and pain, quantified, could be used to determine the moral worth of all proposals for social improvement. Both Coleridge and the utilitarians expressed attitudes to be found in the architectural theory of the period. On the one hand architects and clients demanded the support of tradition in the form and style of building so that while gothic was revived for ecclesiastical use by some, others continued to adhere to the Renaissance classicism practised by Sir William Chambers. Both in different ways upheld the value of precedent and tradition. On the other hand there was the demand voiced throughout the nineteenth century for a new style - a style of architecture

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58. "The Statesman's Manual...", in Prose of the Romantic Period, ed. C.R.Woodring, Boston, Mass., 1961, p.148.

that was in keeping with its own time, free of any trappings from the past.<sup>59</sup>

Eighteenth century British aesthetic writings have not always been highly regarded by later writers on the subject. The creators of associationist aesthetics were for the most part amateurs, and too deeply involved in the limiting preconceptions of their society to make any enduring contribution to the philosophy of art. In particular they found it difficult to abandon the long-established belief in intrinsic beauty, and yet they had to take account of the criticisms of Hume and others that made that position no longer tenable. Gentleman amateurs, they were straddling a philosophic abyss, and yet their opinions have real interest. Amateur philosophers, but real clients, patrons or friends of patrons, amateur artists before the professional had fully defined himself, they were closer to the problems of patronage and creation in landscape and architecture than more recent professional philosophers have been. Theory has never created art, but the theories of Shaftesbury, Hutcheson, Kames, Gerard and the rest reflect more closely the actual compromises made in the creation of art, than more imposing structures of aesthetic theory created since. As their ideas were superseded in the 1830's and 40's a highly creative period of architecture came to its end.

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59. For example from mid-century,

...no art or science ever has been or can be now advanced by going backwards, and copying earlier forms...Where forward progress is the law...a new style must be the inevitable result.

J.Fergusson, The Illustrated Handbook of Architecture, 2 vols., London, 1855, vol.I, p.lv.

Coleridge was an early exponent of an alternative to associationist philosophy, but it was not until 1833 that J.S. Mill referred to

the two systems between which, and which only, almost every metaphysician, deserving the name, in all Europe, is now beginning to be convinced it is necessary to choose...<sup>60</sup>

which were "the association-philosophy as taught by Hartley, and the metaphysics of the German School."<sup>61</sup> With the choice between British and German philosophy came a choice between the moral seriousness in architecture proclaimed by Pugin and Ruskin and frivolity or pure materialism. The balance and integration of Regency design was followed by increasing alienation of design from society. But even in the later period ideas from the eighteenth century continued to influence architecture. Most important were the relativity of taste and the validity of subjective response, the superiority of character or expression to abstract form, and the moral and social influence of design.

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60. Collected Works, vol.X, p.23.

61. Ibid.

## 5. Small House Design: a Focus for Change

During the years between 1790 and 1835 a new architectural theory was created. Its appearance accompanied the emergence of small houses as a new and stimulating field of architectural design. New philosophies of taste contributed essential elements to the new theory, but equally important was the influence of changing social circumstances.

The far-reaching revolution in thought which had dethroned proportion and beauty also contributed to the much more spectacular changes which took place in the organisation of British society. Rationalist thought touched all aspects of life. The desire to understand, to change and improve worked upon agriculture, industry, politics and religion, and in due course all were transformed. Consequent changes in the composition, organization and wealth of the population were major factors in reshaping accepted architectural ideas.

In the 1790's, Britain was still rural and agrarian, ruled by hereditary landowners. The bulk of the British population in 1800 (about 70 per cent of 15.9 million people) still lived and worked in the countryside. The health and prosperity of the nation seemed tied to the land. Not until the 1830's was it

finally recognized that a different society was coming into being: urban, industrial, and middle class.

The supreme creation of Georgian taste expressed the interest of the ruling class in the land. In the course of the century the landowners' meticulous attentions had transformed the countryside into an object of taste: the landscape. The theory of the art, taking account both of the new aesthetics and the practical problems of landscape design, was in the writings of Uvedale Price, Richard Payne Knight, and Humphry Repton in the 1790's. While classical principles still dominated the field of architecture, buildings more and more came to be treated as part of the visual scene. The great houses of the countryside were seen as ornaments and embellishments to a composition of fields, trees and water, and for the first time an interest was taken in the humbler components of the rural scene: ordinary farm buildings and the cottages and shanties of the peasants.

The practical as well as aesthetic interests of the landowners lay in the development of the countryside, in agricultural improvement. The traditional open field system persisted among the smaller farmers but it was wasteful and inefficient. Because of its obvious failings enclosure of landholdings had been going on for some time. But now the pressure of a growing population (from 9.4 to 15.9 millions between 1701 and 1801), and the loss of imported produce due to the wars with France and America, made further improvement

in domestic food production vital. As a consequence the pace of enclosure and consolidation of farm land into larger units was increased and reached its peak during the Napoleonic Wars.

Better farms and farming required new and improved farm buildings. Agricultural improvement brought an interest in the technical improvement of facilities, and the reorganization of holdings involved some relocation of people and consequently a need for new housing. The anonymous author of the Supplement to Lord Kames's Gentleman Farmer, looking back to the first edition of 1766 from the early nineteenth century, wrote (referring to the farmhouse) that

the "straggling and confused" state so justly censured by Lord Kames, has given way to order and convenience; and many recent erections are not only neat and substantial, but ornamental.<sup>1</sup>

The rural worker played a vital part in agriculture but he was particularly vulnerable to the changes underway. Enclosure improved life for fortunate farm-workers, but dispossessed many, above all the poorest of small farmers and tenants. In many cases they were forced off the land, or alternatively they remained as farm labourers, but in any case their homes were often in ruinous condition and needed rebuilding. The problem was increased by the enclosure of previously unfarmed wasteland which forced the poorest of all the rural population, the squatters, to find new accommodation, either in the country or the towns.

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1. Henry Home, Lord Kames, The Gentleman Farmer (1776), 6th ed., Edinburgh, 1815, p. 463.

Housing was consequently singled out for attention by the improvers. When the Board of Agriculture was established in 1793 for the systematic study and improvement of agriculture (with Sir John Sinclair as President, and Arthur Young as secretary) it found housing of particular concern. Addressing the Board in 1795 Sir John had this to say:

The last and perhaps the most important object, to which the attention of the Board can be directed, is that of attending to the situation and circumstances of the lower orders of the people. The Special Committee...appointed to take the general subject into consideration, [agreed] three points, which seemed to meet with a very general concurrence. The first was, to promote<sup>2</sup> Improvements in the Construction of Cottages....

And in the same volume of the Communications, published in 1797, there were substantial sections devoted to the design and construction of farm buildings, including a section dealing with cottages. At the same time other publications, the work of individual designers, began to appear devoted to the design of housing and demonstrating a new fascination with rural cottages. 6,7

The countryside was heir to a long tradition which gave the nobility and gentry, through their inheritance of the land, a large measure of responsibility for the social welfare of the inhabitants of the countryside. To this was united aesthetic appreciation and practical understanding of the land to create what was seen at the end of the eighteenth century as a kind of

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2. Communications to the Board of Agriculture, vol. I, London, 1797, p. lxii.

rural Elysium.<sup>3</sup> This combination was inevitably a powerful influence on the development of architectural theory after 1800.

Despite the attractions of rural life the towns were growing in size and importance through the eighteenth century.

Preoccupation with the countryside diverted attention from their equally serious problems. Rising population pressed heavily on them with the result that by the end of the century they had become most unpleasant places to live. Essential services -

water, sewers, roads, fire and police - had not developed sufficiently to cope with the increasingly dense concentrations of

people.<sup>4</sup> One rural improver commented on the illnesses and debilities of the lower class population of the manufacturing towns

and contrasted the benefit to the nation of a growing population of healthy rural cottagers.<sup>5</sup> The general attitude was expressed

in a work on Rural Philosophy (1803), written chiefly in praise of a life of retirement in the country.<sup>6</sup> It was, wrote the

author, Ely Bates,

composed some years ago, during that period of republican frenzy, when the world, in its wild attempts to overthrow two of its greatest and most fundamental blessings,

3. H. F. Clark, "Eighteenth Century Elysiums: The Role of Association in the Landscape Movement", in The Warburg and Courtauld Institutes, England and the Mediterranean Tradition, Oxford, 1945.

4. London was the lone exception: see M. D. George, London Life in the Eighteenth Century, Harmondsworth, 1966, pp. 15 f.

5. Nathaniel Kent, Hints to Gentlemen of Landed Property (1775), 2nd ed., London, 1776, p. 244.

6. Ely Bates, Rural Philosophy: or Reflections on Knowledge, Virtue, and Happiness; Chiefly in reference to a life of Retirement in the Country, 4th ed., London, 1805. First pub. 1803; a 6th ed. appeared in 1811.



religion and government, seemed in a kind of conspiracy against itself...<sup>7</sup>

He felt the present want of rural philosophy, or of "that wisdom which teaches a man at once to enjoy and to improve a life of retirement..."<sup>8</sup> The fascination of the cities was such that the nobility and gentry poured into London at the approach of winter, he complained, leaving the country almost deserted. Though Bates recognized the need for public activity he seemed to feel that frequentation of the city was dangerous and emphasized throughout the virtues of a rural life.

Though numbers in both town and country may have grown through the eighteenth century<sup>9</sup> the balance of the population was changing (although it was not until 1850 that a majority of the population lived in the cities). Even in 1831

The representative Englishman, then, was not yet a townsman, though he soon would be. Nor was the representative townsman either a man tied to the wheels of the new industrialism, or even a wage earner in a business of considerable size.<sup>10</sup>

It was in the 1830's that interest in the problems of the cities began to appear with investigations of the conditions of the urban workers in Manchester and elsewhere. At the same time the first Reform Bill, Factory Act, and the first attempts at Union organization were evidence that the character of society

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7. Ibid., p.iii.

8. Ibid.,p. ix.

9. J.D.Chambers & G.E.Mingay, The Agricultural Revolution 1750-1830, London, 1970, p. 3, n.

10. Sir John Clapham, The Early Railway Age, 1820-1850, Cambridge, 1926, p. 67.

was radically changing, that the middle and working classes, commerce and labour, were gaining power.

The cities could make no contribution to architectural theory comparable to that of the countryside. Urban architecture was firmly rooted in the tradition of renaissance classicism and the repetitive standardization of terraced developments. It was as repugnant to the protagonists of rural life as the social conditions they deplored. John Nash's attempt to apply picturesque principles to the development of northern London in Regent Street and Regent's Park brought the country into the town. Evading the central problems of city design, the overcrowding and the low standards of construction, it became a prototype for that typical Victorian compromise, the suburb. The development of Regent Street also involved an uneasy alliance between design and speculation. Building on the scale required by the expansion of towns and cities became a purely commercial proposition involving all the worst features of speculation including both poor layout and poor construction. The developers took no interest in or responsibility for their tenants, who were left to suffer the consequences of commercial greed. By the middle of the eighteenth century the 'builder' had begun to appear as the entrepreneur who organized and sometimes financed (and, as well, designed) building projects.

Incipient confusion of roles in the middle eighteenth century is evident from The London Tradesman (1747).<sup>11</sup> Campbell

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11. R. Campbell, The London Tradesman. Being a Compendious View of All the Trades, Professions, Arts, both Liberal and Mechanic, now practised in the Cities of London and Westminster, London, 1747.

defined the architect as the designer and also either the contractor or responsible for choosing and supervising the work of the various trades (who would be paid directly by the owner).

When the Employer has fixed upon a Plan, they then agree upon the Price, and the Architect either undertakes the whole Work, for a certain Sum, or is paid for superintending the Work only; in either Case all the Workmen are generally of his own choosing, and such as he believes capable of executing their several Branches in the proposed Work.<sup>12</sup>

The architect, he emphasized, was liberally educated, though he needed to know all the secrets of the trades as well. He noted "Bricklayers, Carpenters, &c. all commence Architects; especially in and about London, where there go but few Rules to the building of a City-House."<sup>13</sup> Not only did the master bricklayer usurp the architect's position, he was becoming something of a developer. Campbell warned that bricklaying was very profitable

especially if they confine themselves to work for others, and do not launch out into Building-Projects of their own, which frequently ruin them: It is no new Thing in London, for those Master-Builders to build themselves out of their own Houses, and fix themselves in Jail with their own Materials.<sup>14</sup>

Both Carpenters and Joiners are Undertakers in Building as well as the Master-Bricklayer; and are liable to split upon the same Rock of Building-Projects: But a Gentleman who wants to build with Security as well as Beauty, would do well not to trust entirely to their Skill.<sup>15</sup>

Postlethwayt, in his Universal Dictionary of Trade and Commerce

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12. Ibid., p. 155.

13. Ibid., p. 158.

14. Ibid., pp. 159f.

15. Ibid., p. 161.

(1751), also noted with respect to master bricklayers that there were some commonly called master-builders "who obtained good estates". They not only had the necessary capital but took "great pains to qualify themselves for projecting, drawing plans, surveying, and estimating buildings."<sup>16</sup> Both authors noted that architecture was a liberal art such as was painting, to be distinguished from the "mechanic arts such as the trades of turners, carpenters, etc."<sup>17</sup> It was clear that it was no longer possible for the architect to take his position for granted. The first steps towards the development of architecture as an institutionalized profession were taken in the later eighteenth century.<sup>18</sup> They led to the foundation, in 1834, of the Institute of British Architects, and the firm definition of the architect's status and responsibilities with respect to the trades, his clients and the community and brought one phase of theoretical development to an end.

Associated with the growth of industry and the cities was a change in the composition of the population. As Britain became increasingly commercial and industrial it also became middle

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16. Malachy Postlethwayt, The Universal Dictionary of Trade and Commerce (1751), 3rd ed., 2 vols., London, 1766; cf. Clapham, The Early Railway Age, pp. 162f.

17. Postlethwayt, Universal Dictionary, article on ART.

18. A useful outline of the moves taken to create the Institute of British Architects is given in Barrington Kaye, The Development of the Architectural Profession in Britain, London, 1960, esp. Chaps. 5 and 6. Kaye interprets the process as "shedding the inferior status of patronage" (p. 56), but it may alternatively be seen as an attempt to maintain through an institution functions previously fulfilled by noble patrons: the maintenance of standards of taste, and the definition of the architect's (relatively) high social position.

class. It was particularly the lower middle class and the skilled working class who grew most quickly in numbers.<sup>19</sup> In the past standards of design had been based upon the taste of the small portion of the population able to afford and appreciate highly embellished, beautifully finished designs, executed by individual craftsmen. As the moderately well off proportion of the population rose, so rose the demand for cheaper, serviceable and more standardized products. It seems that this process preceded, and if so, anticipated, machine-made consumer products. Clock-making in the eighteenth century exemplified this change:

from being a highly specialized craft in the hands of a few master craftsmen, clockmaking became a widespread national industry whose products by their efficiency and cheapness captured the European market.<sup>20</sup>

The result was a new orientation of the producer "to the market instead of to the shop",<sup>21</sup> which for architecture entailed increased emphasis on the large-scale standardized development of housing and exploitation of industrial techniques where applicable, for instance, for the prefabrication of building components, ornament, and even entire buildings.

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19. A comparison of Gregory King's description of the population in 1688, with Colquhoun's estimate for 1813, shows this increase in the middle class and the skilled artisans. See for instance G.D.H. Cole and R. Postgate, The Common People, London, 1966, diagrams on pp. 70f., and also E.J. Hobsbawm, Industry and Empire, Harmondsworth, 1970, pp. 83, 90, and diagram 10.

20. J.H. Plumb, Britain in the Eighteenth Century, Harmondsworth, 1950, p. 22.

21. D.S. Landes, in H.J. Habakkuk ed., Cambridge Economic History of Europe, Cambridge, 1965, vol. VI, Pt. I, p. 282.

In the pre-Victorian decades architectural theory was dominated by the rural ideal expressed by writers on landscape in the 1790's. From it architecture gained an integrated concern with the appearance of buildings in relation to the landscape and their utility to the countryside population. But behind the rural ideal lay the tradition of a stable social order with clearly defined ranks and long-established responsibilities. Already at the end of the eighteenth century urban growth threatened this orderly system. The movement for parliamentary reform and the first attempts to organize labour were symptoms of the redistribution of political and economic power that was underway. As the urban social order grew influential architecture was forced to avoid association with either commerce or the building trades by establishing its professional role.

The combined influence of both town and country had certain broad consequences for architectural theory. The predominant interest in housing and especially rural housing led designers to concentrate on problems of siting and visual character. The importance of smaller houses meant an increasing interest in the economy and convenient arrangement of their designs. If attention had turned to a different type of building, for instance, to the contemporary problem of mill design or as it did later to the design of railway stations, more emphasis might have been given to the problems of structural design, and rather more might have been made of the intrinsic beauties of symmetry and proportion. As it was these questions were left to the civil engineers. When attention did turn to these questions

later in Victorian times, there often occurred a head-on collision (visually) between the simplicity and daring of the engineers' work and the richness and eccentricity of the architecture. St. Pancras (1865) is an example, with Barlow's soaring train shed attached to Scott's ornate hotel.

Production for the market, cheaper housing for town and country, and the use of prefabricated ornament promoted a divorce between ornament and construction. This led first to the idea that the designer could dispense with ornament entirely while still satisfying the demands of taste.<sup>22</sup> Under pressure of increasing competition from architects and builders, this gave way after mid-century to the Victorian idea that the architect's work was the deploying of appropriate ornament upon a carcass that the engineer or builder had already demonstrated his competence to design.<sup>23</sup>

Another consequence of the decline of aristocratic patronage and the growth of a market of middle and working class consumers was some confusion of the architect's role in relation to his client. According to the ideal picture of rural life the land-owning class accepted responsibility for the welfare of their dependants. Estate cottages designed according to landscape principles and as agricultural improvements were intended

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22. J.C.Loudon, An Encyclopaedia of Cottage, Farm and Villa Architecture and Furniture..., London, 1833, p.1114; see also the discussion of the works of Gandy and others in chap. 7 below, pp.

23. An idea expressed most emphatically by Ruskin, but also, with various qualifications, by James Fergusson and Robert Kerr among others. The idea is discussed by P. Collins, Changing Ideals in Modern Architecture, London, 1965, pp.124 ff.

both for the comfort of their users and the delight of their owner. In an industrial and commercial context this responsible interest was weakened; social theorists even suggested it was incompatible with the most efficient operation of the economy. Working under these conditions the architect when called upon to design housing for rent or sale had either to succumb to commercial pressures or to assume the function of guardian of the social welfare. The theoretical justification for the latter course had been established by the associationist theory that design exerted a moral influence. In many cases the architect did express an interest in the social consequences of his designs.

These consequences of changing social circumstances appeared most clearly in connection with the design of small houses, which became a focus for social and theoretical problems in architecture. The many books of cottage and villa designs published in the first half of the nineteenth century showed the depth of interest in the problem of small house design and revealed the changing attitudes with which it was approached. As pre-Victorian theory developed even the terms 'cottage' and 'villa' were given new meanings. The discussion of the theory of cottage and villa design which is to follow must be preceded by an account of the meaning and use of these terms.

The word 'cottage' had been used in English from the middle ages to mean

a dwelling-house of small size and humble character, such as is occupied by farm-labourers, villagers, miners, etc.<sup>24</sup>

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24. The Oxford English Dictionary, 1933, article on 'cottage', 1.



But after the middle of the eighteenth century, the word gained a new meaning, first noted in the correspondence of that Georgian taste-maker, Horace Walpole. In 1765, having adapted an existing cottage for his own use, he wrote of "my new cottage and garden...so retired, so modest, and yet so cheerful and trim..."<sup>25</sup> Later the 1845 Supplement to the Penny Cyclopaedia gave a complete definition.

The term cottage has for some time past been in vogue as a particular designation for small country residences and detached suburban houses, adapted to a moderate scale of living, yet with all due attention to comfort and refinement. While, in this sense of it, the name is divested of all associations with poverty, it is convenient, in as much as it frees from all pretension and parade and restraint.<sup>26</sup>

'Villa' came into English in the early seventeenth century from Italy, where following the example of Cicero elaborate country establishments had become fashionable. They included not just sumptuous residences but also farms complete with farm buildings. On the model of the Italian villa suburbana, which had been popularized in early eighteenth century England by the works of Palladio, the word came to be applied first to elaborate suburban places of retirement (like Lord Burlington's villa at Chiswick, c.1725) and then, after mid-century, to

any residence of a superior type, in the suburbs of a town or in a residential district, such as is occupied by a person of the middle-class; also, any small better class dwelling-house, usually one which is detached or semi-detached.<sup>27</sup>

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25. The Yale Edition of Horace Walpole's Correspondence, vol. X, ed. W.S.Lewis, London, 1941, pp.167 f.

26. The Penny Cyclopaedia, Supplement, 1845, I, 426, quoted in O.E.D. article on 'cottage', 4.

27. O.E.D., article on 'villa'.

The devolution of the villa from a complete farming settlement to a semi-detached house in a residential district was matched by the evolution of the cottage from a labourer's one-room dwelling into a comfortable middle-class residence. By the early years of the nineteenth century there was clearly some confusion between the grander sort of cottage and the modest villa. The confusion was compounded by the invention of the cottage ornée<sup>28</sup> around 1805. The progress of picturesque taste was not always observed with enthusiasm; Westmacott referred, in 1825, to "a variety of incongruous edifices called villas and cottages ornées".<sup>29</sup> Despite their similar status (and appearance), a distinction can be made between the significance of the terms cottage and villa, that derives from their respective origins. The designation 'cottage' was clearly intended to suggest simplicity and lack of pretension, a deliberate rejection of formal display.<sup>30</sup> On the other hand 'villa' laid claim to a grander social position than the building or its occupants usually warranted. The upward movement of 'cottage' and the downward movement of 'villa' intersected after about 1810 with the result that they were on occasion used interchangeably.

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28. Orné seems to have been first used in this context by Philip Southcote and then by Shenstone at Leasowes c.1745. J. Plaw published his Ferme Ornée in 1795. Lugar (1805) seems to have invented the cottage ornée, or "Gentleman's cot", p.10. 16  
W.Pocock, Architectural Designs for Rustic Cottages, 1807, uses "Cabane Ornée, or ornamented cottage", p.28. Afterwards 24  
the term cottage orné (or ornée) came into widespread use. See below, n.29.

29. C.M. Westmacott, The English Spy, I, 318, 1825, quoted in O.E.D., article on 'cottage', 4.

30. Marie Antoinette's retreat to her Hameau at Versailles is a famous example of an escape from formality and the burdens of high position to a life of informality in a cottage setting.

The ambiguity of the terms 'cottage' and 'villa' leads to references to both on occasion, and also to the cottage and villa designers (and not just cottage designers). The same designers when working with the middle class in mind rarely restricted themselves to either class of building. Because it bridged the division between town and country, and between lower and middle class, it is the cottage that is of greatest interest here. At the lower end of the housing scale, it is in the cottage that middle-class pretensions and working-class necessities meet, and here consequently changes in social attitudes bear most directly on changes in architectural thought.

Changes in the intentions of the cottage designers, and in the meaning of the word, can be traced through the publications on cottage design from the late eighteenth century. Before about 1750 the word 'cottage' meant an utilitarian structure, usually built by the rural poor for their own occupation, the forms and techniques dating back at least to the middle ages. From the renaissance and to the late seventeenth century at least, cottages were not seen with an aesthetic eye, any more than mountains and pastures; they would have been dismissed as the crude and tasteless products of uneducated peasants. The deliberate and widespread design of rural cottages was a consequence of the combined influence of the landscape movement and agricultural improvement. From the point of view of the agricultural improver, the motive was purely practical. It is expressed in print from the 1770's. Nathaniel Kent, a professional estate manager and valuer, wrote in 1775 of "shattered hovels...

miserable tenements...neither health nor decency can be preserved in them". He was "far from wishing to see the cottages...fine, or expensive," simply "tight and convenient". This much he felt necessary because the cottagers were "the very nerves and sinews of agriculture".<sup>31</sup> John Wood the younger published in 1781 A Series of Plans, for Cottages or Habitations of the Labourer, either in Husbandry or the Mechanic Arts..., which seems to have been the first book devoted entirely to cottage designs. As a firm classicist, he insisted upon absolute regularity in the appearance of his design, even at the expense of false windows for symmetry's sake, and disregarded the visual qualities of traditional cottages. Other publications emphasized the practical at the expense of the aesthetic qualities: they came for the most part from non-architects, from, for example, Charles Waistell<sup>32</sup> who was chairman of the Committee of Agriculture of the Society of Arts, or William Wilds,<sup>33</sup> a surveyor from Hertford. In both cases their designs were severely plain and regular, as were the designs sent to the Board of Agriculture in the 1790's from land-owners and land-surveyors, as well as architects.

A second category of cottage comprised those also designed for the rural workers, but with decorative as well as utilitarian intent (or, as Loudon among others argued, sometimes at the

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31. Kent, Hints to Gentlemen, pp. 241-243.

32. C. Waistell, Designs for Agricultural Buildings, including Labourers Cottages, Farm-houses and Out-offices..., London, 1827.

33. W. Wilds, Elementary and Practical Instructions on the Art of Building Cottages and Houses for the Humbler Classes..., London, 1835.

expense of utility). The prototype for this and the next category seems to have been the thatched cottage built (for his own use) by Sanderson Miller, son of a wealthy merchant and himself an amateur architect, in 1744 at Edgehill in Warwickshire.<sup>34</sup>

Miller carried out what were among the first experiments in Gothic Revival architecture including the first deliberate Gothic 'ruin'. Nash's initiation into the picturesque movement after 1794 produced some of the best known ornamental cottages at Blaise Castle, near Bristol, between 1803 and 1811.<sup>35</sup> His approach was based on the ideas of Payne Knight and Uvedale Price, and his landscape designer partner, Humphry Repton. Price, in particular, gave the fullest statement of the theory that inspired these ornamental designs.

Despite the flourishing fashion for ornamental garden architecture from the mid-eighteenth century, the idea of making workers' cottages both useful and ornamental did not take hold until the 1790's. Designs for cottages published before then were either entirely frivolous, or dedicated to utility and economy. The frivolous approach was suggested by William Wright's title (1767),

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34. L. Dickins and M. Stanton, eds., An Eighteenth Century Correspondence, London, 1910, pp.54, 267 f. The Rev. James Merrick wrote of it at the time (p.267),

'Within this solitary cell  
Calm thought and sweet contentment dwell,  
Parents of bliss sincere;  
Peace spreads around her balmy wings,  
And banish'd from the court of kings  
Has fixed her mansion here.'

35. The Hameau at Versailles, designed by Richard Mique c.1780, was inspired by the English movement.

Grotesque Architecture or Rural Amusement, Consisting of Plans, Elevations and Sections for Huts, Retreats, Summer and Winter Hermitages, Chinese, Gothic, and Natural Grottoes, Cascades, Mosques, Moresque Pavilions, in Flints, Irregular Stones, Rude Branches, and Roots of Trees.

Alternatively there were the plain unornamented brick boxes designed as practical houses of the simplest sort by Crunden (1767)<sup>36</sup> and Miller (1787). Some compromise with the landscape appeared in Plaw's Rural Architecture (1785), which included a few simple thatched cottages, and Richardson's New Designs in Architecture (1792), which included groups of thatched cottages

intended to be erected in the fields or villages belonging to the estates of such gentlemen who take pleasure in building convenient dwellings for the families of their domestics or dependents.<sup>37</sup>

Soane in his Sketches in Architecture, 1793, published designs of "cottages for the laborious and industrious part of the community",<sup>38</sup> which also showed attention to the appearance of the buildings. They were grouped in pairs, thatched, with mullioned windows, tree trunk columned porticoes and rough-hewn quoins. But Middleton excluded cottage designs for "the poorer sort of country people" from his Picturesque and Architectural Views for Cottages (1793) because they were "the work of necessity", and dealt instead with gate lodges and other structures which "may serve the twofold purposes of use and ornament".<sup>39</sup> An unambiguous

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36. Where abbreviated references to works on cottage design are used without annotation, full identification may be found in the bibliography

37. p. 1.

38. Introduction.

39. p. 1.

intention to combine utility and ornament in designs intended to improve the rural scene was expressed finally in 1795 in Plaw's second book of designs, Ferme Ornée...a Series of Domestic and Ornamental Designs, Calculated for Landscape and Picturesque Effects. Designs for the next category of cottages also appeared in Plaw's Ferme Ornée. In addition to workers' cottages he included a "Villa in the Cottage Style...for a gentleman in Wales".<sup>40</sup> Small country or suburban residences for the upper and middle class also found a place in Malton's Essay on British Cottage Architecture, first published in 1798. He gave

hints to those Noblemen and Gentlemen of taste, who build retreats for themselves, with desire to have them appear as cottages, or erect habitations for their peasantry or other tenants....<sup>41</sup>

The idea of the cottage as a fashionable residence can be traced back to Sanderson Miller (1744)<sup>42</sup> and, after Miller, Horace Walpole. In 1765 he altered what was formerly a tenant's cottage for his own use, and wrote that, in contrast to Strawberry Hill, it was "to have nothing Gothic about it, nor pretend to call cousins with the mansion house".<sup>43</sup> But to bring isolated experiments like Walpole's into the heart of fashion seems to have been the work largely of Uvedale Price, through his Essay on the Picturesque of 1794, and his Essay on Architecture of 1798, helped by Payne Knight's poem The Landscape (1794). The practical application of Price's principles in a series of published designs was then made in

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40. Pl. 20, p.8.

41. p. 2.

42. See above, p.112.

43. Correspondence, vol. X, pp.167 f.

Malton's Essay. From the later 1790's the cottage was established as a respectable type of dwelling for the middle class and it took its place along with the villa in collections of designs of small- and medium-sized houses.

Once the picturesque designers established the cottage taste, those with classical prejudices quickly followed suit. Elsam in his Essay on Rural Architecture, published in 1803, explicitly rejected picturesque irregularity as advocated by Malton in 1798 and again in 1802.<sup>44</sup> Nonetheless Elsam's designs, submitted to "nobility and gentry of taste",<sup>45</sup> included "the thatched cottage or retreat".<sup>46</sup> Thereafter ornamental cottages for the middle and upper classes became widespread, and proved a most fruitful ground for the development of both architectural design and theory. 13  
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Most subsequent books of small house designs included ornamental cottages "calculated for the comfort and convenience of persons of moderate and of ample fortune;...".<sup>47</sup> J. B. Papworth, P. F. Robinson, T. F. Hunt, were among the most successful exponents between 1800 and 1830. There was a tendency on the part of some who were faithful to classical principles, for example Aikin and Gyfford, to design square and symmetrical blocks which they called cottages, but which, despite their thatch, were totally misplaced in their rural setting (as critics were quick to 29  
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44. J. Malton, A Collection of Designs for Rural Retreats... [1802].

45. p. 1.

46. p. 2.

47. Gyfford (1806).



complain). On the other hand picturesque ideas provoked the satire of literary observers from Jane Austen to Thomas Love Peacock. In Sense and Sensibility, first published in 1811, Jane Austen described the plight of Mrs. Dashwood and her two daughters, who had been reduced on the death of her husband to the genteel poverty of five hundred pounds a year and forced to withdraw to a country cottage offered to them by a kind relative. Here is the author's description of Barton Cottage:

...as a cottage it was defective, for the building was regular, the roof was tiled, the window shutters were not painted green, nor were the walls covered with honeysuckles.<sup>48</sup>

Barton Cottage was an estate cottage in a completely rural setting, but it became fashionable for those who could not afford a proper country residence to use a cottage nearer town as a retreat. In time suburban cottages became the preferred dwellings for those of the middle class who could not afford to leave the environs of the city, but were satisfied with this more or less symbolic expression of country residence; "...the suburbs of our principal towns are studded with cottages of this description, of which some are uniform and others irregular," wrote James Thomson in 1827.<sup>49</sup>

At the heart of the towns other housing problems demanded notice, and there is a strange category of cottage found in the early model dwellings for the urban poor. They brought the cottage principle right into town, an important step, as events

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48. J. Austen, Sense and Sensibility, London, 1967, p. 23.

49. J. Thomson, Retreats..., 1827.

later in the century were to prove. The architect of the mid-century Society for Improving the Conditions of the Labouring Classes, Henry Roberts, designed a street of terraced houses built in Lower Road, Pentonville, in 1844-45.<sup>50</sup> Internally the houses were arranged on the cottage pattern but they lacked the surrounding outdoor space that was so necessary to the cottager-dweller. They were severely criticized at the time of their erection, and Roberts quickly abandoned the cottage idea in favour of multi-story tenement blocks for city housing. It was left to a movement nearer the end of the century to revive it.

Developing from the traditional rural cottage as model and inspiration, these five categories comprised the varieties of cottage in existence before 1850:

- a. Purely utilitarian agricultural workers' cottages
- b. ornamental agricultural workers' cottages
- c. ornamental country cottage retreats for the middle and upper classes
- d. suburban middle-class homes
- e. urban working-class 'model' housing.

The pervasive spread of the cottage idea demonstrates the profound influence on designers and their clients of values and images drawn from rural life. As urban centres grew in size and influence through the early years of the nineteenth century, the cottage was separated from its agricultural context and working-class associations to become embedded in the city. In

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50. The Builder, vol.2, 1844, p.630; referred to by N. Pevsner, "Model Houses for the Labouring Classes", Architectural Review, vol.93, May 1943, p.123.

the closing decades of the century it gained a new significance as a symbol of disillusion with Victorian society. The durability of the cottage idea, its vigorous survival into the twentieth century, suggests the importance of the values it represented.

## 6. Cottage and Villa Designers and Their Books

Between 1790 and 1835, more than sixty books illustrating designs for small to moderately large houses were published, and of these at least half included designs for cottages. These books are of particular interest to a study of architectural theory in the period because the designs and explanatory text give a clear picture of the designers' principles. Furthermore the books themselves in their appearance and production were uniquely characteristic of the period. Books of cottage and villa designs first began to appear in the 1790's and while they continued to appear after the 1830's they were greatly changed in form and content. They flourished therefore during the period when associationist aesthetics had its greatest influence on architecture. This was no accident, because the development of these illustrated books seems to have been stimulated by the need for better means of illustrating picturesque principles than was provided by eighteenth century books of copper engravings. The rapid growth of a middle-class market for relatively inexpensive and attractive illustrated books on topics of popular interest such as travel, landscape, costume and architecture was also a factor in their appearance.

The publication of handsomely illustrated and often hand-tinted volumes of cottage and villa designs came to an end with the opening of the Victorian age. They were superseded by the new technical and popular illustrated periodicals printed on improved, high-speed presses. The illustrated books of cottages and villas were left behind, with their ideas and designs, as a half-way stage on the journey from the eighteenth century to the age of railways and the Crystal Palace.

In the eighteenth century the crisp contrast and incisive line of the copper engraving had admirably suited the designs of the Palladians. The cottage designs published by John Wood the Younger in 1781 were illustrated in this way; they were simple cubic buildings designed with no thought for the landscape in which they would appear. But the landscape movement, the new aesthetics, and later the picturesque with its view through the painter's eye, required subtler effects, and so to the traditional techniques of line illustration were added in the later eighteenth century various soft-ground etching techniques designed to render the broken tones of pencil and crayon. Aquatint was the first of the new techniques. Invented in 1768, it was imported from France to England by the water-colourist Paul Sandby in 1774. Aquatint rendered to perfection the delicate shades and soft foliage of the picturesque landscape and was

enormously popular for books of picturesque travel, and indeed every other sort of illustrated book, until about 1830, when it gave way to lithography. Great publishers, such as Rudolf Ackermann, kept colourists at work tinting the plates.<sup>1</sup>

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1. A. Esdaile, A Student's Manual of Bibliography, London, 1954, p.176.

And from 1790 the neglected art of wood engraving was made popular by Thomas Bewick's skilful vignettes, which demonstrated the delicacy and subtlety of this alternative to the woodcut. These techniques are enthusiastically exploited to illustrate the picturesque scenes described in prose by William Gilpin, and by Cowper, Young and Thompson in verse. Another new technique, lithography, invented at the end of the eighteenth century in Austria, became popular in England after 1819, and with aquatint one of the most popular ways of illustrating cottages and villas. Crayon etching, mezzotint, stipple, and steel engraving were other techniques developed for topographical illustrations. Steel engraving, capable of great brilliance and subtlety, was first used for book illustration by Turner in 1823. A more demanding and difficult technique, it was little used by architects.

Apart from steel engraving, these techniques were relatively fragile, and limited to small editions. As well, they were unsuited to use on power presses or to printing in combination with type. When mass-circulation periodicals appeared, these proved fatal deficiencies. The cruder woodcut, durable and compatible with type, returned to dominate the illustration of books from the 1840's until photo engraving became a practical substitute in the last decades of the century.<sup>2</sup>

That these books were the product of a few decades of transition was as evident in the details of their design and typography as in the conditions of their production, or indeed in the architectural designs they contained. In type design a

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2. D.Bland, The Illustration of Books, London, 1962, pp. 71-72.

reaction to the grayness and uniformity of eighteenth century printing encouraged the growth of a taste for variety in colour and form. Just as medieval architecture was revived for its associations, the 'gothic' black letter was also revived for the same medieval associations. New decorative type-faces were invented: the "typographical monstrosities!!!"<sup>3</sup> that Thomas Hansard, a serious and conservative craftsman, in 1825 derided as "fat-faced, preposterous distortions".<sup>4</sup> "...The book printing of the present day is disgraced by a mixture of fat, lean, and heterogeneous types, which to the eye of taste is truly disgusting...".<sup>5</sup> These innovations marked ephemeral printing first: posters, playbills, popular newspapers, and the like; then as the century advanced changes appeared also in the cottage books. Especially prevalent was the use of what Hansard called "very new old English" for titles, particularly when the author favoured the gothic style of building. Finally, Pugin's idiosyncratic book design<sup>6</sup> in the 30's and 40's carried the reaction against Georgian restraint about as far as it could go.

For most of the early century the conjunction of new tastes and new techniques, decreasing costs of production, and a growing audience stimulated the production of numbers of attractive and original volumes. But it has proved difficult to establish the

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3. T.C.Hansard, Typographia, London, 1825, p.619.

4. Ibid., p.360.

5. Ibid., p.404.

6. A.W.N. Pugin, Examples of Gothic Architecture, 1831-8; Gothic Furniture, 1835; Contrasts, 1836; True Principles, 1841; and many others.

facts and figures of publication in detail. How many copies were sold, how profitable they were to their authors and to the publishers, are questions that cannot easily be answered, though the information may exist in surviving publishers' records, and so far unpublished information about the careers of the authors. One tantalizing comment on J.B. Papworth's Rural Residences, 1818, and Hints on Ornamental Gardening, 1823, comes from the biography by his son:

Both works are reported to have had very large sales abroad, especially in Russia, in addition to the large circulation (some 3000 copies) of the month's issue of the magazine in England.<sup>7</sup>

The magazine referred to was Ackermann's Repository of the Arts, in which the designs were first published. The books themselves cost upwards of a guinea, and were clearly aimed at a moderately well off public.<sup>8</sup>

Most books were first issued in parts. The parts were then collected and reissued with a title page and perhaps a new introduction as a bound volume.<sup>9</sup> Each part might consist simply of the few plates illustrating one design, with a descriptive text. In this way the market for the work could be tested, and the costs of production partially offset by the income from the sale of parts. Re-issues of successful volumes could occur at any time that the demand seemed to warrant, either by completely

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7. W. Papworth, John B. Papworth, London, 1879, p. 44.

8. Elsam (1803) noted the "sudden and recent advance upon that expensive article of paper" due to the war with France, ("Address").

9. "The work will be published in Twelve Monthly numbers, each containing two designs, explained by a plan, two geometrical elevations, and a perspective view making eight plates." Robinson (1823), "Address".



reprinting, or simply by binding new copies from the publishers' stock of printed sheets, together with an appropriately dated title page. Other new material might be incorporated, and the title might be altered, so that it is difficult, without careful collation of the widely scattered copies, to give an adequate bibliographic account of these works. (The list given in the bibliography has been made as complete as possible from published sources, and examination of available copies of the listed works.)<sup>10</sup>

From the 1830's the publication of high quality illustrated books waned as the spread of mass journalism brought an illustrated popular press.<sup>11</sup> The literary reviews (the Edinburgh Review, from 1802, and the Quarterly Review, from 1809) had dominated the field of periodical literature until the 1830's.<sup>12</sup> Then came the pioneer illustrated magazines, the Penny Magazine, from 1832, Punch, from 1841, and the Illustrated London News from 1842.<sup>13</sup> In 1834 the first architectural periodical was published. This was J. C. Loudon's Architectural Magazine,<sup>14</sup>

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10. See below, bibliography, pp. 298 ff.

11. Some influences promoting the growth of periodicals were the reduction of the tax on advertisements, 1833, and its abolition, 1853, and the reduction of the stamp duty, 1836, and its abolition, 1865. R. Williams, Communications, Harmondsworth, 1968, p. 23. cf. F. Jenkins, "Nineteenth century architectural periodicals", J. Summerson ed. Concerning Architecture, London, 1968, esp. pp. 153 f.

12. R. G. Cox, in B. Ford (ed.) From Dickens to Hardy, Harmondsworth, 1966, Vol. 6 of the Pelican Guide to English Literature, pp. 188 f.

13. S. H. Steinberg, Five Hundred Years of Printing, Harmondsworth, 1961, pp. 275 ff.

14. The Builder's Magazine, which appeared in London in 1774, was an architectural dictionary and pattern book issued first in monthly parts then reissued with some additional material as a single volume. It was not a 'magazine' in the later sense, as were the other periodicals referred to here.

which appeared monthly from 1834 to 1839, but its octavo format and small illustrations were more suitable to the literary and general periodicals already in existence. A larger format and more generous illustrations were adopted by the Civil Engineer and Architect's Journal, 1837-68, and the Builder, 1842- , and also for Transactions of the Institute of British Architects, which appeared for the first time in 1835. The Architectural Quarterly Review, appearing in 1851, reverted to the style of the literary quarterlies, but failed to survive past its first issue. The architectural periodicals made unnecessary the publication by individual architects of their own works. Magazines with wide circulation gave more publicity to the designers' talents, with a much smaller investment of time and money and less risk than was involved in producing a volume of designs. But the quality of presentation declined as the extent of exposure increased. Cheap machine-made paper, improved power-driven presses, and mechanical letter founding made the periodicals possible,<sup>15</sup> but produced a much cruder product. The most serious loss was illustration by the expressive but expensive aquatint and lithographic processes favoured by the pre-Victorian designers. The woodcuts which replaced them, printed together with the type in one economical high-speed operation, made possible wide circulation of designs and criticism in both the technical and popular press, and so helped to make architecture a favourite preoccupation of the Victorian public.

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15. Steinberg, loc.cit.

The publication of books on cottages continued past mid-century but in greatly altered form. J. B. Papworth's Rural Residences (1818) and C. J. Richardson's The Englishman's House (1874) both presented a series of designs for cottages and villas, along with other structures for the most part ornamental. A comparison of the two shows how the form and content of books on the same topic had changed over the half century following the second edition of Rural Residences in 1834. The Englishman's House was a substantial octavo volume which reached five hundred pages in its second edition (1898). It had a copious historical, technical and descriptive text enlivened by coarse, occasionally attractive but insensitive woodcut illustrations, mostly combined with the text on the same page. The chief attraction of Papworth's quarto volume was its twenty-seven aquatint hand-coloured plates of designs. Although the text was much more full than in most cottage books (in some only a note of introduction and brief descriptions accompanying the plates) it was proportionately much shorter than Richardson's. Of the two books, Richardson's was clearly a machine product, and intended to deal comprehensively with the topic already treated in a more perfunctory way by periodicals. Papworth's volume on the other hand clearly belonged to the handcraft era of printing. The designs and the typography show a lighter touch, an openness and delicacy that were apparently not to the Victorian taste.

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The books themselves, as artefacts, were a product of the same movements - urbanization, industrialization, growth of the

middle class - that shaped the ideas expressed in them. These movements also affected the lives of the designers. Before proceeding to the detailed analysis of their theories, an attempt must be made to understand the circumstances and intentions of the authors of these books in order to assess the significance of their ideas particularly concerning the social function of architecture.

The first point to be noted is that while architects of all levels of success and ability published cottage books, the majority of them were published by architects of only small or moderate success. In some cases early cottages may have been followed by commissions for larger houses and the inflated country mansions that marked the career of a successful practitioner. In other cases a single book of designs is the sole remaining monument to a man's ambitions.

The most original and creative architect of the period, Sir John Soane, published cottage designs in his third book, Sketches in Architecture, in 1793, five years after his success had been sealed by his appointment as architect to the Bank of England. A more representative figure was the moderately successful P. F. Robinson, who became one of the first vice-presidents of the Institute of British Architects, published seven books of designs for cottages and other small buildings, and built a respectable number of cottages, villas, and country mansions. And there were others of complete obscurity, for example J. Hedgeland, whose Series of Designs for Private Dwellings (1821) showed little originality or even competence in

design and draftsmanship. He was probably the same J. P. Hedgeland who won a Society of Arts silver medal in 1819 but there is no executed work recorded to his credit.<sup>16</sup> There are others who published one book, exhibited a few drawings, perhaps built or altered a few houses, and left no other mark.

Why did so many of these men of small or moderate fame invest time or energy in their books? One answer is that the opportunity was open to them then in a way that it was not open before or since. Suitable techniques of reproduction were newly available, and there was the growing middle class audience with a thirst for self-improvement.<sup>17</sup>

Their response to this demand may be explained in various ways. It is, first, one of the draftsman's frustrations, that he has a skill, exacting and subtle, which he can exercise for the cost of pen and paper, but full realization depends upon his finding clients. For a man with talent the desire to draw could be irresistible, and publication of the results one way of establishing one's competence as a designer. Edward Gyfford (1807), a designer of not very great ability, referred candidly to the "stimulus which an anxious mind desirous of fame feels, when a

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16. H.M. Colvin, A Biographical Dictionary of English Architects 1660-1840, London, 1954, p. 280.

17. William Cobbett described with disgust the transformation of a farmhouse by social pretensions. Formerly a plain farmhouse with plain oak furniture and bare floors, "One front of this once plain and substantial house had been moulded into a 'parlour', and there was the mahogany table, and the fine chairs, and the fine glass...". The farmer and his family had been "transmuted into a species of mock gentlemen...". From Rural Rides, Oct. 20, 1825, in Cobbett, Selections, ed. A.M.O. Hughes, Oxford, 1923, p. 122.

candidate for public applause."<sup>18</sup>

Besides public applause, there was of course the hope that the published designs would attract commissions. For those who had no patronage, access to official position, or fruitful social contacts, the books offered some hope of attracting clients. The "nobility and gentry of taste", to whom the books were addressed, might bring the designers commissions. Publication also offered the designer the last word in a dispute with a difficult client. Gyfford included in his Designs for Elegant Cottages and Small Villas (1806) a substantial house designed for C. Cooke, Esquire, in Essex. In his comments on the design Gyfford explained that "many alterations...have taken place that were not in unison with my ideas of proportion and arrangement."<sup>19</sup> And, he implied, they had also carried the cost well beyond the estimate. He also noted, inscrutably, that "the internal decorations are intended to be in a style perfectly original: they have been directed principally by Mr. Cooke, whose taste will be conspicuous in the work."<sup>20</sup> This was the only executed work Gyfford published; it seems to have been an unhappy experience.<sup>21</sup> A final reason for publishing designs was the possibility that the book itself might prove profitable. Some of them must have been, but nothing is known about individual cases.

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18. Preface, p.v. [E.Gyfford, Designs for Small Picturesque Cottages and Hunting Boxes, London, 1807.]

19. E.Gyfford, Designs for Small Picturesque Cottages..., 1807, p.17.

20. Ibid., p.18.

21. Another cottage designer, C.A.Busby, carried a dispute with the Church Commissioners into print in a pamphlet he published in 1822. See M.H.Port, "Francis Goodwin (1784-1835)", Architectural History, vol.1, 1958, p.69.

The publication of these books appears to have been the result of three related developments: first, the growth of a public interested in the subject and prepared to buy the books, second, developments in printing that made the production of the books possible, and finally, the existence of a substantial group of designers of some training and ability, but whose professional ambitions were not satisfied by actual building commissions.

There is some evidence to suggest that there were a substantial number of designers who found it impossible to practise profitably, and either abandoned the profession, or failed financially. They formed part of a wider class whose circumstances - from comfortably off to desperately poor - can be described.<sup>22</sup>

Edward Gibbon Wakefield, the advocate of colonization, argued in 1833 that apart from the few professionals who enjoyed the income from invested capital and the even fewer of exceptional skill, learning and reputation, the majority of the class were in uneasy circumstances. He included with the church, law and medicine, "a swarm of engineers, architects, painters, surveyors, brokers, agents, paid writers, keepers of schools, tutors, governesses, and clerks." And he noted that it was not

however, the smallness of the incomes earned by a swarm of educated people that strikes one so much, as the vast number of competitors for those very small incomes; the hungry crowd of expectants watching to oust the beggarly crowd in possession.<sup>23</sup>

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22. Cf. G. Kitson Clark, The Making of Victorian England, London, 1968, pp. 118-121.

23. E.G. Wakefield, England and America, London, 1833, pp. 95 f.

The vast army of clerks on which the administrative apparatus of commerce, government and the professions depended extended down to the Bob Cratchits<sup>24</sup> (and the John Dickenses). Families survived, or not, on as little as forty odd pounds a year, while struggling to maintain the appearances that distinguished them from common artisans who might well earn as much or more.

In 1843 a correspondent to The Builder complained that "...architectural drawing clerks are the worst paid class of men of the whole body of clerks."<sup>25</sup> One reason was, he suggested, the ready availability to architects, particularly the most prominent, of pupils who provided a source of cheap labour. In the same year in monthly numbers Dickens was illustrating the complaint with his portrait of Pecksniff in Martin Chuzzlewit.

Mr. Pecksniff's professional engagements, indeed, were almost, if not entirely, confined to the reception of pupils... . His genius lay in ensnaring parents and guardians, and pocketing premiums. A young gentleman's premium being paid and the young gentleman come to Pecksniff's house, Mr. Pecksniff borrowed his case of mathematical instruments (if silver-mounted or otherwise valuable); entreated him, from that moment, to consider himself one of the family; complimented him highly on his parents or guardians, as the case might be; and turned him loose in a spacious room on the two-pair front; where, in the company of certain drawing-boards, parallel rulers, very stiff-legged compasses, and two, or perhaps three, other young gentlemen, he improved himself, for three or five years, according to his articles, in making elevations of Salisbury Cathedral from every possible point of sight; and in constructing in the air a vast quantity of<sup>26</sup> Castles, Houses of Parliament, and other Public Buildings.

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24. Dickens's Bob Cratchit earned 15s. a week, or £39 a year (Christmas Carol, 1843).

25. The Builder, vol.I, No.XXVIII, Aug.19, 1843, p.343.

26. C.Dickens, Martin Chuzzlewit, London: Dent, 1950, p.13.



Pecksniff's only paid assistant was Tom Pinch, the almost pathetic embodiment of good-natured, self-deprecatory, put-upon innocence, incapable of suspecting his own exploitation:

My poor old grandmother died happy to think she had put me with such an excellent man. I have grown up in his house, I am in his confidence, I am his assistant, he allows me a salary: when his business improves, my prospects are to improve too... .<sup>27</sup>

In Dickens's novel Tom Pinch finally lost his innocence and left Pecksniff for a better life, while Pecksniff himself, revealed as a villain, approached a sticky end.

In the real world the situation was not so very different; James Noble wrote in 1836 that "The sine qua non of architectural practice...is...not to possess less than £200 p.a."<sup>28</sup> The alternative was apprenticeship, but Noble noted that a father's payment of a large premium didn't ensure that his son would become an architect. Without a private income, exceptional talent and good luck were needed for success in the profession. Sir John Soane paid his clerks, after the completion of their articles, from just over £50 to £100 a year. Robert Woodgate, trained by Soane to act as clerk of works, employed to supervise Irish projects before he established himself in practice in Dublin, was, after his articles, to receive £80 rising to £200 over six years' employment. £200 was paid to Christopher Ebdon, an Assistant of Soane's who had articulated with James Paine. That was the highest salary listed in Soane's office records.<sup>29</sup>

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27. Ibid., p.21.

28. James Noble, The Professional Practice of Architects, London, 1836, p.28 n.

29. A.T.Bolton, Architectural Education a Century Ago, London, 1923, Appendix; also A.T.Bolton, The Portrait of Sir John Soane, R.A., London, 1927, passim.

These figures almost exactly agree with Kitson Clark's<sup>30</sup> estimated range for lower middle class incomes in the second quarter of the century, that is £60 to £200 a year, with the poorest clerks falling below the lower limit, and therefore well below the most prosperous members of the working class. The first and second quarters of the century are not strictly comparable, and Soane was a respected and sometimes generous employer, but the evidence is sufficient to suggest that the body of architectural clerks and assistants were not generally well off, and that many were in difficult circumstances.

Further confirmation may be found in various contemporary reports of the incomes of various occupations. Colquhoun<sup>31</sup> estimated the average annual income in 1812 for engineers, surveyors and master builders of houses as £300, and, ranking above them in status according to his table, persons employed in the fine arts: "Artists, Sculptors, Engravers, &c." with £280 per annum. Architects were not mentioned explicitly, but must have belonged to one or other of these groups according to the nature of their practice. By way of comparison, common soldiers earned £35 per annum, clerks and shopmen on average £70, artisans and mechanics £48. According to Bowley<sup>32</sup> journeymen tradesmen in the London building trades earned about 25s. per week and building labourers earned 18s. Agricultural labourers received a

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30. op.cit., p.119.

31. P.Colquhoun, A Treatise on the...Resources of the British Empire, London, 1815, Table No.4, pp.124-125.

32. A.L.Bowley, Wages in the United Kingdom in the nineteenth century, London, 1900, pp. 59-62.

'nominal weekly wage' varying between about 8s. and 12s. in different localities.<sup>33</sup> Moving up the social scale Colquhoun<sup>34</sup> gave the average family income of the lesser and upper clergy as £200 and £720 respectively (excluding spiritual Lords),<sup>35</sup> while the lesser Gentry averaged around £800 per annum.

The most successful architects certainly earned even more, and were able to meet the gentry and aristocracy on equal terms. An example of a highly successful architect from the late eighteenth century was Sir William Chambers.<sup>36</sup> On his death in 1796 he was able to leave substantial bequests to his children, grandchildren and servants, and still leave his wife an annuity of £700 a year plus £2500 in bonds. On the other hand, Francis Goodwin, who died in 1835 at the age of 51, left only £1,000 for his wife and children despite a relatively extensive practice.<sup>37</sup>

On the basis of the limited knowledge that exists about the careers of the majority of cottage architects it seems likely that they fell into the lower end of the middle class, unless they were fortunate enough to have (as Noble advised) a substantial private income. Those designers with only a book and a

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33. Ibid. Table of Nominal Weekly Wages for Agricultural Labourers following text.

34. loc.cit.

35. The desperate situation of a curate with a wife and six children and an income of £80 a year was described by George Eliot in The Sad Fortunes of the Reverend Amos Barton, published in 1857 but set 25 years earlier - in 1832.

36. The information about Chambers is from J.Harris, Sir William Chambers, London, 1970, esp. pp. 10-11, 17 n., 92-3, 105-6, 112, 114-5, and the notes on his bank account, 175-6.

37. Port, "Francis Goodwin", p.71.

few executed works or even less recorded to their credit must have been at the very bottom of the scale, unless they were among those (of whom there seem to have been many) who began and then abandoned an architectural career.

For people in difficult economic circumstances, class and social status were important props for personal identity. When income was no distinction, the lower middle class maintained their separation from the working class by their different style of life: dress, manners, speech, and also furniture and architecture. The designers' function in part was to cater to this distinction by furnishing the symbols, especially from the past, which expressed gentility, and to design houses that within a modest compass made the genteel life possible by their arrangement. In the passage referred to above Cobbett noted this striving for gentility as a new feature of rural life, and commented scathingly on the architectural changes it required.<sup>38</sup> For the designer, class definitions involved a change in his own self-image, which was at the roots of the developing idea of a 'profession' of architecture.

The architect was nominally both 'professional' and 'middle class'. Both terms belonged to the period here studied; professional as referring to "one of the learned or skilled professions" dates from 1793, and the use of 'middle class' is first recorded in 1812.<sup>39</sup> In his Familiar Architecture, published in 1768, Thomas Rawlins could identify himself both as architect (on

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38. see p.128, n.17.

39. Shorter Oxford English Dictionary, repr. 1959.

the title page) and stone-mason (in the text) but by the end of the century a more restricted use of the term architect was increasing with the object of dividing the professional designers from the tradesmen. The strict definition of architect was given by Soane, in 1788, the year of his appointment to the Bank of England. In the preface to his second book of designs he wrote of the architect that he was

the intermediate agent between the employer, whose honour and interest he is to study, and the mechanic, whose rights he is to defend.<sup>40</sup>

And he asked, "with what propriety can his situation, and that of the builder or contractor be united?"<sup>41</sup>

Soane and his contemporaries, by defining the professional architect, were attempting to create a fixed point of reference in a changing situation. The ideals embodied in the profession came from the eighteenth century: "the professions fitted snugly into the old dependency society",<sup>42</sup> they were by nature hierarchical and dependent on patronage. Though the industrial revolution emancipated the professional man from his patron, it also threatened to overwhelm the values of taste and culture which he carried forward from the pre-industrial past. Builders and engineers competed to fulfil the function the architect thought was his. The problem was to find a place for earlier values in this competitive world.

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40. Plans, Elevations and Sections of Buildings..., 1788, p. 7.

41. Ibid.

42. H. Perkin, The Origins of Modern English Society, London, 1969, p. 254.

These values and their representatives did not fit easily into the new commercial and industrial context. And similarly the professions were anomalies in the working-middle-upper class vision of society that was formulated at this time.<sup>43</sup> The profession of architecture offered designers a social position and potential function that served to establish their own worth and position as they through their designs did the same for the public.

In the absence of concrete biographical information about the great number of architects who published cottage books these observations about their circumstances and ambitions can qualify only as speculation. Detailed information is available only about those designers who were in some way more successful than the rest. Nonetheless details from the careers of a few of them may help to give a clearer picture of the class as a whole.

Edmund Aikin,<sup>44</sup> whose Designs for Villas and Other Rural Buildings appeared in 1808, was the youngest son of a Lancashire doctor with literary interests, a Unitarian and friend of Joseph Priestley; the two older sons' scientific pursuits gained them places in the Dictionary of National Biography. A speech impediment seems to have contributed to the youngest son's reserved disposition and solitary tastes. Nonetheless his talent for drawing and the need to find a career led to his being articled to a London builder and surveyor. In the late 1790's he set up

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43. See for instance J. Wade, History of the Middle and Working Classes, London, 1833.

44. Lucy Aikin, Memoir of John Aikin, M.D., 2 vols., London, 1823, pp. 267 n.-272 n.

in practice, building mostly modest houses, shops and shopfronts, and similar projects. He wrote a number of articles on architectural subjects, and in 1806 was one of the founding members of the London Architectural Society which met fortnightly to discuss papers presented in turn by the members. He also worked with General Sir Samuel Bentham on various engineering works. His sister Lucy gave a sympathetic summary of his career in her memoir of their father:

The progress of an architect in the higher branches of his art is in this country slow and difficult; because great ignorance, and consequently great indifference, on the subject of architectural beauty and deformity pervades the British public. In addition to this general cause of delay and disappointment, the success of Mr. E. Aikin was impeded by temporary and local obstacles, and most of all, perhaps, by the reserve, the timidity, the scrupulous delicacy, and the nice sense of honour which characterised him.<sup>45</sup>

He died at the age of forty in 1820, saved from complete obscurity by his publications and his sister's note.

John Buonarotti Papworth<sup>46</sup> is also best known for his publications, though he had an extensive practice in building and altering country houses and villas, shop fronts, landscape design, interior design, and contributed substantially to the development of Cheltenham. Born in 1775, he lived until 1847. His father was London's foremost craftsman in ornamental plasterwork, and much employed by Sir William Chambers among others. At Chambers's suggestion young Papworth was articled to John Plaw, the author of Ferme Ornée and other books including small

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45. Ibid., p. 271 n.

46. Wyatt Papworth, John B. Papworth...Life and Works..., London, 1879, passim.

house designs. After this architectural apprenticeship Papworth was articled to a builder (whose daughter he afterwards married) to learn practical construction. He then worked as an assistant, clerk of works, and finally set up in independent practice in 1799. Among the buildings he designed was the earliest of the gin palaces, at 94 Holborn Hill. In addition to his successful architectural practice, Papworth turned his hand to a variety of other design commissions from silver and glassware to graphics. He became acquainted with the publisher Rudolf Ackermann and contributed many designs and drawings to The Repository of Arts from 1809 on, which led in turn to the publication of several books of Papworth's designs, collected in part from The Repository.

Papworth's eminence in his own time is clearly established; he was involved in the planning of the Institute of British Architects and became a Vice-President on its foundation in 1834. He testified before the Select Committee on the Silk Trade in 1832 concerning the lack of design education and again in 1835 to the Select Committee on Arts and Manufactures. The Report of the Committee led to the establishment of the Government School of Design in 1837 and Papworth became its first Director at £250 per annum. The total grant for the School in its first year was only £1500, and further economies forced his early resignation. Although the School was not a success in these early years it marked the beginning of the government's active promotion of design, especially in relation to manufacturing, an



involvement that led in due course to the 1851 Exhibition and subsequent developments in South Kensington.

Papworth produced an edition of Chambers's Treatise, and in other ways, although his buildings have attracted little attention, he made a substantial contribution to architecture through his pupils and his architect sons. He represents the fulfilment possible to a man of energy and ambition from the family of a prosperous tradesman.

The father of Joseph Michael Gandy has been identified only as "a man employed at White's club, St. James".<sup>47</sup> James Wyatt, rebuilding the club, was shown some of Gandy's drawings and thereupon took the fifteen-year-old into his office. As a Royal Academy student he won the Gold medal in 1790. His Italian tour was cut short by the bankruptcy of his father's employer in 1797 and, on his return home, he found work in Sir John Soane's office. From 1800 he practised independently in London, and briefly in Liverpool, but failed to establish a secure career. With his wife and a growing family to support he lived on the edge of poverty, and was jailed in the Fleet prison in 1816 when he refused to declare himself a bankrupt.

Gandy seems to have been a difficult person to deal with, fiercely proud in his impoverished circumstances, quick to suspect condescension, resentful of his benefactors, but desperately in need of their help for most of his life. He was fortunate in his connection with Soane, whose sympathy may have

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47. J. Summerson, "The Vision of J.M. Gandy", in Heavenly Mansions, (1948), New York, 1963.

concealed an understanding of some similarity in their characters. Even after Gandy left his office Soane continued to employ him on generous terms to paint water colour renderings, and assisted him indirectly in other ways, finally with a legacy of £100 a year. Soane's generosity must also have expressed his recognition of Gandy's unusual talent, shown in his work for Soane and in the architectural designs and fantasies he exhibited at the Royal Academy between 1789 and 1838. In all but three of those forty-seven years he was represented, by a total of 112 pictures. They were an outlet, perhaps, for an imagination too confined by the constraints of architectural practice. In 1805 and 1806 he published two thin books of designs for small houses, lodges, dairies, inns, and other rural structures.<sup>48</sup> These were not the elaborate architectural fantasies he showed at the Royal Academy, but austere, simple, economical and practical designs, that were at the same time startling for their original and inventive character. These designs bring him to the front rank from among the neglected figures of Regency architecture.

Aikin, Papworth and Gandy represent, in their variety and their obscurity, the class of designers whose ideas I wish to consider. They lived in a period of revolutions: political, social, technical, and aesthetic. Many were precariously professional, and many were poorly rewarded for their efforts. More than a few left architectural practice; none of those who remained achieved a success to compare with that of a Soane or

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48. Designs for Cottages, 1805; The Rural Architect, 1806.

Nash from the previous generation. Yet the building of their period sketched the pattern of development for Victorian Britain: debased Georgian for working-class tenements, diminished villas and expanded cottages in Greek, Italian, Tudor and whatnot for middle-class suburbs. These designers all the more accurately express the transition of taste from Georgian to Victorian for their failure to give it a clear direction.

## 7. Cottage Theory and Design

### i. Stability, Convenience and Beauty

The cottage designers were first of all engaged in the ordinary problems of building - the choice and arrangement of materials to create sound, convenient houses - and in the aesthetic problems of expression and beauty. These were problems that Vitruvius had dealt with, and the categories he established for them were deeply embedded in the tradition on which the cottage designers drew. An investigation of pre-Victorian theory must take account of the persistence of the classical categories, and of the deviations from them introduced during the period. Therefore this analysis of cottage theory begins with the discussion in turn of firmitas, utilitas, and venustas.

As "firmness, commodity and delight" the Vitruvian categories entered the English language in Wotton's translation of 1624.<sup>1</sup> Architects with scholarly inclinations studied Vitruvius's Ten Books in the original and in translations, especially the French and Italian, published in the sixteenth and seventeenth centuries. An impediment to the wider study of Vitruvius himself was his somewhat obscure and difficult text and the lack

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1. Sir Henry Wotton, Elements of Architecture, London, 1624.

of a full English translation (the first was Wilkins's, published in 1812). But the Vitruvian categories had been repeated by many other writers of note in these other modern languages.

For British architects of the eighteenth century the most important writer was Palladio. His principles and the designs illustrating them in the Quattro Libri carried great authority. Lord Burlington and his followers made them a cornerstone of the reaction against the English baroque designs of Wren, Hawksmoor, Vanbrugh and Gibbs. Translations of the Quattro Libri into English first by Leoni (Alberti's translator), published in 1717, and then by Isaac Ware, published in 1738, made Palladio's text and his illustrations conveniently available to British designers and patrons.<sup>2</sup> The first chapter of Palladio's treatise was devoted to discussion of the three Vitruvian qualities which all the more firmly established them as the natural categories of architectural thought. As such they furnish an appropriate framework for this discussion of subsequent changes to eighteenth century theory.

First, an explanation of the categories as they were understood in the eighteenth century is needed. Palladio, in Ware's translation, gives the following extended definitions of the Latin terms:<sup>3</sup>

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2. Ware's translation was dedicated to Burlington and had probably been undertaken at his suggestion to propagate a pure taste in classical design free from the baroque deviations that Leoni had introduced in the versions of Palladio's plates reproduced in his translation.
  3. A. Palladio, The Four Books of Architecture, (1570), New York, 1965 (facsimile of Isaac Ware's translation, London, 1738), p.1.

firmitas: The strength, or duration, depends upon the walls being carried directly upright, thicker below than above, and their foundations strong and solid: observing to place the upper columns directly perpendicular over those that are underneath, and the openings of the doors and windows exactly over one another; so that solid be upon the solid, and the void over the void.

utilitas: An edifice may be esteemed commodious, when every part or member stands in its due place and fit situation, neither above or below its dignity and use; or when the loggia's, halls, chambers, cellars and granaries are conveniently disposed, and in their proper places.

venustas: Beauty will result from the form and correspondence of the whole, with respect to the several parts, of the parts with regard to each other, and of these again to the whole; that the structure may appear an entire and compleat body, wherein each member agrees with the other, and all necessary to compose what you intend to form.

From the influence of Vitruvius and Palladio the terms became so much part of the common currency that one author could reflect, in 1785, on "the hacknied subjects of strength, conveniency, and beauty..."<sup>4</sup> while reasserting their importance. They persisted into the nineteenth century, despite the weakening hold of classical theory. Sir John Soane, an architect not given to profound theoretical statements in his earlier days, found it useful when he opened his second course of Royal Academy lectures in 1815 to discuss those three necessary things "solidity in construction, convenience in distribution, and beauty in characteristic decoration".<sup>5</sup>

But by 1815, as examination of the cottage books shows, the Vitruvian categories had become inadequate to define the

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4. James Peacock ("Jose MacPacke"), OIKIAIA or, Nutshells..., London, 1785, p. 65.

5. First lecture of his second series of Royal Academy lectures, in Lectures on Architecture, ed. A. T. Bolton, London, 1929, p. 113.

scope of architectural thought. Not only had the interpretation of beauty changed significantly, but topics that fell entirely outwith the classical tradition had emerged as major concerns. These can be identified here as social function and that quite different concern, style. As early as 1713 Vanbrugh had built Vanbrugh Castle in a non-classical mixture of medieval elements, and by a century later most designers had to offer alternatives to the traditional Renaissance classical in order to satisfy popular taste. That popular taste had become a significant force was evidence of the changes in society that had also to be considered. Even before 1815 the problem of housing the working population in the country and in the towns had become a subject of concern. The architectural designer responded with a new sense of his power to influence society for good or ill and assumed a new responsibility for the practice of his art.

### Stability.

Because firmitas involved both strength and durability it is here translated as 'stability'. Both followed from the suitable choice and arrangement of materials - "materials wisely and liberally selected" as Vitruvius said<sup>6</sup> - and so were inseparable from questions of appearance and economy. This was particularly the case in cottage design, which posed no problems of construction or structural design beyond the capabilities of the ordinary builder, but which aimed at extreme economy and characteristic appearance. Therefore the choice of cottage materials

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6. tr. Morgan; I, 3, ii; p.17.

was governed by the last two and it was here that the designers were most inventive, rather than in construction.

The rapid growth of speculative housing in the cities had in fact brought with it a decline in the quality of construction, due no doubt to a disregard of Vitruvius's maxim. James Peacock (c.1738-1814), Soane's friend and assistant Clerk of Works to the City of London, mentioned strength when he condemned the prevalence of cheap speculative building in London "...the speculative adventurer, inured to the maxims and habits of the Mary-le-bone School"<sup>7</sup> who calculated his constructions so closely

as to decree their dissolution precisely six months after the expiration of his lease....The Master of Arts is he who can manage matters so as to keep his building up till he has sold it.<sup>8</sup>

Some of the earlier cottage designers, for instance John Wood the Younger, showed a sound grasp of the materials and methods of traditional construction, but comments on construction became more cursory as the nineteenth century advanced despite the evident growth in detailed knowledge of various styles of building. In an enigmatic comment T. F. Hunt (c.1791-1831), Clerk of Works of Whitehall, Westminster, St. James's and later Kensington Palaces, recommended his designs in the 'Old English' style, published in 1826, as "formed upon modern principles of construction",<sup>9</sup> but failed to explain what these were. In an only slightly more revealing comment Hunt in 1827 quoted Chambers

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7. Peacock, OIKIAIA, p. 65.

8. Ibid., pp. 65 f.

9. Hunt (1826), "Address".



on the indebtedness of the moderns to the Gothic architects "for the first considerable improvements in construction".<sup>10</sup>

Behind such casual references to Gothic lay a more profound interest in medieval construction which derived from both a surviving British Gothic tradition, and the French theorists of the earlier eighteenth century, especially Laugier. British writers contributed to the rational analysis of Gothic construction which led to its serious revival as a structural system from the 1830's.<sup>11</sup>

Much more important to the cottage designers than problems of construction was, as noted above, the appropriate choice of materials: as cottage dwellings became accepted as subjects for architectural design ordinary cottage materials were added to the architect's range, which had hitherto been restricted to the brick, stone, tile, slate and stucco of the standard Georgian house. Rubble stone, flint, pisé, and exposed timber frame were added to the repertoire of material for walls, and thatch and reeds became accepted for roofs.

The use of local and traditional materials was advocated by William Atkinson in 1805. Atkinson (c.1773-1839), who began as a country house architect specializing in the castellated

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10. Hunt (1827) (2), p. vi; Chambers, Civil Architecture, p. 93.

11. The study of gothic structure by British writers from the Scottish farmer James Anderson, who wrote in 1800 on the virtues of the pointed arch, to Pugin and Ruskin in mid-century is discussed in P. Frankl, The Gothic, Princeton, 1960, esp. "IV. The Scientific Trend", pp. 491-596. Frankl overlooks an important discussion of gothic structure in Alfred Bartholomew, Specifications for Practical Architecture, London, 1840.

style, introduced his Views of Picturesque Cottages "with observations on the different materials used for building them, and producing picturesque effect."<sup>12</sup> Discussing the subject in some detail he noted that "the materials used in building cottages, must depend in a great measure on the situation."<sup>13</sup> This expressed a radical change from the traditional point of view, as expressed in a work of 1767:

The materials used for building in this country, are well known by all professors of the art, therefore shall only say, where expense is not a principal, stone is to be preferred for fronts; the next material, near London, are gray stock bricks, but in countries where brick of this kind cannot be procured at a moderate expence, would advise stucco on such brick as the country may produce, which, if executed by a skilful workman, will endure all kind of weather, and, in appearance, have every advantage of stone, on plain buildings.<sup>14</sup>

Against this calculated uniformity and anonymity of effect Atkinson was one of the first designers to publish arguments for the use of characteristic local materials and to value the resulting regional variations in appearance.

Through the three-quarters of a century before Atkinson wrote there had been a gradual change in attitude. Sanderson Miller's thatched stone cottage, built in 1744, at Edgehill in Warwickshire, may have been the first employing traditional materials as an expression of taste, but its fanciful Gothic belonged to the exotic rather than the practical and was based as much on misapplied ecclesiastical forms as on observed vernacular

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12. Atkinson (1805), second (letter-press) title page.

13. Ibid, p.11.

14. Crunden (1767), p. vii.

construction. Only through the later decades of the century did vernacular materials begin to appear in other than largely ornamental structures. Richardson (1792), Soane (1793), and Malton (1798) carried these materials from the realm of the exotic and the purely decorative into ordinary architectural use. They were, of course, first applied to small cottages and farm buildings, while the restricted range of materials continued to be used for larger and more urban buildings. Through the early years of the nineteenth century cottage materials gradually crept up the scale until quite substantial country villas and even suburban dwellings were designed with thatched roofs, and half-timbered walls.

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The use of new materials was not confined to the design of small houses. Most inventions of the period were intended for much larger and more complicated constructions than small cottages and villas. Nonetheless the same adventurous outlook which recognized the merits of the humble cottage made them possible. In addition to the architectural use of vernacular materials came the proliferation of new artificial and improved substitutes for traditional materials. Among the most successful was the ubiquitous Coade stone, a ceramic material sculpted or cast and fired to create a highly durable substitute for carved stone ornament and tracery. There were also patent cements and plasters<sup>15</sup> and a multitude of fabricated devices for heating and ventilating. Prominent architects were deeply

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15. Including Atkinson's Cement, invented and distributed by William Atkinson.

involved in the search for better materials and ways of building: S. P. Cockrell, Nash, Repton, Soane, Wilkins, and various Wyatts were among the users of Coade Stone,<sup>16</sup> and Soane, Dance and Holland were members of a "committee of associated architects" experimenting with new materials, including iron, in the 1790's.<sup>17</sup>

Iron was the new material of greatest importance for the future development of building. Used first for mills and bridges in the 1770's, cast-iron found its way into churches and other buildings from the 1790's. While iron in any form had little importance for cottage design it was not entirely disregarded by the cottage designers. One application was Gandy's design for

Two cones as lodges, to be thatched down to the ground: this would have a singular and not unpleasing effect. The construction would be very simple and cheap. Suppose a frame of Iron-work supporting the Thatch, and carrying the Flue of the Chimney out at the Centre. The Angle formed by the Cone inside, to be made into Closets for the use of the Inhabitant.<sup>18</sup>

The incongruous combination of new and old, iron and thatch, suggests a theoretical primitivism similar to that of Laugier with his primeval hut (and the contemporary social theory of Rousseau) which was a recurring element in the design theory of this period. It also suggests the later incongruity of the thatch and concrete used in 1902 by Lethaby at Brockhampton

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16. See. J. E. Ruch, "Regency Coade: A Study of the Coade Record Books, 1813-1821", Architectural History, Vol. 11, pp. 34-56.

17. Letter from G. Dance to Soane, c.1796, in A. T. Bolton, The Portrait of Sir John Soane R.A., London, 1927, pp.

18. Gandy (1805), description of Plate XLI.

Church in Herefordshire and of brick and thatch by Willem Dudok in his Hilversum School of the 1920's.

J. C. Loudon, best known for his Cottage Encyclopedia, was a pioneer in the development of iron and glass structures, with his patent iron glazing bars<sup>19</sup> and the 100' diameter by 60' high iron green-house he designed for Bretton Hall in Yorkshire in 1827.<sup>20</sup> At least until the 1830's experiment and invention in construction were not generally inhibited by conservative prejudice or timidity. Economy may have occasionally discouraged the more extreme flights, but it was also a spur to the invention of faster, cheaper ways of building.

The effects of this search for efficiency were most obvious where the lightness, cheapness, strength or other advantages of the new materials could be fully exploited, and where disadvantages such as the condensation and fire risk associated with iron frames could be overlooked. The Crystal Palace of 1851 was only the largest of a vast number of prefabricated iron structures erected in Britain or shipped around the world from Britain, that included shops, factories, and even churches.<sup>21</sup> In the first volume of The Builder, 1843, various interesting designs appeared, including a cast-iron Palace for King Eyambo, cast and exhibited in Liverpool for re-erection on the Calabar

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19. Remarks on the Construction of Hot-Houses, London, 1817.

20. Illustrated in Encyclopedia of Cottage...Architecture, 1833, pp. 980-981, fig. 1732.

21. E.g. the three Liverpool churches designed by Thomas Rickman in 1813 and 1816; ref. H. R. Hitchcock, Architecture Nineteenth and Twentieth Centuries, London, 1958, p. 118.

River in Africa, and, more to the point, drawings of portable cottages.<sup>22</sup> These were the work of S. W. Brooke, who had "devoted some considerable time to the designs and construction of portable cottages, and their erection in the northern parts of England...." The cottages had exposed timber frames with wall panels and roofs of corrugated iron.<sup>23</sup> These composite structures appear to have been the fully realized precursors of much later mass-produced prefabricated dwellings.<sup>24</sup> Apart from passing experiments, however, cottages were no more suitable subjects for innovation in construction in the 1800's than they have been in recent years of this century, as the persistence of traditional construction against all the prejudices and efforts of 'modern' architects witnesses. It was the recognition in cottage design of the value of the full range of traditional materials and techniques that was the cottage designers' great contribution to the subject of firmitas.

#### Convenience.

In his definition of utilitas Vitruvius included both the convenient arrangement of the rooms of a building and their appropriate aspect.<sup>25</sup> In the later classical tradition, as Palladio's definition shows, propriety replaced aspect or

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22. No. XV, Sat. May 21.

23. This invaluable invention had been in use from early in the century but its origin is unknown.

24. Compare for instance the Copper-Plate Houses of 1932 illustrated by Gropius, The New Architecture and the Bauhaus, London, 1968, pl. 15.

25. "et sine inpeditione usus locorum dispositio et ad regiones sui cuiusque generis apta et comoda distributio"; I, 3, ii; ed. Granger, p. 34.

orientation as a governing principle.<sup>26</sup> The tendency of the cottage designers was to return to the older usage. The eighteenth century interest in landscape had restored an acute sense of the relation between the building and its site, and the need for careful consideration of the orientation of various rooms according to their use. And as the designer became concerned with more modest establishments with fewer servants, and as agricultural improvement placed a premium on the efficient design of farm establishments, convenient arrangement of the plan became even more important.<sup>27</sup>

The frequent clash of the principle of convenience with that requiring symmetry could be anticipated; as the former grew in importance the latter became subject to reconsideration. Despite the strength of the traditional, classical ideas of beauty based on abstract, geometric order, a popular writer on architecture affirmed in 1749 that "convenience should be the architect's first view".<sup>28</sup> His words recall Bacon's pungent sentence, written just as Inigo Jones broke the hold of the older utilitarian tradition with his elegant Palladio-inspired designs,

Houses are built to live in, and not to look on; therefore let use be preferred before uniformity, except where both may be had.<sup>29</sup>

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26. See p. 145 above.

27. An example of this concern with convenience was General Sir Samuel Bentham's "panopticon" principle devised in 1793 for the easy supervision of prison cells from a single fixed point, and applied to the layout of farm buildings by several contributors to Communications to the Board of Agriculture, vol. I, 1797.\*

28. W. Halfpenny, A New and Compleat System of Architecture Delineated, London, 1749, "Preface".

29. Essays, ed. A. W. Pollard, London, 1902, p. 109.

\* J. Bentham's idea, see R. Evans, "Bentham's Panopticon," AAQ, v. 3, n. 2, 1971, pp. 21-37.

This acute observation was quoted with increasing frequency from the late eighteenth century on, first in defence of a reasonable moderation of classical principles of beauty, then, in the early nineteenth century, in defence of the reaction against classical styles and the resurrection of the style of Bacon's youth (as for instance by T. F. Hunt in 1826).

Another witness for this moderate point of view was James Peacock, that most entertaining of all architectural writers; though he himself was a confirmed classicist who rejected even Robert Adam's rococo deviations from sober Georgian, he also placed utility before symmetry (and quoted Bacon in support).<sup>30</sup> Peacock considered architecture as a fine art to be "a very imperfect one" because of the overriding importance of utility, and the fact that "where use and ornament are to be intimately combined, many discouraging perplexities arise."<sup>31</sup> He did however allow that propriety, which he identified with convenience, "was the first and principal part of beauty". The remaining parts of beauty were regularity or uniformity, and proportion. The former, he warned, "may be carried to an excess",<sup>32</sup> and the latter he also treated with some caution.<sup>33</sup> Nonetheless Peacock's view of utility was that it was to be found within the general framework of regularity and proportion established by the classical tradition.

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30. Peacock (1785), p. 67.

31. Ibid., p. 68.

32. Ibid., p. 70.

33. Ibid., pp. 70f.



Two decades later W. F. Pocock (1779-1849), a London builder's son who developed a widespread architectural practice, criticized "the rage for utility" which he felt had led architecture to extremes.<sup>34</sup> But utility for Pocock meant just the sort of building that James Peacock had designed: the small, neat, regular and unornamented Georgian house. Where Peacock in 1785 had criticized fussy ornament, complex form and asymmetry in design, Pocock, looking perhaps at the fourth (1805) edition of Miller's Country Gentleman's Architect, first published in 1787, saw only the mean and insensitive crudities of classical **hacks**. In the intervening two decades the picturesque had become established in architecture, and picturesque beauty was Pocock's aim, as well as convenience.

The new argument for utility was first put by a designer when James Malton (d. 1803), topographical artist and architectural designer, published his Essay on British Cottage Architecture in 1798. He interpreted the native cottage building as an unpremeditated expression of local materials and crafts applied to the satisfaction of necessity. Its irregular form directly followed the most convenient arrangement of the building. Applying this lesson to the designer's task, Malton saw that greater freedom in planned arrangement and in addition and alteration to a building could be gained by abandoning the rigid regularity of classical design. He argued that "there will always be the opportunity of...additions to the main dwelling, without injury to the design...." and he advised "never to aim

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34. Pocock (1807), p. 1.

at regularity, but to let the outward figure conform only to internal conveniency...."<sup>35</sup> Once the principle of irregularity was accepted, there was no longer a serious conflict between beauty and utility, and beauty or, more correctly, picturesque effect could become the designer's principal aim. As Malton observed,

In regular compositions of architecture...the architect, after great study and torture of the imagination, to make the outward regularity of his structure agree and unite with the interior conveniency, is at last, obliged to relinquish many desirable advantages, and instances of beauty...from the impossibility...of making both concur....<sup>36</sup>

The opportunities offered by the vernacular model for satisfying both picturesque taste and necessary convenience were quickly exploited by Malton's successors. Those who rejected his aesthetic doctrines, as for instance Richard Elsam did in 1803, failed to refute his claim for the convenience of irregular planning. Malton himself added nothing of theoretical interest when he published a second book of designs, for larger houses in 1802. In it he reverted to regularity for these more elaborate designs.

Though all the Designs in this work are given strictly uniform, it is not absolutely necessary that they should be kept so, particularly the Gothic ones....<sup>37</sup>

Traditional propriety, it seems, still ruled that regularity was a desirable feature in houses of superior size and status.

Less original and philosophical designers also referred to convenience through the following decades (though the reference

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35. Malton (1798), p. 27; cf. *ibid.*, p. 13.

36. *Ibid.*, p. 27.

37. Malton (1802), p. 36.

was not always justified by the designs). Laing (1804) hoped that "of the plans" of his cottages, farm-houses, and villas, "the distribution will be found to possess Convenience," as well as "Elegance, and Economy".<sup>38</sup> And Elsam (1816) claimed for his designs "simplicity, utility, economy,...a portion of interest."<sup>39</sup> Papworth in 1818 distinguished architecture from "a mechanical operation, in which the mere builder is fully competent to all its duties". It was, he said, "a fine art, subject to laws of fitness, and founded on a combination of brilliant fancy and sound judgement...."<sup>40</sup> This emphasis on the convenience of the designs was a well established theme, repeated by Loudon (1825) and Hunt (1827), among others. The quality was claimed impartially for both regular and irregular houses.

A more specific claim was made by James Thomson in Retreats (1827) when, echoing Malton, he argued the advantages of irregular buildings for persons of limited income:

...they are enabled to erect just so much to suit their immediate want, and increase at convenient seasons. Such designs are also adapted to the alteration of old houses....<sup>41</sup>

That these advantages were not necessarily restricted to the native cottage style became apparent when they were also claimed for the increasingly popular rural Italian and freely adapted Greek architecture in the late 1820's. Jackson introduced his Designs for Villas (1829) with the comment that the Grecian and Italian styles were

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38. Laing (1804), p. 7.

39. Elsam (1816), Title page.

40. Papworth (1818), p. v.

41. Thomson (1827), p. 5, re pl. V.

... most suited to edifices of this class, and their external form depending so materially on the internal arrangement, the elevations have been studied more with regard to picturesque effects, than strictly architectural character.<sup>42</sup>

Utility (or convenience) was clearly a major factor in widening the choice of styles, and in the adaptation of style to current requirements, and therefore an important factor in the rise of Victorian eclecticism.

Functional criticism of the excesses of picturesque design must also be noted. J. C. Loudon in 1825 observed that ornamented cottages, such as landowners built to improve the views of their estates, were generally felt to be uncomfortable,<sup>43</sup> and C. A. Busby had earlier noted that

...in many instances the comforts and elegancies, and sometimes even the conveniencies of life, have been sacrificed to the affectation of rural simplicity, and rustic effect.<sup>44</sup>

Busby was of course an advocate of regular architecture, which he felt provided a desirable contrast in the picturesque landscape.

Not surprisingly, the hard-headed practical men of the countryside eschewed such aesthetic nonsense as the picturesque. For reasons of practicality and economy, they produced designs close to such minimal Georgian as that of John Wood the Younger and his lesser contemporaries, stripped of all but the most superficial traces of style (perhaps stone mullions and thatch instead of sash windows and slate or tile roofs), and exceedingly simple and regular in plan. Waistell, writing on cottages from

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42. Jackson (1829), p. 1.

43. Loudon (1825), p. 421.

44. Busby (1808), p. 12.

his experience as chairman of the Committee of Agriculture of the Society of Arts, emphasized that utility was the purpose of farm buildings, and that "regularity and neatness, although not essential, may generally be made to consist with economy and convenience...."<sup>45</sup> He revealed here not just his practicality but an associated prejudice against any deviation from the accepted aesthetic tradition. G. H. Andrews in Modern Husbandry: A Practical and Scientific Treatise, published in 1853, reviewed the situation at mid-century, and divided labourers' cottages into two kinds, "...those erected about the estates of noblemen and gentlemen...of an ornamental character", and those on or near farms, "merely to accommodate the labourers employed upon them.."; (the latter, he insisted, "must be of the simplest possible form, and of the cheapest materials....").<sup>46</sup> He described his own designs as looking very picturesque, but judging from the plates he gave as illustrations, they were of the barest and squarest sort.<sup>47</sup>

From the works studied four aspects of convenience have been discovered, all of which in substance or interpretation marked a clear change from the classical tradition. All involved the adaptation of picturesque aesthetic principles to architectural practice, and thus required in most cases a compromise with Vitruvian principles as traditionally interpreted. The four aspects can be summarized as follows.

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45. Waistell (1827), p. 2.

46. Andrews (1853), pp. 93 f.

47. Ibid., fig. 14, p. 95.

1. Open, irregular forms allowed greater and more useful freedom in the internal arrangement of buildings, particularly when, as various authors suggested, the accidental forms that resulted from convenient arrangement would almost inevitably have a picturesque beauty. See Malton (1798) and Hunt (1827).

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2. These forms allowed changes in the external form of the building without harm to the aesthetic effect. Consequently buildings could be erected in convenient stages, and alterations and additions could be made as required. See Malton (1798) and Thomson (1827).

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3. Small houses could be joined to form picturesquely massed groups, with the advantages of shared construction and facilities and of the privacy of separate units.<sup>48</sup> Gandy suggested a range of dwelling sizes in the group, suited to the changing needs of the occupants through succeeding stages of their lives. See examples by Wood (1781), Peacock (1785), Richardson (1792), Gandy (1805), and many others.

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4. The siting of buildings to take advantage of view and exposure was traditionally the designer's responsibility. The picturesque emphasis on the building's relation to its setting emphasized the importance of all aspects of siting. In general, it was held that the country was beneficial for physical and

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48. Katherine Esdaile considered Richardson (1792) to have been the inventor of "the group of small houses planned as an architectural whole", but John Wood the Younger published designs for grouped cottages in 1781, and James Peacock published the plans of a group in 1785. Esdaile, "The Small House and its Amenities", p.126.

moral health, while the city tended to break these down, and that therefore a rural or at least a suburban retreat was needed by those forced to work in the city. See Malton (1802) and Loudon (1806).

In general the evidence of the books of house designs suggests that there was in the early nineteenth century a strongly rational tendency present in architectural thought. Unlike the movement promoted in France by Laugier and his followers, which was predominantly concerned with rational structure and construction, the British designers were concerned with a rational view of use and convenience. This concern was a consequence of the need for smaller houses in which there was necessarily a closer fit between the content of the building and its external form than in larger public and industrial structures, where redundant space was inevitable and strict rationality of space arrangement therefore impossible. In the hands of the designers of this period "utilitas" became a concept capable of a certain flexibility in application, sometimes taking it quite far from earlier and stricter interpretations.

### Beauty.

By venustas Vitruvius apparently meant both subjective and objective qualities: both immediate visual delight, and the calculated compliance with abstract principles.<sup>49</sup> In this respect Renaissance classicism was more restricted: Palladio's definition of beauty referred only to symmetry, the form and

49. On Architecture, I, ii; see also above, pp.17f., 38.

correspondence of the parts with respect to each other and to the whole.<sup>50</sup> This exclusion of delight and emphasis on objective qualities of form reflected the increasing reliance on rules and formulae in later sixteenth century Italy. The reaction against academic rules led by Perrault a century later was followed by new eighteenth century interpretations of beauty and a new emphasis on personal taste. The application to architectural practice of these ideas predominates in the works of the cottage designers. The change in ideas of beauty can be followed from the late eighteenth century in writers like James Peacock.

Peacock gave a pragmatic eighteenth century classicist's view of beauty: he insisted first upon convenience in architecture, then regularity, but not to excess, and also proportion. And proportion he thought somewhat controversial:

...the architects of the last age placed it amidst the buzz of fractional divisions, and splitting of hairs; most of the moderns know as little of the matter as the author...<sup>51</sup>

Along with his designs he supplied tables of proportions, but with this deprecating comment:

These proportions are inserted to gratify such persons as are persuaded of the existence of some peculiar harmony in numbers thus applied....<sup>52</sup>

Behind Peacock's mocking irony, and his facetious disguise as an ignorant bricklayer's labourer, it is clear that he himself adhered to tried principles, but that their truth could no longer

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50. The Four Books, p. 1; see above, p. 145.

51. Peacock (1785), p. 71.

52. Ibid., p. 7.



be claimed as obvious. In any event he recommended the examination of real rooms and accurate models as the best way of judging proportions.<sup>53</sup> His designs were of course symmetrical<sup>54</sup> as were the cottage designs published by Soane and the other late eighteenth century designers.

The first consistent use of irregularity appeared in John Nash's work from about 1794-95, under the influence of the picturesque theorists Uvedale Price and Richard Payne Knight, and that of the landscape designer Humphry Repton with whom Nash was in partnership from 1795 to 1802. His group of irregular cottages at Blaise Castle was the forerunner of the model London suburb he designed north-east of Regent's Park: Park Village East, built c.1824, and Park Village West, built c.1830.<sup>55</sup>

Behind the use of irregularity in architecture lay the 'picturesque' fascination with the landscape seen as a pictorial composition that inspired both Price and Payne Knight. "An architect with a painter's eye" seemed to Price to be a desirable

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53. Ibid., pp. 56 and 71 ff.

54. Although the pinwheel or rotational symmetry of his four-cottage cluster (p. 49 and pl. XXV), which created asymmetrical elevations and a feeling of centrifugal movement, was unusual if not unique until the later nineteenth century. Frank Lloyd Wright was the first architect to fully exploit this system of planning. Its appearance in Peacock's design is evidence of the disintegration of the centripetal 'baroque system' (discussed by Emil Kaufmann, Architecture in the Age of Reason, New York, 1968, pp. 11 f., and passim).

55. "In the Park Villages the cottages have become middle-class houses....They are the prototype of all picturesque suburbia." Sir John Summerson in T. Davis, The Architecture of John Nash, London, 1960, p. 17.

ideal.<sup>56</sup> Price, in his Essay on the Picturesque (1794), praised irregularity in architecture as a picturesque quality, whereas

symmetry, which in works of art particularly accords with the beautiful, is in the same degree adverse to the picturesque; ...among the various causes of the picturesqueness of ruins, compared with entire buildings, the destruction of symmetry is by no means the least powerful.<sup>57</sup>

In the same work, discussing the way the great landscape painters achieved their results, he observed the picturesque effect "of a cottage of a quiet colour half concealed among trees".<sup>58</sup> In his Essay on Architecture and Buildings published four years later, in which he greatly extended his observations on the architecture in landscape paintings, he particularly praised the picturesque qualities of the cottages painted by Ostade and other Flemish painters,<sup>59</sup> and also those by Gainsborough.<sup>60</sup> In the same year Knight published his poem The Landscape, dedicated to Price, in which he praised the charms of "nature still irregular and free,"<sup>61</sup> and in a much quoted passage described "the retir'd and antiquated cot".<sup>62</sup> The line from painting to practice was strengthened when an admirer of Knight's poem, the engraver and

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56. Sir Uvedale Price on the Picturesque..., ed. Sir T. Dick Lauder, Edinburgh, 1842, p. 348 (from "An Essay on Architecture and Buildings", first published 1798).

57. Ibid., p. 83.

58. Ibid., p. 132.

59. Ibid., pp. 391 ff.

60. Ibid., p. 408.

61. Richard Payne Knight, The Landscape, London, 1794, Bk. I, l. 143, p. 10.

62. Ibid., Bk. II, l. 263, p. 36.

painter John Thomas Smith, published in 1797 his Remarks on Rural Scenery; with twenty etchings of Cottages, from Nature....

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Smith felt that cottages had been overshadowed by the fashionable interest in the ruins and remains of grander picturesque structures such as palaces, castles and monasteries.<sup>63</sup> He had no interest in them as practical architecture, but only as subjects for the sketcher, and in fact divided "Cottage-scenery" into two classes, namely, the neat and the neglected, in order to reject the former in favour of "the neglected fast-ruinating cottage".<sup>64</sup> For the "theory of rural scenes" Smith concluded that

so much is irregularity of parts a constituent beauty, that it may very nearly be said that equality is deformity: Avoid therefore all tame geometrical forms...."<sup>65</sup>

The full incorporation of asymmetry into architectural theory was the work of another topographical artist, referred to above, James Malton. The interest of Malton's argument is that it related asymmetry both to beauty and to convenience<sup>66</sup> and so dealt with the key problem of small house design. Malton's intention was "to perpetuate...the beauty of the British, picturesque, rustic habitations" which, with the country church, he regarded "as the most pleasing, the most suitable ornaments of art that can be introduced to embellish rural nature."<sup>67</sup> Malton was clearly aware of the novelty of his serious reference to real

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63. Smith (1797), p. 5.

64. Ibid., p. 9.

65. Ibid., p. 11.

66. See above, p. 156.

67. Malton (1798), p. 1.

vernacular dwellings, and of his attempt at a sympathetic modesty in design, for he criticized previous designs as either "too grotesque or fanciful",<sup>68</sup> or "regular dwellings of brick or stone, or both, very neat and convenient", but not 'cottages'.<sup>69</sup>

Malton did not accept Smith's (almost) complete rejection of uniformity, which he thought necessary to the dignity of larger houses. And where Smith, as a painter, was wholly in favour of the accidents of construction and decay, Malton argued that a well chosen irregularity is most pleasing:

but it does not of consequence follow, that all irregularity must be picturesque. To combine irregularity into the picturesque, is the excellence of cottage construction....<sup>70</sup>

Malton was not entirely consistent on this point, for he elsewhere suggested that additions could be made as desired "without injury to the design",<sup>71</sup> that "they may be abridged, or added to, and variously modified, at the will and pleasure of the proprietor", and that the main point was "to let the outward figure conform only to internal conveniency."<sup>72</sup> This suggests a somewhat accidental and arbitrary quality to the resulting form, but he added that the aim was "rather to overcharge projecting parts than in anywise to curtail them; for on a judicious contrast of

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68. He was referring, presumably, to the works of Decker, Wright, Middleton, and other purveyors of garden ornament, from benches to fake hermitages.

69. Malton (1798), p. 2. This could apply to the work of Wood the Younger or Miller among many others.

70. Ibid., p. 19.

71. Ibid., p. 26

72. Ibid., p. 27.

light and shade, does the picturesque in great measure depend."<sup>73</sup>  
 The designer, he implied, was to accept the form that resulted from convenience and other constraints as a starting point, but he had still to modify and elaborate that form to produce a satisfactory design.

Malton drew the fire of the classicists. John Plaw in 1800 rejected the irregularity advocated by "some persons" 8 though at least one of his own designs departed from strict symmetry.<sup>74</sup> Malton's apparent inconsistency about the place of accident in design provoked Richard Elsam, who published his rejoinder in 1803 (the year after Malton's second collection of designs appeared), in An Essay on Rural Architecture, ...being an attempt, also, to refute...the principles of Mr. Malton's Essay.... 13  
 In Malton's opinion it seemed, Elsam said, "we are 14 more indebted to chance, and the effects of inadvertency, than 15 any studied intention...".<sup>75</sup> Referring to Nash's work Elsam suggested that irregular buildings massed in large groups might be beautiful, but that irregularity in small buildings was "unseemly and unhandsome".<sup>76</sup> His argument was based on the traditional appeal to nature; when, he said, we observe

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73. Ibid.

74. Plate 2, a "cottage"; (there was also slight asymmetry in Plate 41, a "Gothic Villa"). Plaw first published cottage designs in Rural Architecture, 1785, thatched Georgian in style; then in 1795 produced a much more varied collection with richly decorated gothic and rustic, and also classical designs, all of which were symmetrical in plan.

75. Elsam (1803), p. 2.

76. Ibid., p. 4.

the form, structure, order, and beautiful proportion of the human body, we shall discover the great Architect of the universe, in the creation of his own likeness, considered symmetry the leading feature in the great outlines not only of his own last work, but of the general composition of the animal creation altogether.<sup>77</sup>

For further support he referred to Chambers, and to Burke. The latter's idea that gradual variation of visual qualities was beautiful, applied, according to Elsam, to symmetrical structures; he implied that the irregularity of Malton's cottages produced unacceptably abrupt variations. On the other hand he noted the picturesque effect of such complex symmetrical structures as Kent's Horseguards.<sup>78</sup> Evidently he could not completely reject the picturesque point of view. Laing's Hints for Dwellings, published the following year, reaffirmed the strict classical line: "surely uniformity is essential to building", but elsewhere picturesque principles gained increasing influence, even among classical designers.

In 1805, J.M.Gandy carried the application of the picturesque to classical design well beyond Elsam's defensive position. The question as Gandy saw it was

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...whether Architectural Designs, in general, should be uniform, that is, having corresponding parts on each side of a centre; or whether they should be composed of parts dissimilar, though harmonious.<sup>79</sup>

He answered that, while uniformity belonged in the higher classes

77. Ibid.

78. Ibid., pp. 50 ff. Kaufmann saw the Horseguards as "anti-Palladian", and deviating from the 'baroque system', and he noted Sir William Chambers's "general dislike" of the building as support for this view. Architecture in the Age of Reason, pp. 20 ff.

79. Gandy (1805), p. vii.

of architecture, especially churches (for which the circular was best),<sup>80</sup> it was also dull and monotonous. For most applications the more suitable aim was variety "which is the grand principle of beauty in building."<sup>81</sup> Considering classical buildings as actually perceived by ordinary observers, he pointed out that strict symmetry in building was apparent only from an axial viewpoint:

...from every other point of view [uniform buildings]...<sup>82</sup>  
fall into the picturesque by the change of perspective....

And he observed that this "is an argument drawn from Nature, that the picturesque is the most beautiful... ." Gandy's use of the picturesque was highly selective. He did not admit the effects of surface texture and colour dear to the more literary picturesque theorists, and instead asserted that the unadorned mass of the structure was most effective, with ornament restricted to the interior. The materials were to be whatever was commonly used in the locality:<sup>83</sup> the designs suggest a final coat of whitewash was intended in all cases. As for ornaments, he held that they were "of little use externally".<sup>84</sup> In this he was at one with the hero of British Palladianism, Inigo

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80. Ibid. This idea was first expressed by Alberti in the Ten Books on Architecture, Book VII, chapter IV; see the discussion in Wittkower, Architectural Principles, pp. 3-13.

81. Gandy (1805), p. vii.

82. Ibid., pp. vii f.

83. Ibid., p. x.

84. Ibid., p. viii.

Jones.<sup>85</sup> These principles Gandy applied to his own designs: most are irregular though a few are symmetrical, but all were designed to create the "Simplicity, and variety in the great outline"<sup>86</sup> that was to him the essence of the picturesque.

Gandy's position clearly differed in important respects from that of Malton, or of the prime authority, Uvedale Price. Price emphasized the outline against the sky<sup>87</sup> but also small ornamental objects and the rich textures of material and vegetation which to him distinguished the picturesque from the beautiful. Nothing could be further from Gandy's pristine geometry than the mellow, ivy-grown cottage described by Price.<sup>88</sup> But Gandy's aim was also very different. Whereas Price had thought to add to the existing categories of taste, Gandy was engaged in the redefinition of the classical tradition by combining the picturesque with the beautiful. His severe forms, austere surfaces, low-pitched or flat roofs and undecorated surfaces were all consistent with the most stringent classicism. But classical theory had subordinated the immediate visual experience of the observer to a view from the mind's eye which was based on

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85. "For as outwardly every wyse mā carrieth a graviti in Publicke Places, ...yet inwardly hath his immaginacy set on fire, ... so in architecture ye outward ornaments oft [ought] to be sollid, proporsionable according to the rulles, masculine and unaffected." (20 January 1615) Quoted from Inigo Jones's sketch book in J. Summerson, Architecture in Britain 1530-1830, London, 1953, p. 73.

86. Gandy (1805), p. viii.

87. On the Picturesque, p. 392.

88. Ibid., p. 358.



extensive acquaintance both with the building and with the rules on which it was formed. It emphasized conception at the expense of perception. Gandy's picturesque beauty largely dispensed with the associative qualities that were so much a part of the established picturesque theory in order to place the stress upon the formal qualities of the building in accordance with classical tradition. The resulting designs have a timeless air: bare of either classical or picturesque detail, they seem detached from both place and period.

An equally important and more immediately influential interpretation of the picturesque, with the opposite tendency, was expressed in the same year as Gandy's first publication by William Atkinson. Whereas Malton's designs, despite his emphasis on 'British' cottage architecture, showed more imagination than accuracy in their representation of vernacular construction, Atkinson, in his Views of Picturesque Cottages, 1805, was the first to acknowledge local variations in style and material and make these the basis for original designs. The drawings themselves express this new realism. The early aquatints of Malton, Elsam and Gandy, while they gave a natural setting for the designs, with hills and sky and surrounding foliage, and reproduced variations in tone unlike the diagrammatic hard-edged eighteenth century copper engravings, still invested their buildings with a somewhat abstract quality. Composed in clearly defined areas of even tone, their illustrations suggest stage settings rather than real, three-dimensional scenes. For depicting buildings elevations were preferred to perspective views, as in the

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eighteenth century,<sup>89</sup> and often, instead of filling the plate to its margins, the design and its setting were printed as detached vignette, floating rather than framed on the page. In contrast, Atkinson filled his plates to the margins with perspective views rendered in varying tones with light and shade which gave them a more realistic and specific appearance. Even his views still had a slightly abstract air, because of their lack of small detail and clearly rendered textures, but they were a long step toward the fully literal quality achieved a decade later.

Gandy and Atkinson in their separate ways both illustrate changes in practical design that were taking place in the first decades of the century; the latter towards the particular, concrete and changeable, the former towards a new kind of abstraction. They represent alternatives between which the public and the profession were to choose, with the result that Gandy's abstractions "are among the most distinguished examples of what never could have been built" in the following period. "His cottage designs exaggerate all the Early Victorians most detested in the executed work of the Regency Period and were hardly admired again before the present century."<sup>90</sup> A parallel for this choice between formal, abstract design and informal realism can be found in the art of painting which followed a similar historical pattern. An emphasis on the particular and the immediate marked the realistic narrative painting which the Victorians

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89. Even by Malton, despite his argument in favour of perspective views. Malton (1798), pp.14 f.

90. H. R. Hitchcock, Early Victorian Architecture in Britain, 2 vols., London, 1954, p.28.

preferred, while Cézanne (1839-1906) in the 1870's took the first great steps towards the geometric abstractions of the cubists, who reinterpreted the classical emphasis on pure form in terms of a moving or circulating viewpoint. Gandy's work prefigured the same tendency in early twentieth century architecture.

Loudon's comprehensive discussion of aesthetic theory in his Country Residences (1806) summarized the prevailing state of opinion and noted the current improvement in architecture:

Now, however, symmetry and superfluous ornaments are giving way to irregularity and characteristic beauty.<sup>91</sup>

Defining beauty and the picturesque, for each of which he gave two senses, Loudon made it clear that "beauty" had become a general category of approbation which could apply equally to the picturesque and to other classes of architectural composition.

"Beauty" meant to Loudon either "characterised by underlying delicacy", as in female beauty,<sup>92</sup> or more generally "every species of excellence in objects or scenery, except sublimity".<sup>93</sup>

"Picturesque" meant effects related to "roughness, abruptness, and sudden variation", or "visible effect which is agreeable to the general principles of painting",<sup>94</sup> both derived from Price and intended by Loudon to be synonymous. Excellence in the picturesque, he implied, could be characterized as beauty; which thereby lost its particular and unique status. (Price, on the

91. Loudon(1806), vol.I, p.14.

92. and as derived from association with the female form, Ibid., p.14n., p.23.

93. Ibid., p.14n.

94. Ibid.

other hand, had distinguished between the two.) The diminished status of beauty was demonstrated elsewhere in the work. Introducing his catalogue of the effects available to a designer Loudon described the combination of these as "forming different kinds and degrees of beauty, or pleasing combination".<sup>95</sup> In the following chapter he discussed sublimity and beauty, and other characters to be created in architecture and scenery which included 'picturesque beauty', 'sculpturesque beauty', 'antique beauty', 'romantic beauty', as well as wildness, tranquillity, and a number of others. It is obvious that beauty no longer represented the pinnacle of achievement, or indeed any clearly defined objective in design, but had become assimilated to a whole range of largely associative and expressive qualities.

The "different kinds and degrees of beauty, or pleasing combination" he presented, in a most illuminating list.<sup>96</sup> First came "Truth or nature", by which he meant something like the traditional quality of decorum: the use of the forms, orders, details appropriate to a particular kind of building according to customary usage. Next came 'utility', then 'fitness', and then 'symmetry', which was the first entirely abstract beauty mentioned. 'Uniformity', 'unity', 'order', 'contrast', 'variety', 'intricacy', led finally to 'harmony', which "is the last and most exquisite combination of the modifications of matter." Discussing harmony Loudon contrasted Greek and Gothic architecture; veneration for antiquity blinded architects, he suggested,

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95. Ibid., p. 28.

96. Ibid., Part I, chapter III, pp. 28 ff.

to the suitability of Gothic.

The irregular style of Gothic architecture affords ample scope for contrast, both in form and disposition of solids, and in the magnitude, shape, and disposition of openings; ...most artists are more influenced by Grecian architecture and a veneration for antiquity, than guided by any fundamental principles, hence the frequent absence not only of harmony but of the lesser beauties of fitness, intricacy, and variety.<sup>97</sup>

Nothing makes more clear the distance architectural theory had come from the Renaissance at this point than Loudon's rejection of the classical tradition and Grecian architecture as lacking fundamental principles.

The word that appeared to have replaced beauty as the general term of approbation was 'character'. Loudon claimed that contemplation of nature revealed "that wonderful EXPRESSION or MIND which pervades the whole universe",<sup>98</sup> an idea which echoes Alison. The corresponding quality in all the arts was "character or expression" which was "just objects appearing to be what they really are".<sup>99</sup> Others were even less specific in their use of the term, but appear to have meant by it anything individual, unusual, unexpected, which excited interest by its contrast with the dull symmetry of tradition.<sup>100</sup>

Subsequent statements of the notion of beauty, between 1805

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97. Ibid., p. 35.

98. Ibid., vol. II, p. 278.

99. Ibid., p. 700. Later Loudon wrote of the appearance "of convenience and abundance", which he considered to confer a higher degree of beauty than simple utility. Loudon (1825), p. 421. Again the emphasis fell on the visible expression of function.

100. Cf. Aikin (1808). Quoted below, p. 177.

and 1835, largely elaborated the senses here established. The tendency of Atkinson's argument and designs towards a more specific and realistic style was supported by Loudon's emphasis on the advantages of Gothic architecture, while Gandy's more abstract and rarified version of the picturesque largely disappeared from view, until something very similar re-emerged at the end of the century.

Some authors continued to uphold a more traditional classicism against the peremptory claims of the picturesque and subjective aesthetics. The same tendency towards realism in style that we saw associated with Atkinson's vernacular also inspired the exact revival of classical forms. One respected student of Greek architecture and author of a work on the Doric order, Edmund Aikin, expressed the problem of adhering to classical views in his Designs for Villas and Other Rural Buildings (1808). Most of his designs were symmetrical, but in his argument he took note of picturesque as well as classical principles:

Contrast and variety are essential to architectural beauty, as well as symmetry and even uniformity: the former qualities impart character and interest to any composition, and preserve it from that tame monotony allied to indifference and oblivion; while the latter qualities are essentially connected with simplicity and grace.<sup>101</sup>

Uniformity was, he observed, rejected by "Mr. Knight and the gentlemen of the Picturesque School..." but it remained the general rule - in abstract. In practice, however, exceptions "to suit particular situation, or to gain any considerable convenience are permissible." He concluded: "To be natural and

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101. Aikin (1808), p. 11.

unaffected is the first rule of good taste."<sup>102</sup>

Others followed the same line as Aikin. Busby's designs of 1808 for rather larger houses strictly adhered to classical principles, and, with one exception, so did Gyfford's rather feeble designs of 1806 and 1807. As Busby said, "some modern theorists 'argue' that the appearance of regularity in rural buildings should be studiously avoided",<sup>103</sup> but he himself disagreed emphatically. He thought that beauty should be produced 'by the contrast of the regularity of the building with the picturesque variety of nature...."<sup>104</sup> Dearn's Designs (1811), which included some in the Gothic style, followed an austere regularity. Most of these writers made some concession to the subjective aesthetic on which the picturesque was based; from about 1805 on, it had either displaced classical theory entirely, especially for landscape-oriented writers like Loudon, or had significantly altered the views held by designers still professing classicism.

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102. Ibid., p. 14.

103. Busby (1808), p. 12.

104. Ibid., p. 13.

## 7. Cottage Theory and Design.

### ii. Social Function and Style

Neither style nor social function were categories of architectural theory recognized by Vitruvius, but by the beginning of the nineteenth century the existence of the first was universally acknowledged and the second, while not an accepted category, was an aspect of design explicitly considered by a growing number of designers. For Vitruvius, there was only one possible style: all design was conceived in the same system of orders which comprised the only intelligible way of ornamenting buildings in both republican and imperial Rome, so that for example, where modern art historians see the introduction of a novel 'style' of wall painting in the late Republic, Vitruvius saw simply a degeneration of taste and misguided practice.<sup>1</sup> Social function he considered incidentally to the convenience and propriety of a design. The planning of houses "to suit different classes of persons"<sup>2</sup> was a matter of providing the appropriate rooms for different activities:

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1. On Architecture, VII, 5.

2. Ibid., tr. Morgan, p. 182.



...men of every day fortune do not need entrance courts, tablina, or atriums...because such men are more apt to discharge their social obligations by going round to others than to have others come to them.<sup>3</sup>

There was no suggestion that the architect's responsibility went beyond the practical to include a moral influence as well.

Exclusive allegiance to the ancient style was strengthened in Renaissance Italy. Its architects saw in the buildings of the medieval centuries not an alternative style, but only lack of knowledge and skill: "all good methods and correct forms being lost", the designers were unable to "give either correct proportion or grace of any kind to their designs".<sup>4</sup> The later medieval buildings were thought of as "rather to the discredit than glory of the builders"<sup>5</sup> and Brunelleschi was praised for "imparting a new spirit to architecture, which for hundreds of years had been lost".<sup>6</sup>

First style and then social function became for the first time matters for explicit discussion in the later eighteenth century. The unified tradition of a classical style gave way to a plurality of alternative styles. And as self-conscious identification with a social class grew architects began to direct their designs not simply to the accommodation but to the moral improvement of one class or other and to assert a new value to society both of their profession and of their designs.

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3. Ibid.

4. Vasari, Lives, tr. Foster, vol. 1, p. 24.

5. Ibid.

6. Ibid., p. 414.

### Social function

When in the past buildings were required to deal with some social problem (for instance almshouses, or cottages for poor agricultural workers), their provision was the responsibility of the patron: the designer's function remained the same as for any other building. After 1790, as a result of the changes in patronage and in philosophy discussed above in Chapters 4 and 5, the architect began to see his role as going beyond merely technical and aesthetic matters to include serious moral and ethical responsibilities. In his relations with the community as a whole these were expressed in the formation of a professional association. In design itself the architect assumed something of the social responsibility which had earlier been the patron's; he saw his designs as influencing the behaviour of the persons or groups they accommodated; good design promoted the attitudes and behaviour most beneficial to society as a whole.<sup>7</sup>

Essential to this idea was the view held by Alison and others that moral (or psychological) character was the result of a process of conditioning. The connection between morals and criticism had been made by Hume and was implicit in the empirical theories of taste.<sup>8</sup> A firm basis for this view was supplied by

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7. An early reference by an architect to this idea was made by Robert Morris, An Essay in Defence of Ancient Architecture, London, 1728. He asserted that "I could in this place prove from natural Reason, that the Decay of the State and Government of a Kingdom is dependent on the Decay of publick Buildings". While the passage itself could be understood to refer simply to a failure to construct new public buildings, the context of the book as a whole suggests that by "Decay" Morris meant misuse of the classical vocabulary, that is, bad design.

8. see above, pp. 75 ff.

association theory which described the individual as a passive recorder and associator of impressions created by experience. Applying association to the arts, Alison had drawn the conclusion that the pleasures of taste, by means of association, "blended with MORAL sentiment" and that enjoyment of art was made thereby "finally subservient to moral improvement".<sup>9</sup>

Drawing the logical conclusion, an increasing number of architects through the early nineteenth century came to believe that as professional persons and designers they were the proper custodians of a powerful social influence; it was their responsibility to shape the moral character and social behaviour of the occupants of their buildings.<sup>10</sup> The idea was at first applied exclusively to the design of working class housing; here architect and patron were able to share a position of moral superiority as they shared a commitment to the same superior standards of taste. The notion of the architect's exercising the same sort of moral influence on his patron (otherwise his social equal or superior) did not immediately arise but the theory implied it nonetheless. Such an idea could only lead to the architect's alienation from his public, his clients and the other users of his buildings.

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9. Alison, Essays on...Taste, vol.II, p.435; see above, p.87.

10. To some extent this has become a defence against the "bogey of dispensibility" which Kaye notes afflicted nineteenth century architects as the engineering profession grew to rival the architects. (Kaye, The Development of the Architectural Profession in Britain, 1960, pp.168f.) Lipman's recent studies of professional ideology have shown that this notion of the architect as the guardian of essential social qualities is current among the leaders of the profession, but rests on no firmer a foundation now than it did when it first appeared at the beginning of the nineteenth century. (A.Lipman, "Professional ideology: 'community' and 'total' architecture", Architectural research and teaching, v.1, n.3, 1971, pp.39 ff.)

Growing interest in the social function of the designs can be traced in the cottage and villa books as they appeared between 1775 (Kent) and 1833 (Loudon). The first wave of publication rose to a peak before 1806 with the appearance of books by Laing, Bartell, Atkinson, Lugar, Gandy and Loudon. These authors directed most of their attention to middle class housing though a trickle of books on workers' cottages continued to appear. After 1807 publication subsided as the war with France dragged on. Towards the 1830's, the war and its aftermath over, it rose again bringing several books by each of a number of writers: Loudon, Papworth, Robinson, Hunt, and many other less prolific designers. A connection between moral improvement and aesthetics, and consequently an explicit social function for visual design, first appeared after 1800, especially in Loudon's writings, and its full impact came after the 1830's in the publications of Pugin and Ruskin. But it was not until about 1835 "that landlords and philanthropists took the matter seriously in hand", according to the Architectural Publication Society's Dictionary; "since that period numerous plans of model cottages have been devised".<sup>11</sup> Not until the late 1840's was there evidence of a sustained interest in lower class housing.

The concern of the first designers of workers' cottages with utility in the traditional sense can be illustrated from Kent (1775). His view was simply that the poorer cottagers were physically and morally degraded by the squalor in which they

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11. The Dictionary of Architecture, ed. W. Papworth, 8 vols., London: The Architectural Publication Society, 1852-92, article on "Cottages", vol. 1, p. 153.

lived. Their requirements would be completely satisfied by sufficiently large and weather-tight cottages.<sup>12</sup> Any ornament was added simply to improve the appearance of the estate for the landowner and his friends. When Kent directed attention to those "nerves and sinews of agriculture", the cottagers, he valued them primarily as an economic resource, a source of national wealth, of superior quality to the lower class population of the manufacturing towns.<sup>13</sup> In this sense, for his economic contribution, "the labourer is one of the most valued members of society".<sup>14</sup> Kent did, in another connection, also refer to those "deaf to the cries of humanity".<sup>15</sup> He argued that improvement of the labourer's condition was both "The country gentleman's... interest, and his duty...".<sup>16</sup> This highly pragmatic view of the labourer, the expression of practical good sense leavened by a touch of conscious humanity, was the prevalent attitude among the landed classes and their supporters until a much later day.

A less condescending point of view, remarkably sympathetic to the humble cottager, was expressed by John Wood the Younger only a few years later, well in advance of any general change in attitude. Wood, as noted above, was the first professional designer to attend in print specifically to the problem of workers' housing, in his Series of Plans for Cottages (1781). Wood's

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12. Kent(1775), p. 245; see above, pp. 110 f.

13. Ibid., p. 244.

14. Ibid., p. 241.

15. Ibid., p. 250.

16. Ibid., p. 241.

acquaintance with the owners of large rural properties led him to consider the problems of rural labourers, but some of his designs were also suitable, he thought, for use in large towns or cities.

Wood's remarkably perceptive approach to design and in particular his sympathy with the cottagers' position he expressed in this way:

...in order to make myself master of the subject, it was necessary for me to feel as the cottager himself; for I have always held it as a maxim, and however quaint the thought may appear, yet it is altogether true, that no architect can form a convenient plan, unless he ideally places himself in the situation of the person for whom he designs...<sup>17</sup>

This procedure Wood presumably thought would seem 'quaint' because it involved his identifying himself, albeit only in imagination, with the lower social orders. Other designers may have found this a useful approach to design, but if so their writings on cottages reveal no trace of it; it was probably unique.

Apart from Wood, indeed, most of the later eighteenth century authors passed the cottager by, and aimed at a more affluent occupant. Peacock's sensible dwellings (1785) were "for gentlemen of moderate fortunes",<sup>18</sup> as were Richardson's (1792), though the latter included a few designs to be built by benevolent gentlemen as "convenient dwellings for the families of their domestics or dependents".<sup>19</sup> Middleton's thatched cottages were also designed for the titillation of the rich; he dismissed the

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17. p. 3.

18. Peacock (1785), p. 1.

19. Richardson (1792), p. 1.

kind "inhabited by the poorer sort of country people" as "the work of necessity, for which no rules can be given", and instead illustrated decorative cottages for erection in parks or pleasure grounds to serve "the twofold purposes of use and ornament".<sup>20</sup>

Soane included in his Sketches in Architecture, 1793, cottages "for the laborious and industrious part of the community", but without further comment, and devoted most of the work to designs "generally calculated for the real uses and comforts of life, ... within the reach of moderate fortunes."<sup>21</sup> Despite his advanced

view of the connection between irregularity and convenience, Malton (1798) was another who paid little attention to the social function of the designs. His theory and his illustrations were for

those Noblemen and Gentlemen of taste, who build retreats for themselves, ... to ... appear as cottages, or erect habitations for their peasantry or other tenants.<sup>22</sup>

His preoccupation with the taste of the nobility and gentry was typical of the generality of cottage designers.

Attention to the importance of the cottagers' problems was more evident in early nineteenth century works by Barber (1802), Lugar (1805) and Atkinson (1805). In William Barber's Farm Buildings; or, Rural Economy, dedicated to the Farming Society of Ireland, and published in London in 1802, a new explicit note of concern for the moral consequences of design was first intimated. Barber observed:

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20. Middleton (1793), p. 1.

21. Soane (1793), "Introduction".

22. Malton (1798), p. 2.

Place the rude peasant in a neat-designed cottage, with a well laid down inclosure in his immediate view; his ideas will expand and conform to his situation...<sup>23</sup>

Lugar simply included among his Architectural Sketches

...cottages...calculated for those persons whose liberal minds may lead them to accommodate their peasantry and other dependents with dwellings...<sup>24</sup>

Atkinson, whose contribution to the appreciation of vernacular building has been noted,<sup>25</sup> gave a full explanation of his objectives which included the economic welfare of the higher classes but also a new emphasis on justice to the labourers themselves and interest in their conduct and character.

The building of Cottages for the labouring classes of society, and the keeping of them in good repair, are objects of the first international importance; as it is from the active exertions of the industrious labourer, that the other classes derive the greater part of those benefits which they enjoy. Justice, requires that every thing should be done to encourage cleanliness among them, and to add to their comfort and convenience, which will not fail to have a salutary effect on their conduct and character, and tend, in an essential manner, to render them much more useful in their respective stations.<sup>26</sup>

His aesthetic aims remained unrelated to the satisfaction of the cottagers' needs, which, Atkinson implied, were purely physical.

The moral influence of beauty, as well as comfort and convenience, first became a clearly stated objective in J.M. Gandy's Designs for Cottages... (1805). Gandy, stimulated by both agricultural improvement (represented by the Board of Agriculture) and philanthropy (as expressed through the Society for Bettering

23. Barber (1802), p. 3.

24. Lugar (1805), p. 1.

25. see above, pp. 148 f., 172 f.

26. Atkinson (1805), Introduction, p. v.



the Condition and Increasing the Comforts of the Poor), formulated a philosophy of design uniting aesthetic and social aims. His argument is worth following closely, because it was the first full statement of an important point of view, and because it came from an architect of talent and experience who was well qualified, despite his personal failures, to represent advanced architectural thought in his day.<sup>27</sup>

Gandy began his argument by referring to the "very intelligent communications on...Cottages and Farm-buildings" to the Board of Agriculture:<sup>28</sup>

The communications alluded to, relate chiefly to modes of construction, circumstances of distribution, and other local particulars; objects unquestionably of the first importance, and which should never be lost sight of. But the advancement of Public Taste requires more than this - that we should combine convenience of arrangement with elegance in the external appearance; a point of much consequence to the general aspect of the country.<sup>29</sup>

This was his unexceptionable justification for adding to the existing publications on cottage design. The novel, farsighted contribution came in the following stage of his argument which established the connection between 'Taste' and the cottager's character. Gandy argued as follows:

...the importance of attending to the exterior appearances of Farmers' Houses, as well as the Cottages of the Labouring Poor, will be seen by the Moralist and speculative Philosopher, in another, and no less striking point of view. The effect of early impression is well known to every attentive observer of human nature. A habit of neatness, and attention to cleanliness, does more towards forming the dispositions of the Labouring Class, than

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27. see above, pp. 140 f.

28. Communications to the Board of Agriculture, vol. I, 1797.

29. Gandy (1805), p. iii.

those who are not accustomed to consider the great effects produced by comparatively little causes, would at first be inclined to believe. So it is, in a great measure, with taste: the early habit of contemplating fine forms, produces a correspondence in ideas of beauty, and creates a natural good taste; whilst, on the contrary, vulgarity, and lowness of ideas, are acquired, when we are born and educated among objects incapable of exciting any fine impressions.<sup>30</sup>

The notion that the contemplation of "fine forms" created "a natural good taste", and, Gandy implied, refinement and higher ideas, allied the designer with the social reformer. He drew support for this argument from Thomas Bernard, founder and president of the Society for Bettering the Condition of the Poor, who had written:

Whatever encourages and promotes habits of industry, prudence, foresight, virtue, and cleanliness, among the Poor, is beneficial to them and to the Country; whatever removes or diminishes the incitement to any of these qualities, is detrimental to the State and pernicious to the individual.<sup>31</sup>

A further illustration of the Society's philosophy also found in the same volume of the Reports concerned the effects on the cottager of acquiring property.

The impressions which have been produced upon the cottager's mind, by affording him the means of acquiring PROPERTY, and of possessing objects of care and industry, are great, unqualified, and unvaried...<sup>32</sup>

While Bernard's comments provided general support for Gandy's position, the theory implicit in both his argument and that of the Society, was the mechanical psychology of association in which experience was seen as, literally, producing its impressions

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30. Ibid., p. vi.

31. Ibid., quoted p. vi, n; The Reports of the Society for Bettering the Condition and Increasing the Comforts of the Poor, vol.III, London, 1802, p.10.

32. Reports, vol.III, p.37.

upon the mind. But once transmitted from the philosopher to the designer this theory changed from the passive to the active voice: it became a programme for social action.

That the practical application of architectural aesthetics for social ends was not just the singular notion of a unique individual was shown when Loudon published similar ideas in the following year:

The influence of good taste and beauty in rural scenery, upon the lower classes, may at first appear unworthy of notice; but a little reflection will convince us of the contrary.<sup>33</sup>

From the context it is clear that by 'rural scenery' Loudon meant both landscape and buildings. For evidence of this 'influence' he compared peasants in barren country, who he said were of poor character, to those in good countryside particularly near gentlemen's seats, who were much cleaner and more elegant of mind.<sup>34</sup>

All these effects belong to objects of taste, and show that it may have influence on even the lowest of mankind. With respect to the tradesman, and all between him and the man of property, or, in common language, the independent, its influence cannot be doubted, in civilising, improving, and refining their manners; in rendering them docile, tractable, and in every respect better members of society.<sup>35</sup>

Loudon's earlier references to Hartley and Alison show that their theories of association and taste were the roots from

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33. Loudon (1806) p. 680.

34. Ibid., pp. 682 f.

35. Ibid., p. 683.

which his argument stemmed.<sup>36</sup>

Loudon and Gandy, with their advanced views, were in a minority, though less philosophical designers continued to give some attention to true cottagers in the following years. W.F. Pocock was an architect eager to help in "promoting the comfort and happiness of those rustic dependants necessary to an extensive Estate",<sup>37</sup> and he included small single and double cottages along with his designs for farmhouses, villas and other structures. And in 1816 Richard Elsam devoted a whole volume to The Condition of the Peasantry, in which he turned to the humbler sort of dwelling (and also to irregularity) and

...ulterior advantages that may be expected by the kingdom at large, and in particular by the landed and agricultural interest uniting to promote the comfort, health, morals, and condition of those useful members of the community; at the same time introducing a more characteristic style of building than at present prevails.<sup>38</sup>

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36. Ibid., pp. 35f. Loudon also referred to works by Lord Kames, to "Faulkener's [sic] Effects of Climate and Country upon Society", and also "Montesque's [sic] Essays" (Country Residences, p. 682), in support of his argument in favour of "objects of taste". Of these, William Falconer's work, published in 1781, was most directly relevant to Loudon's argument. It may have been in Falconer (p. 3) that Loudon found his reference to Montesquieu. The comprehensive title fully explains the scope and intention of the work: W. Falconer, M.D., F.R.S., Remarks on the Influence of Climate, Situation, Nature of Country, Population, Nature of Food, and Way of Life, on the Disposition and Temper, Manners and Behaviour, Intellects, Laws and Customs, Form of Government, and Religion, of Mankind, London, 1781. Falconer felt that the "letters and arts may be presumed to be favourable to morality..." (p. 459), and he devoted pp. 460-80 to the refutation of Rousseau's view that "learning and the arts" are adverse and even destructive to the moral happiness of mankind.

37. Pocock (1807), p. iii.

38. R. Elsam. Hints for Improving the Condition of the Peasantry ...by Promoting Comfort in their Habitations..., London, 1816, "To the Reader".

In a more extended discussion he noted that few of the writers on cottage buildings

have condescended to enter an investigation of the present subject, conceiving perhaps that the most ordinary mechanics are everywhere equal to such undertakings as those at present under consideration...<sup>39</sup>

While this might be true, he suggested that because of the peasants' lack of opportunity for improvement on their style of building "it cannot be expected that their works will be very interesting...".<sup>40</sup> While "luxuriant fancies, capricious conceits, or excursions of refined taste" were not intended, he argued that

...as experience tells us, whatever has a tendency to improve the general appearance of the country has likewise a tendency to improve the general morals, manners and condition of the people. ...the first step towards improving the condition of the peasantry, is to promote their personal comfort...<sup>41</sup>

The connection that Elsam made between "the general appearance of the country" and "general morals [and] manners" was absent from his previous book (1803) and suggests that he had read Loudon or Gandy.

Other authors referred in passing to the social benefit of good design. Robinson, for instance, in Rural Architecture, 1823, describing Design XV, 'A Court of Almshouses with Chapel', suggested that

...an Ornamental Cottage is kept with more care and attention;...the habits of the Cottager himself are thus improved and rendered more pleasing....

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39. Ibid., p.13.

40. Ibid., pp.13f.

41. Ibid., p.14.

In his Designs for Farm Buildings (1830) his aim was exclusively the creation of "a certain degree of interest" in the external appearance of structures whose arrangement had already been well considered by others, but in the "Address" which prefaced his Village Architecture<sup>42</sup> he referred to "a primary step towards improving the condition of the labourer". It was, Robinson thought,

necessary to give him some interest in the land upon which he dwells, or in the cottage which affords him shelter, and where all this can be done at small expense, and the building rendered pleasing, two important objects will certainly be accomplished...<sup>43</sup>

Finally, Waistell, writing not as an architect but as an agriculturalist, had prefixed to his Designs for Agricultural Buildings<sup>44</sup> "An Essay on the Condition of Cottagers" in which he echoed the theme introduced by Kent in 1775:

The great object...in erecting labourers' cottages, (the smallest buildings required for the dwellings of men,) is to make the cottagers more comfortable, and by that means render them healthy, stout, and active, and capable of that hard and continued labour which their pursuits require.<sup>45</sup>

Waistell dismissed aesthetic pretensions, though he did acknowledge that

neatness in his buildings will generally be found to have some influence upon the farmer, inciting him to a correspondent neatness and accuracy in the cultivation of his fields...<sup>46</sup>

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42. also of 1830, and apparently planned with Designs for Farm Buildings as one work.

43. Robinson (1830:2), p. iv.

44. assembled and published posthumously in 1827 by his nephew Joseph Jopling.

45. Waistell (1827), p. 1.

46. Ibid., p. 2.

He decried ornamental structures and decorated farm buildings when gentlemen could build labourers' cottages instead. For the labourers he prescribed "comfortable habitations, nutritious food, and moral instruction..."<sup>47</sup> In general his philosophy seems to have been strictly utilitarian, in the ordinary if not the technical sense, and certainly he used the word 'utility' repeatedly.

Waistell, Robinson, Elsam and most writers on the subject maintained the social value of sound and convenient cottages, with only passing reference to the moral influence of their aesthetic qualities. Visual delight was created, they generally agreed, for the employers not the occupants. Loudon on the other hand continued to express a much more profound view of the potential social influence of design. In his Encyclopaedia of Agriculture, 1825, in a passage consistent with the remarks made earlier in his Country Residences,<sup>48</sup> he showed

...the advantages of enlightening the minds and ameliorating the condition of the operative classes...increasing the comfort and improving the appearance of their cottages and gardens...<sup>49</sup>

and in his remarks on "ornamental cottages for labourers" he brought forward the cottagers' own view:

...these ornamental cottages, as generally constructed, are felt by the occupants to be very uncomfortable habitations, everything being sacrificed by the designer to external appearance.<sup>50</sup>

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47. Ibid., p. 7.

48. discussed above, p. 190.

49. Loudon (1825), p. iv.

50. Ibid., p. 421.

For this reason he concluded that "Utility, therefore, is the main consideration", and while he had earlier applauded the "many elegant designs by Gandy, Robertson, Papworth, and others",<sup>51</sup> he felt that "nothing ought to be considered as ornamental that is at all at variance with this property".<sup>52</sup> In these comments, in addition to his earlier insight into the potential influence of good design, Loudon brought to the subject of cottage design the sympathetic view that Cobbett brought to the lives of the cottagers (and which was generally absent from other writing on the subject). But Loudon, born nearly a generation later, had a clearer sense of the future: he praised general education and accepted and understood the rapidly changing condition of society.<sup>53</sup>

Loudon's views were not echoed in the majority of the early nineteenth century books, devoted, as they were, largely to suburban and country cottages for the middle and upper class. They seem to have been mainly intended to satisfy the pretensions of those who could not afford a country establishment on the aristocratic scale, and therefore had to accept a compromise, either in the form of a modest country villa together with a respectable town-house, or, if two establishments were entirely beyond their means, a suburban villa in a semi-rural setting conveniently close to the city work-place.

The social level for which designs were intended was

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51. Ibid., p. 621.

52. Ibid., p. 421.

53. Loudon (1833), esp. Preface, pp. iii f.



explicitly stated in many cases, and the designs themselves made this abundantly clear. The aim was the economical satisfaction of "the Comforts and Elegancies of Modern Life", as expressed by Busby (1808). T.F. Hunt strictly limited the audience for his designs for Picturesque Domestic Architecture (1825):

...these sketches are not addressed to the poor or the parsimonious, but to those who have the taste to encourage a style which may be said to be indigenous to this soil, and the liberality to make comfortable provision for their dependents. They are neither intended for Paupers' Dwellings nor mere Labourers' Huts.<sup>54</sup>

Hunt's attitude to Paupers and Labourers may not be conclusively demonstrated by this passage, but at any rate he did not consider their dwellings worthy of serious consideration. His intention, he declared, was to illustrate

that the Picturesque in Architecture does not belong exclusively to ruinous and useless hovels, but that it may be produced in newly-erected and comfortable Houses...<sup>55</sup>

Some authors were even more explicit about the class they hoped to accommodate. James Thomson saw his design for a "Grecian Cottage" as "the residence for an active partner in a mercantile house..."<sup>56</sup> and, discussing his "Ionic Villa",<sup>57</sup> he proposed that "...where opulence exists independent of rank and title, the matronly Ionic may be considered as the most legitimate style for a family residence."<sup>58</sup>

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54. Hunt (1825), "Address".

55. Ibid.

56. J. Thomson, Retreats, 1827, Pl. I, and p. 1.

57. Ibid., Pl. XXII-XXIV.

58. Ibid., p. 18. According to Vitruvius (IV, i), Greek colonists in Asia Minor, wishing to build a temple to Diana in a novel and appropriate style, translated the characteristic slenderness of women into the Ionic order.

Thomson's concern with the proper correspondence of style and status in the gentleman's house can only be matched by Vitruvius's concern with decorum, which required the proper matching of a god and the order in which his temple was designed.<sup>59</sup>

Consciousness of the social role of design, utilitarian and aesthetic, increased from the 1830's, in large measure because of Loudon's efforts and those of his successors and followers, among whom Ruskin, who appears in many contexts, must in this context be counted the most influential. Through the same period attention turned as well to the problems of the urban poor, though here also Loudon had been a pioneer.<sup>60</sup> The same utilitarian attitude that marked writing on the rural poor marked the first approach to problems in the cities, though here again there were exceptions.

An example of the most promising approach to urban housing can be drawn from William Bardwell, one of Loudon's supporters, and architect to the Labourer's Friend Society, who in 1854 published Healthy Homes, and How to Make Them. Among many interesting comments on the design and function of the "working man's urban home", he showed an unusual interest in the occupants' own view of the subject.

It is now become pretty well known that, to the larger buildings erected in various parts of the metropolis, the superior artisans and their wives have many serious objections, greatly disliking the species of communism, and the apparent opportunity afforded to numerous parties of unkindly noticing their habits, or prying into their domestic

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59. On Architecture, I, ii, 6.

60. Loudon published a design for a working men's college (or residence) in the Mechanic's Magazine, 1819, vol. xvi.

economy. Their pride also revolts against the barrack-like appearance, or character, of these establishments and they appear to consider themselves more at "home" in the mean little dwellings of the back streets.<sup>61</sup>

The urban problems of later decades lie beyond the scope of this discussion, but Bardwell's comments illustrate one way in which the direction of later thought on the subject of lower-class housing was rooted far back in the Victorian and the preceding period.

### Style

The design of buildings to represent a particular regional or historical style became a feature of architectural practice in the later eighteenth century. This 'representational' design came as a consequence of loss of faith in a unique classical tradition and of the development of the historical and archaeological disciplines which revealed the many alternatives to that tradition.<sup>62</sup> The word 'style' itself had passed into art and architecture from literature in 1706 in the general sense of "the manner in which a work of art is executed".<sup>63</sup> By 1751 it was used to refer to "a definite type of architecture, distinguished by special characteristics of structure or ornamentation",<sup>64</sup> by which time exotic alternatives to renaissance design had become fashionable for ornamental garden structures.

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61. Bardwell (1854), p. 8.

62. The influence of the growth of the idea of history on architecture is discussed by P. Collins, Changing Ideals in Modern Architecture, London, 1965, chap.2.

63. Shorter Oxford English Dictionary, "style", III, 2.

64. Ibid., III, 2, c; 1777 is the date given for this sense but this is clearly too late, see below n. 68.

The rise of alternative styles can be followed clearly in the architectural literature of the period. In 1728, a serious architectural designer and writer, Robert Morris, found it necessary to defend classical architecture against misuse of the stylistic vocabulary and failure to maintain symmetry and correct proportion.<sup>65</sup> By mid-century a much more positive threat to the accepted tradition had appeared. In his last book, published in 1751, while Morris restated the classical principles of architectural design: "proportion...symmetry and harmony",<sup>66</sup> he found it necessary to present designs in a variety of styles "that the Beauties of the Roman Order more forcibly strike the Mind".<sup>67</sup> He included Persian, Gothic, Egyptian and Chinese designs.<sup>68</sup> Batty and Thomas Langley had already published their Gothic Architecture, Improved by Rules and Proportions in 1742, William Halfpenny published Chinese and Gothic Architecture and Rural Architecture in the Gothic Taste in 1752, and Paul Decker and other authors followed with designs in various exotic styles. At this point in the century the use of these styles was purely ornamental, and there was no concern for accuracy and indeed little evidence of accurate observation or real knowledge of the styles. Collections of ornamental designs in fanciful versions of a variety of styles remained popular to the end of the century when

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65. R. Morris, An Essay in Defence of Ancient Architecture..., London, 1728.

66. Morris (1751), p. iii.

67. Ibid., p. iv.

68. Describing plate 15, Morris referred to "the style partly Persian and partly Gothic", which places the use of the word style in this sense in mid-century.

Charles Middleton published The Architect and Builder's Miscellany (1799).

Through the second half of the century a more serious interest was expressed in a series of publications now famous including Stuart and Revett's Antiquities of Athens, 1762 ff., (they issued "Proposals for publishing an Accurate Description of the Antiquities of Athens" in 1748), and Robert Adam's Ruins of the Palace of the Emperor Diocletian at Spalatro (1764) and other works by British and French architects and scholars.

A more accurate knowledge of the architecture of classical antiquity was, of course, entirely consistent with the prevailing architectural tradition and encouraged by the desire of purists like Lord Burlington to correct the deviations of the baroque. At the same time Gothic architecture also began to receive attention, though it was slower to benefit from the publication of accurate engravings than Greek and Roman buildings despite much more accessible examples. On the other hand there was an unbroken tradition of Gothic construction, at least in some parts of England, and it is difficult to decide whether a practising architect like James Essex (1722-84) properly belonged to a surviving medieval tradition in design, or to the first wave of revived Gothic. Essex made accurate measured drawings of King's College Chapel in the mid-eighteenth century, wrote an unpublished "History of Gothic Architecture in England" and worked as a practical designer in the Gothic style. Despite his work and that of antiquaries like Bishop Milner, informed appreciation of medieval architecture became widespread only after 1830, through

the cumulative efforts of the Pugins, Thomas Rickman and other early enthusiasts, and the work of the Camden society in the 1840's.

The development of a 'cottage' style is a convenient focus for the analysis of early nineteenth century architectural theory because it not only brought together the two main lines of eighteenth century development in architectural theory but it also gave rise to two distinct lines of later development. First, following from later eighteenth century aesthetic theory and the picturesque movement, there was the interest in the superficial characteristics of the cottage, its general appearance, the materials from which it was constructed, the asymmetrical or picturesque character of its organization, as well as details of its construction. The emphasis that Uvedale Price placed upon the qualities of cottages as represented in landscape painting led in turn to reproduction of these qualities by cottage designers in search of the picturesque. As Malton and others made clear, the cottage was popular because of the associations it inspired: cosy cheerfulness, comfort and informal hospitality, associations that continue to make the image of the cottage attractive. In addition to the cottage as a symbol there was its essential character as a functional, economical, generally unornamented dwelling whose form and characteristics were derived directly from the available means of construction, simple materials, and the need for utility. Differing emphases placed on these superficial and essential characteristics made possible a wide variety of interpretations of the cottage style.

A more comprehensive analysis of the idea of style in cottage and villa design can be divided into three categories. First there was the growth of the vernacular into a particular representational cottage style. Second, there was the growth of a comprehensive catalogue of styles, all of which could be applied to the design of small houses, and in which the cottage style was just one entry. Along with the development of a range of alternative styles came the suggestion that the styles might be mixed in the same building. Third was the appearance of the idea of no style at all. If any one of a large number of styles could be applied to the same design problem, then it became conceivable that one could dispense entirely with style.

Transformation of the native cottage into the cottage style dwelling began before 1750 and continued until the end of the eighteenth century. It began with the Sanderson Miller's thatched cottage of 1744, which combined thatch with pointed, 'Gothick', windows. From 1765 Walpole encouraged the fashion for humble country retreats with his neat cottage, which had "nothing Gothic about it"<sup>69</sup> but was a real cottage, not originally built as a rich man's plaything. Picturesque theorists in the 1790's looked to the cottage as a component of the landscape they found represented by their favourite painters,<sup>70</sup> while other critics found in the aboriginal timber cottage the prototype for a more rational system of building.<sup>71</sup> Smith's etchings of real English

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69. See above, p. 114.

70. as discussed above, pp. 164 ff.

71. For Laugier's attempt to purify architecture of its irrational accretions by referring to the primitive hut, see above, p. 58.

cottages, published in 1797, turned attention to existing examples, and was a stimulus to Malton, whose Essay on British Cottage Architecture appeared the following year. The rational-analytical and picturesque-associative streams of thought came together at the end of the century, brought into focus by Malton, whose argument connected the visual and functional qualities of cottage dwellings. Malton's designs still betrayed the lack of knowledge of real vernacular architecture: mastery of more realistic detail and its transfer from small cottages to larger middle-class houses was the next stage of development.

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Malton's successors gradually closed the gap between intention and performance in cottage design. An important step was taken by Atkinson, whose Views of Picturesque Cottages (1805) were "selected from a collection of drawings taken from different parts of England, and intended as hints for the improvement of village scenery". He failed to state clearly whether he was simply recording existing structures, but it appears from the general consistency of design (and the plans that he included with the sketches) that the cottages he presented were to some extent his own creations. They retained something of the generalized and abstract quality of Malton's designs.

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Accurate representation was further advanced by Francis Stevens's Views of Cottages and Farm Houses in England and Wales (1815), which were etchings of farm houses and cottage scenery drawn from paintings by famous artists. The cottages were seen only as picturesque objects, but the book provided a useful stimulus and even source of detail for designers. The following year Richard Elsam published cottage designs that were intended



to introduce "a more characteristic style of building than at present prevails",<sup>72</sup> but with other designers of the period he preferred his own interpretation of the rural cottage to literal reproduction. 28

The vocabulary of the cottage style - casement windows, rustic columns, undressed timber beams, rubble stone walls, and thatched roofs - once established was soon applied to higher purposes. Malton's design No. 13 was for a wealthy owner: it included a dining room and withdrawing room, both 20' by 13'6", as well as a study and three bedrooms. The term cottage ornée, or "gentleman's cot", was introduced by Lugar in 1805 to denominate the class of house immediately above the peasant's cottage. 16

These should possess particular neatness, without studied uniformity. The irregularity may be as great as in the peasants', and partake alike of a broken form, which in high degree contributes to the general effect. Deep recesses and bold projections are great assistants, while the play of light and shadow, which they produce, heighten a brilliant and pleasing effect: but, as before noticed, nothing should appear without its use, otherwise what was intended to embellish will only serve to encumber.<sup>73</sup>

The 'villa' he distinguished as being "a more regular kind of building"<sup>74</sup> but by 1828 when Lugar had become a virtuoso cottage designer villas in the cottage style were common, and Lugar included several 'cottage' designs in his volume of Villa Architecture (1828). 38  
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When the publication of cottage and villa designs reached a second peak in the late 1820's the cottage style was well established and a number of designers showed an assured

72. Elsam (1816), "To the Reader".

73. Lugar (1805), pp. 10 f.

74. Ibid., p. 15.

expertise in the handling of vernacular as well as period detail. P. F. Robinson complained in his Rural Architecture of 1823, how- 31  
 ever, that cottages continued to be designed in what seems to have been a continuing Georgian tradition: "the square, spruce brick house, and tiled roof obtrudes itself at every turn, and carries back the ideas of the wanderer to the metropolis and its environs."<sup>75</sup> Consequently he published his designs "with a view to restore a style peculiar to this country...".<sup>76</sup> Design 19 32  
 illustrated the application of the cottage style to a substantial residence, so substantial that he acknowledged that "the term indeed is barely applicable, but to dwellings on a very moderate scale". (His design included a drawing room 19' x 15', eating room 17' x 14', and library, 17' x 12'.) Design 20 he noted was "another specimen of Rural Architecture applied to a residence" and he noted that "the cottage style has been adopted, or rather that perhaps of the ancient manor house, (for it can hardly from its size be denominated a cottage)". This house had a drawing room 17' x 37' plus deep window bays, a billiard room, library, conservatory, and five bedrooms with dressing rooms attached. As Robinson noted the cottage style was hardly appropriate for a building on that scale. The zenith of cottage architecture was probably reached in 1834 when Goodwin published his design for a "Villa in the Cottage Style" which he noted 45  
 would cost £2750 in brick and stucco (with £280 more to be allowed for stone quoins if desired).

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75. Robinson (1823), "Address".

76. Ibid.

The desire for a style with vernacular associations and picturesque appearance that was suitable for larger houses was a major factor in the resurrection of a late medieval domestic style, as Robinson's comment suggests. T. F. Hunt (c.1791-1831) was among the first serious students of Tudor architecture, which he employed in Half a Dozen Hints on Picturesque Domestic Architecture (1825; second edition 1826). His aim was to demonstrate "that the picturesque in architecture does not belong exclusively to ruinous and useless hovels, but that it may be produced in newly erected and comfortable houses!"<sup>77</sup> For these dwellings he chose "the old English domestic style...as admitting greater variety of form and outline, and as being better suited to the scenery of this country than the Greek temple or Italian villa."<sup>78</sup> He employed "old English architecture" again in his Designs for Parsonage Houses, Almshouses, etc. the following year, and in the designs and the text demonstrated his scholarly grasp of the literature and examples of medieval domestic architecture. Hunt's Architettura Campestre, also published in 1827, was a reluctant concession to the current taste for Italian architecture, but in 1830 he crowned his career with Exemplars of Tudor Architecture, Adapted to Modern Habitations. In this volume beautifully drawn designs based upon close observation of actual examples were supplemented by a very full and scholarly text supported by copious citations from the literature of earlier periods. His object was to show the practicability of the

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77. Hunt (1825), "Address".

78. Ibid.

Tudor style for very substantial modern country houses. A less impressive volume by T. H. Clarke, published in 1833, was devoted to Domestic Architecture in the Reigns of Queen Elizabeth and James I and aimed to satisfy the reviving taste for the old English style by providing the descriptions and illustrations of actual examples, though the work was amateurish compared with Hunt's. Francis Goodwin also praised building in England before the seventeenth century and especially its social qualities: "the customs and habits of the people were in character with these structures...our forefathers felt united in their habits of life, what is now understood under the general attributes of the picturesque".<sup>79</sup>

To the styles available to the designer were added not just the cottage and old English styles, but varieties of Greek and Italian as well as the Chinese and what has since been called rococo Gothic, a version distinct from all surviving Gothic. As already noted the idea of a whole range of decorative rococo styles had appeared in the middle of the eighteenth century in the pattern books of Decker and others, and was carried on into the 1790's by Middleton. After the middle of the eighteenth century more eminent architects had begun to dabble in a symmetrical cottage style, seen developed in Soane's thatched cottages of 1793. By the opening of the nineteenth century there was already some variety accepted by the serious designer.

An important contribution to eclectic design was an enlarged appreciation of the architecture of Italy. John Nash,

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79. Goodwin (1835)', vii f.

the epitome of the late Georgian designer who entered upon these labours of others, was fluent in an informal Tuscan style (for example, Cronkhill, around 1802) as well as Gothic, Cottage, and the grander classical styles which he used in his designs for Regent Street and Regent's Park in London. (Some of J. M. Gandy's Designs for Cottages (1805) showed the inspiration of a Tuscan rather like that used by Nash.) The publications of Percier and Fontaine, especially Palais, Maisons, ... à Rome (1798), and Montigny and Famin, l'Architecture Toscane (1806), provided meticulous illustrations of Italian domestic architecture from the later middle ages and the Renaissance which further widened the designer's horizons. In due course G. L. Meason, inspired by Price and Payne Knight, published his illustrations of the Landscape Architecture of the Great Painters of Italy (1828) which broadened (and confused) ideas of Italian architecture to include their sometimes fanciful but strictly 'picturesque' early Renaissance and medieval architecture. His lithographs were intended for the direct inspiration of architects; of one he suggested, "with very little alteration this building might be converted into a sufficiently commodious dwelling".<sup>80</sup> As the definition of 'cottage' widened to include larger houses all these additions to the vocabulary of style had their influence on its design.

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The growing popularity of "the Italian style of architecture" around 1830 was shown in publications by J. G. Jackson

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80. Meason (1828), p. 140, referring to plate 46, from a painting by Claude Lorraine.

(1829), and Robert Wetten, Designs for Villas in the Italian Style of Architecture (1830). Jackson worked in both Grecian and Italian styles, which he described as "most suited to edifices of this class...";<sup>81</sup> the Old English he thought was "more peculiarly adapted to the Mansion than to the light and cheerful features of Villa Architecture".<sup>82</sup> His opinion of the Italian style was echoed by Parker in his Villa Rustica (1832), containing designs based on buildings and scenes in the vicinity of Rome and Florence, particularly the humbler buildings passed over by Percier and Fontaine. Parker quoted Meason's assertion that "we may safely allow the Grecian school the first place in architectural rank, but for domestic application the Italian is decidedly more useful".

The application of these and other styles to cottages was displayed in many publications, but especially in Loudon's Encyclopaedias. In his Encyclopaedia of Agriculture (1825) he presented a world-wide survey of existing agricultural practice drawn from travellers' journals and other sources and discussed farm building not only in Tuscany, Flanders, Poland, Scotland, America, French Guiana, Brazil, Surinam, Tibet, and South America, but also the ancient villa as described by Pliny. In his discussion of contemporary British agriculture he recognized and applauded the many elegant cottage designs by Gandy, Robertson, Papworth and others: "some simple and modern, and others in imitation of the elder styles of building".<sup>83</sup> Other authors added

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81. Jackson (1830), "Address".

82. Ibid.

83. Loudon (1825), p. 621.

to the catalogue. One striking contribution was P. F. Robinson's Swiss Cottage, a style of design which he published in 1827, based upon a tour of Switzerland he made in 1816. (The example he erected in St. John's Wood, London, 1829-32, is still commemorated by the Swiss Cottage Underground Station.) The number of styles applicable to slightly larger houses was even greater. In his Designs for Ornamental Villas (1827), Robinson offered a practically complete range, which included residences in Swiss, Grecian, Palladian, Old English, castellated, ancient manor house, modern Italian, Anglo-Norman, the decorated style of Henry VII's time, Elizabethan, Tuscan and the ancient timber styles.

It is apparent from the cottage and villa books that by the 1830's extensive catalogues of styles could be applied to the design of houses; many of the designers not only knew and understood the details of the styles well, but were highly expert at planning and arranging dwellings and talented and skilful in their presentation. But there also appears at the end of the period a growing inflexibility in the use of the styles. As designers became more assured in the correct handling and representation of a historical or regional way of building, they became more constrained and less inventive.

One byway of the growth of alternative styles was the occasional mixing of styles in the same building. According to Loudon<sup>84</sup> this practice had been introduced by Robert Adam. The "mixed style" was recommended by Richard Payne Knight as the best

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84. Loudon (1806), p. 114.

for irregular and picturesque houses,

for as it is taken from models, which were built piecemeal, during many successive ages; and by different nations, it is distinguished by no particular manner of execution, or class of ornaments; but admits of all promiscuously, from plain wall or buttress, of the roughest masonry, to the most highly wrought Corinthian capital: and, in a style professedly miscellaneous, such contrasts may be employed to heighten the relish of beauty, without disturbing the enjoyment of it by any appearance of deceit or imposture.<sup>85</sup>

The idea does not appear to have been accepted by many architects of the period and it was firmly rejected by Loudon<sup>86</sup> but later (in the 1860's) it appeared one way of escaping the straitjacket that faithful copying of the past began to seem.<sup>87</sup>

In an architecture in which style reigned supreme there also arose the possibility that style could be dispensed with entirely. The austerity of some late Georgian design, which emphasized a lack of decoration and a purity of form in reaction to the richly decorated works of the Adams,<sup>88</sup> was virtually styleless when compared with the richness of style represented in some of the cottage books. The cottage designs of Wood, 1 for instance, retained only the proportions and symmetry of the classic tradition. In addition to the studied simplicity of some Georgian design, the need for economy in smaller houses and

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85. R. P. Knight, An Analytical Inquiry Into the Principles of Taste, second ed., 1805, p. 223.

86. Loudon (1806), p. 114.

87. See J. Summerson, Victorian Architecture, New York, 1970, pp. 8 ff., on Kerr's "Latitudinarian" category.

88. A reaction expressed by Peacock (1785), e.g. p. 73 and passim, "in the exterior of these little buildings, a correct and chaste simplicity seem[s] characteristically proper..." Ibid.



especially in agricultural cottages also promoted simplification of building form and the absence of decoration, in both irregular and regular designs. The abstract qualities of Georgian design combined with picturesque principles and the economical simplicity of the agricultural worker's cottage culminated in the designs of J.M. Gandy where absence of stylistic detail became a positive attraction. Gandy's designs give the most striking instances of this pre-Victorian abstraction, but examples can be found in the works of other architects from the same period, for instance a small house by Richard Elsam (1803: plate 17), and some of Edmund Aikin's designs (1808: plates 1, 14, 15). These qualities can also be found in some of the strictly utilitarian designs published in Communications to the Board of Agriculture (vol.I, 1797).

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The very freedom to propose alternative styles for the same design that some of these designers felt (for instance, Elsam's medieval alternative for the classical villa he designed for J. Pettyward, 1803, plates 22-25) also proved an approach to design with no style represented at all. Loudon, in his Cottage...Architecture, illustrated alternative treatments for various designs, including the complete absence of style.

Design XVI, "a dwelling for a man and his wife without children", attributed to Henry Thompson of Liverpool, was shown first as the basic minimal cottage with no stylistic decorations, and then extended and decorated in a variety of styles as the owner

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desired and could afford.<sup>89</sup>

As seen in the designs for cottages in the early nineteenth century the growth of the idea of style involved the acceptance of vernacular construction as an inspiration for architectural design, the growth of a wide catalogue of representational styles and the acceptance of the occasional mixing of styles, and finally, the appearance of the alternative of no style: the styleless building.<sup>90</sup> Representational style was isolated as a super-added element which could be used to create certain associations and picturesque effects but which was not essential to satisfactory design. This applied particularly to the cottage, less so to the larger villa for which richness of style was still considered necessary for propriety.

From pre-Victorian cottage theory there emerged two stylistic ideas of great future importance. One was the idea of an austere unornamented functional approach to design in which beauty was almost entirely abstract, not an approach that proved appealing to the Victorian public. The other was the stylistic archetype of the cottage, based on vernacular prototypes, with high-pitched roof, sheltering eaves, casement windows and an irregular plan laid out primarily for convenience, an approach

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89. Loudon (1833), pp. 65-68. On this occasion Loudon approved the mixing of styles: "the builder...will be justified by historical truth, as well as by the natural love of mankind for variety of character, in building two different additions, at different times, in different styles, or substyles of architecture." (p. 67)

90. Summerson suggests that "Ruskin pointed to no style", in the 1850's. Summerson, Victorian Architecture, p. 9.

of enduring popularity. Both became major themes in the design of twentieth century housing.

## 8. Architectural Theory 1790-1835

The most progressive aspects of pre-Victorian theory were summarized in Loudon's "Principles of Criticism" published in 1833.<sup>1</sup> By 1850 these ideas began to appear a passing aberration as the older tradition regained its dominant position. Together with the Gothic of the ecclesiologists, an emasculated version of classical theory as represented by Chambers's Civil Architecture almost completely overshadowed the position Loudon held. It is indicative that Loudon promoted through the pages of his Cottage...Architecture and Architectural Magazine the early designs of E. B. Lamb, who was later to be tagged one of the 'rogues' of the Victorian era: "men who...were continuously in disaccord with the conventions of their time..."<sup>2</sup> The free approach to design that Loudon prescribed and Lamb practised was by the 1860's far from acceptable.<sup>3</sup>

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The resurgence after 1835 of what had been the mainstream

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1. J. C. Loudon, Encyclopaedia of Cottage...Architecture, Book IV, "Principles of Criticism in Architecture", pp.
  2. H. S. Goodhart Rendel, "Rogue Architects of the Victorian Era", Journal of the Royal Institute of British Architects, April, 1949, p. 251.
  3. J. Summerson, Victorian Architecture, New York, 1970, pp. 74 f.

of design theory before 1790 was foreshadowed in some statements of general architectural theory. The change in mood seems to have come after 1815 and is clearly represented in the writings of James Elmes and Joseph Gwilt, two of the most prolific writers on architecture of the period.

Between 1790 and 1815, architectural theory was dominated by the aesthetics of Alison and his predecessors and the picturesque theory of Price and Payne Knight. None of their works constituted comprehensive architectural theories as such, because they dealt principally with the external appearances of buildings, in relation to their setting, and disregarded the problems of construction. Architectural theory formed on the basis of their ideas was largely recorded in the books of cottage and villa designs and discussed above, but there were other sources of interest.

Joseph Woods (1776-1864) presented papers to the London Architectural Society on "The Situations and Arrangements of Villas" (1807)<sup>4</sup> and "Modern Theories of Taste" (1808).<sup>5</sup> In the first he made clear both his debt to Price and Payne Knight and his interest in the cottage style villa, while in the second - a lengthy paper of 117 pages - he discussed the ideas of Hogarth, Burke, Alison, Reynolds, Gilpin, Price and Payne Knight. Uvedale Price he recognized as "the great hero of the picturesque",<sup>6</sup> and clearly he was most sympathetic to the ideas of Price and Payne

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4. Essays of the London Architectural Society, London, 1808.

5. Essays of the London Architectural Society, Part II, London, 1810.

6. Ibid., p. 52.

Knight. He dissented, however, from "the decided preference that both authors certainly give to irregular edifices".<sup>7</sup> Irregularity was, he recognized, desirable in many circumstances, but he felt it necessary to maintain also "that the regular structure ...is not necessarily the least beautiful."<sup>8</sup> Woods's attempt to combine classical and picturesque ideas was typical of the period. He later wrote,

The uneducated man judges by his feelings, the half educated by rule. He who is thoroughly master of the subject returns again to his feelings, but to feelings trained and purified by study and reflection...".<sup>9</sup>

An interesting and unconventional discussion of architectural principles was published in the following year by William Mitford (1744-1827) in the form of "A series of letters to a friend".<sup>10</sup> Mitford was a landed gentleman and historian with antiquarian interests whose great work was his History of Greece (5 vols., 1790-1808). He studied at Cheam under William Gilpin who may have inspired his aesthetic interests. Mitford also described architecture in terms that unified classical and picturesque. His subtlety is most obvious in his comments on an ancient topic. "Utility," he said, was "the foundation of design in all architecture",<sup>11</sup> and the satisfaction of utility the subject of his first class of principles. "Gratification of

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7. Ibid., p. 74.

8. Ibid., p. 79.

9. J. Woods, Letters of an Architect, from France, Italy, and Greece, 2 vols., London, 1828, vol. I, p. v.

10. William Mitford, Principles of Design in Architecture, London, 1809.

11. Ibid., Letter I.

the mind through the eye" was "the object of a second class of principles of design in architecture". The problem dealt with here was the satisfactory connection of the "useful with the beautiful and the picturesque".<sup>12</sup> Considering the nature of this connection Mitford was acute enough to see that

though the semblance of fitness for use may be an essential quality, yet gratification of the mind through the eye, and not real use, is the substantial object.<sup>13</sup>

This distinction between the "semblance of fitness" and "real use" was one that escaped and continues to escape many professional designers. The appearance of fitness in architecture required a proper respect for the significance of the forms used; "nonsense in architecture is principally observable in the misapplication of forms, invented for use, where they are strikingly useless intruders". He referred, for instance, to the use of pediments as decorative elements on the long sides of buildings.<sup>14</sup>

In the theoretical works published before the end of the Napoleonic wars in 1815 the compromise between the classical tradition and the picturesque school is less well balanced. James Milne<sup>15</sup> in his Elements of Architecture (1812) considered the theories of Hutchison, Burke, Alison and Stewart concerning beauty and came down on the side of the Scottish School of

12. Ibid., Letter II, p. 8.

13. Ibid., p. 13.

14. Ibid., p. 256. Compare Laugier, who placed this first in his list of improper uses of the pediment. Laugier, Essai, 1755, p. 35.

15. Not much is known about Milne. He submitted a design for the completion of the college building in Edinburgh, 1816, and was apparently active as a developer in Edinburgh in 1825, according to A. J. Youngson, The Making of Classical Edinburgh, Edinburgh, 1967, pp. 194, 216.

philosophers who felt that 'common sense' required its objective existence.<sup>16</sup> Milne's own conclusion was that judgement of objects and buildings depended entirely on relations between their parts, a principle which he expanded to embrace so many diverse aspects of architecture that in the end it explained nothing. As might have been expected from an Edinburgh architect of the time, his prejudices were in favour of the architecture of Greece and Rome; Gothic he thought too confusing in its multiplicity of small parts and lack of governing proportions, to do other than "to distract and perplex the mind".<sup>17</sup>

A more generous and balanced view of Gothic was one feature of Sir John Soane's approach to architecture; another was rationalist criticism of Mitford's sort, as appears from Soane's lectures, delivered to students of the Royal Academy between 1809 and 1836.<sup>18</sup> In both design and theory he was the most eminent representative of the theory that Loudon espoused. Discussing the interior use of pediments for decoration, he ruled that "no example, however respectable, can justify the adoption of that which is repugnant to common sense and to...first principles."<sup>19</sup> Referring to Perrault for support, Soane rejected the idea of fixed proportions: "taste, good sense, and sound judgement, must

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16. James Milne, The Elements of Architecture, Edinburgh, 1812, vol.I, pp.195 ff. (a projected second volume containing "Specimens of Grecian and Roman architecture", vol.I, p. viii, does not appear to have been published).

17. Ibid., p. 209.

18. Sir John Soane, Lectures on Architecture, ed. A. T. Bolton, London, 1929.

19. Ibid., p. 66.



direct the mind of the architect".<sup>20</sup> As this comment suggests Soane attempted the reconciliation of conflicting principles in the same way that he drew inspiration from both the Gothic and classical styles. The introduction of the Gothic system he considered "an epoch, or a revolution in architecture". Many of the great English cathedrals he thought showed "true Sublimity" and produced "as it were irresistibly, sentiments of the most elevated description".<sup>21</sup> In the same series of lectures he referred to "the magical effect produced by the Sublime Works of the Ancients". The corresponding breadth of sympathy in his theory meant the recognition of both subjective and objective beauties: "beauty is either intrinsic, relative, or compounded of both".<sup>22</sup>

After 1815, though Soane continued to produce original and inventive work for the Bank of England, singularly free of stylistic references, the general movement of architectural design was towards the literal rendering of historical styles. There developed an increasing emphasis upon a renewal of the classical tradition by its partisans, without reference to Gothic architecture, while Gothic was at the same time becoming the subject of more sophisticated antiquarian research and the object of equally fierce loyalty. The earlier, clear separation between principles of design and rendering of a style began to give way to an obsession with style that denied the possibility of

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20. Ibid., Lecture VI, first given 1812, p.100.

21. Ibid., Lecture V, p.81.

22. Ibid., Lecture VII, first delivered 1815, p.113.

independent principles. The reconciliation, or at least the combination, of both classical and picturesque (or empirical) principles in one comprehensive statement of architectural principles became less acceptable as style became predominant in design. James Elmes makes this clear in lectures that he published in 1821.<sup>23</sup> The basis of architecture Elmes thought was imitation, by which he meant not literal copying "BUT, that bold pursuit of a sublime original, by parallel images and examples".<sup>24</sup> His emphasis on originality was vitiated by his equally strong commitment to the Greek style. Gothic he saw as an important heresy rather than the source of a tradition of independent value.

As the emphasis upon true style and the recovery of a particular tradition grew, the interest in association as the principle which governed personal response to architecture further declined. Peter Legh, later an Honorary Fellow of the Institute of British Architects, based his essays on architectural principles<sup>25</sup> on the first three chapters of Vitruvius and, while he referred to the eighteenth century writers on taste and beauty from Addison to Payne Knight, his own view was that

we must avoid considering the principle of the association of ideas as being of any use to us in this subject; for though we might trace it to that source, it would be dangerous to build on, as a principle.<sup>26</sup>

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23. James Elmes, Lectures on Architecture, London, 1821.

24. Ibid., p. 77.

25. P. Legh, The Music of the Eye; or, Essays on the Principles of the Beauty and Perfection of Architecture..., London, 1831.

26. Ibid., p. 196.

Legh reverted to Locke's position a century and a half before, that association was the source of only erroneous and misleading ideas.

Accompanying the commitment to classical design common to both Elmes and Legh was the idea that the practice of architecture was an elevated and intellectual subject, whose study should be restricted to the upper levels of society. Elmes asserted that in Greece architecture was held in such esteem "that none but the well-born were allowed to study it",<sup>27</sup> and Legh revealed that one of his objects was to show that "Architecture is not within the reach of every illiterate mechanic, but that it opens a field to enlarged intellect, and deep research".<sup>28</sup> Both Legh and Elmes, in supporting the classical and objective stream of theory, associated it with the attitude that the practice and enjoyment of architecture was not and should not be open to the great mass of society.

Among the most prolific of pre-Victorian architectural writers was Joseph Gwilt (1784-1863). Gwilt, an architect's son and active as a surveyor to a number of London companies, is best remembered for his many publications, which included a new edition of Chambers's Civil Architecture (1825), and a translation of Vitruvius (1826). His approach to architectural theory was set out in an essay on "Beauty in Grecian Architecture" prefixed to his edition of Chambers's Civil Architecture, and repeated and elaborated in his later publications. Gwilt's

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27. Elmes, Lectures, p. 22.

28. Legh, The Music of the Eye, p. viii.

emphasis in all his writings upon the importance of proportion to architecture was firmly in the classical tradition, but as a consequence of his studies of Greek architecture he rejected the idea that proportions should follow rigid rules. Accurate knowledge of a number of Greek monuments showed him that in fact the proportions of the same order varied from building to building which proved that the Greeks did not design by rule.<sup>29</sup>

Nonetheless rules of proportion were necessary, Gwilt thought, "to preserve uniformity in the principles on which we proceed, and for preventing too great a latitude of imagination in the productions of art."<sup>30</sup>

One of the consequences of the detailed knowledge of ancient architecture on which Gwilt based his observations was a new pragmatism in architectural theory, which directed the architect to study successful examples of his art:

The object of an artist's inquiry is not so much to investigate metaphysically the causes of beauty in the productions of his art, as to study the effects that flow from those which, by the common consent of ages, are esteemed beautiful....<sup>31</sup>

Consequently Gwilt was able to bypass the conclusions of the eighteenth century writers on taste. Though he acknowledged the influence of association and quoted Alison to show that a response to buildings in ancient styles depended on their connection with "times and countries which are most hallowed in our

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29. As Gwilt showed in a table (Chambers, Civil Architecture, ed. Leeds, 1862, p. 35).

30. Ibid.

31. Ibid., p. 12.

imagination",<sup>32</sup> he drew no conclusions from this for the practice of design. In a later discussion of utility and economy he further exposed his prejudice in favour of the classical as opposed to the medieval tradition. He argued that

edifices in which the greatest symmetry exists, are invariably of the least cost. And hence also simplicity and regularity in the general plan and its parts, are always conducive to economy.<sup>33</sup>

When Gwilt returned to the subject of beauty in 1837 he advanced the notion that proportion in architecture was a matter of gravitational stability which required forms balanced about a vertical axis and preferably with the weight distributed horizontally. For this reason the form of the classical pediment was to be preferred to the tall and slender Gothic spire.<sup>34</sup> He concluded finally that beauty was

dependent on the AGREEABLE PROPORTIONS between the several parts of the same object, and on the proportions between each part and that object as a whole,<sup>35</sup>

a phrase which could have been taken directly from Vitruvius's definition of symmetry.<sup>36</sup>

It seems that as the initial influence of the ideas of the eighteenth century philosophers and writers on the picturesque

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32. Ibid.; Alison, On Taste, vol.II, p.157.

33. Joseph Gwilt, Rudiments of Architecture, London, 1826, p.6; for support Gwilt referred to J.N.L. Durand, Précis des Leçons. Loudon (1833) referred to this passage in Gwilt, pp.l111 f.

34. Joseph Gwilt, Elements of Architectural Criticism, London, 1837, p.2; he repeated this argument in his Encyclopaedia of Architecture, London, 1842, Section 2492, p.673 and passim.

35. Gwilt, Elements, p.3.

36. I, ii, 4.

waned after about 1815 the classical tradition rose again as the one ancient, comprehensive, and convincing view of architecture. Some revision was necessary to take account of new knowledge, for instance of the varying proportions used in antiquity and of the details of 'the styles', but the principles that had emerged after 1790 in the field of small house design, especially irregularity for convenience as well as picturesque effect, and the economy or complete absence of stylistic detail, were ignored by most writers in favour of symmetry, proportion, and an accurate knowledge of the order.

The outstanding exception to this trend was J. C. Loudon. Loudon's views on architecture were formed not only on extensive practical experience of the subject as a "picturesque improver" of the landscape and, on occasion, as a practical architectural designer, but also as a publisher and critic of architecture, who had a comprehensive acquaintance with the literature of the subject. He was an indefatigable worker, and not only wrote and published incessantly, but seems to have read voraciously, so that he was able to refer the reader of the Encyclopaedia of Cottage...Architecture to all the major European architectural studies of his own time, and himself referred to many of the slighter productions as well.

Faithful to the picturesque, to the cottage and to his international public, Loudon published his great compendium of cottage and villa design in 1833, and in it included his comprehensive statement of architectural principles. Loudon was nothing if not eclectic; he collected and assembled the best ideas

he encountered to create his own theory. Though his own outlook had been shaped by the influence of Alison and Price, he was able to make use of the leading principles of classical design and even to quote Gwilt on the economic advantages of symmetrical designs.

In his Encyclopaedia Loudon appeared as a great educator rather than a designer. His intention, as he outlined it in the preface, was

to prepare the way for rendering general a knowledge of Domestic Architecture; for the immediate purpose of increasing the comforts of the great mass of society; and for the more remote objects of improving the knowledge and the taste of the public in Architecture, and of inducing Architects to study their art on general principles, and on a theory formed on the nature of the human mind, and on the changing condition of society, rather than on the precedents and rules of former ages, or any hypothesis whatever.<sup>37</sup>

It was Loudon's interest in society and his desire "to improve the dwellings of the great mass of society"<sup>38</sup> that led him to plan and publish the Encyclopaedia as an educational work. It dealt first, he explained, with actual designs which were analyzed and criticized, so that he could develop "as it were, incidentally, and by little and little, all the principles of architecture". Consequently he reserved his "Principles of Architectural Criticism" for Book IV, at the end of the second volume following the discussion of the practical examples.

The education of the public in the principles of architecture was, he felt, necessary for the improvement and general

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37. J. C. Loudon, Encyclopaedia of Cottage, Farm and Villa Architecture and Furniture, 2 vols., London, 1833, p. vi.

38. Ibid., p. 1.

diffusion of the benefits of the art.

The efforts of Architects, in all ages and countries, have hitherto been, for the most part, directed to public buildings, and to the mansions of princes, noblemen, and men of wealth; and what have hitherto been considered the inferior orders of society, have been, for the most part, left to become their own architects.... The great object of this work is, to show how the dwellings of the whole mass of society may be equalized in point of all essential comforts, conveniences, and beauties.

The egalitarian note was sounded even more clearly in a later

Supplement (1842) in which Loudon noted that,

formerly, the doctrine used to be, that the dwelling of the cottager ought to be low, in order to be expressive of humility; and...the poverty of the inhabitant. But the cottager is now become a reading and thinking being.... The time has gone by for one class of society to endeavour to mark another with any badge whatever...<sup>39</sup>

Loudon believed that the consequence of a general improvement in architecture throughout society would be not merely material improvement, but a general moral improvement. This idea he had already expressed in his Country Residences (1806). In the Encyclopaedia he referred in support of the idea to comments on the rebuilding of a New England town by Dr. Dwight, an eminent American, at one time president of Yale College:

There is a kind of symmetry in the thoughts, feelings, and efforts of the human mind. Its taste, intelligence, affections, and conduct, are so intimately related, that no preconception can prevent them from being mutually causes and effects. The first thing powerfully operated on, and, in its turn, proportionally operative, is the taste. The perception of beauty and deformity, of refinement and grossness, of decency and vulgarity, of propriety and indecorum, is the first thing which influences man to attempt an escape from a grovelling, brutish character....<sup>40</sup>

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39. J.C. Loudon, First Additional Supplement to Loudon's Encyclopaedia of Cottage...Architecture, London, 1842, p.1193.

40. Ibid., Introduction, p.3; T.Dwight, Travels in New-England and New-York, 4 vols., London, 1823, vol.2, p.473.



Dwight's later reference to "that association of ideas, which is so prominent a characteristic of the human mind"<sup>41</sup> suggests his agreement with the British philosophers who provided the foundation for Loudon's argument.

The abstract principles developed in the body of the Encyclopaedia and brought together and expounded in Book IV dealt with all aspects of architectural design on the twin supports of utility and subjective aesthetics. On that basis, first of all, Loudon rejected the view that a knowledge of the rules and orders of the classical tradition constituted an adequate basis for architectural design. Something much more fundamental was required, he thought, and he presented as his principles, "fitness for the end in view", "expression of the end in view" and "expression of some particular Architectural style". He noted that

those beauties or effects which are the result of the first and second principles, are in their nature permanent; those which are the result of the third principle, are in their nature temporary and accidental.<sup>42</sup>

The principle of fitness, as outlined by Loudon, embraced not only the convenient arrangement of the plan, but also the strength of the construction and the economy of the design, that is, it included both firmitas and utilitas. Loudon's interest in the practical details of architectural design was exhaustive, and throughout he revealed his enthusiasm for any improvement in the practical aspects of building.

Loudon's elevation of "the expression of the end in view" into a fundamental principle of architecture was an important

41. Ibid., vol.2, p.416.

42. Loudon, Encyclopaedia of Cottage...Architecture, p.4.

step which, while it looked backward to the rationalist theorists of the eighteenth century, made explicit a principle that was treated as novel in the twentieth century: "Every building should appear to be what it is, and every part of an edifice ought to indicate externally its particular use."<sup>43</sup>

"Expression of the end in view" included not just expression of the purpose for which the building as a whole was designed, but also of the means and adequacy of the construction of the building. As a consequence, criticism, as Loudon emphasized, could only be made by an adequately informed observer. The critic had to understand both the requirements peculiar to the type of building examined, and also the nature of the construction employed. The beauties proceeding from utility and its expression were therefore not universally accessible: they inevitably lacked wide appeal. They were however 'essential' beauties in a building.

"The Expression of Architectural Style" was not an 'essential' beauty in a building. It could be "useful, strong, and durable, both in reality, and in expression, without having any other beauties than those of use and truth".<sup>44</sup> But architecture, according to Loudon, as an art of taste could go beyond the appeal to reason and appeal to both reason and the imagination jointly. To explain this appeal he divided the beauty of architecture into two categories which, he said, arose from two causes. One was the beauty of the abstract form of a building,

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43. Ibid., p. 1112.

44. Ibid., p. 1114.

and the second the beauty of a particular historical style:

The first kind of beauty is altogether independent of any style of Architecture which has hitherto existed, or which may hereafter exist; its effect resulting entirely from organic impressions, and associations of a general nature: the second depends on the addition, to the first class of beauties, of the associations connected with the known forms and details of the different styles of Architecture hitherto in use, or which may hereafter come into use, in this and in other countries.<sup>45</sup>

The "universal and inherent" beauties of architecture included all those abstract qualities of form which had been dealt with by past theorists both classical and picturesque from unity and variety to order, propriety, proportion and character and novelty. Loudon suggested that the list might be further extended to include all the qualities applicable to man's mind itself. Loudon accepted Alison's subjective explanations of the response to form, and it was Alison's interpretation of proportion as associated with stability to which he referred. He firmly rejected any suggestion that there were rules of proportion that could be applied with equal validity, for instance, "to supports of timber, stone, and iron", except as the result of habit.

The idea of certain proportions of columns, and of inter-columniations, possessing absolute beauty in themselves, without relation to the associations connected with them, appears to us a species of architectural bigotry altogether unworthy of an enlightened mind.<sup>46</sup>

Loudon did refer to Sir William Chambers's comments on the acceptable range of proportions for rooms, and commented that

though it is always a mark of a narrow mind to judge of any work solely by reference to rules; yet it is well to

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45. Ibid.

46. Ibid., p. 1117.

know the limits within which an Architect supposes himself to be confined, in so important a matter...<sup>47</sup>

The beauties of the particular historical and geographical styles of architecture were more generally recognized than the beauty of abstract form, But Loudon emphasized that use of the known styles was subsidiary to, and dependent upon, the abstract principles of composition already discussed. A generally satisfactory and even beautiful building could be designed without resort to the literal representation of the particular style, but, as Loudon put it,

By the Employment of Style in an Edifice, the Architect takes immediate possession of the prejudices of mankind. He gains a positive beauty at once by the mere exhibition of style; because thousands of spectators in Europe and America, for example, have some crude ideas of what is Grecian and what is Gothic, while comparatively few understand what constitutes a whole in mere combinations of form. Style, therefore, ought never to be neglected by Architects who wish to gain general applause.<sup>48</sup>

The essential point, wholly consistent with Loudon's desire to bring architecture to the great mass of society, was the immediate and sympathetic response from the general public which the architect gained by the use of a style.

Loudon's educational aims were in response to the general lack of formal architectural training available in Britain. Of the theorists discussed above only Soane had any official responsibility for teaching. As Professor of Architecture at the Royal Academy he held the only such post in the country, but his entire teaching commitment consisted only of six lectures to be delivered each year. Of the four architects who held the post

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47. Ibid., p. 1118.

48. Ibid., p. 1122.

between the years 1790 and 1835: Thomas Sandby, George Dance, Sir John Soane, and William Wilkins, only Sandby and Soane lectured, and neither Sandby's nor Soane's lectures were published in their own lifetimes. Architectural education in Britain remained a matter of pupilage with its emphasis on the practical and executive side of architecture, supplemented by some private instruction in such arts as draughtsmanship and geometry.

In this Britain compared unfavourably with France, as both architects and students began to complain. The French system, which began with the Academy of Architecture founded in 1671, had only been temporarily interrupted by the years of revolution. The large body of theoretical writing in French which dated back to the work of Perrault and Blondel in the 17th century included highly influential treatises <sup>and other writings</sup> of the late 18th and early 19th centuries by Quatremère de Quincy, Durand and Rondelet. These men represented a sophisticated expertise in both construction and style that was increasingly admired in Britain. The British theorists quoted here, Elmes, Loudon and Gwilt, all referred extensively to the French writers, and their influence was an important factor in promoting classical theory in Britain. This contributed to the increasing division between the adherents of Gothic as the national style and those who felt that the future of architecture lay with an international system based upon the classical tradition.

It may be that the strength of British theory before 1835 was a result of a precarious marriage between the insights of amateurs of the art and those of the practically trained

professionals. In the eighteenth century when amateurs were still able to speak with authority about architecture British philosophers dominated the European intellectual scene. As architecture in the nineteenth century became an increasingly complex and technical art the further development of theory required the dedicated efforts of architecturally educated scholars. There was no educational establishment to support such figures in Britain. The consequent failure to build on the principles first enunciated before 1835 seems to have contributed to the architectural confusion and disillusion that developed in the 1860's.

Partly as a consequence of the lack of an official architectural establishment the course of theory between 1790 and 1835 is complex and the following outline can tend only to oversimplify its development. Nonetheless the evidence discussed in the previous chapters suggests that it be divided into these phases.

Before 1790: Classical theory was still dominant though somewhat shaken by the influence of empirical aesthetics as was shown by the writings of Sir Joshua Reynolds and William Chambers.<sup>49</sup>

1790-1805: Under the influence of association theory the picturesque was formulated as a coherent doctrine. Assimilated to architecture by practical designers, association and the picturesque became incorporated in a body of theory that recognized the virtues of certain qualities found particularly in vernacular architecture. These were the aesthetic and utilitarian

<sup>49</sup>. See above, chapter 3.

advantages of irregular planning, the aesthetic and economical advantages of the use of simple, local materials and the sparing use ( or complete absence) of ornament. The building was no longer conceived as an isolated object. It was now seen in a temporal and spatial context that required the recognition of change and decay over time. Alteration and extension of a house were recognized as part of its proper use and accordingly open rather than closed forms were adopted for its design.<sup>50</sup>

1805-1815: There is some evidence in this period of reconciliation of classical and picturesque theory beginning with Gandy's writing. Both static and dynamic, open and closed, aspects of design were taken into account. At the same time there was an increasing awareness of the social role played by design and some attempt to relate it to the aesthetic qualities of buildings.

1815-1835: After 1815 a more traditional view of architecture regained prominence as continental influence was renewed. At the same time there was a growing emphasis on the literal rendering in design of particular styles, and an increasing split between what were called 'architectural' and 'picturesque' qualities.

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50. Robert Adam had introduced the quality of 'movement' as a principle of visual design; now a much more radical conception of movement in design became the basis for a dynamic theory of architecture. This could be considered a further development from the breakdown of the Baroque system described by Kaufmann, Architecture in the Age of Reason, pp. 624, 109. The idea of change as an aspect of design has been carried much further in recent years; see for example P. Cowan, "Studies in the growth, change and ageing of buildings", Transactions of the Bartlett Society, 1962-63, pp. 54-84.

British theory as it existed in 1835 combined significant strengths and weaknesses which may be summarized briefly as follows: (a) a new freedom in planning to satisfy the requirements of convenience,<sup>51</sup> economy, and appearance, (b) a recognition through the influence of association theory of the building's psychological influence both on the individual and through the individual on society generally, and (c) following both from association theory and from the classical tradition an acceptance of a full range of aesthetic qualities in the building including both the objective qualities of abstract form and the associations created by particular styles. Evident also in the architectural theory of the 1830's were the following weaknesses: (d) undermining (b) above was a strong and growing tendency to use architectural design to express the divisions between social classes, and (e) a defensive approach to professional organization in the face of the class system and competition from other professional groups that led to an overconcern with status which contributed to (f) an increasingly rigid attitude to style as the one area of design in which the architect had a unique interest and expertise.

Finally, it must be noted that the design of small houses and especially cottages had a unique influence on the development of architectural thought in this period, because they were the buildings most directly affected by movements in thought and

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51. A Prussian traveller, Factory Commissioner J. G. May, noted in 1814 that "even English dwelling houses are built with a view to practical convenience inside although this may involve having an aesthetically unsatisfactory exterior." W.O.Henderson, Industrial Britain under the Regency, London, 1968, p. 163.



society at the end of the eighteenth century. The landscape movement which valued the vernacular qualities of cottage building, agricultural improvement which directed attention to the utilitarian importance of cottages and emphasized economical and functional qualities in their design, the social aspirations of the middle class, who found in the cottage a symbol of the rural life of the eighteenth century, and the social problems connected with the movement and growth of the working class, all were reflected in cottage design.

III Victorian and Modern Theory

## 9. Continuity and Change in Victorian Theory

In the 1830's the effect on traditional institutions of industrialization and urbanization, latent in the previous decades, became manifest. The architectural principles enunciated by Loudon in 1833 concluded a period of theoretical development based on eighteenth century thought and set in a stable social frame of aristocratic patronage and paternal concern. In the following Victorian years aesthetic debate was overshadowed by social and political unrest: urbanization, unions, chartism, industrial and imperial expansion, all drew attention and energy away from the finer points of taste. Architectural criticism adopted a sharper tone, took its cue from the urgent movement of ideas in more vital fields, and moved to the attack. The inclusive, comprehensive and tolerant tone of Loudon's socially oriented and flexible approach to design gave way to the pursuit of particular themes, technical, social, aesthetic or stylistic, at the expense of the others, carried out all too often in a spirit of bitter partisan antagonism.

Despite these radical changes continuity in architectural theory also existed through the Victorian decades. Connections between pre-Victorian theory and the end of the century movements

that led directly to the emergence of 'modern' architecture can be traced in the ideas of major architects and critics of the period. The most important of these, John Ruskin, provides a bridge between the ideas expressed by Loudon and the functionally planned and almost styleless house design that so impressed foreign observers of British architecture in the 1890's. Ruskin's opinions reveal the changes that came with the Victorian age and the contradictions and inconsistencies of much of its architectural thought on such questions as style, new materials, and especially the importance for society of good design. Continuity and change in ideas through the century are evident also in the writings of A.W.N. Pugin in the early Victorian years, James Fergusson after mid-century, and in William Morris's writings from the 1880's and 90's. These four writers represent the range of advanced Victorian thought on architecture, from a faith in technical progress alone to a belief in the necessity for radical social change. The setting for their ideas was created at the beginning of the period, in the turmoil that preceded the middle of the century.

The importance of the changes that occurred in the 1830's and the early 40's may be suggested by a number of significant events. Of wide social significance (and great long-term importance to architecture) was the gradual move towards representative government marked by the First Reform Act of 1832. Even more immediately important were the investigations of Southwood Smith, Kay, Chadwick and other reformers that brought the acceptance of some public responsibility for health and welfare. The

conflicts of outlook and interest between the middle-class reformers and the radical working-class groups was symbolised by the contrast between the harsh utilitarian rationalism of Chadwick's Poor Law Report (1834), with its manipulative approach to welfare, and the working-class ambitions for effective political power expressed in the People's Charter (1838). Growing concern with the importance of design for industry and the economic progress of the country resulted in the formation of a Select Committee on "The Art and the Principles of Design", in 1835, and the subsequent establishment of government schools of design in 1837 and 1841. Another consequence was the foundation in 1838 of the Society for Promoting Practical Design, and Diffusing a Knowledge and Love of the Arts among the People. New institutions of the 1830's and early 40's which directly affected the practice of architecture included the formation of the Institute of British Architects in 1834, the establishment of chairs of architecture at University and King's Colleges in London, 1841, the foundation of the Architectural Association in 1842, and the beginning of effective architectural journalism first with the appearance of Loudon's Architectural Magazine in 1834 and then The Builder in 1843. The fierce tone of subsequent architectural criticism and the battle between the Gothic and classical styles was to a considerable extent a result of the attitude toward religious architecture promoted by the Oxford Movement from 1833. Finally, direct contributions to architectural theory that were influential through the rest of the century came in Pugin's Contrasts, published in 1836, and Ruskin's

essays on "The Poetry of Architecture", published in 1837 and 1838, and his subsequent writings, particularly the Seven Lamps of Architecture (1849), and the Stones of Venice (1851-3).

The essential key to the difficult and controversial development of architectural ideas after the 1830's lies in attitudes to social change. The gulf between many of the middle-class reformers and the leaders of the working class expressed in many cases the contrast between a static and a dynamic view of society. The social criticism of writers like Coleridge and Carlyle was compromised by its retrospective cast. Both held out as an ideal an ordered society of fixed classes in a stable hierarchy which functioned on a basis of mutual responsibility which was at its roots religious. Essential to both their visions was the benign influence of a single and powerful state church. Victorian Britain was moving in the opposite direction, towards an increasingly mobile society divided between contending sects in both religion and politics.

Practical attempts to build a better society were similarly compromised by the tendency of reformers, enlightened industrialists and other farsighted philanthropists to give a paternal form to the improved institutions, whether they were factories, housing schemes, or the Poor Law. Where these involved housing they throw some light on the progress of the Victorians towards a better society.

Specific political interest in the subject of lower-class housing remained inconsiderable until the efforts of Shaftesbury, Chadwick and others finally brought official recognition of the

problem towards mid-century. Before the 1830's the only group to interest themselves in the condition of the poor and their housing were individual philanthropists and voluntary bodies like Thomas Bernard's Society for Bettering the Condition and Increasing the Comforts of the Poor. Associations of working men themselves, strongest in the skilled trades, had as their goal not the amelioration of existing conditions but fundamental reform to political power.<sup>1</sup>

Legislation designed to promote better housing came only after the middle of the 19th century. Lord Shaftesbury was responsible for an act passed in 1851 giving local authorities the right to inspect and to build working men's lodging houses. Later Acts of 1868 and 1875 created further powers, to clear insanitary dwellings and to erect new houses; these followed the initiatives of Liverpool, Glasgow, and other progressive cities which had acquired the powers individually in the 60's. Little housing activity followed this legislation, which had only established the right but not the responsibility of the authorities to act. Not until the Housing of the Working Classes act of 1890 did a general attack on inadequate housing begin.

Private groups in the first half of the century did concern themselves with the housing problem, but their first concern was the state of the rural poor. Improved cottages were erected by some landowners more from social than from economic motives. Their enterprise was publicized by Thomas Bernard's society, from its foundation in 1797, but its motives were

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1. Hobsbawn, Industry and Empire, p. 90.

dominated as much by spiritual as by material considerations, and its efforts limited to exhortation and publicity, and consequently it had little practical effect. The Labourer's Friend Society, formed in 1827, built a few model cottages in London but failed through lack of support to capitalize on its successful experiment. A more sustained effort came with the foundation in 1841 of the Metropolitan Association for Improving the Dwellings of the Industrious Classes, and the Society for Improving the Condition of the Labouring Classes, founded in 1844 with Lord Shaftesbury's support.<sup>2</sup> These and other worthy efforts helped to publicize the cause of housing reform and highlighted the problem by creating practical examples of acceptable housing to contrast with the squalor of jerry-built tenements, but failed to have much direct impact on the vast and growing problem.

The efforts of benevolent industrialists, David Dale and Robert Owen and many others, demonstrated much-needed improvements to housing and to whole communities, but the greater their social vision the less their interest in the niceties of design, and consequently the smaller their contribution to architectural thought.<sup>3</sup> Ruskin (through the agency of Octavia Hill) dabbled

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2. A. Briggs, Victorian Cities, Harmondsworth, 1968, p. 19; Briggs overlooks the Labourer's Friend Society. N. Pevsner, "Model Houses for the Labouring Classes", Architectural Review, Vol. 93, May 1943, p. 121, erroneously gives 1843 as the date of the Metropolitan Association's foundation.

3. Their most important influence on the physical environment was the contribution they made to town planning thought, especially through Ebenezer Howard and the Garden City movement at the very end of the century. James Hole, The Homes of the Working Classes, London, 1866, is an important Victorian discussion of the problem. See also C. Bauer, Modern Housing, Boston, 1934, and W. Creese, The Search for Environment, New Haven, 1966.



in working-class housing in the 1870's, but even his interest was not architectural but managerial. His object was to prove that existing working-class housing could be managed to produce both decent living conditions and a satisfactory financial return, and his philosophy of management rigidly paternal.

Further theoretical and utopian developments were inspired by the British and French social philosophers. Fourier and Godin in France, and Robert Owen in Britain and America, provoked or produced radical communities but both in the new and the old worlds they had little influence. Their aim was not architectural progress and the buildings they erected were of no intrinsic interest. The evidence of the first half of the century would suggest that radical social improvement and aesthetic achievement were incompatible aims.

Robert Owen's efforts at New Lanark show just how little importance the niceties of architectural design had for his attempts to reconstruct society, and how much more important were the ideological obstacles to his success. Despite the fact that Owen has often been regarded as a founding father of socialism, Marx later recognised the divisive qualities of his doctrine that "Man...does not possess the smallest control over the formation of any of his faculties or powers..."<sup>4</sup> Owen argued that men were what they were entirely because of environment and upbringing, completely featureless at birth but highly receptive: "Beings capable, ... of receiving unlimited improvement and

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4. Report to the County of Lanark (1821), in R.Owen, A New View of Society..., Harmondsworth, 1970, p. 237.

knowledge."<sup>5</sup> This being the case it was necessary that someone should be on hand to provide desirable instruction and Owen assumed the fitness of someone like himself - or a committee of gentlemen of the County of Lanark - to fill this role. His aim was plainly a clearly divided society of gentlemen-masters and workers. Paradoxically, despite his adherence to an obsolete social order, he so effectively propagated the means by which it was to be obtained - the principles of co-operation and education - that he inspired the beginning of a century-long movement towards a more egalitarian society.<sup>6</sup>

The physical forms in which Owen conceived his communities were similarly conservative. New Lanark was composed of tenement buildings just like the ones the workers left behind in Glasgow, though admittedly erected in country surroundings, and while the design for an American co-operative community by Whitwell around 1826 has some striking features,<sup>7</sup> generally the architecture of his later communities was also without interest.

Nor were there other contributions of importance to the problem of urban and industrial housing in the first half of the century. As discussed above, before 1850 rural problems continued to hold the stage. More than half the population of

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5. Ibid., p. 247.

6. "...The notion of working class advance, by its own self activity towards its own goals, was alien to Owen, even though he was drawn, between 1829 and 1834, into exactly this kind of movement." E.P. Thompson, The Making of the English Working Class, Harmondsworth, 1969, p. 859.

7. Illustrated in F. Choay, The Modern City: Planning in the Nineteenth Century, London, 1969, fig. 56.

Britain still lived in rural conditions, and it was in the countryside - with the landowners - that the balance of legislative power lay. The prototype for small house design was the detached country house, and it was in the detached house that innovation occurred. The terrace model for urban housing was accepted without question and its design treated in terms of the street façade, not the individual house, though considerable skill and ingenuity went into the internal arrangement behind the façade of each unit. Rawlins, in 1789, had touched on the distinction between substantial town and country dwellings,<sup>8</sup> but he did not discuss the smaller urban dwelling. Lower-class housing in the cities only became an accepted subject for serious consideration towards the middle of the next century, when Henry Roberts and others began to publish designs for model urban dwellings for the labouring population.

J.C. Loudon was one of the pioneers of urban working-class housing when he published his design for a Working Men's College in 1819.<sup>9</sup> Loudon's design, and early schemes for family tenements in the cities, forced workers and their families into a new pattern of life and association for which they were unprepared, just as urban life and the industrial routine itself required a difficult adaptation.<sup>10</sup> In size and arrangement the

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8. Rawlins (1789), p. i.

9. In the Mechanic's Magazine, vol.xvi; published again in the First Additional Supplement to Loudon's Encyclopaedia of Cottage...Architecture, London, 1842, sect. 2257, p. 1150.

10. N. J. Smelser, Social Change in the Industrial Revolution, London, 1959, esp. pp. 406 ff.

new urban tenements had more in common with the workhouse than the rural cottage. But neither the workhouse nor the tenement inspired the same attention to design that had been lavished on the cottage.

A concerted effort was made towards the end of the 1840's to bring together art and industry and to focus attention on the problem of urban housing. Following on the first and unsuccessful attempts to establish government schools of design Henry Cole and his colleagues joined together under the patronage of the Prince Consort and with his active support and enthusiasm to re-organize the system of teaching design, to promote the organization of the Great Exhibition which was held in 1851, and the attendant educational institutions founded in South Kensington. Even Prince Albert's interest in housing was not wholly altruistic: according to Shaftesbury his greatest concern was to reduce the possibility of revolution.<sup>11</sup>

The reaction of the architectural profession to these developments seems also to have been ambivalent if not largely negative. Working-class housing was not a subject taken up with enthusiasm by the Institute of British Architects, though Henry Roberts's ideas for model dwellings were received with respectful attention. Reports were received of developments in architectural education in France and Germany with great interest and some concern at the lack of similar developments in Britain, but no further action was forthcoming and the Architectural Association, formed by the efforts of the students themselves,

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11. Bauer, Modern Housing, p. 80.

remained the only institution offering organized and comprehensive instruction in the art of architecture. There was perhaps greater interest in the practical problems of construction but growing jealousy of the achievements of non-architects and especially the engineers limited their technical progress. For instance the response of the leaders of the profession to Paxton's Crystal Palace in 1851 was decidedly negative. The weaknesses of iron and glass buildings were pointed out with alacrity but the strength of the building, its cheapness, ease and speed of erection, the size and brightness of the interior space created and its more abstract aesthetic virtues were disregarded despite the structure's great popular success.<sup>12</sup> Architectural theory reflected the contemporary confusion; on the one hand some architects and critics maintained the continuing validity of classical ideas and the classical vocabulary as a kind of 'international' style, while on the other hand some looked for a different approach which would be uniquely appropriate to the British nation in the middle of the nineteenth century.

The first of these was Augustus Welby Northmore Pugin (1812-52), son of a French émigré who had become a draughtsman for John Nash and then the successful author of illustrated works on gothic antiquities and other subjects. The younger Pugin was a difficult and volatile figure brought up to a rigorous discipline, an indefatigable worker destined to die young. Pugin became infatuated with Gothic architecture and then with

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12. See for instance the discussion in The Builder, vol.IX, no. 415, 18 Jan. 1851, p. 39.

the church that produced it, and as a Catholic convert measured the world henceforward against a pre-Reformation ideal.

In Contrasts (1836) Pugin reflected the revival of Gothic architecture from its earlier frivolity into a new socially oriented channel by identifying Classical and Gothic architecture with contrasted societies. Classical architecture was to him the architecture of protestantism and commercialism: puritanical, grasping, inhuman, begrimed by the smoke of hundreds of industrial chimneys. On the other hand Gothic architecture he saw as the product of a harmonious, generous, tolerant and truly pious society. The fierce moral tone of Pugin's antipathies was Victorian, but the foundations of his argument belonged to the Regency and the eighteenth century. He presented his contrasted styles of architecture in terms of their associations and implied, though he did not actually assert, that by building the right environment contemporary society could be reformed.

Pugin supported his discussion of the moral qualities of the medieval style by a thoroughly rational and informed criticism of construction, a discussion that had been initiated by Cordemoy and Laugier a century before.<sup>13</sup> Both of the French clerics had only a layman's appreciation of construction while Pugin thoroughly understood the problems of strength of materials, thrusts, loadings, and their complexities. Laugier's glowing appreciation of Ste. Geneviève in Paris (later the Pantheon) despite its structural ambiguities, seems naive compared with Pugin's almost puritanical exposure of the hidden structural expedients used by Wren at St. Paul's in London.

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13. See above, Chapter 3, pp. 56-60.

The extremity of Pugin's views was far removed from the tolerant balance that marked Loudon's account. Pugin hardly attempted to balance abstract form, style, construction, utility, and social effect, as Loudon had done so well. Instead he asserted the moral implications of the architect's approach to design. Indeed the first lesson learned by Pugin's followers was their moral duty.

That very little of the architecture of the last century and the present is beautiful is not the heaviest charge we have to bring against it; the heaviest charge is that it is utterly false...it was he who first showed us that our architecture offended not only against the law of beauty, but also against the laws of morality.<sup>14</sup>

Pugin's career was brief and explosive, but when he died at the age of forty in 1852 an even more powerful figure had appeared whose influence was to continue to the end of the century and beyond. John Ruskin (1819-1900) denied that he had been influenced in any way by Pugin, seven years his senior. Pugin's conversion to Catholicism was to Ruskin, with his narrowly evangelical upbringing, wholly distasteful, yet Ruskin himself was drawn to the beauty of the Catholic liturgy, which must have contributed not a little to the inner conflicts from which he suffered. Where Pugin had been a professional designer conversant with the problems of construction Ruskin was an amateur critic wholly entranced with the appearance of buildings who, as Kerr noted in 1900, knew nothing of the practice of architecture.<sup>15</sup>

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14. Obituary notice in the Times, quoted in K. Clark, The Gothic Revival, p. 148.

15. R. Kerr, "Ruskin and Emotional Architecture," R.I.B.A. Journal, 3rd series, vol. 7, March 1900, p. 181.

Pugin and Ruskin were agreed however in their view that the state of architecture and the state of society were inseparable, that life in all its manifestations should be informed by a consistent morality. If Ruskin's views of structure and construction seem naive compared with those of Pugin, his appreciation of the relation between architecture and society was far more subtle and profound. His ideas were rooted in the wider classical tradition and particularly Plato whom he read and re-read through his life. While Ruskin was not uncritical of Plato and thought for instance that he failed to fully understand the nature of either poetry or painting,<sup>16</sup> Ruskin's understanding of the relation between the arts and society was formed by his reading of Plato. With Plato he saw artists capable of an immense influence upon the state of society, but he was much more optimistic than Plato about its potential for good. He also followed Plato in his view of the ideal society as essentially a static hierarchy in which everyone could find, and should be content with, his true station. He envisaged, for instance, a class of "scholars and artists" whose function was "the teaching and enlightening of the inferior multitude".<sup>17</sup> His view of the working class he expressed in testimony to a Select Committee on Public Institutions in 1860 when he noted, concerning the results of his teaching at the Working Men's College,

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16. The Works of John Ruskin, ed. E. T. Cook and A. Wedderburn, 39 vols., London, 1903, vol. XVII, p. 208. This edition is referred to hereafter as Ruskin, Works.

17. Time and Tide (1867) Para. 138; Works, vol. XVII, p. 430.



In my class, they are especially tempted to think of rising above their own rank, and becoming artists, - becoming something better than workmen, and that effect I particularly dread. I want all efforts for bettering the workman to be especially directed in this way: supposing that they are to remain in this position for ever, that they have not capacity to rise above it, and that they are to work as coal miners, or as iron forgers, staying as they are; how then you may make them happier and wise.... I think that the moment a man desires to rise out of his own class, he does his work badly in it; he ought to desire to rise in his own class, and not out of it.<sup>18</sup>

In his social views Ruskin failed to appreciate the full significance and extent of the revolution underway around him. In this he was less perceptive than Loudon, restricted perhaps by his upper middle class English background in a way that Loudon, a Scot and a farmer's son, was not.

The comparison with Loudon is relevant because Ruskin followed Loudon's work, and had his first architectural criticism published by Loudon. Indeed Loudon wrote to Ruskin's father in 1838 that

...your son is certainly the greatest natural genius that ever it has been my fortune to become acquainted with, and I cannot but feel proud to think that at some future period, ... it will be stated in the literary history of your son's life that the first article of his that was published was in Loudon's magazine of natural history.<sup>19</sup>

As Ruskin later suggested, the title of his first architectural essay published in Loudon's Architectural Magazine for 1837, defined the direction of his future works. The series

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18. Ibid., vol.XVI, p. 474.

19. Ibid., vol.VI, p. xxxvii. Ruskin, also in a letter to his father, described Loudon's house as "a chaos of literary confusion" and his collection of minerals "far more interesting to the entomologist than the mineralogist" because of the size and magnitude of the cobwebs enveloping them. Ibid., p. xxxvii, n.1.

was entitled "Introduction to the Poetry of Architecture; or the Architecture of the Nations of Europe considered in its associations with the natural scenery and natural character", and it was signed with the nom de plume Kata Phusin, or 'according to nature'.<sup>20</sup> From these articles Ruskin's interest in the emotional and associative qualities of architecture were already clear.<sup>21</sup> In these earlier writings he recognized association as the source of taste and the test of beauty,<sup>22</sup> although later he criticized the same theory and set against it a Christian, and perhaps platonic, view: "God has said 'You shall like this and you shall dislike that', and there is the end of the matter; ...natural instinct is still the source of all."<sup>23</sup> He still allowed association a subordinate place informing purely personal responses to particular objects, but felt that behind the accidents of personal taste there must be absolute standards of truth and beauty.

Instead of emphasizing the moral influence of beauty upon the observer Ruskin therefore made his most important contribution to nineteenth century architectural thought by linking the quality of design to its influence upon the workman, the producer. It was in this connection between the craftsman and his work that he saw the wholeness of art and life. He found that

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20. Cf. Praeterita, I, Chap. XXI, sect. 250; Works, vol. VI, p. xlii.

21. Ibid., p. 127.

22. Ibid.

23. Ibid., p. 450.

wholeness in the middle ages, and in Gothic architecture the personal expression of each workman's creativity. Crudities and mistakes in execution were worth more to Ruskin than perfection because they were the imprint of the workman's own stumbling thought,

signs of the life and liberty of every workman who struck the stone; a freedom of thought, and rank in scale of being, such as no laws, no charters, no charities can secure....<sup>24</sup>

Consequently he rejected the mechanically produced ornament of his own day, and the smooth perfection required by the classical styles. The choice lay between the workman as "a machine...an animated tool",<sup>25</sup> and "the whole human being...the whole majesty of him".<sup>26</sup> To follow Ruskin in architecture meant to choose not between renaissance and gothic, but between slavery and freedom.

However true or false this vision of the middle ages might have been, it was certainly of a spirit alien to the thrusting and prosperously commercial Britain of 1852. The incongruity between the values that Ruskin found in art and in contemporary life led him from the study of the arts to economics. In 1860, while recovering from the effort of completing Modern Painters, he turned to economy and wrote Unto this Last. Ruskin senior, the prosperous sherry merchant, was not entirely pleased by this turn of his son's thought and noted the radical quality of his opinions, "so opposed to Malthus and the Times and the City of

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24. "The nature of Gothic", I, 14; Works, vol.X, pp.193 f.

25. Ibid., p.192.

26. Ibid.

Manchester", and, a month later, "they will mistake him for a socialist - or Louis Blanc or Mr. Owen of Lanark".<sup>27</sup> Ruskin said that his principles of political economy "were all summed up in a single sentence in the last volume of *Modern Painters* - 'Government and co-operation are in all things the Laws of Life; Anarchy and competition the Laws of Death' ".<sup>28</sup>

Ruskin's views on architecture provoked criticism, particularly from students of the subject who had a strong classical or rationalist commitment. One of the most interesting of these was the archaeological and architectural writer, James Fergusson (1808-86). Older than Ruskin by a decade, and also an amateur without a professional's commitment to the existing situation, Fergusson attempted to apply a commonsense view to the development of architecture in his own time. Poles apart from Ruskin, he could only despise the result of Ruskin's passionate involvement with the subject:

If the student of Architecture gains but very little gratification in an artistic point of view from a visit to the Oxford Museum, he may at least come away consoled with the reflection that the Syndics of that learned University have gone far in producing a reductio ad absurdum; and that a system which results in such a mass of contradictions and niaiseries as are found here is too childish long to occupy the serious attention of grown-up men, and when the fashion passes away we may hope for something better. Till it does, Architecture is not an art that a man of sense would care to practise, or a man of taste would care to study.<sup>29</sup>

As his comments suggest, Fergusson had no sympathy with Ruskin's

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27. Works, vol.XVII, p. xxvi.

28. Ibid., pp. 74 f.

29. J.Fergusson, History of the Modern Styles of Architecture (1862), 2nd ed., London, 1873, p. 375.

social criticism, and instead accepted the existence of new conditions in society as the justification for a new architecture. The basis for a new architecture, he implied, would have to be found in technology. He rejected copying of other styles as archaeology, not architecture,<sup>30</sup> and for this reason rejected Pugin's example though he shared Pugin's desire for truth of materials and construction.<sup>31</sup> Fergusson praised the work of the engineers for the rapid progress they had made, while architecture, he felt, had been retarded by its attachment to past history. Engineering by itself, however, he did not regard as architecture:

Where the engineer leaves off, the art of the architect begins. His object is to arrange the materials of the engineer, not so much with regard to economical as to artistic effects, and by light and shade, and outline, to produce a form that in itself shall be permanently beautiful. He then adds ornament, which by its meaning doubles the effect of the disposition he has just made, and by its elegance throws a charm over the whole composition.<sup>32</sup>

In his comment on the Crystal Palace, Fergusson made it clear that he thought the design of buildings should be approached as a purely technical problem in the first instance:

...the first building that has been erected in this country with which all are pleased, is also the first in which copying has been wholly abandoned, and common sense, and common sense only, has dictated the design of every part and of every detail, wholly irrespective of all the so-called rules of art...<sup>33</sup>

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30. Ibid., p. 376.

31. Ibid., p. 363.

32. J. Fergusson, The Illustrated Handbook of Architecture, 2 vols., London, 1855, vol. I, p. xxxix.

33. The Builder, vol. IX, No. 416, 25th January, 1851, p. 53.

He acknowledged however that "the design is far from being either artistic or satisfactory",<sup>34</sup> apparently because of the qualities of the form as a whole, because he did praise the circular roof of the transept, suggested by Barry, as the "best feature in the design".<sup>35</sup> He believed that the art of the architect was to "arrange the materials of the engineer...to produce a form that in itself shall be permanently beautiful",<sup>36</sup> but he failed in enunciating the principles by which he thought beauty could be achieved to take account of the importance that the styles themselves had for his contemporaries. He believed firmly in progress and felt that "where forward progress is the law, it is certain that the next age will surpass the present". If only his contemporaries could grasp that principle, all would be well; "...instead of the dissatisfied uncertainty in which we are wandering...we should be exulting in our own productions...". Continued architectural progress would, he felt, lead to a new style, "...more beautiful and more perfect than any that has ever existed before."<sup>37</sup>

It may be suggested that the points of view that Fergusson and Ruskin expressed were not so much opposed as complementary, though Fergusson certainly did not see them that way. Although Ruskin tended to disregard technical progress as irrelevant if not harmful, and the Crystal Palace in particular as trivial, he

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34. Ibid.

35. Ibid.

36. Handbook, p. xxix.

37. Ibid., p. lv.

was by no means unaware of the importance in other contexts of technique, and recognized the power of such a symbol of the steam age as the locomotive.<sup>38</sup> Fergusson, on the other hand, despite his ethnographic and linguistic view of architecture, failed to consider the particular and detailed relations between architecture and the society that created it which were the pivot of Ruskin's ideas. Consequently it is possible to see them both as dealing with complementary halves of the subject, both of which found partial fulfilment towards the end of the century, Fergusson's in the metal framed buildings of industry and commerce (especially in America) and Ruskin's in the best architecture of the arts and crafts movement.

The most complete attempt to apply Ruskin's principles about the nature of art and workmanship was made by William Morris and his friends, in architecture particularly Philip Webb. Morris's view of architecture and its future prospects was inseparable from his view of all art and the way it was produced. With Ruskin, he saw all true art as the expression of the workman's joy in his own labour. For this reason, and as a result of Ruskin's influence, he took an austere and critical view of the place of machinery in the production of art.<sup>39</sup> He abhorred the use of machinery simply to satisfy an artificially inflated demand for goods of little real use.<sup>40</sup>

38. Ruskin, Works, vol.XX, pp. 372 f.

39. In "The Aims of Art" (1887) he carefully discriminates between what he considers to be the proper and the improper use of machinery. William Morris, ed. G.D.H. Cole, London, 1948, p. 594.

40. J. K. Galbraith and others have in recent years expressed similar opinions. See for instance Galbraith, The Affluent Society, Harmondsworth, 1962, esp. Chap. 9, "The Paramount Position of Production".

But under a happier state of things they would be used simply for saving labour, with the result of a vast amount of leisure gained for the community to be added to that gained by the avoidance of useless luxury.<sup>41</sup>

He argued against those who found machinery particularly distasteful and <sup>who</sup> thought it must always prevent the achievement of pleasant surroundings. On the contrary he thought that his future state of social order "would probably lead at first to a great development of machinery for really useful purposes", though in time, on reconsideration, he thought people might well decide to reduce their reliance on machines. Morris's most telling architectural vision, because it dealt at once with the building, its setting, industry, and the worker, was the "Factory as it Might Be".<sup>42</sup> The factory he described was "a pleasant place" set in the middle of beautiful gardens kept by the workers, and entirely free of noxious vapours and effluents, and any sort of unsightly waste. The buildings themselves he said would be beautiful:

...as every building might be which serves its purpose duly, which is built generously as regards material, and which is built with pleasure by the builders and designers ...our buildings will be beautiful with their own beauty of simplicity as workshops, not bedizened with tomfoolery as some are now...<sup>43</sup>

In addition to the workshops there would be more ornamental buildings such as a dining hall, library, and school, for he saw the factory not only as a place of work but as a centre for co-operative effort in other directions including education, recreation

41. William Morris, p. 580.

42. first published in Justice, the magazine of the Social Democratic Federation, in 1884; William Morris, pp. 646-54.

43. Ibid., p. 648.



and entertainment. Within the factory "machines of the most ingenious and best approved kinds will be used when necessary, but will be used simply to save human labour".<sup>44</sup> The result would be "serious occupation, amusing relaxation, and more rest for the leisure of the workers", within beautiful surroundings that in themselves inspired the production of beauty.<sup>45</sup> All this was based, of course, on Morris's own vision of a socialist society.

Just as Ruskin turned from the criticism of art and architecture to the theory of political economy so Morris found himself in due course impelled to turn to politics. In 1883 he wrote,

Both my historical studies and my practical conflict with the philistinism of modern society have forced on me the conviction that art cannot have a real life and growth under the present system of commercialism and profit-mongering."<sup>46</sup>

Following Ruskin, and Ruskin's mentor Carlyle, Morris held a somewhat idealized vision of the middle ages that formed the basis for his criticism of contemporary life, but recognized "the oppression and violence of the Middle Ages" though he saw the medieval craftsman as "free on his work" compared with the modern

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44. Ibid., pp. 649-50.

45. Ibid., p. 654.

46. W. Morris, Selected Writing and Designs, ed. A. Briggs, Harmondsworth, 1962, p. 32.

mechanic.<sup>47</sup> Where Ruskin followed Carlyle<sup>48</sup> in looking to the past, and to some form of aristocracy, for the better conduct of life, Morris looked to the future and to socialism.

Morris came, as Ruskin did, to the view that unless the very basis of social organization changed there was no future for art. Even his hopes for a revival of the medieval spirit in architecture gave way to the conviction that it was impossible to foresee a future for architecture from within a corrupt society. First change society, then hope that a new and better art would follow:

...the enthusiasm of the Gothic Revivalists died out when they were confronted by the fact that they formed part of a society which will not and cannot have a living style...<sup>49</sup>

The root of the problem as he saw it was the capitalist system,

...a new society will not be hag-ridden as we are by the necessity for producing ever more and more market wares for a profit, whether anyone needs them or not...it will produce to live, and not live to produce, as we do. Under such conditions architecture, as a part of the life of the people in general, will again become possible...<sup>50</sup>

Looking back over the half century before the disillusion of Ruskin and Morris to Loudon's bright hopes for the future it seems clear that Morris was right, the problem was not with

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47. "Europe requires a real Aristocracy, a real Priesthood, or it cannot continue to exist...No Aristocracies, Liberty - and - Equalities are impossible...True Aristocracies are at once indispensable and not easily attained...Man, little as he may suppose it, is necessitated to obey superiors."

Thomas Carlyle, Past and Present, London, 1960, p. 247 (first published 1843).

48. William Morris, p. 596.

49. Fortnightly Review, May 1888; in W. Morris, Collected Works, London, 1910 ff., Vol. XXII, p. 329.

50. Ibid., p. 330.

architecture alone but in the relation between architecture and society and perhaps with society itself. As Morris put it,

I found that the causes of the vulgarities of civilisation lay deeper than I thought, and little by little I was driven to the conclusion that all these uglinesses are but the outward expression of the innate moral baseness into which we are forced by our present form of society, and that it is futile to attempt to deal with them from the outside.<sup>51</sup>

Morris and Ruskin have too often been dismissed as reactionary and romantic because of their failure to welcome industrialization and machine production.<sup>52</sup> Ruskin made it clear that he saw many proper uses for steam power, and thought only that machinery should never be used to do "what can be done with hands and arms, while hands and arms are idle".<sup>53</sup> As for Morris, when he wrote that,

if the necessary reasonable work be of a mechanical kind, I must be helped to do it by a machine, not to cheapen my labour, but so that as little time as possible may be spent upon it, and that I may be able to think of other things while I am tending the machine,<sup>54</sup>

he showed his full awareness of future possibilities. The dilemma he faced at the end of the century was the lack of progress in living conditions, in the general environment, and the seeming irrelevance of high artistic ideals to the well-being of

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51. Introduction to Signs of Change, 1888; Collected Works, vol.XXIII, p. 2.

52. For instance Pevsner fails to give due weight to their criticisms of steam-powered industry while overemphasizing Morris's rejection of machine production. See for instance N.Pevsner, Pioneers of Modern Design, 3rd ed., Harmondsworth, 1960, pp. 23-25.

53. Works, vol.XXVIII, p. 248.

54. Ibid., p. 20.

the great mass of the people. The machine continues to seem as much a source of the problem as the means of its solution.

## 10. Form and Environment in the New Architecture

Despite Morris's disillusion with the present he could still paint a strikingly optimistic picture of a possible future, one which was in some respects curiously prophetic. His aim of high artistic standards in architecture and the applied arts for the general public was frustrated, and they remained the concern of a small band of enthusiastic workers and wealthy patrons. His hopes for the quality of the environment of towns and cities have been more widely influential. The description in News from Nowhere of a possible future suggested standards for the quality of life on a wider scale and the quality of the physical environment which were incorporated in the aims of British town planning.<sup>1</sup> Furthermore the attractiveness of the buildings in his utopia, to which he repeatedly refers, seems to depend as much on their planning and siting as it does upon handcraft. It is possible to imagine those shining buildings in their pastoral setting as products of modern construction without misrepresenting his vision. To see

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1. "...British planning as we know it arose as much out of William Morris' Arts and Crafts as out of any independent thought about cities alone." W. Creese, In Search of Environment, New Haven, 1966, p. 297.

Morris's philosophy only in terms of the craft of design, the relation between the means of production and the forms produced, is to overlook his wider concern with the conditions of life. Equally relevant to industrial Britain, it is the part of his programme on which the most progress had already been made.

The subsequent development of architecture opened a division between building form and environment, while it also revealed a divergence in ideas and practice between representatives of Britain and her new rival Germany. Morris and his predecessors had been devoted to the integral view of society, landscape and buildings that derived from pre-Victorian theory. His followers after the turn of the century were divided between those who, like Parker and Unwin, shared his environmental vision but interpreted it in conservative forms, and those like Muthesius and Gropius who, inspired by Morris's design teaching, led a revolution in industrial and architectural design, but failed to appreciate the social and environmental consequences of their work.

In Morris's day there was a growing British tradition of enlightened village and city design. This tradition, the counterpart to the design of improved cottages described in the previous section, went back to the planned estate villages of the eighteenth and early nineteenth centuries. Some at least of the cottage designers were also village designers and published books such as Robinson's Village Architecture (1830). Loudon's list of principles for good cottage design appeared as the conclusion to his description of a praiseworthy piece of village improvement

by an enlightened landowner.<sup>2</sup> Enlightened industrialists as well had found it necessary and desirable to build improved homes in model towns and suburbs for their employees, in a distinguished line that runs from Arkwright and Owen down to the Cadburys. Already in 1843 T. J. Maslen had proposed the founding of new cities planned to provide healthful surroundings for the growing population and to relieve the overcrowding of the old.<sup>3</sup> Morris wrote in 1888 that:

The enthusiasm of the Gothic revivalists died out when they were confronted by the fact that they form part of <sup>4</sup> a society which will not and cannot have a living style...

and he felt the revival of architecture had to await the evolution of a new society. A new approach to the environment, perhaps the most essential part of his vision, was already underway.

Inspired by Ruskin and Morris the art and science of the design of settlements found prophets before the end of the century in Ebenezer Howard and Patrick Geddes. In different ways both men demonstrated the potential of existing architectural techniques and styles. Howard's direct and practical proposals for Garden Cities found expression in the designs of de Soissons, Parker and Unwin, and in America in those of Stein and Wright. Geddes, with his rather different analytical interest in the life of existing towns in their regions, was as much interested in

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2. Harlaxton village by Gregory Gregory; Supplement to Loudon's Encyclopaedia, 1842, p. 1193.

3. T. J. Maslen, Suggestions for the Improvement of our Towns and Houses, London, 1843.

4. W. Morris, "The Revival of Architecture" in Fortnightly Review, May, 1888; Collected Works, vol. XXII, London, 1914, p. 330.

conservation and rehabilitation as he was in the construction of new designs, but he also found architects such as Henbest Capper to collaborate with him on work like Ramsay Garden in Edinburgh. At least as far as town planning was concerned the architecture that Morris thought was dying in 1888 proved viable after 1900 and an adequate vehicle for continued progress.

But after 1900 the architecture of the arts and crafts movement in Britain was overshadowed by what were thought to be much more revolutionary developments taking place in Germany. As a consequence there developed a curious split in the historical consciousness of architectural progress in this century. On the one hand the development of the design of the individual buildings has been seen almost entirely in terms of Continental architecture, especially the so-called 'International Style', while the development of town planning is seen very largely in terms of the British contribution. The contribution to architecture made by the British new towns has been largely discounted as irrelevant to progressive design in this century, except where it has followed the Continental fashions. An explanation for this selective attention to architecture and planning after World War I seems to lie in political and economic developments that took place in Britain and Germany at the end of the nineteenth century.

After 1870 the balance of economic powers and technological creativity began to swing from Britain to Germany. The reasons for Britain's diminishing enterprise are still debated; they may have been failure to replace obsolete equipment, inefficient



distribution of industrial investment through the country, complacent and indifferent management, an inadequate educational system, or a combination of these factors. The fact remains that British economic progress slackened, while at the same time Germany gathered her forces for a great advance.

The development of Germany from 1871 to 1914 is a progress from political through economic development to the leadership of European design. As president of the Prussian ministry Bismarck had worked from 1862 for the unification of the German states, achieved in 1871 when King William of Prussia was crowned the first German Emperor. The industrial development of the states, which had been till now retarded by war and political disunity, became the first object of Bismarck's internal policy. Through the remaining years of the century German economic expansion accelerated at such a rate that by 1914 she had become the greatest industrial nation in Europe. One facet of the German programme was a conscious attention to the problems of industrial design and the relation between design and industry, and it was this policy that led to her architectural achievements following the first World War.

In Britain there was a much less concerted effort to develop design and technology. The brilliance of the individual innovator, Brunel for example, was undoubted, but compared with the German effort Britain's history was one of failure. The relation of design education to industry had first been raised officially in the 1830s. Despite the establishment of government schools of design in 1837 and 1841, and the further extension of

design education in the 1850s, there was little beneficial influence on industry. The pattern of development in Germany was very different. After 1871, the strength of the existing education system and the conscious policy of industrial development imposed by a strong and autocratic government meant the concentration and rational application of resources, in a way not possible in Britain. Consequently, Germany was able to succeed, while Britain was not, in developing the fruitful collaboration of design and industry after 1900.

In the field of social welfare the contrast between British indifference and German action was particularly striking. In Britain the outcome of mid-Victorian ferment had been the increasing polarization of opinion into extreme views both in politics and in the arts. Consequently when public action was required to unite social and aesthetic ends it was not taken. The example of housing has already been referred to: it remained a scandal until after the first World War. Where active leadership could have begun the reconciliation of art and industry the government abandoned the field; where economic, social and political aims seemed inconsistent, the division of interests became the prelude to fruitless conflict. Socialist and liberal trade unionists, excluded from parliament, had to advance their cause outside it. The aesthetic movement, as represented by Wilde and Beardsley, abandoned Ruskin's social concern to indulge their fascination with beauty and refined sensibility; while technology, stifled in the arts, failed to progress in industry. Behind was a background of indifferent government

and inadequate social legislation.

In Germany, on the other hand, while industry grew, and the electrical and chemical industries, which were to be of great future importance, expanded with remarkable speed, the welfare of the worker was not neglected. Though Germany lagged behind Britain in factory legislation, Bismarck established far-sighted insurance schemes against sickness, accidents and old age.<sup>5</sup> In retrospect it can be argued that in Germany unified progress in design and industry through these decades was achieved at the expense of social and political progress of a different sort. Unrest among the working population was stifled or appeased by minor concessions in order that their efforts should be directed towards the benefit of the state as a whole.

The most striking comparison that can be made between Britain and Germany in the later nineteenth century concerns education and society. It illustrates not only the strength of the contemporary German position but the decline of British attitudes since the period of greatest creativity a century before. Around 1860 no more than half of British school age children received some elementary education. The Education Act of 1870, hailed as introducing universal education, in fact confirmed the class structure by training the lower class for its subordinate role.<sup>6</sup> But Germany, with a tradition of compulsory elementary

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5. J. H. Clapham, The Economic Development of France and Germany, 1815-1914, Cambridge, 1921, pp. 335-338.

6. According to H. G. Wells, Experiment in Autobiography, London, 1934; D. S. Landes, The Unbound Prometheus, Cambridge, 1969, p. 341. The following discussion is based on Landes.

education that had begun in the sixteenth century, had developed by the early nineteenth century a system that received international attention and respect. In Prussia and Saxony between 90% and 100% of school age children attended classes by the 1860s. Within Germany the social and economic value of education was generally acknowledged and respected. Continuing longer than British schooling, the elementary stages of the German system led through rudimentary selection to more advanced grades for pupils of talent. Most important, social distinctions were subordinated in favour of general education. In 1850 Joseph Kay noted of the German schools that "they are generally very well attended by the children of small shopkeepers, and contain also many children from a poor strength of society".<sup>7</sup> Kay repeated "...I constantly found the children of the highest and of the lowest ranks sitting at the same desk..."<sup>8</sup>

By contrast with the German system, with its great respect for the value of education, and its emphasis upon advancement through merit, there was the persistent suspicion in Britain of state intervention, the reluctance of the wealthy classes to support and participate in a general system of education, attitudes that reflected the continuing belief in a relatively static class society (the only form of society Ruskin found conceivable).<sup>9</sup>

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7. J. Kay, The Social Condition and Education of the People in England and Europe, 2 vols., London, 1850, Vol. II, p. 227 (Landes, p. 342 and n. 4).

8. Ibid., p. 209.

9. See above, p. 250.

In mid-eighteenth century the relative situations of Britain and the Continent were reversed, at least as far as the rigidity of the social system was concerned, and at that earlier period education was relatively a great deal less important. On the Continent before the French Revolution the aristocracy held the middle and lower classes firmly in their place, while in Britain there was much more contact between all classes and a much more open attitude towards class divisions. While distinctions of rank were maintained there was at the same time a much more positive interest in ability and achievement at whatever level of society. Arthur Young toured the Continent to survey agriculture between 1787 and 1790 and compared his reception by the French with manners in England at the same time. Reporting his visit to the Duc de la Rochefoucauld he noted,

At an English nobleman's, there would have been three or four farmers asked to meet me, who would have dined with the family amongst the ladies of the first rank. I do not exaggerate, when I say, that I have had this at least an hundred times in the first houses of our islands. It is however, a thing that in the present state of manners in France, would not be met with from Calais to Bayonne, except by chance in the house of some great lord that had been much in England, and then not unless it was asked for.<sup>10</sup>

The relaxed manners seem to have been characteristic of Britain's great period of innovation.

The development of British architectural thought from Young's period over the following century shows a decline comparable to that in social mobility, while Germany approached the peak of its creativity. By the 1870's in Britain the inventive

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10. A. Young, Travels during the Years 1787, 1788 and 1789, 2 vols., Dublin, 1793, vol.I, p. 297; (Landes, p. 70).

and open attitude to style and technology observed earlier had given way to doubt, distrust and confusion. It was at this point in the century that Germany began most actively to build upon the lessons learned from earlier British experience.

Dozens of observers crossed the channel to live and work in Britain, and to learn and return to Germany with British techniques. One of these, charged with the study of British architecture, was the Prussian civil servant Hermann Muthesius.

A comparison of the ideas of Muthesius (1861-1927) and his English contemporary W. R. Lethaby (1857-1931) reveals the strengths and weaknesses of architecture in the two countries. Both were trained as architects, but both ~~built~~ relatively little and devoted their careers rather to teaching and the propagation of ideas about architecture and particularly the future development of architecture. But whereas Lethaby, though highly respected and much loved by his contemporaries and students, failed to found or forward a movement, and died without successors, Muthesius was instrumental in beginning the most potent architectural movement of the first half of the twentieth century.

Hermann Muthesius became a key figure in the implementation of German economic policy through his work in design education. Trained as an architect, after some experience in private practice, government service and travel he was attached to the German embassy in London between 1896 and 1903 in order to study British architecture and design. After his return to Germany in 1904 he became the Prussian Board of Trade Inspector for Schools of Arts and Crafts and almost immediately began the

reorganization of arts and crafts teaching.<sup>11</sup>

He published a number of books on British architecture, most important of which was Das Englische Haus (1904-5) in which he reviewed the history and current state of British house design and drew from it the lessons he thought should be learned by German architects.<sup>12</sup> Muthesius was impressed most of all by the architects, such as Shaw and Nesfield, who followed the lessons taught by Ruskin and Morris's architect Philip Webb. He recognized the sources of their inspiration and not only referred in his text to Carlyle, Ruskin and Morris (as well as to Goethe, who was one of Carlyle's heroes<sup>13</sup>) but set the architecture of the eighties and nineties in its historical context. He discussed examples of house design in Britain from before Norman times down to his own period, including a discussion of "Das Haus während des Kampfes des Klassizismus mit dem Romantizismus. Rd. 1770-1860".<sup>14</sup> For instance he praised the plan of Toddington, designed by the amateur Charles Hanbury-Tracy and built between 1820 and 1835 as "one of the earliest plans to show clearly the liberating effect of abandoning the Italian

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11. N. Pevsner, Academies of Art Past and Present, Cambridge, 1940, p. 267.

12. H. Muthesius, Das Englische Haus, Entwicklung, Bedingungen, Anlage, Aufbau, Einrichtung und Innenraum, 3 vols., Berlin, 1904-1905.

13. "Our chosen specimen of the Hero as Literary Man would be this Goethe." T. Carlyle, On Heroes and Hero Worship (1841), London, Dent, 1959, p. 386.

14. Part I, section D, pp. 76-94.

pattern...".<sup>15</sup> The qualities that he so much admired in the contemporary houses of architects such as Shaw, Voysey and Ashbee were their 'Sachlichkeit' and their 'naturalness'.

What is, however, the essential, decisive quality of the English house is its complete practicality (Sachlichkeit). It is simply a house in which one wants to live. There is no obtrusive concern for appearances, no fantastic affusion of ornament and fashionable trimmings, no pretension, not even 'architecture'. It stands there without ostentation and finally in that straightforward rightness, that, however natural it should be, has become so rare in our present day society. And so it embodies a quality that constitutes a valuable part of the English character - unpretentious naturalness.<sup>16</sup>

"Es ist schlecht und recht ein Haus, in dem man wohnen will," has an echo of Loudon's dictum, that "every building should appear to be what it is,"<sup>17</sup> and more directly that concern with livability that goes back to Bacon (whom Muthesius quotes).<sup>18</sup>

Muthesius's public battles for better design were fought in connection with the Deutsche Werkbund which he founded in 1907. The function of the Werkbund was to improve industrial design by bringing together the leading representatives of industry, the trades, and the arts and crafts. Because of Germany's overall economic aims and the consequent need to promote design for industry the emphasis that Ruskin and Morris had placed upon handcraft and the individually created object was

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15. Ibid., vol.I, p. 92. On Toddington C. R. Cockerell commented in 1823 "I have seen nothing so well designed as Mr. Tracy's house...;" J. Harris, "C. R. Cockerell's 'Ichnographica Domestica'", Architectural History, vol.14, 1971, p. 27.

16. H. Muthesius, Das Englische Haus, vol.II, p. 237.

17. See above, p. 229 and n. 43.

18. See above, p. 154 and n. 29.



inappropriate. Furthermore there was in Germany a strong neo-classical tradition that went back to Schinkel, the greatest German architect of the nineteenth century, which was also considerably influential. Consequently the policy that Muthesius advocated in Germany was based on a fusion of both traditions. From the British he took the picturesque, empirical element, especially the emphasis upon a symmetrical functional arrangement. From the neoclassical tradition came an emphasis upon ideal geometry and upon the typical as opposed to the individual. By means of the 'typical' form, he hoped to promote standardization and therefore more efficient industrial production based upon well designed prototypes. The deviation that this represented from the arts and crafts line was recognized by the representatives of the German arts and crafts movement; Henri van de Velde attacked Muthesius at the 1914 Werkbund Congress and upheld the virtues of individuality against the idea of the typical, but at least as far as Germany was concerned he fought a losing battle.<sup>19</sup> The approach that Muthesius favoured led in due course to the 'modern' design of utensils and architecture in the 1920's and 30's, the approach that became known as the "International Style".

Lethaby's ideas evolved beyond Morris and the arts and crafts movement, as did those of Muthesius, but in a rather different direction. After his apprenticeship to an original and inventive architect, Alexander Lauder,<sup>20</sup> and some subsequent

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19. For this controversy see R. Banham, Theory and Design in the First Machine Age, London, 1960, p. 78.

20. According to Brian Thomas in "William Richard Lethaby 1857-1931, A Symposium", R.I.B.A. Journal, 3rd ser. vol.64, 1957, p. 218.

experience outside London, Lethaby became Richard Norman Shaw's chief assistant in 1877, then active in arts and crafts circles, and from 1892 in independent practice. Involved in the founding of the Central School of Arts and Crafts in 1894, he became with George Frampton joint Principal, a position which he retained until 1911; as well he held the post of Professor of Design at the Royal College of Art from 1902, and in 1906 became Surveyor to Westminster Abbey. In his contributions to the meetings of the R.I.B.A. and at the Architectural Association, and in articles published in various journals, he was active in arguing for the abandonment of dependence upon the styles and for an approach to design based almost purely upon construction. At about the same time that Muthesius in Germany was advocating the importance of the 'typical' for industrial production, Lethaby was arguing for the importance of a scientific approach to architecture:

Architecture or building, so far as at any given moment it deals with known traditional needs, should be customary; so far as it has to meet changing conditions and ideals it must be experimental. For the customary part practical craft education would be best; but how to meet changing needs, especially when one of the changes is the breakdown of custom itself, is a new and urgent question. However desirable it might be to continue in old ways or revert to past types, it is I feel on reviewing the attempts which have been made, impossible. We have passed into a scientific age, and the old practical arts, produced instinctively, belong to an entirely different era.

I have long been interested in the search for sources of inspiration in our art, always with the immediate inquiry before me as to what may be an inspiration to the architects of today and tomorrow. I have come to the conclusion that any basis on which there can be some general agreement over a long space of time will produce architecture of a sort. The one thing essential is this agreement, so that a process of development may be set up by continuous experiment. A school of art is only generated by intensity, the heat of a common pressure. The

only possible basis of agreement at the present time is scientific method.<sup>21</sup>

Lethaby's view of the matter was not generally shared by his contemporaries in Britain despite their wholehearted admiration for the man himself. In the impressive tribute that he delivered before the R.I.B.A. in 1932 Sir Reginald Blomfield suggested that Lethaby's "eloquence and enthusiasm sometimes carried him a little too far, as for example when he said 'the most romantic modern buildings that I know are the Oast-Houses of Kent' which are, as we all know, plain circular buildings for drying hops".<sup>22</sup> H. H. Statham, the respected architect-editor of The Builder, who praised much of the architecture of the arts and crafts supporters quoted Lethaby with approval on the need for a new tradition: "out of the critical use of past tradition, we must build up a tradition of our own."<sup>23</sup> But he thought that Lethaby carried his argument too far when he suggested that a start should be made by emphasizing utility and rigorously exorcizing all traces of style. He quoted Lethaby as saying at a talk at the Architectural Association,

...the third corner stone in any part of the foundation for a modern building is need or utility. It might be said that as soon as you put pencil to paper some distinctive style would come in; but when the drawing has been made, can we not begin again and hunt down every trick of style one at a time - engaged pilasters, pedimented windows, etc. . . .<sup>24</sup>

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21. W. R. Lethaby, "The Architecture of Adventure", talk to the R.I.B.A. in 1910; from Form in Civilization, pp. 55 f.
22. R. Blomfield, "W. R. Lethaby, An Impression and a Tribute", R.I.B.A. Journal, 3rd ser. vol. 39, 1932, p. 300.
23. H. Statham, Modern Architecture, London, 1897, p. 20.
24. Ibid., p. 15.

On this radical suggestion Statham commented,

I want to know why we are to feel called upon to adopt a position - that of beginning over again, so to speak - which has never been deliberately adopted in any other period of the world's architectural history.<sup>25</sup>

His attitude represented that of the majority of the profession and its patrons.

Both Lethaby and Muthesius were transitional figures, attempting to bridge the gap from the pre-industrial traditions in nineteenth century architecture to the necessarily industrial architecture of the future. They were aware of each other's work: Muthesius published Lethaby's Eagle Insurance Building in Birmingham and the country house Avon Tyrell in Hampshire with approval, while Lethaby in a poignant comment associated Muthesius with the end, as he saw it, of the "English Free Architecture". In a talk to the Architectural Association on "Modern German Architecture and What we may learn from it" in 1915 he suggested that the first thing to be learned from Germany was "how to appreciate English originality".<sup>26</sup> He referred to Muthesius's study as an attaché at the German Embassy in London of English architecture:

Then, just as our English free building arrived, or at least 'very nearly did', there came a timid reaction and the re-emergence of the catalogues 'styles'. ...we first seem to have arrived at the thought of an architecture which should develop in its own sphere, and not be forever casting back to disguise itself in the skins which have long ago sloughed off.... German architects have seized on this theory of a 'real architecture' - or they have reached it for themselves. Meanwhile we have been

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25. Ibid., pp. 15 f.

26. In W. R. Lethaby, Form in Civilization (1922), 2nd ed., London, 1957, p. 80.

caught up in one of our recurring reactions. Architecture is not seen as one of the forms in which the national energy, intellect, and spirit shall expand, but it is diverted and maimed and caged into formulas which are not only dead, but never had life.<sup>27</sup>

Lethaby's own account of the matter seems to be accepted by most historians of modern architecture.<sup>28</sup> Nevertheless, this was an over-simplified view of twentieth century architectural development which disregarded the full scope of British design. It disregarded the equal emphasis which Lethaby gave both to science and industry, and to the historical and cultural tradition which gave architecture meaning, an emphasis which was lacking from the German development.

Particularly important was Lethaby's attempt to understand architecture in terms of ideas and the history of civilization which he expressed in his book Architecture, Mysticism, and Myth, which he later revised and republished as a series of articles in the 1920's.<sup>29</sup> This side of Lethaby's thought was concerned with the human response to architecture and the part it played in the cultural and spiritual life of society.

Architecture seen from this point was not primarily a matter of structure and style, but of "wonder, worship, magic,

27. Ibid., pp. 81 f.

28. For instance, G.Hatje, Encyclopedia of Modern Architecture, London, 1963, has no entry for Lethaby though there is a brief biography of Muthesius, and a more extended discussion of his work in the article on the Deutsche Werkbund. Reyner Banham accepts the view that Lethaby's insights were only fulfilled by the German movement: Theory and Design, p. 44; as does Julius Posener, "Hermann Muthesius", in the Architect's Year Book, no. 10, London, 1962, p. 46.

29. Collected and published in book form as Architecture Nature and Magic, London, 1956.

and symbolism.<sup>30</sup> On this subject Lethaby was able, in turn, to quote Statham, who had said that " 'all architecture - that is, all that is worth the name - is one vast symbolism: symbolism controlled by and expressive of structure might be the definition of architecture in the higher sense.'"<sup>31</sup> Elsewhere Statham emphasized the broader limits of his definition: "architecture ...is a kind of attempt to symbolize in the form and details of a building an ideal in our minds, an ideal that goes a great deal further than the mere expression of construction;"<sup>32</sup> it was in this sense that Lethaby wrote of symbolism. While he said that "the old ways are closed to us",<sup>33</sup> he clearly felt that something important had also been lost to architecture that had to be replaced.

Now that magic has gone out of it, unless some new content of nature and meaning is restored, it will die....the only mysteries left to building are the true mysteries of reality, ...mystery and beauty are left in service and science ...what we have to get back in our buildings [is] high functional beauty.<sup>34</sup>

Lethaby's emphasis on symbolism and beauty expressed a fundamentally different understanding of the problems of modern design than Muthesius's more purely utilitarian approach though they were agreed in abandoning any copying of past styles. Lethaby's prophetic comment that "the modern way of building must

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30. Ibid., p. 16.

31. Ibid.

32. Modern Architecture, p. 21.

33. Architecture, Nature and Magic, p. 16.

34. Ibid., pp. 144-146.

be flexible and vigorous, even smart and hard,"<sup>35</sup> revealed a sense of association and expression in design which gave a more profound meaning to his "high functional beauty". His inability to foresee the emergence of an architecture that would serve contemporary society in the way in which past architecture, from antiquity to the middle ages, had served former societies, left him uncertain about the future. But in his comments in 1915, he over-estimated the achievements of the German designers, for they failed even to perceive the problem.

While Lethaby gave theoretical expression to a wider view of architecture, the practical expression of a broad concern with the social environment was pre-eminently the work of two slightly younger men, Barry Parker (1867-1947) and Sir Raymond Unwin (1863-1946). As architect and planner they laid out and designed Letchworth, the first Garden City, in 1903. Together they applied the lessons of the existing tradition, and especially the Picturesque, under the influence of Morris's vision in News from Nowhere. The results were even more influential abroad, in Germany and America, than were the purely architectural lessons taught by the followers of Morris.<sup>36</sup> Ruskin, Morris, Lethaby and Parker and Unwin were links in the evolution of the social and environmental ideas of the pre-Victorian period through the nineteenth century to modern times.

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35. W. R. Lethaby, Architecture, London, 1912, p. 251.

36. See the complete discussion of their work and influence in Creese, The Search for Environment.

## 11. Architectural Theory in the Twentieth Century

Social function and style, categories of architectural theory first introduced before 1835,<sup>1</sup> were given new emphasis by writers on modern architecture after 1914 when the "new style" had been clearly established by Gropius's Fagus factory, 1911, and his model factory for the Werkbund Exhibition, in Cologne, 1914.<sup>2</sup> The way in which modern architects dealt with these categories reveals their divergence from the path travelled by Morris and his friends. It also reveals the interplay of the themes of "reason" and "experience" that link modern theory to the ideas of antiquity.<sup>3</sup>

It has been generally accepted that the movement from Morris to Gropius, and the founding of the Bauhaus, constituted continuous progress forward to "the genuine and legitimate style of a century".<sup>4</sup> Whether this is an acceptable claim depends

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1. See above, Chap.7 ii, pp.119-214.

2. "the new style...was achieved by 1914;" N.Pevsner, Pioneers of Modern Design, 3rd ed., Harmondsworth, 1960, p. 38; "Gropius's factory...came nearer to an integration of the new style than any other edifice built before 1922;" H. R. Hitchcock and P.Johnson, The International Style, 2nd ed., New York, 1966, pp. 28 f.

3. See above, p. 12; see below, p. 293.

4. Pevsner, Pioneers, p. 38.



as much upon personal commitment as objective fact, but an analysis of the style and the ideas of its protagonists will show the nature of its debt to earlier movements. Of the writers studied here, Pevsner and Hitchcock have been two of the most influential historians of the modern movement, while Bruno Taut has the double interest of having played a significant part in the creation of the new style as well as having written extensively on its ideals and history. Finally, among the leaders of the movement, Gropius and Le Corbusier were the most prolific propagandists, who fully recorded their contribution to theory behind the modern style.

The forms of the new style became, as Lethaby had predicted, "smart and hard". The architect had become "colder, cold to keep in command of mechanized production, cold to design for the satisfaction of anonymous clients".<sup>5</sup> The result was described in the book that named the style in this way:

There is, first, a new conception of architecture as volume rather than as mass. Secondly, regularity rather than axial symmetry serves as the chief means of ordering design. These two principles, with a third proscribing arbitrary applied decoration, mark the productions of the international style.<sup>6</sup>

These were the guiding principles of the "International Style" as understood by sympathetic observers in the thirties; a description of the objective characteristics that predominate in the buildings shows their affinity with an earlier period. Those illustrated by Hitchcock and Johnson were for the most

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5. Pevsner, Pioneers, p. 214.

6. Hitchcock and Johnson, The International Style, p. 20.

part asymmetrical compositions of simple rectangular masses. The walls were smooth, unornamented, and usually white, the roofs were flat. Glass was used extensively in horizontal rectangular windows, often organized in continuous strips. Where possible, supporting and enclosing elements were separated, so that, for instance, exterior walls were carried from cantilevered floor slabs, uninterrupted by supporting columns.

In some ways these characteristics broke with architectural tradition, but in other ways they drew directly upon it. Exploiting the relatively light structural frames created by the use of reinforced concrete and steel to separate supporting and enclosing elements had some precedent in the daring stone skeletons of high gothic cathedrals, but it was more directly a reaction against the general tradition of mass architecture that identified architectural form with the disposition of supporting elements. On the other hand the use of simple geometric forms and the suppression of ornament was part of the neo-classical tradition going back to the work of Schinkel, Ledoux in France, and many late Georgian designers in Britain.<sup>7</sup> Bruno Taut (1880-1938) acknowledged a debt to this period as the source of innovations that led to modern architecture. He referred to early experiments with the form of houses (though his references were only to Regency variations on the Georgian terrace, rather than to innovations in the detached villa). Windows were

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7. The Continental antecedents to modern architectural form were analysed by E. Kaufmann, Von Ledoux bis Le Corbusier, Vienna, 1933. Kaufmann also noted the social idealism which links Ledoux and Le Corbusier, and which they both expressed in designs for ideal cities. Ibid., pp. 62 f.

enlarged and simplified, he observed, and more light and air let into the rooms. He particularly noted the tendency "towards greater simplicity, following on the elimination of showy ostentation, which they replaced by lucidity and clarity".<sup>8</sup> These ideas he associated with Nash and Schinkel who had, he said,

...formulated theoretically the idea of architecture, in an aphorism which touches especially the problem of our days:- "Architecture is the convergence of purpose and material."<sup>9</sup>

Schinkel's buildings he praised as "simple cubic constructions", formed on "many a modern plan designed for modern purposes, designed in the modern spirit...".<sup>10</sup> Taut also acknowledged the influence of William Morris on the applied arts, and that of the British architects of the later nineteenth century who succeeded in greatly advancing the design of middle class houses. Around 1900 "English Architecture was considered paramount in Europe, exercising as it did the strongest influence on the Continent."<sup>11</sup> Behind these developments in the applied arts and architecture Taut saw the influence of an intense philosophical effort led particularly by Ruskin. Taut's judgement of Ruskin's influence was consistent with that of the later historians of the modern movement:

Ruskin, however, in his fight against the abuse of the machine, was so much overpowered by his feelings, that he became the enemy of the machine. But, through his predilection for handmade work above all, he succeeded,

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8. Taut, Modern Architecture, London, n.d. 1929, p. 35.

9. Ibid., pp. 35 f.

10. Ibid.

11. Ibid., p. 43.

perhaps without intending it, in improving the machine work and endowing it with what it had not yet attained at that time: a standard of quality.<sup>12</sup>

Despite their recognition of Ruskin's philosophical importance, Taut and other pioneering German architects were the least articulate about beauty, the question on which Ruskin had most to say. One of the principles of the modern movement was, Taut noted, that "beauty originates from the direct relationship between building and purpose, from the natural qualities of the material and from elegance of construction."<sup>13</sup> He further explained that "if everything is founded on sound efficiency, this efficiency itself, or rather its utility will form its own aesthetic law."<sup>14</sup> He identified beauty with adaptation for use, and felt that it would not only fulfil practical needs but have a more profound influence upon people and society. By organizing needs into "a superior and better order" the architect

becomes a creator of an ethical and social character; the people who use the building for any purpose, will, through the structure of the house, be brought to a better behaviour in their mutual dealings and relationship with each other.<sup>15</sup>

Insofar as this refers solely to the physical relationships created by the building, it is a sophisticated version of the utilitarian attitude expressed over a century before by writers from Kent (1775) to Waistell (1827).<sup>16</sup> Both Taut and these

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12. Ibid., p. 41.

13. Ibid., p. 8.

14. Ibid., p. 9.

15. Taut, Modern Architecture, p. 9.

16. See above, Chap. 7 ii, p. 193.

earlier writers assumed the division between social function and aesthetics that had been rejected by socially oriented writers from Loudon to Lethaby. Taut summarized the new aesthetic aim of architecture as "the creation of the perfect, and therefore also beautiful, efficiency".<sup>17</sup> The identification of beauty and efficiency seems pure Aristotle, while his grand view of the architect's social responsibility is a product of the eighteenth century.

In expressing a similar view of architectural beauty, Walter Gropius (1883-1969), founder of the Bauhaus, revealed the sources and the difficulties of his architectural theory. He denied the charge that his ideas were "the peak of rationalisation and mechanisation", and emphasized that "the satisfaction of the human soul" was as important as material satisfaction.<sup>18</sup> "The achievement of a new spatial vision" meant more, he said, than structural economy and functional perfection."<sup>19</sup> In addition to 'fitness for purpose' was required proportion and harmony. In architecture "only perfect harmony in its technical functions as well as in its proportions can result in beauty".<sup>20</sup> In relation to industrial design Gropius spoke of the necessity for the development of "standard types". The standard product implied, he thought,

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17. Ibid.

18. From a statement made in 1937, in W.Gropius, The Scope of Total Architecture, London, 1956, p. 22.

19. Ibid.

20. Ibid.

...the highest level of civilization, the seeking out of the best, the separation of the essential and super-personal from the personal and accidental.<sup>21</sup>

This revealing statement not only shows his reliance on the ultimately Aristotelian idea of the typical, an idea which was repeated by Alberti and was essential to the classical tradition in theory. It also reveals his rejection of the idiosyncrasies of personal response, "the personal and accidental", which had been an important element of earlier British theory.

The modern emphasis on ideal form and rational proportion was nowhere more clearly stated than in Le Corbusier's Vers Une Architecture (1923), composed of articles originally published in L'Esprit Nouveau. This manifesto opened with praise of the engineer's aesthetics, "en plein épanouissement" compared with architecture, "en pénible regression".<sup>22</sup>

Opérant par le calcul, les ingénieurs usent des formes géométriques, satisfaisant nos yeux par la géométrie et notre esprit par la mathématique; leurs oeuvres sont sur le chemin du grand art.<sup>23</sup>

The basis of architectural form he restricted to the primary geometrical shapes, cubes, cones, spheres, cylinders, and pyramids. He celebrated the beauties of cars, ships, aeroplanes, and grain silos, and dismissed the Gothic cathedral as only a drama, a struggle against gravity, which aroused a sentimental response, but not the universal recognition of beauty due to true architecture. It was sometimes entertaining, but never

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21. Ibid., pp. 30 f.

22. Le Corbusier, Vers Une Architecture (1923), "nouvelle édition revue et augmentée, Paris, n.d., p. 5.

23. Ibid., p. 13.

anything more.<sup>24</sup> As his comment on Gothic suggests, Le Corbusier was the leader of the modern movement who most clearly revealed the nature of his debt to the past and the classical tradition. He filled Vers Une Architecture with historical illustrations, and his own sketches and praise of classical architecture from the Parthenon to St. Peter's in Rome. Many of his illustrations were drawn from the superlative Histoire of Auguste Choisy, and it has been suggested that his theory of the "plan générateur" owes a great deal to the French academic tradition through the teaching and writings of Julien Guadet.<sup>25</sup>

The influence of the past - of Schinkel's neo-classicism, the French tradition from Ledoux and Durand to Guadet, the British "free architecture" - must not be exaggerated. Many aspects of classicism and the arts and crafts were rejected, and those that remained influential, the qualities of abstract form and the rationalist theory, had to contend or combine with the influence of contemporary movements in the arts, as well as the inspiration of utilitarian structures and transport machinery. From the classical tradition had been discarded any symbolic reference to the classical orders, and such conventions as bilateral symmetry, the emphasis upon a solid base and crowning cornice as well as the strengthened corners that framed the facade. Similarly any symbolic reference to a stylistic tradition in the arts and crafts was rejected, including such symbolic as well as

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24. Ibid., pp. 15 ff.

25. J. Guadet, Éléments et théorie de l'architecture, 1902. His importance is discussed by C. Rowe, in his review of T. Hamlin, Forms and Functions of Twentieth Century Architecture, in the Art Bulletin, vol. XXXV, no. 2, June 1953, pp. 169-174.

practical features as steeply pitched roofs and prominent chimneys. All these carried associations of domesticity and contributed to the "personal and accidental" characteristics that were so important a part of the arts and crafts, and which went back to the first recognition of the vernacular and the Picturesque.<sup>26</sup> In so doing the modern movement eliminated, particularly from domestic architecture, those subjective and associative qualities which were most immediately appealing, an appeal Loudon had recognized a century before. The attractions of modern architecture were to be restricted to the abstract beauties of form, and the fulfilment of material functions.

Bruno Taut, reviewing the development of modern architecture in 1929, referred in passing to the work of Ebenezer Howard and of Raymond Unwin, both of whom had been deeply influenced by Morris's social ideals. The garden city movement, begun by Howard in 1898, he praised for its beneficial influence on the post-war expansion of London: the preservation of the natural character of the countryside, the combination of houses with gardens and even English sport struck Taut as wholly admirable. "Wretched hovels" in the new suburbs of London had been

transformed into flower-filled gardens and delightful little country cottages for the workers; the author might now feel inclined to rhapsodise about the little diamond-paned windows, the sweet little roofs, and all the rest of the prettiness and charm of the English workers' homes...<sup>27</sup>

The prettiness of the houses he thought was "harmless regarded from the point of view of popular taste", but he deplored the

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26. See above, p. 109 and passim chaps. 7 i and 7 ii.

27. Taut, Modern Architecture, p. 205.



small windows, and went on to claim that the practical disadvantages of "prettiness" would soon be realized "when once more houses have been built on modern lines".<sup>28</sup> It may on the contrary be suggested that in the architecture of the London suburbs at its best there was an entirely valid acceptance of popular taste rooted in that same wholeness of art and society that lay behind the arts and crafts movement and the garden city movement, in the philosophy of Ruskin and his mentors. Taut listed among the distinguished English architects of 1900 both Parker and Unwin, the latter "singled out for his great interest in town planning".<sup>29</sup> Parker and Unwin, and their American followers in the garden city movement, Clarence Stein and Henry Wright, continued to design traditional houses for their garden city and garden suburb developments, though Stein and Wright also experimented with the "international style" as it became fashionable. It is difficult to see what if anything the advanced architecture of Gropius and his colleagues could add to the settlements these architects created at Letchworth and Welwyn, in America at Radburn and Baldwin Hills, and elsewhere. The qualities in English domestic design that Muthesius praised, particularly the integration of house and landscape, remained more characteristic of traditional work than of the new "modern" architecture.<sup>30</sup>

In contrast to the English garden city movement with its

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28. Ibid., pp. 205 f.

29. Ibid., p. 43.

30. As perhaps Muthesius himself recognized, for he continued to build in a somewhat heavy-handed arts and crafts mode into the twenties and thirties.

small-scale, informally composed estates, the Continental architects turned their attention in planning to high-density, high-rise structures based on the tenement blocks traditional in cities like Paris and Berlin. Widely imitated in Britain and the new world, both the planning principles and the style of the European buildings have not proved a social success. Le Corbusier's Marseilles Habitation has been described as a social disaster,<sup>31</sup> and his villas at Pessac have had to submit to transformation, by the addition of pitched roofs, shutters and trellises, into more traditional domestic images.<sup>32</sup> In the last few years an outcry has arisen against high-rise dwelling, and there is little doubt that garden city principles have proved more generally acceptable both within and beyond Britain.

The ideas behind the development of modern architecture were rooted in the pre-Victorian past. This is true not just in the general sense that all history is continuous and that every idea has its ancestors, but in the more important sense that the essential ideas first appeared, in association with its characteristic images, around 1800. These ideas and images were the highly rational product of what is usually called the Romantic period. They were the outcome of the encounter between the classical theoretical tradition, the structural and functional rationalism of French architectural critics, the rational psychology and aesthetics of British philosophers, and traditional British building.

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31. By Lewis Mumford, "The Marseille Folly", in The Highway and the City, New York, 1964, pp. 61-74.

32. See P. Boudon, Pessac de Le Corbusier, Paris, 1969.

The manifest tension between style and social function in the architecture of the present century is the most recent expression of the ancient conflict between reason and experience.<sup>33</sup> Vitruvius and Alberti had followed the Greeks in emphasizing reason at the expense of experience.<sup>34</sup> Wren also had distinguished between "natural and customary" beauty, the first from reason and the second from our senses,<sup>35</sup> and Chambers distinguished between "real" and "apparent",<sup>36</sup> but by Chambers's time exclusive faith in reason had begun to give way. The consequence, as has been shown above, was the beginning of a second stream of theory which emphasized the relative values of experience at the expense of the absolute values of reason. By the Victorian era the alternatives had been established and subsequent designers chose one or the other or, more rarely, attempted a difficult reconciliation.

The first collision between empirical, subjective aesthetics and the classical tradition in theory, together with knowledge in Britain both of native vernacular architecture and French revolutionary classicism, was the source of the proto-modern design of architects like J.M. Gandy. A similar encounter at the end of the nineteenth century between the continuing classical tradition in France and Germany and the continuing British tradition of subjective values, vernacular forms and

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33. See above, p.12.

34. Ibid., p. 38.

35. Ibid., p. 66.

36. Ibid., p. 67.

social concern was a major source of the ideas behind modern architecture. But modern architecture only partially realized the values inherent in both traditions.

The account given here necessarily over-simplifies a complex history. The two main streams of theory had many tributaries and many branches, and in some ways the theory of modern architecture resembles a rather swampy delta. As a purely theoretical problem, the fundamental conflict between reason and experience in architecture remains unresolved. Resolution in practice is a matter of creative genius, found in the works of the great individualists who left schools and styles behind them, architects like Aalto and Wright, but even in their work found most often in propitious social settings like Finnish new towns and affluent American suburbs.

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## Bibliography

## Bibliography

In addition to works referred to in the text of the thesis the bibliography includes some other works which I found particularly helpful or stimulating but I have not attempted to produce a comprehensive list of works bearing on the subjects discussed. The one exception is the list of books of cottage and villa designs. This I tried to make as complete as possible, from the first published designs for cottages, in Kent (1775), to about 1850, in order that my observations on cottage theory should be based on a substantial foundation of original printed sources. Even there I will have missed works primarily devoted to agriculture which also comment on cottage design. A chronological list of the books of cottage and villa designs is included to show the increase and decline in their rate of publication.

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- Soane, J. Sketches in architecture
- 1794 Morison, R. Designs in perspective for villas
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Lugar, R. Architectural sketches
- 1806 Gandy, J. Rural architecture  
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Loudon, J. Country residences  
Randall, J. Architectural designs
- 1807 Dearn, T. Sketches in architecture  
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Lugar, R. The country gentleman's architect  
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Lugar, R. Plans and views of buildings
- 1812 Matthews, J. Useful architecture
- 1815 Stevens, F. Views of cottages
- 1816 Elsam, R. Hints for improving the condition of the peasantry
- 1818 Laing, D. Plans, elevations, and sections, of buildings  
Papworth, J. Rural residences
- 1821 Hedgeland, J. Designs for private dwellings



- 1823 Papworth, J. Hints of ornamental gardening  
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 Hall, J. Novel designs for cottages  
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- 1827 Hunt, T. Architettura campestre  
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 Robinson, P. Designs for ornamental villas  
 Thomson, J. Retreats  
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and  
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- 1853 Sanderson, J. Rural architecture
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Pre-Victorian Origins of Modern Architectural Theory



Two volumes : volume two illustrations

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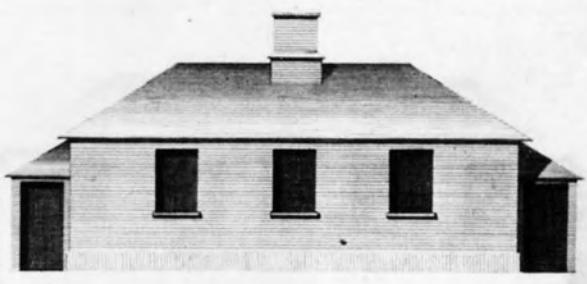
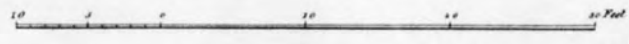
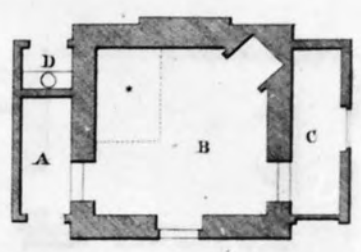
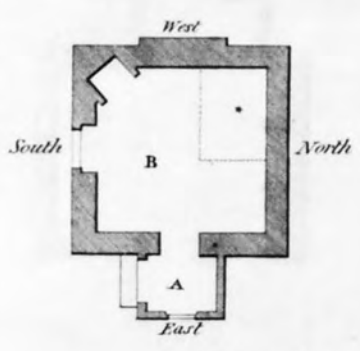
Cottages with one Room



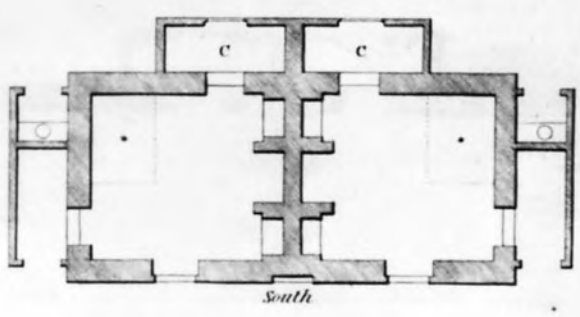
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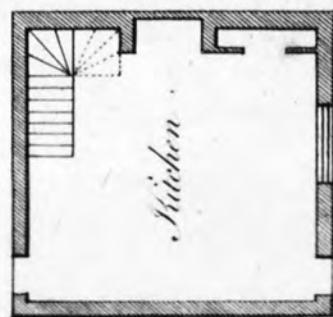
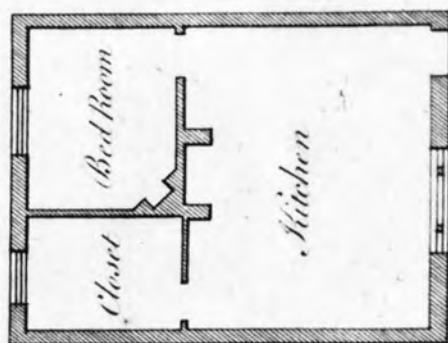
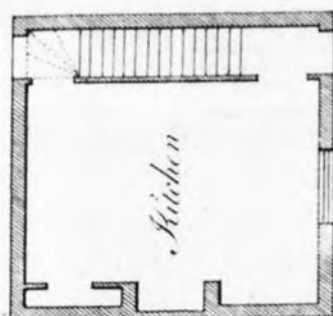
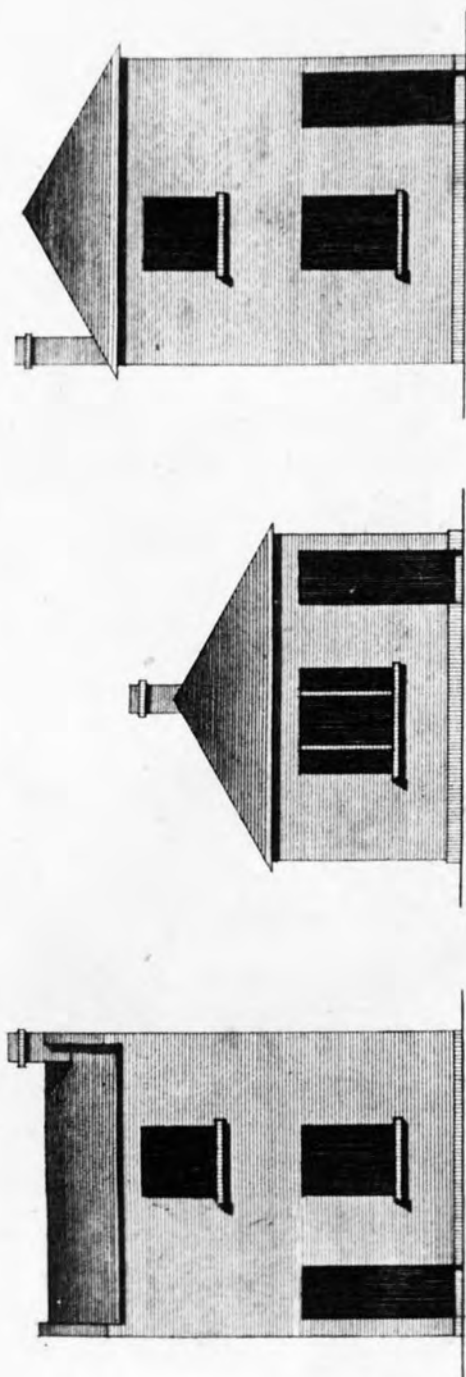


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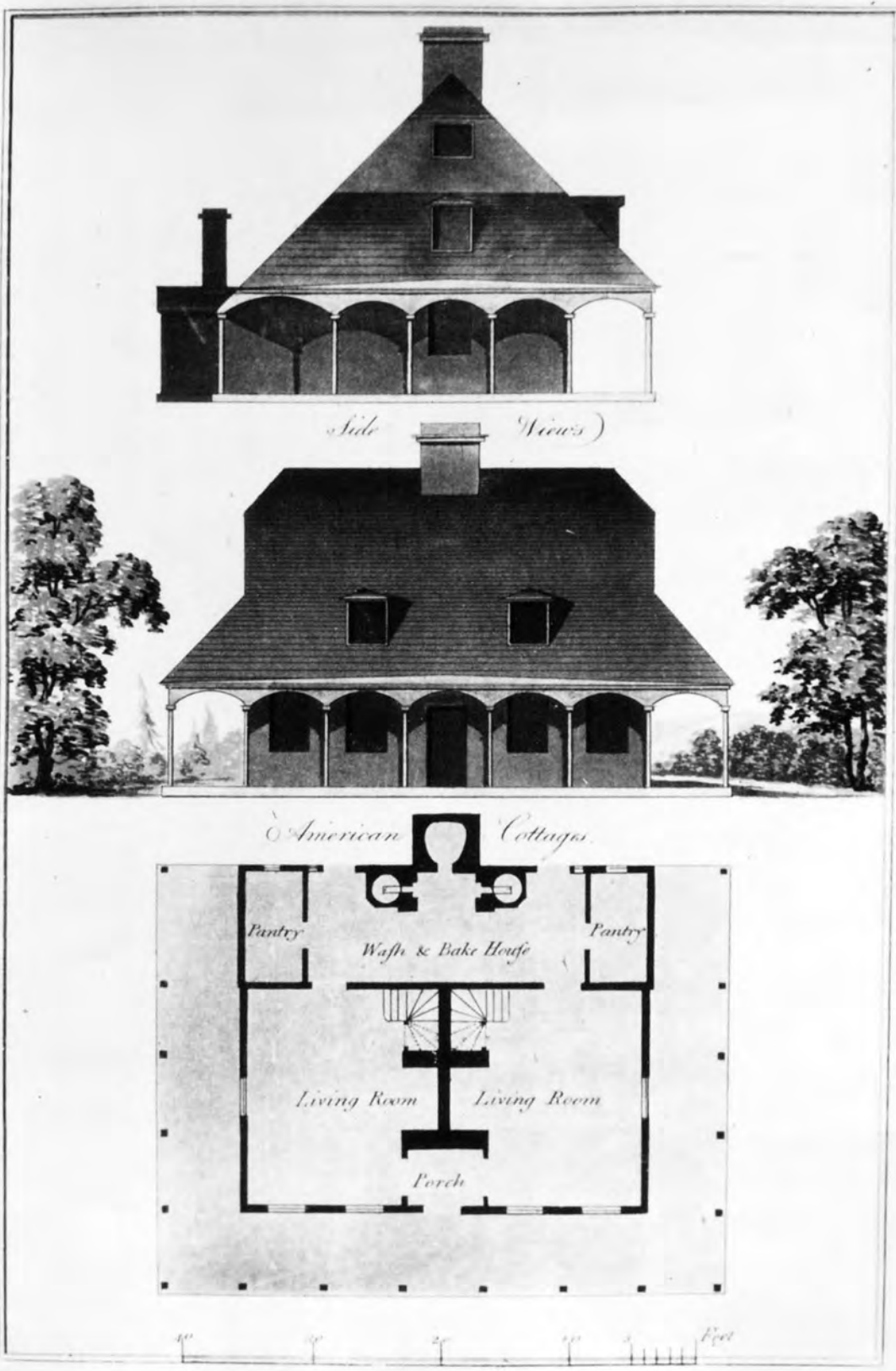
1. Wood (1781), Plate 1. Cottages with One Room.  
 No.1 is "the most simple cottage of any...". (p.20)

*Elevations and Plans for Cottages.*

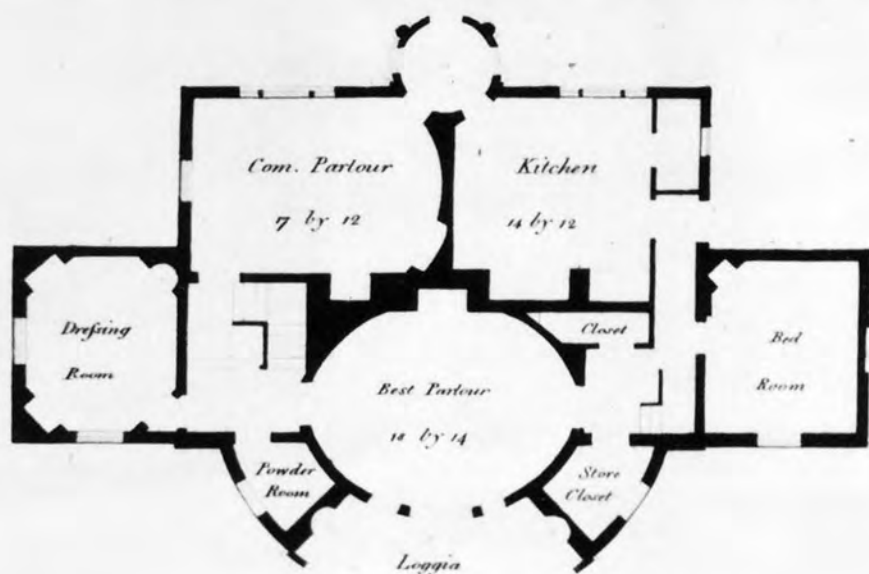
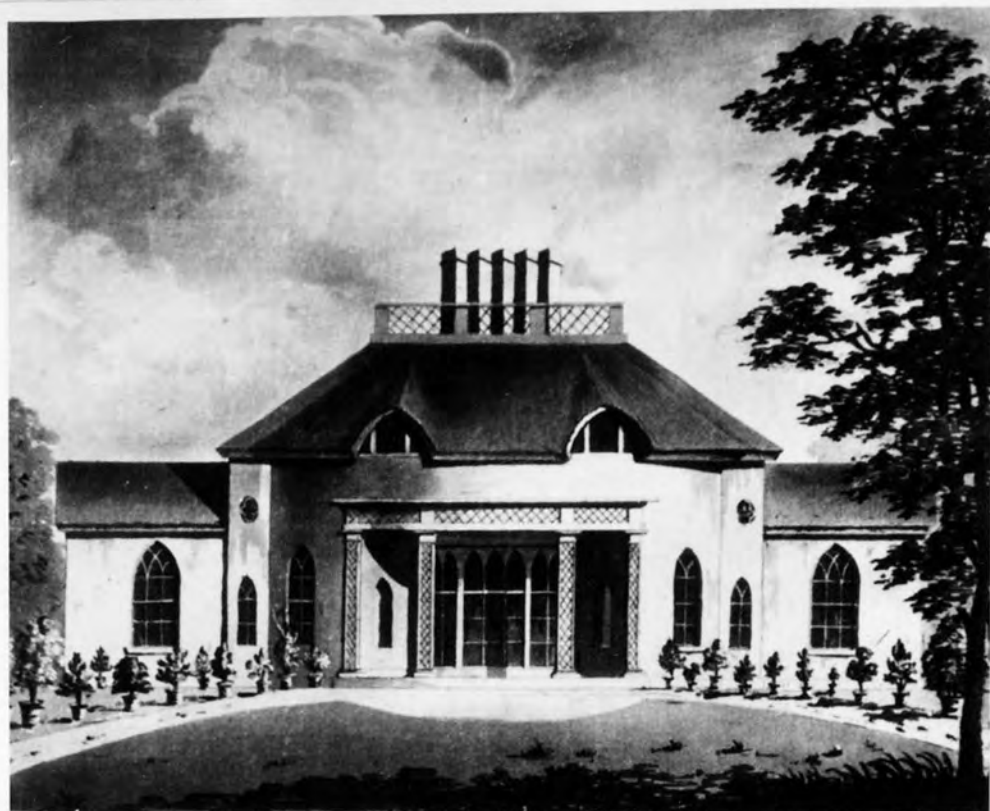


2. Miller (1787), Plate 1. Elevations and Plans for Cottages.





3. Flaw (1795), Plate XVII. American Cottage.  
 "...built at Throwley near Feversham in Kent...".  
 (p.7)

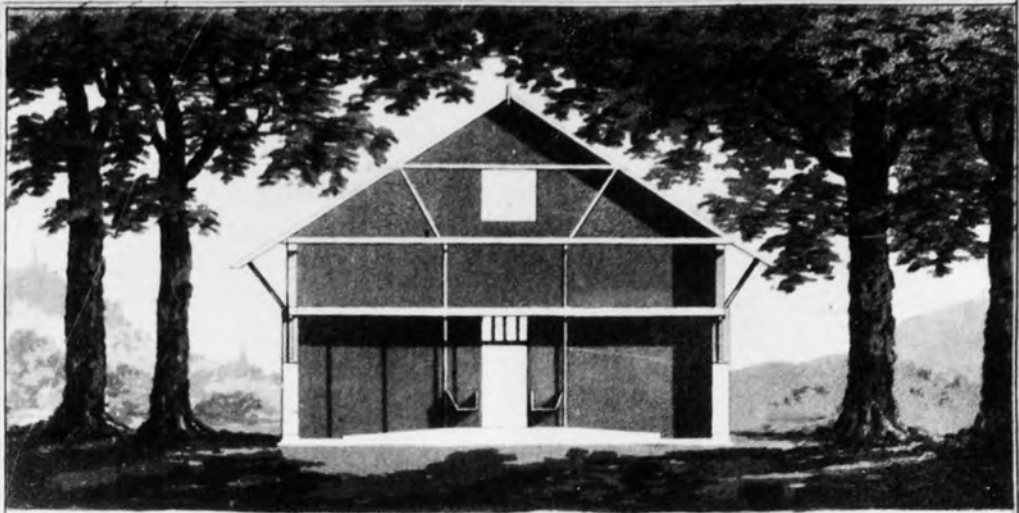


*Villa in the Cottage Style.*

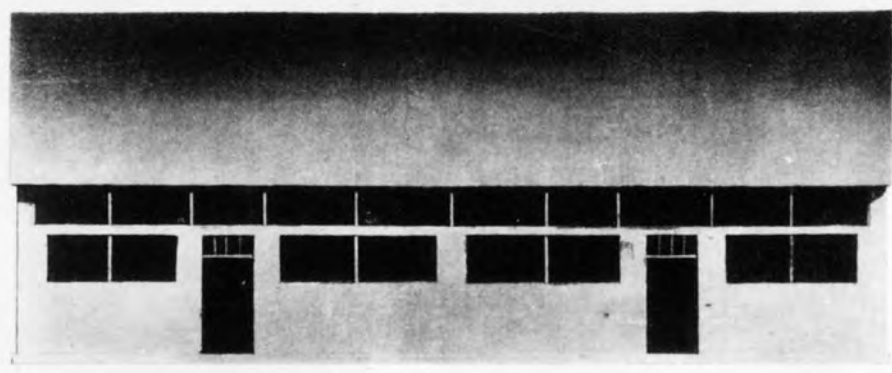
40 30 20 10 5 Feet

*London: Published Jan'y 1795.*

4. Plaw (1795), Plate XX. Villa in the Cottage Stile.



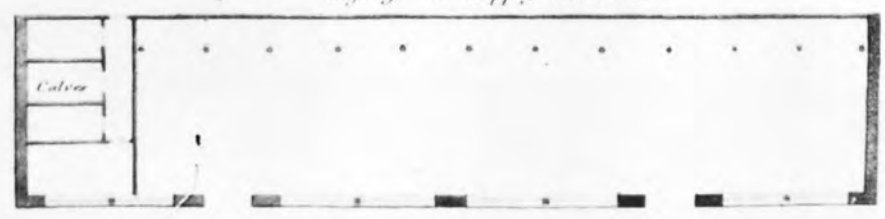
*Section*



*Cow or Ox House.*



*Passage to Supply the Cribs.*



5. Plaw (1795), Plate XXXII. Cow or Ox House.  
 "...common in Devon..." (p. 11)

Plan of a Cottage, as recommended by Mr. Crutchley.  
See page 96.

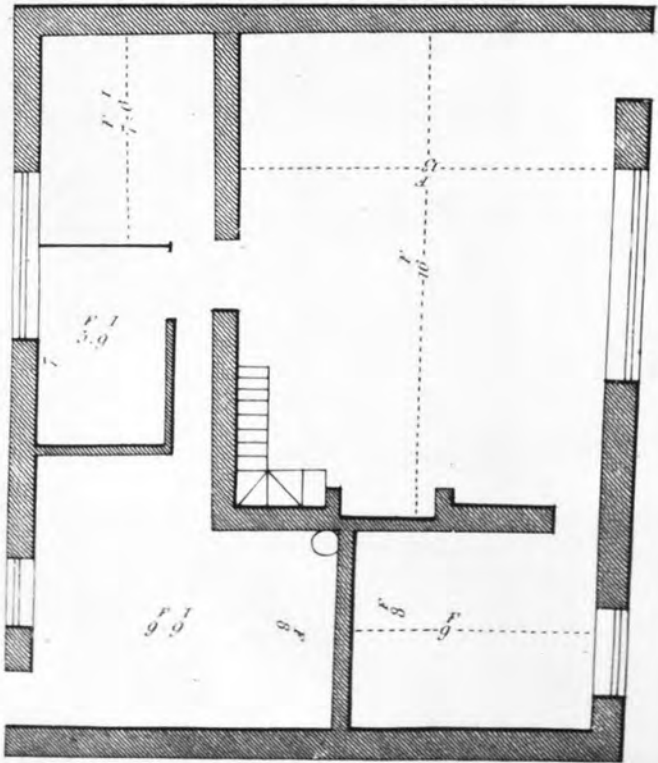


Plate XXXIV

Communications to the Board of Agriculture, vol.I (1797),

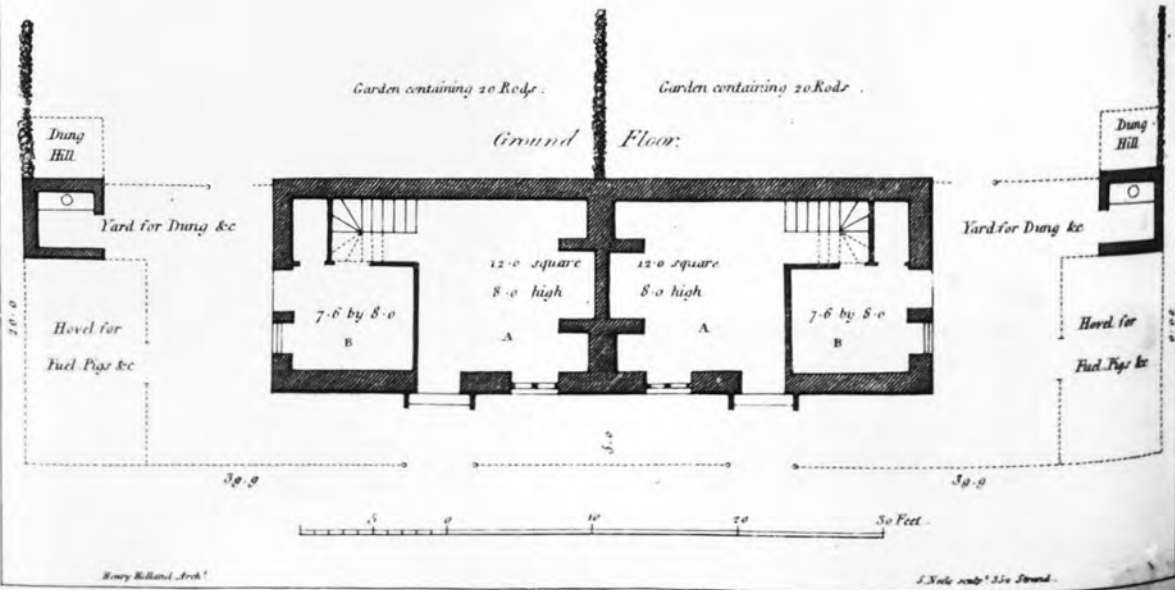
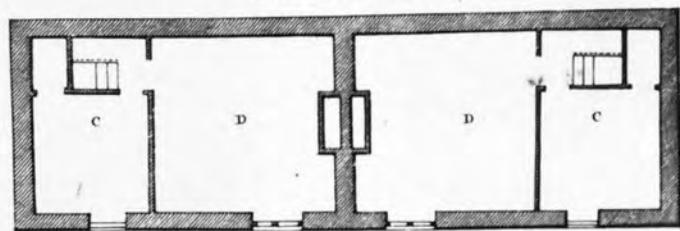
6. Plate XXXIV. Plan of a cottage as recommended by Mr. Crutchley.  
"...thought by most cottagers to be the best...with mud walls...will cost nearly forty pounds." (p.96)

*Design for two Cottages of the smallest size.*



*Extends ..... 45.6*

*One Pair of Stairs.*



*Henry Holland, Arch<sup>t</sup>*

*S. Wall and J. de Strand.*

7. Communications to the Board of Agriculture, vol.I (1797), Plate XXXV. Design for two cottages of the smallest size. Henry Holland, Architect. "...elegance and simplicity go hand in hand..."(p.98)



*Drawn & Engraved by J. T. Smith Engraver of the Antiquaries of London &c.*

AT CLANDON, SURREY.

*Formerly the residence of John Woolderidge, the Clandon Poet.*

*London: Printed and Sold by J. T. Smith, in Pall Mall.*

8. Smith (1797). At Clandon, Surrey. Formerly the residence of John Woolderidge, the Clandon Poet.

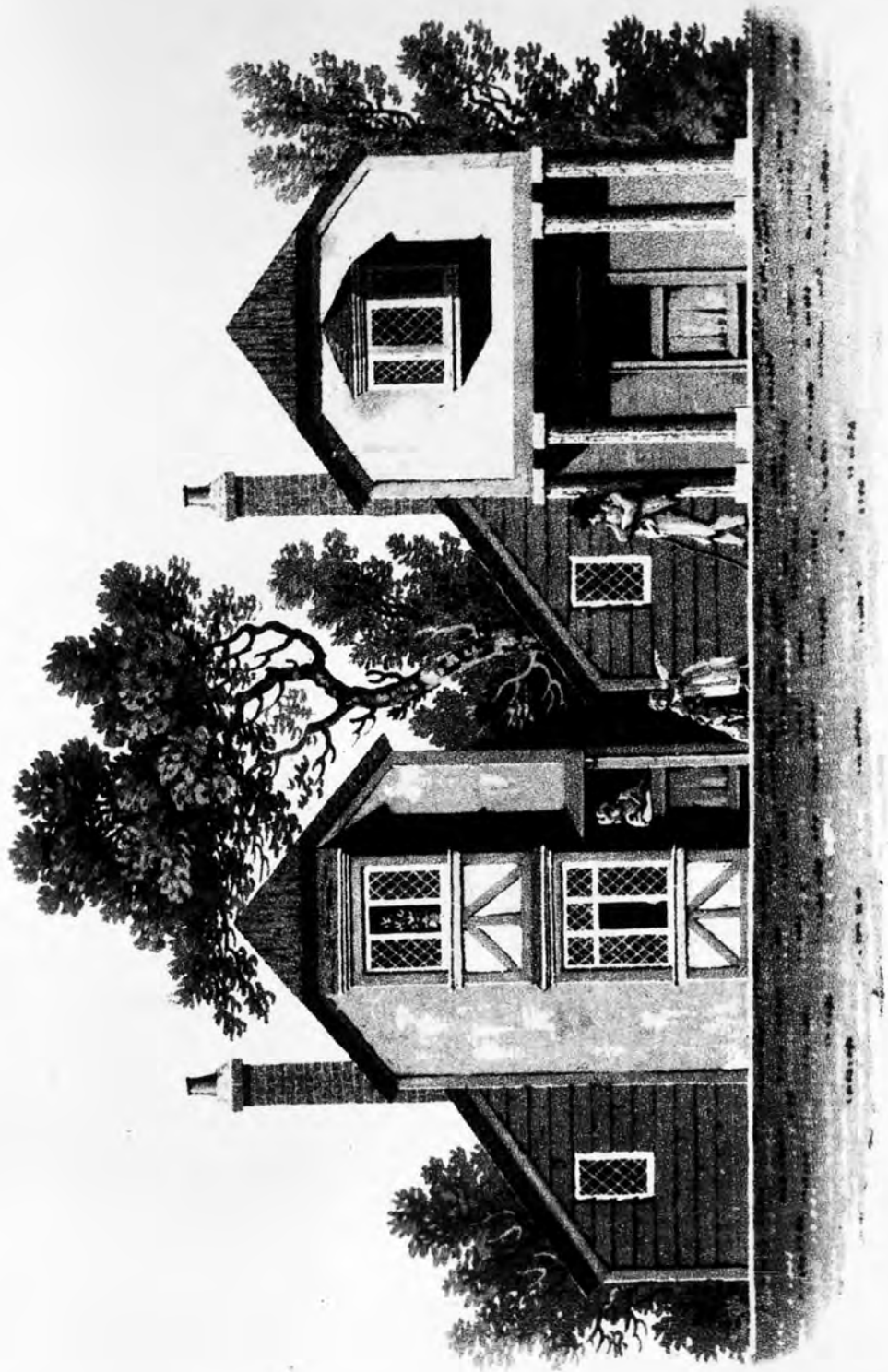


*Drawn & Engraved by J. Smith, Carpenter of the Antiquities of London & its Environs*

**NEAR DEPTFORD, KENT.**

*London Ed. May 17 1838 by F. Smith, Bookseller, Strand. G. May, Bookbinder, St. Martin's Lane. A. T. Smith, & Birch Street, Coln.*

9. Smith (1797), Near Deptford, Kent.

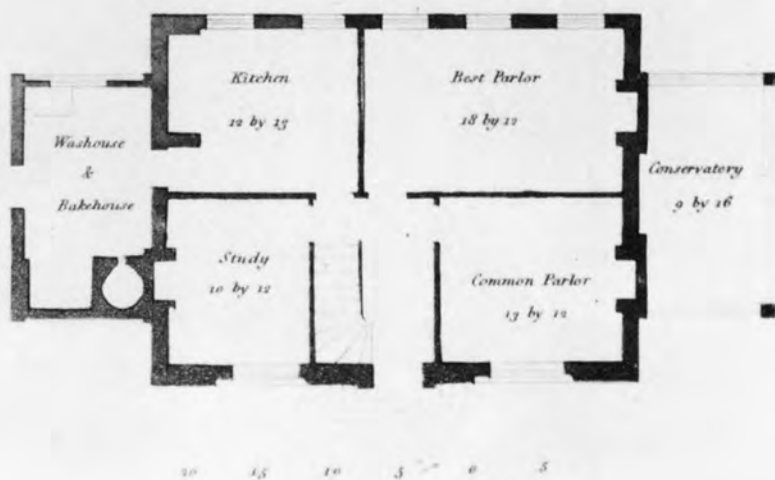
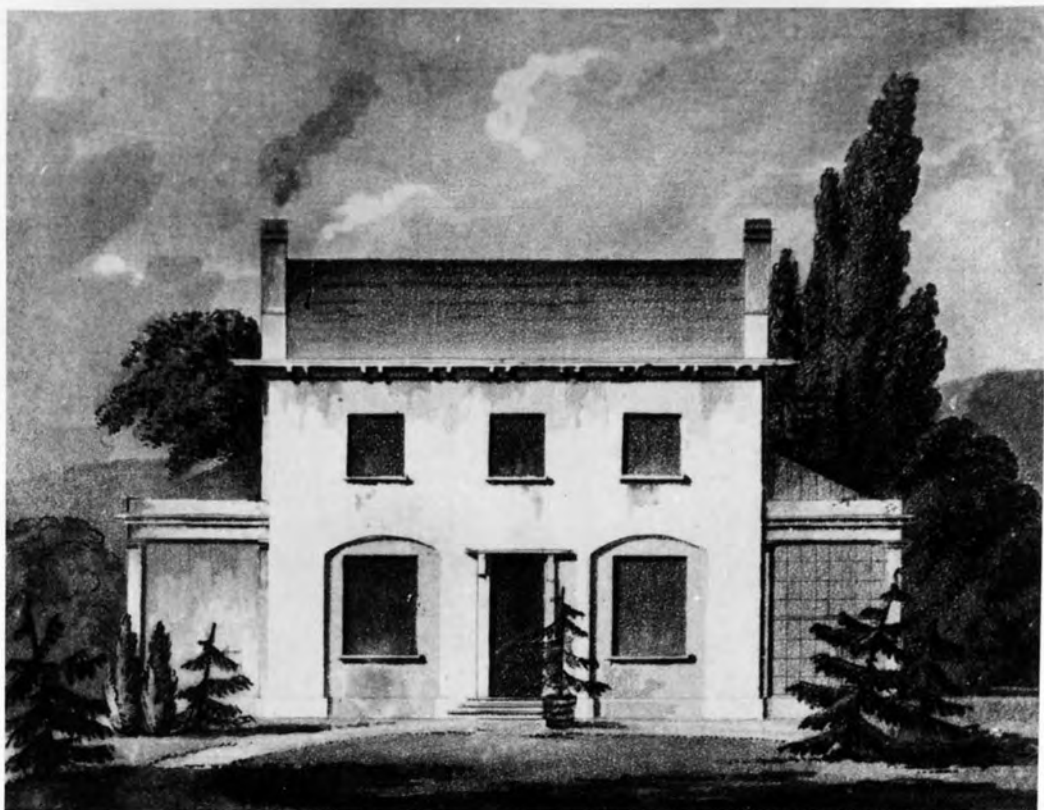


10. Malton (1798), Plate 4. Design 3, Design 4. Peasant Huts.



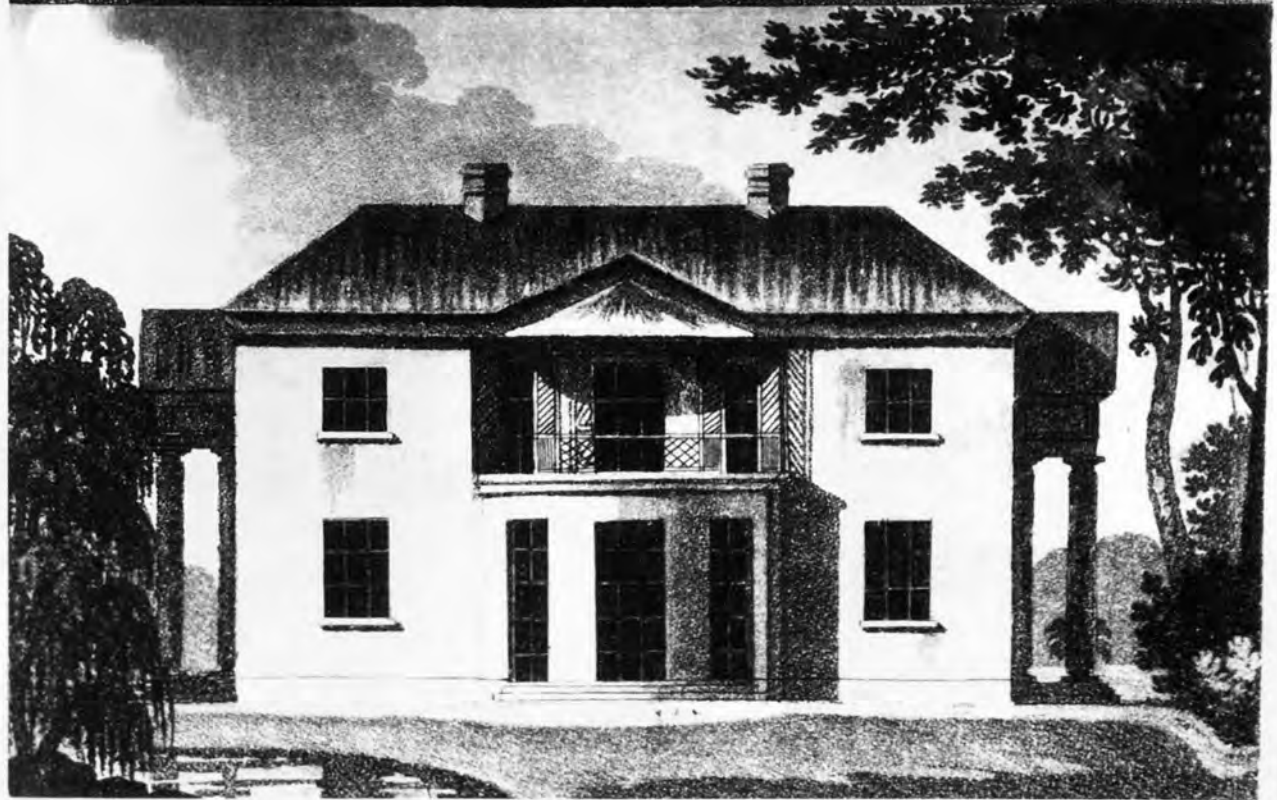


11. Malton (1798), Plate 5. Peasant Huts (perspective drawings).



*London Published by J. Taylor 59 High Holborn*

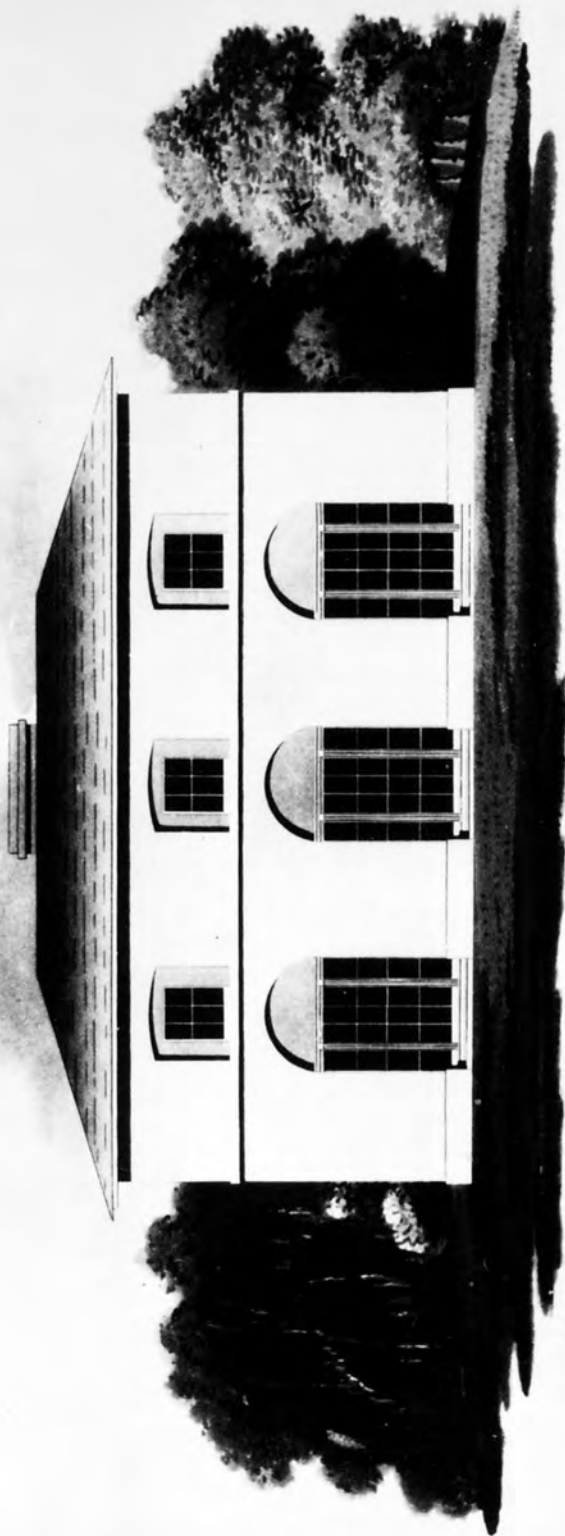
12. Flaw (1800), Plate 8. Cottage or Rural Dwelling.



13. Elsam (1803), Plate 1. Rustic Cottage.



*Drawing Room Front of a Small House Designed for  
W. Hambury at Hitched in Essex.*

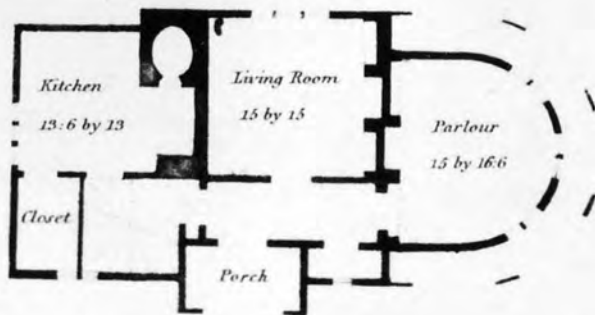


*London, Published for the Author, May 1803, by E.L. Lawrence, 378 Strand.*

*J. H. Roberts*



*Ornamented Cottage.*



*London. Published by J. Taylor N<sup>o</sup>. 59 High Holborn.*

VIEWS  
OF  
PICTURESQUE COTTAGES  
WITH PLANS



SELECTED FROM A COLLECTION OF DRAWINGS TAKEN IN DIFFERENT PARTS OF ENGLAND, AND INTENDED AS HINTS FOR THE IMPROVEMENT OF VILLAGE SCENERY;

BY WILLIAM ATKINSON ARCHITECT.

---

*— every pleasing object more will please?  
As tells th'observer its intention sees:  
But thinks it formid for use, and placid by chance  
Within the limits of his transient glance? Knight*

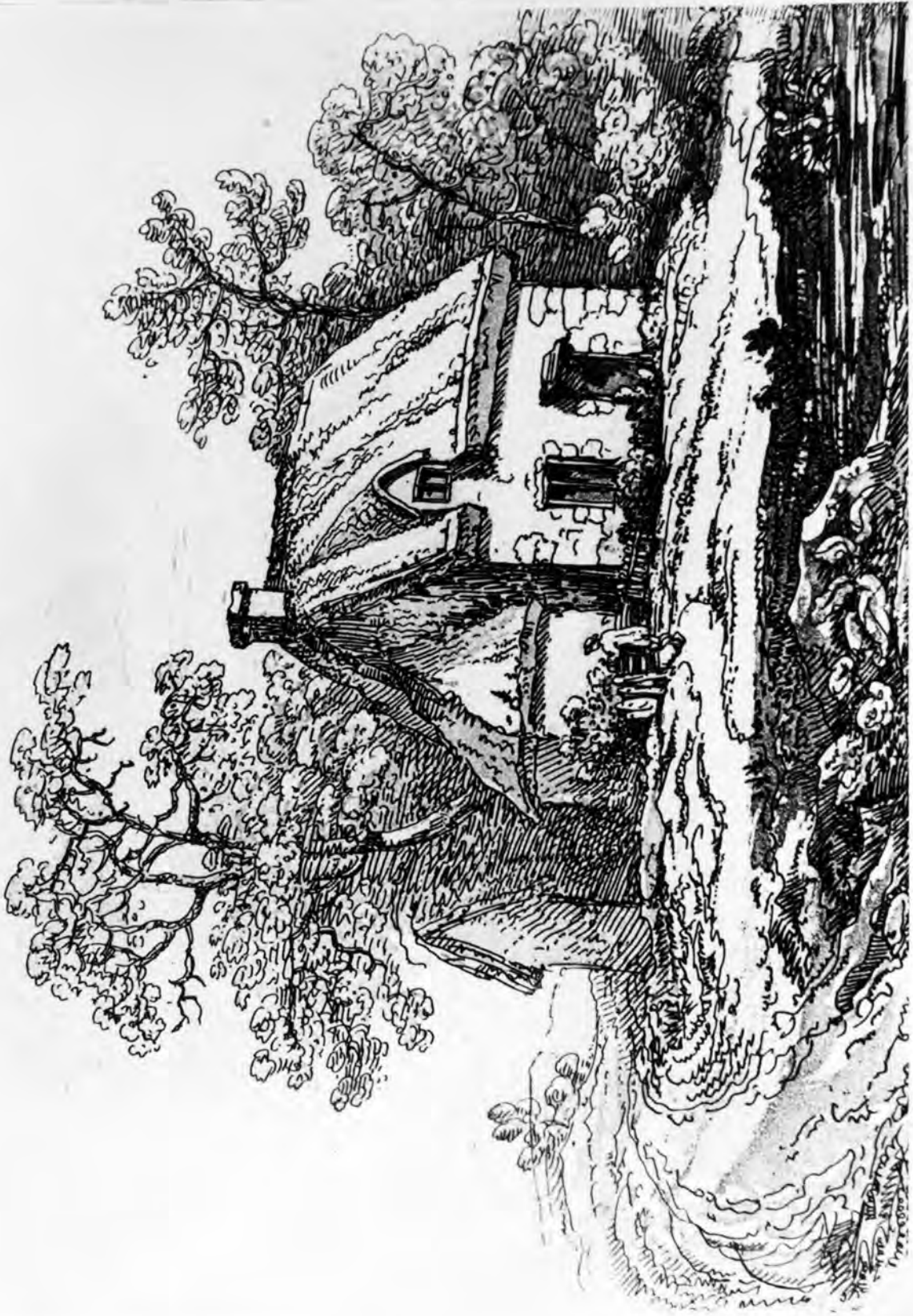
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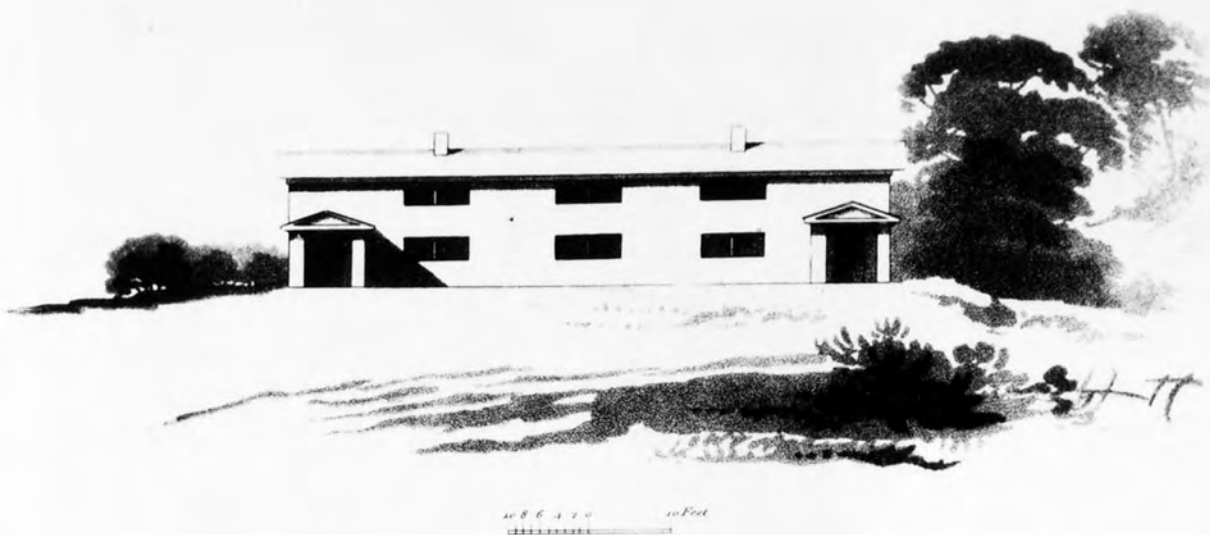


18. Atkinson (1805), Plate 2.



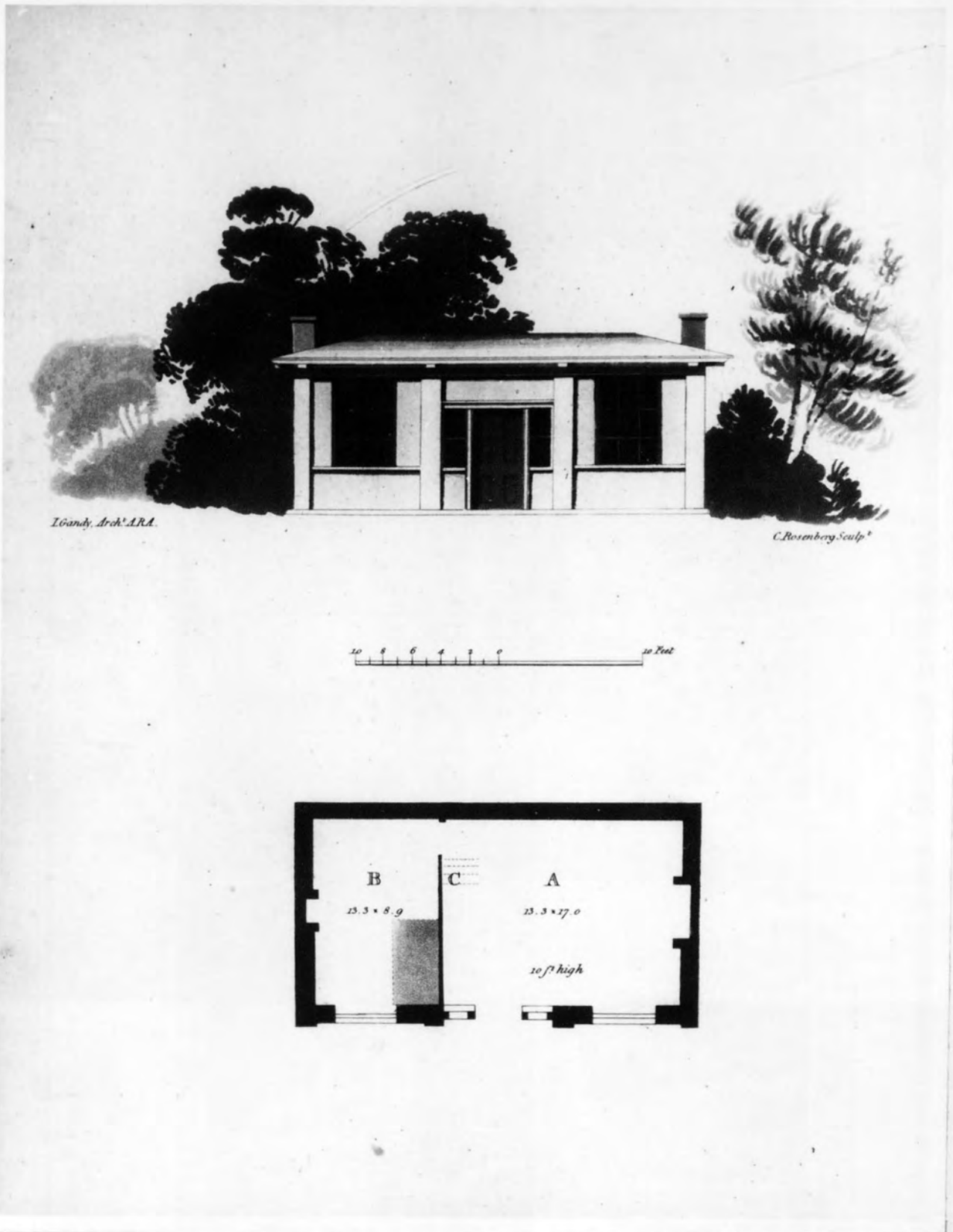


19. Atkinson (1805), Unnumbered (Plate 10).

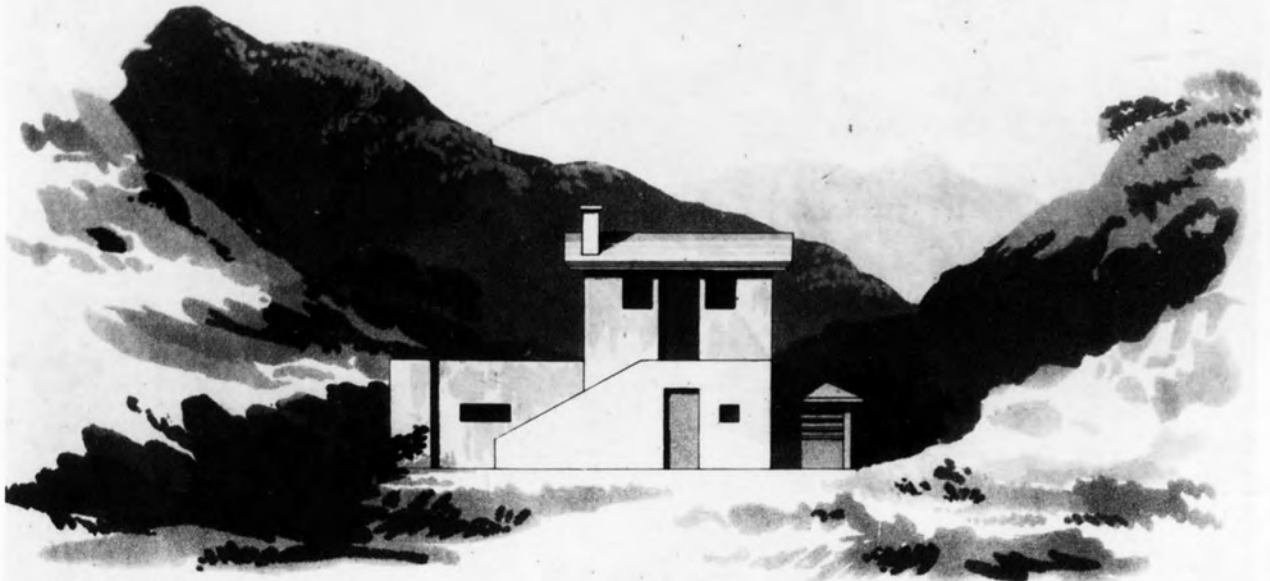


*London Published by John Harding 56 St. James's Street March 20<sup>th</sup> 1805.*

20. Gandy (1805), Plate V. A Double Cottage, for Labourers whose Work is principally at Home, near to a Market Town.

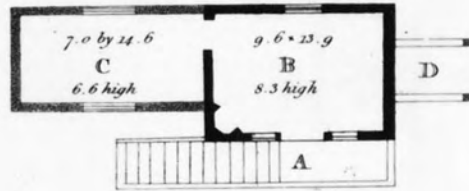
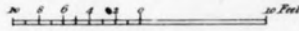


21. Gandy (1805), Plate XIII. A Single Cottage.

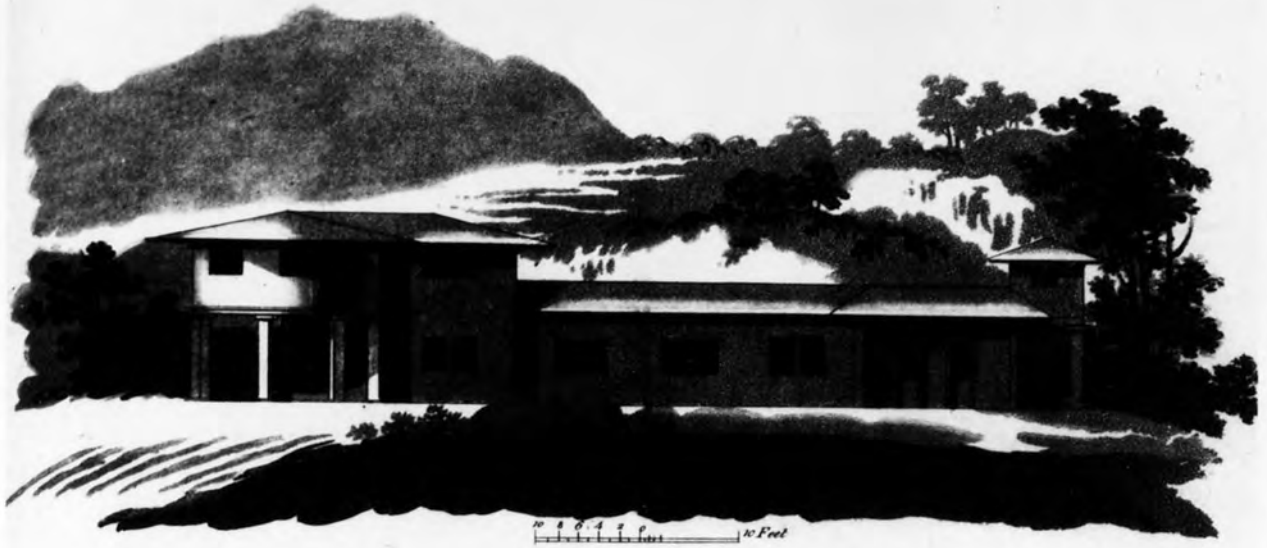


*Gandy, Arch' A.R.A.*

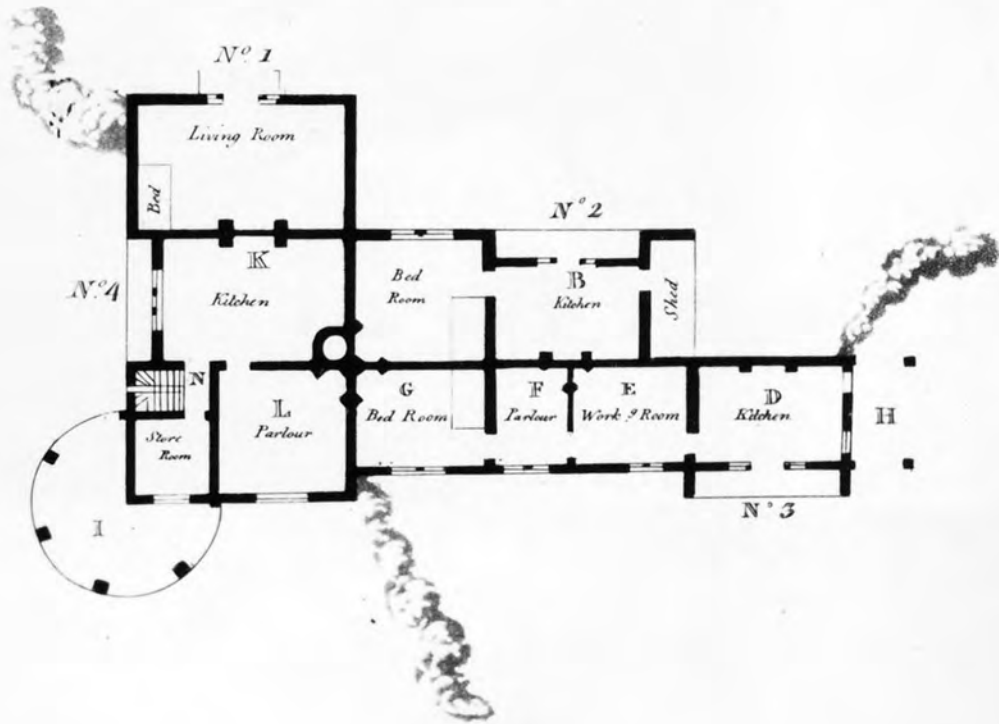
*C. Rosenberg Sculp'*



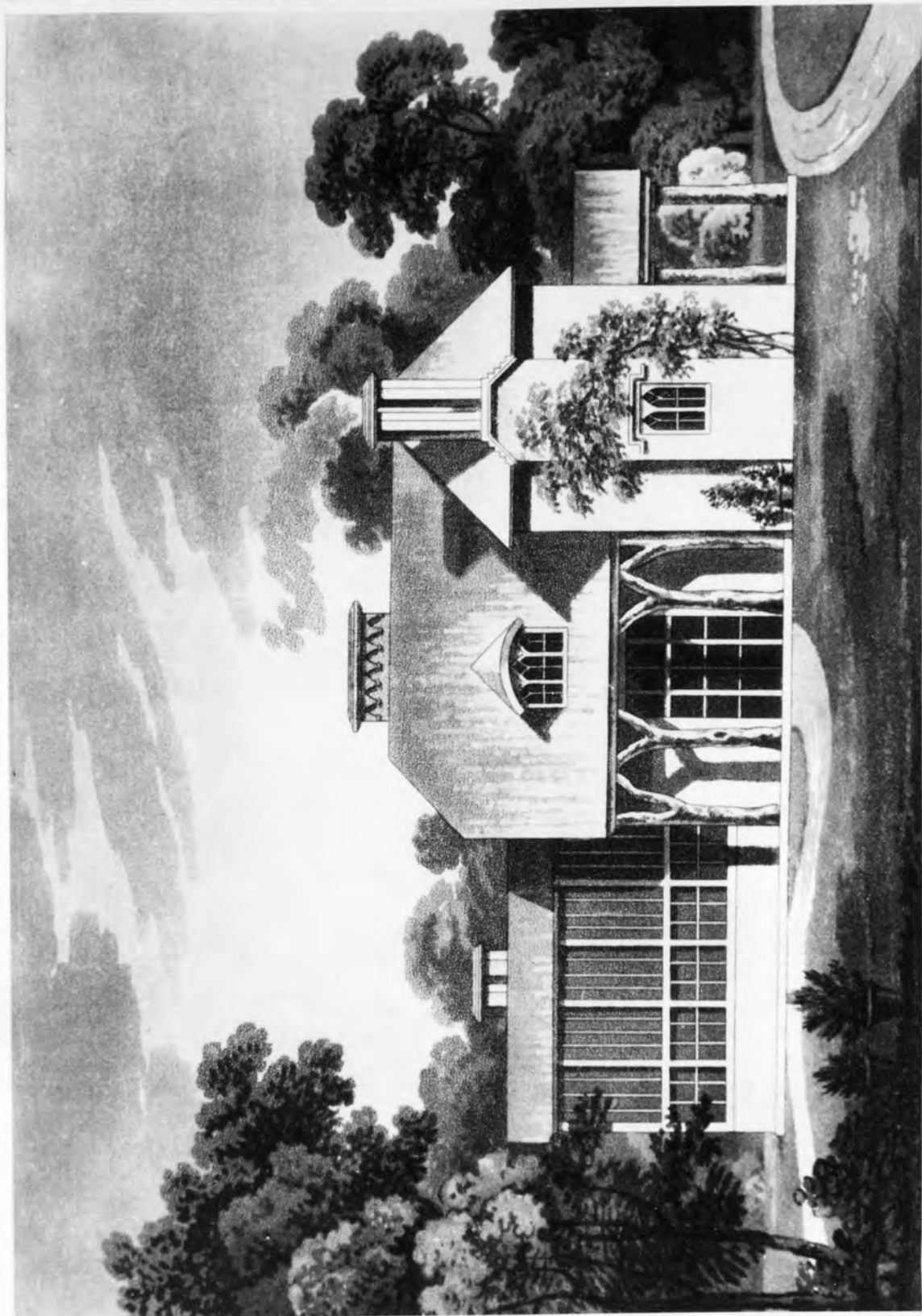
22. Gandy (1805), Plate XV. A Single Cottage.



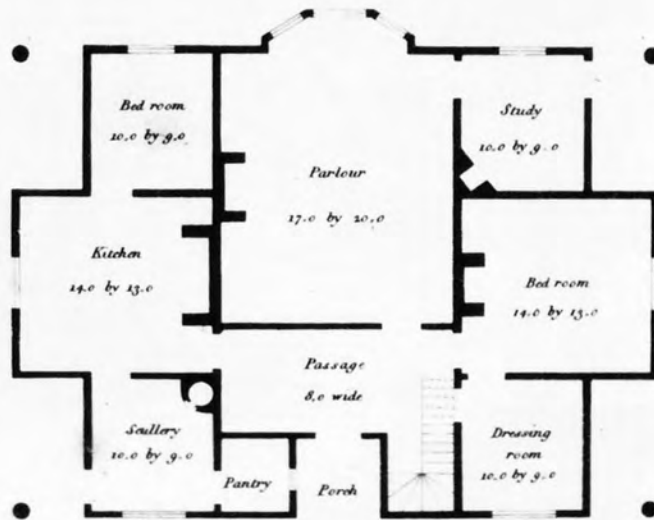
*Four Cottages*



23. Gandy (1806), Plate XXII. A Group of Four Cottages.



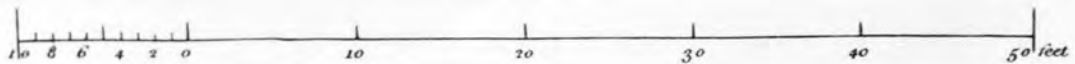
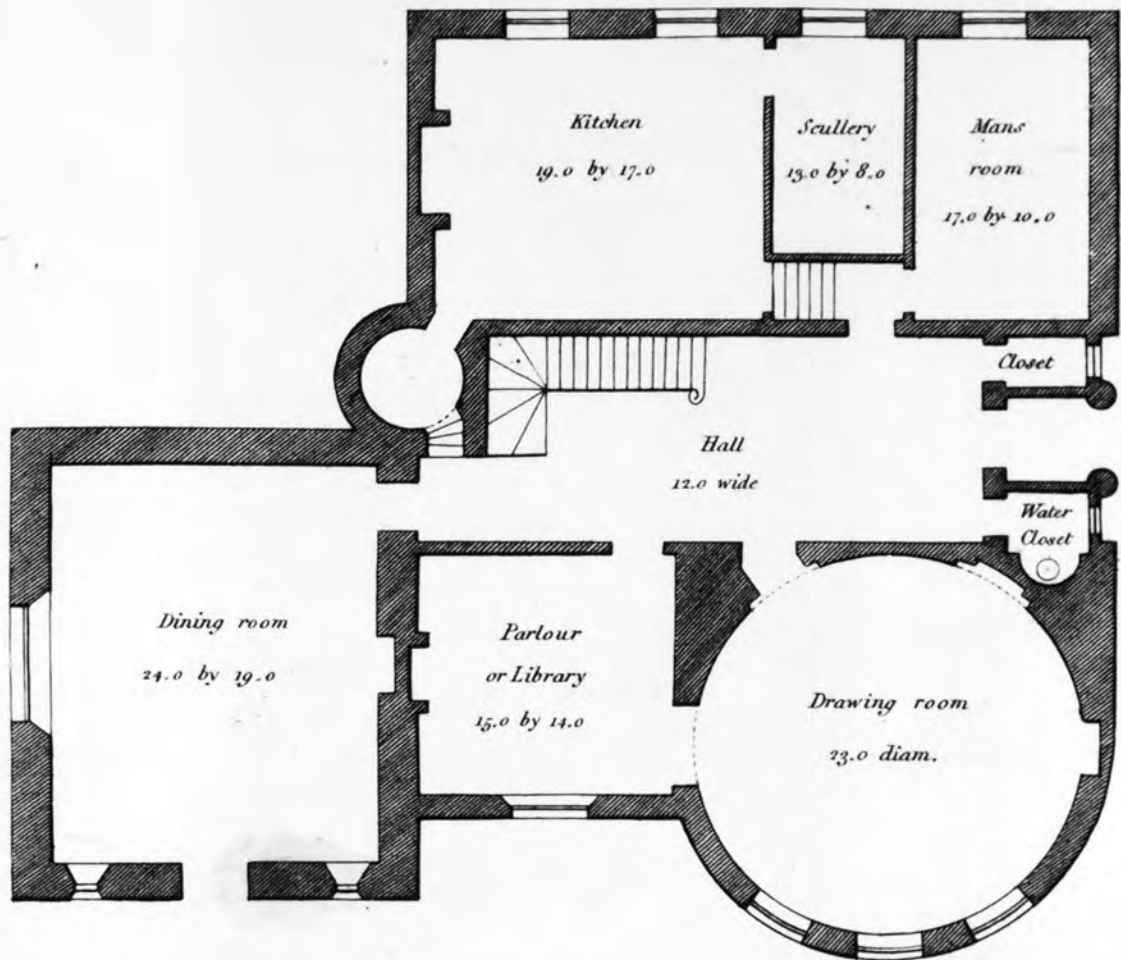
24. Pocock (1807), Plate XIII. A Cabane Ornée, or ornamented Cottage.



10 20 30 40 50 60 feet

London. Published by J. Taylor N° 55 High Holborn.

25. Aikin (1808), Plate I. Cottage.

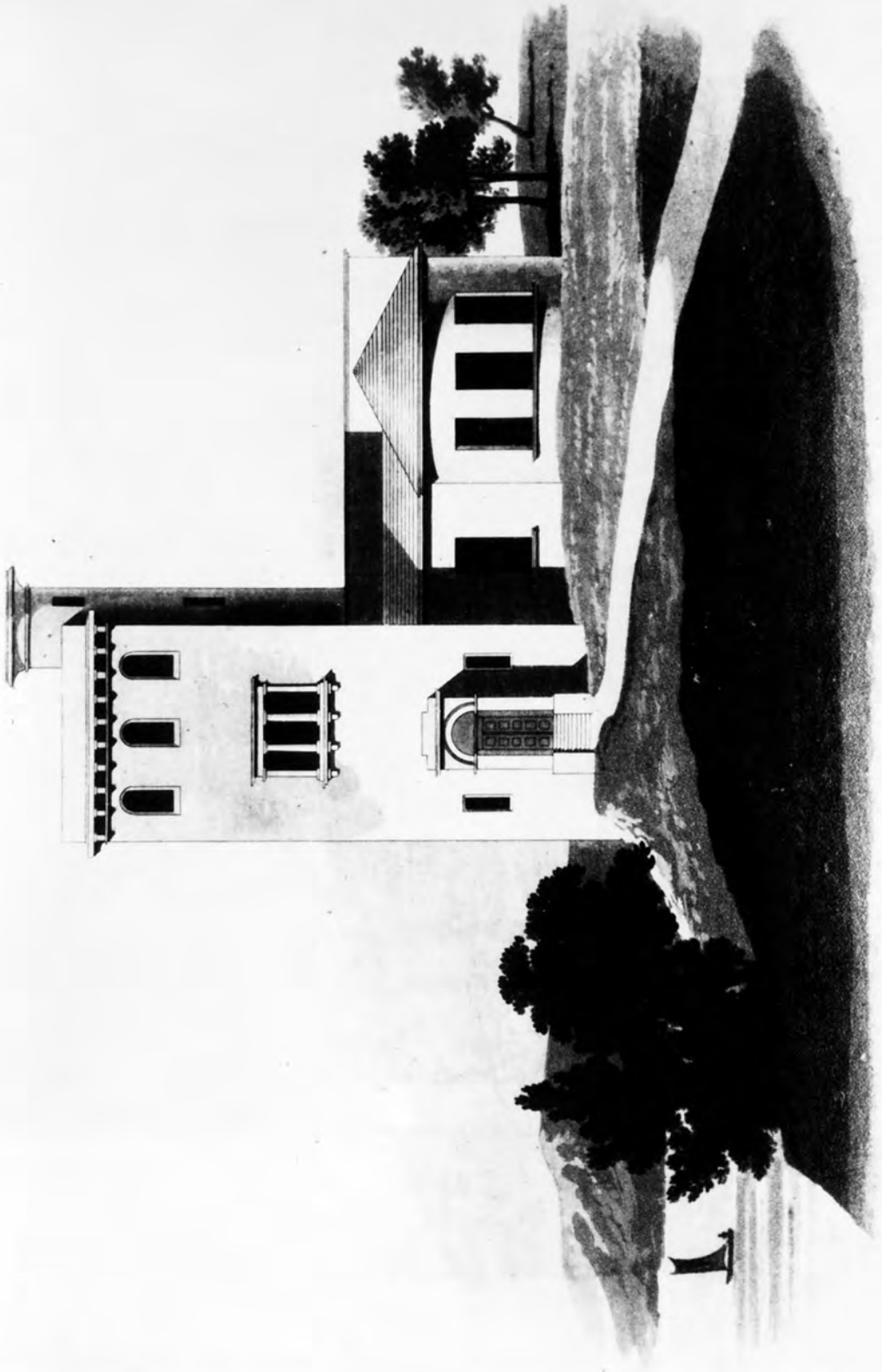


26. Aikin (1808), Plate XIV. Villa, plan.

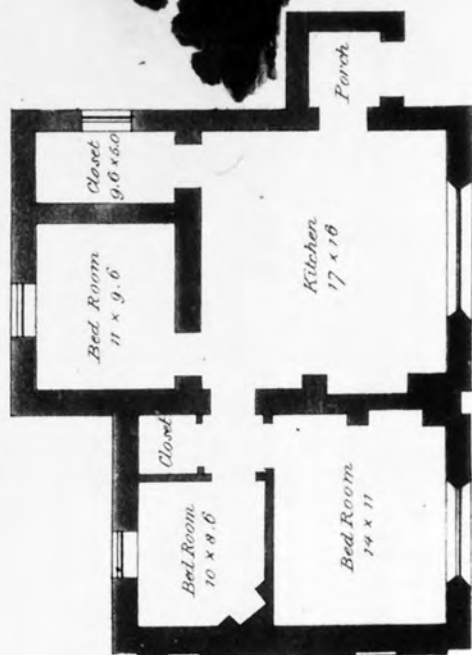
"In this design I have attempted that picturesque character...produced by a departure from the usual rules of uniformity." (p.20)



PL. XVI

*London: Published by Thomas Agnew & Sons, Regent Street.*

27. Aikin (1808), Plate XV. Villa, elevation.

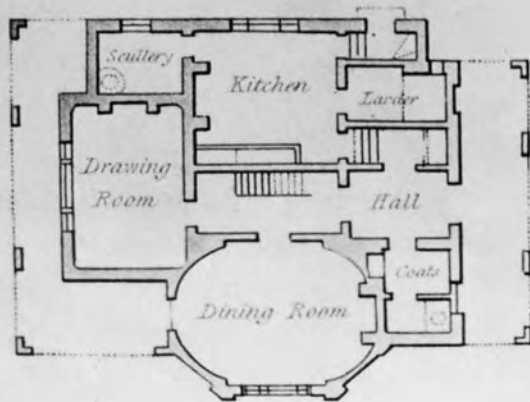
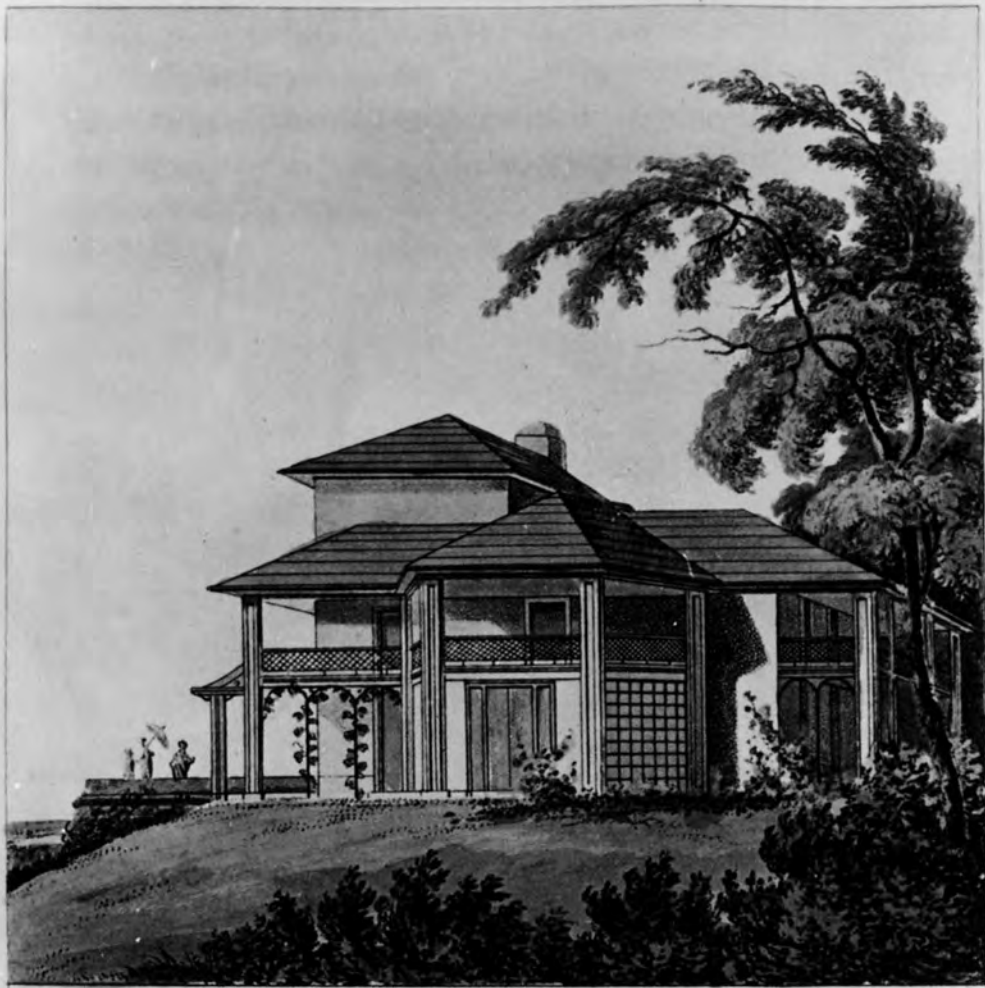


Scale 1" = 4' Feet

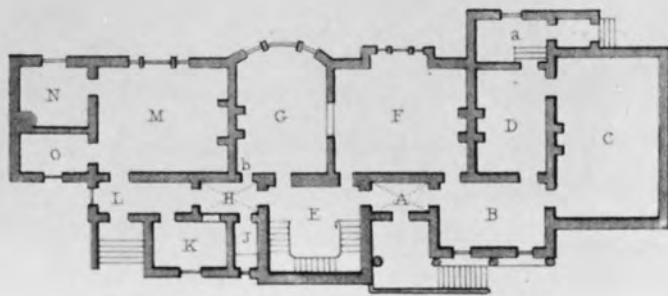
*Plan, Elevation, and descriptive view of a design for a Peasant's or Farmer's Cottage.*

*London, Pub. Marsh List by R. A. Sherman, 101 Strand.*

28. Elsam (1816), Plate V. A Peasant's or Farmer's Cottage.

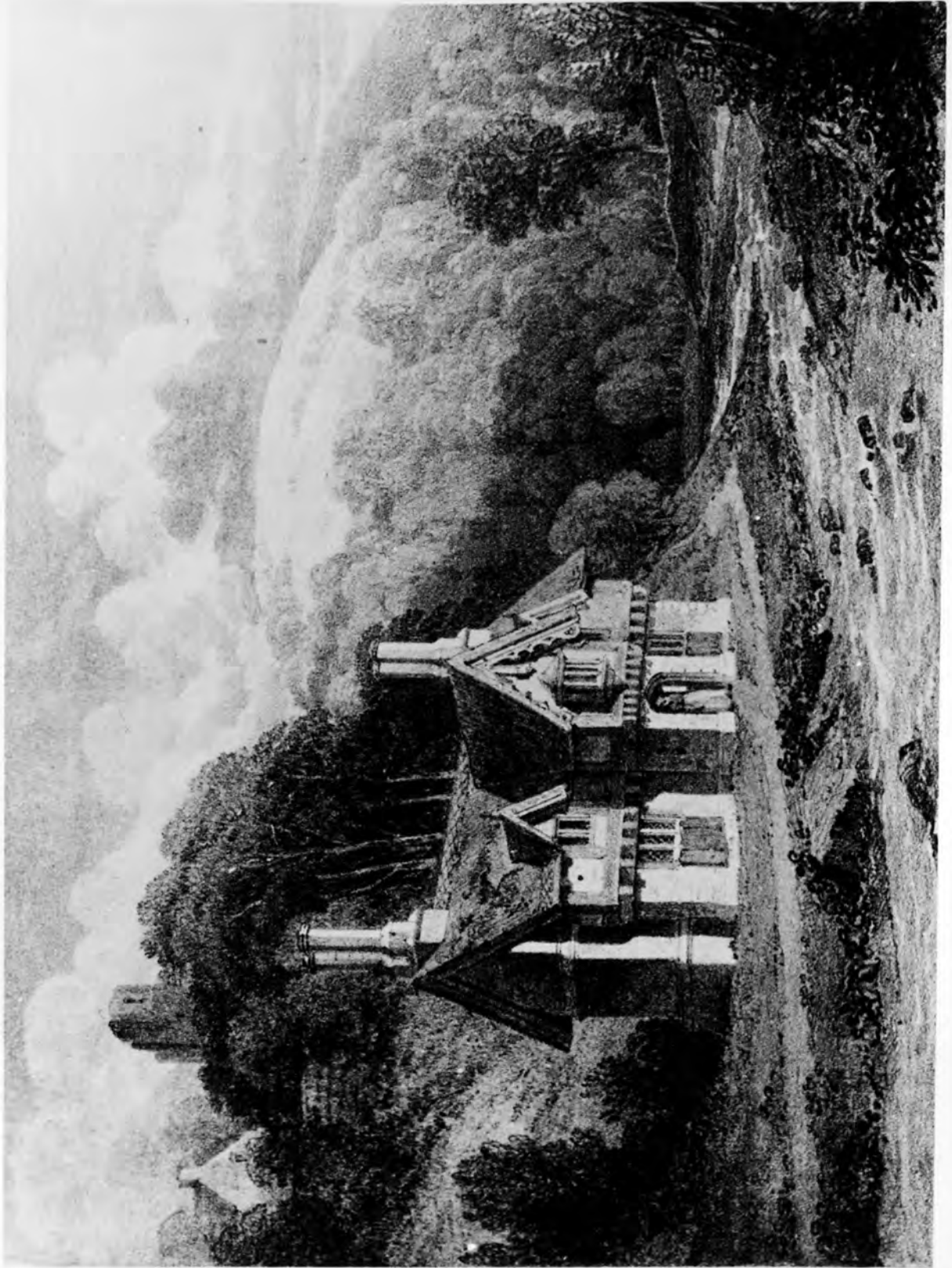


29. Papworth (1818), Plate XIII. A Cottage Orné.  
 "To combine utility with picturesque beauty at a moderate expense...." (p.53)



J.B.F.

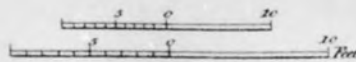
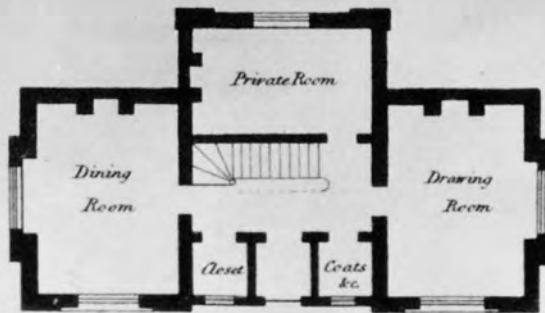
30. Papworth (1818), Plate XVII. A Villa.



31. Robinson (1823), Plate 24. Design No. VI.  
"...regularity of design has its advocates...  
erected as a Farm-House...."

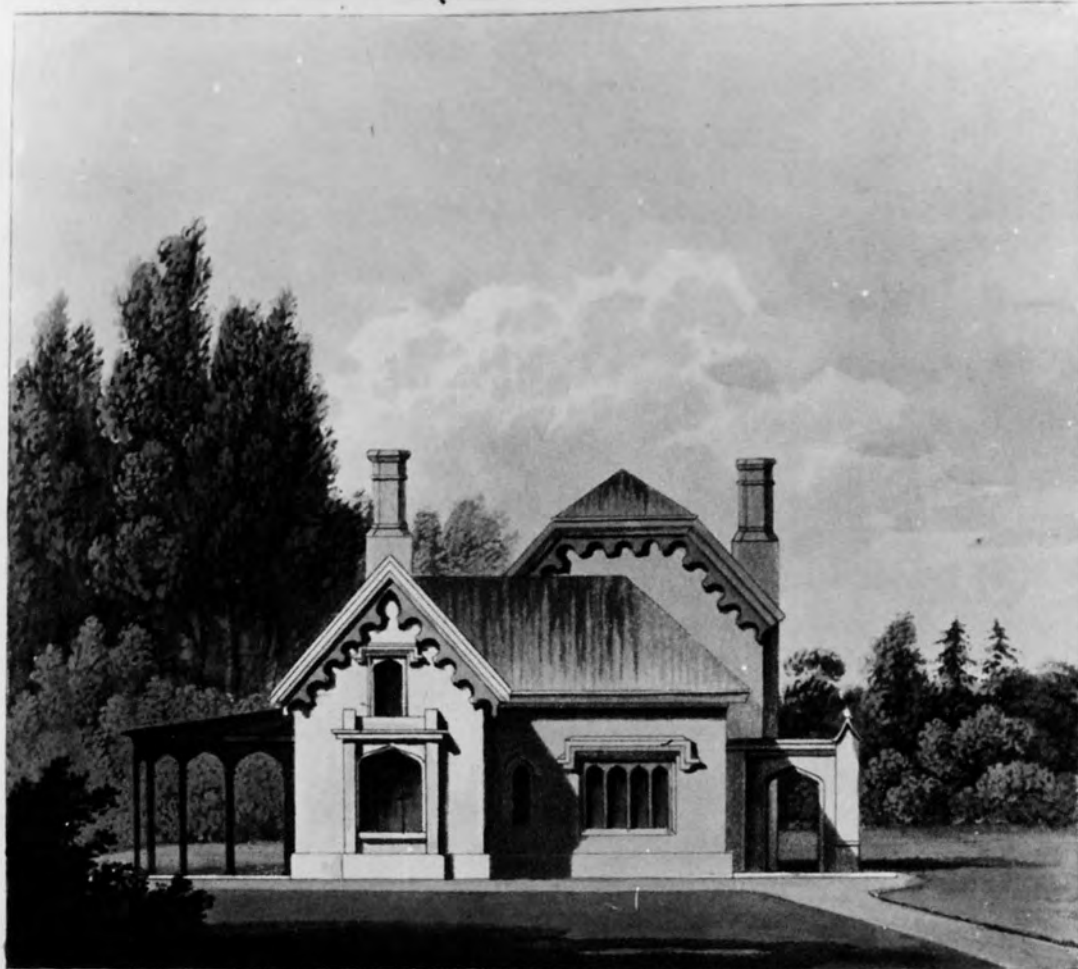


32. Robinson (1823), Plate 88. Design No. XIX.  
"...a residence...the Cottage Style...or rather  
that perhaps of the Ancient Manor House...."



33. Thomson (1827), Plate I. Grecian Cottage.

"...for...an active partner in a mercantile house... ."  
(p. 1)



34. Thomson (1827), Plate X. Rustic Cottage Residence.  
 "Some buildings are dictated merely by necessity,  
 or for periodical convenience...." (p.9)

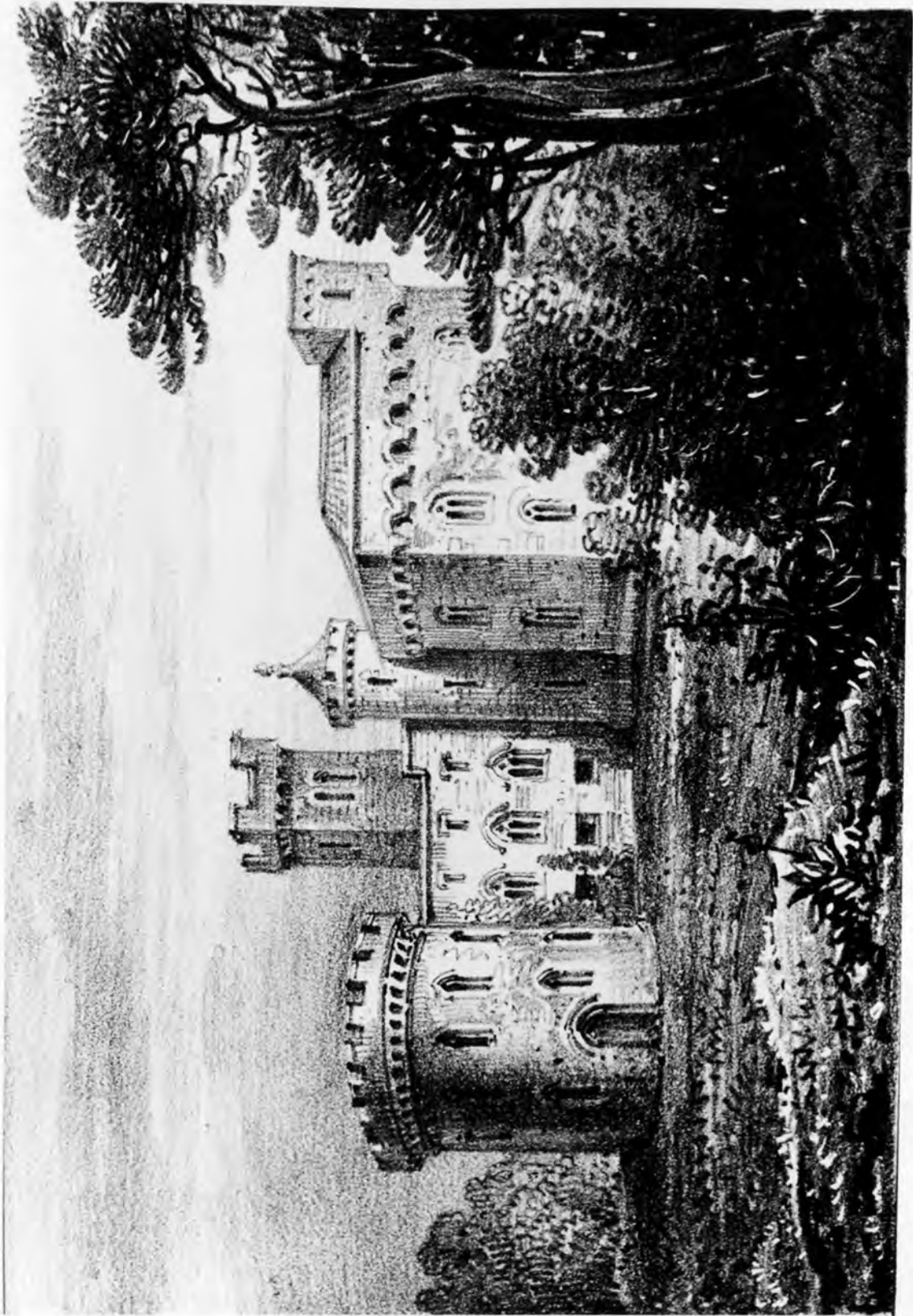




35. Meason (1828), Plate 14. Dominichino.  
"The building represents probably a very small  
early built monastery." (p.123)



36. Meason (1828), Plate 15. Nicolo Poussin.  
"...only a small part of that magnificent pile in  
the fine picture of the infant Moses exposed." (p.123)

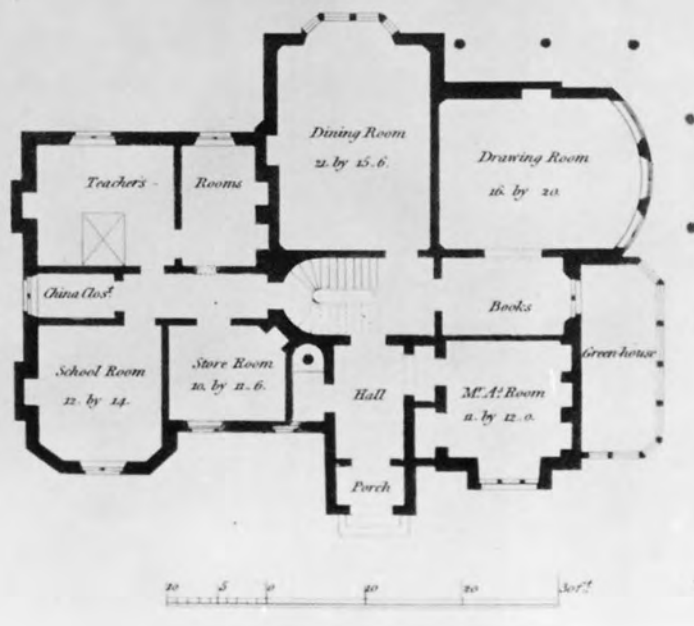


37. Meason (1828), Plate 46. Claude Lorraine.

"With very little alteration this building might be converted into a sufficiently commodious dwelling."  
(p.140)

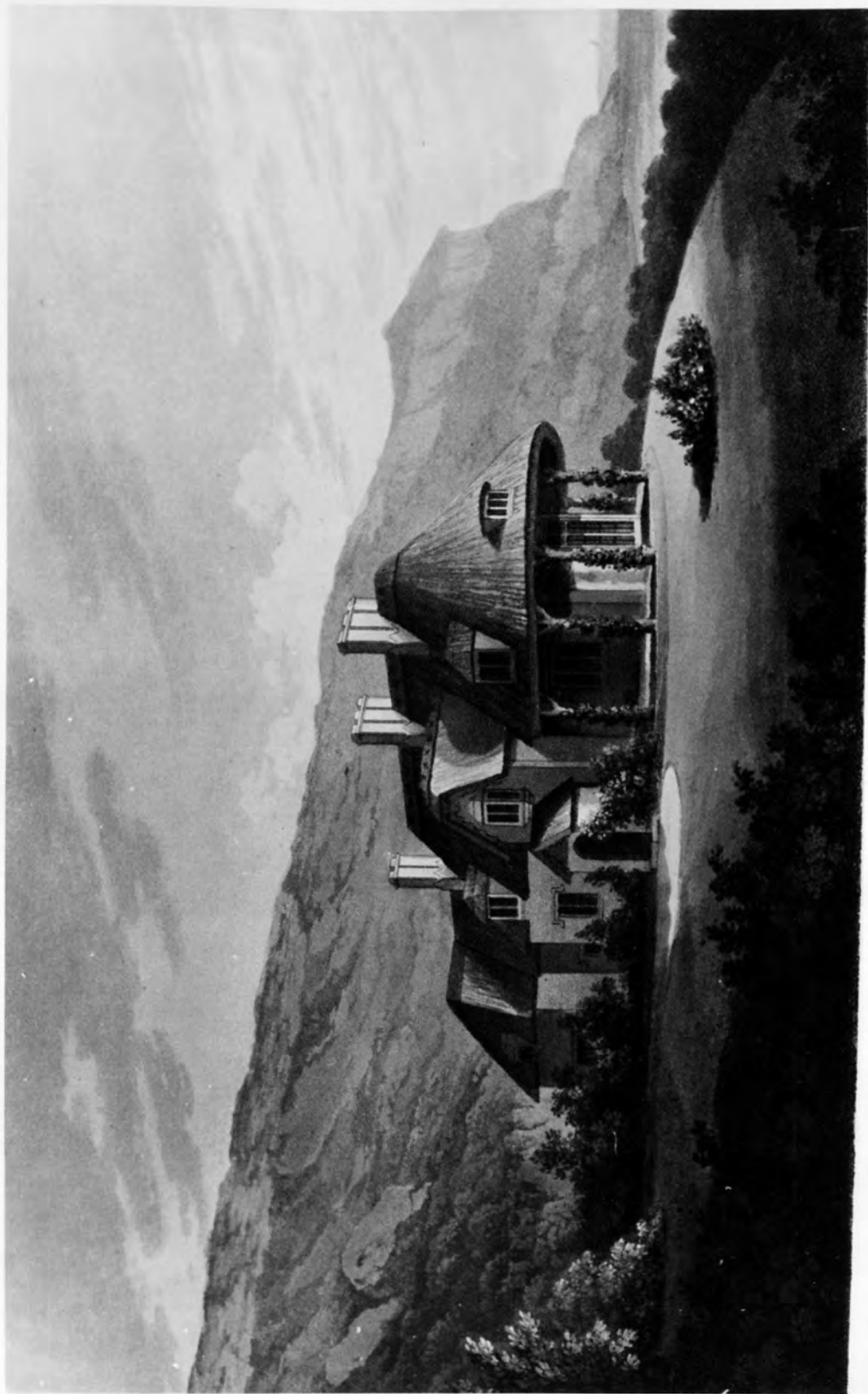


M. LINDSAY &amp; CO.



38. Lugar (1828), Plate X. Cottage.

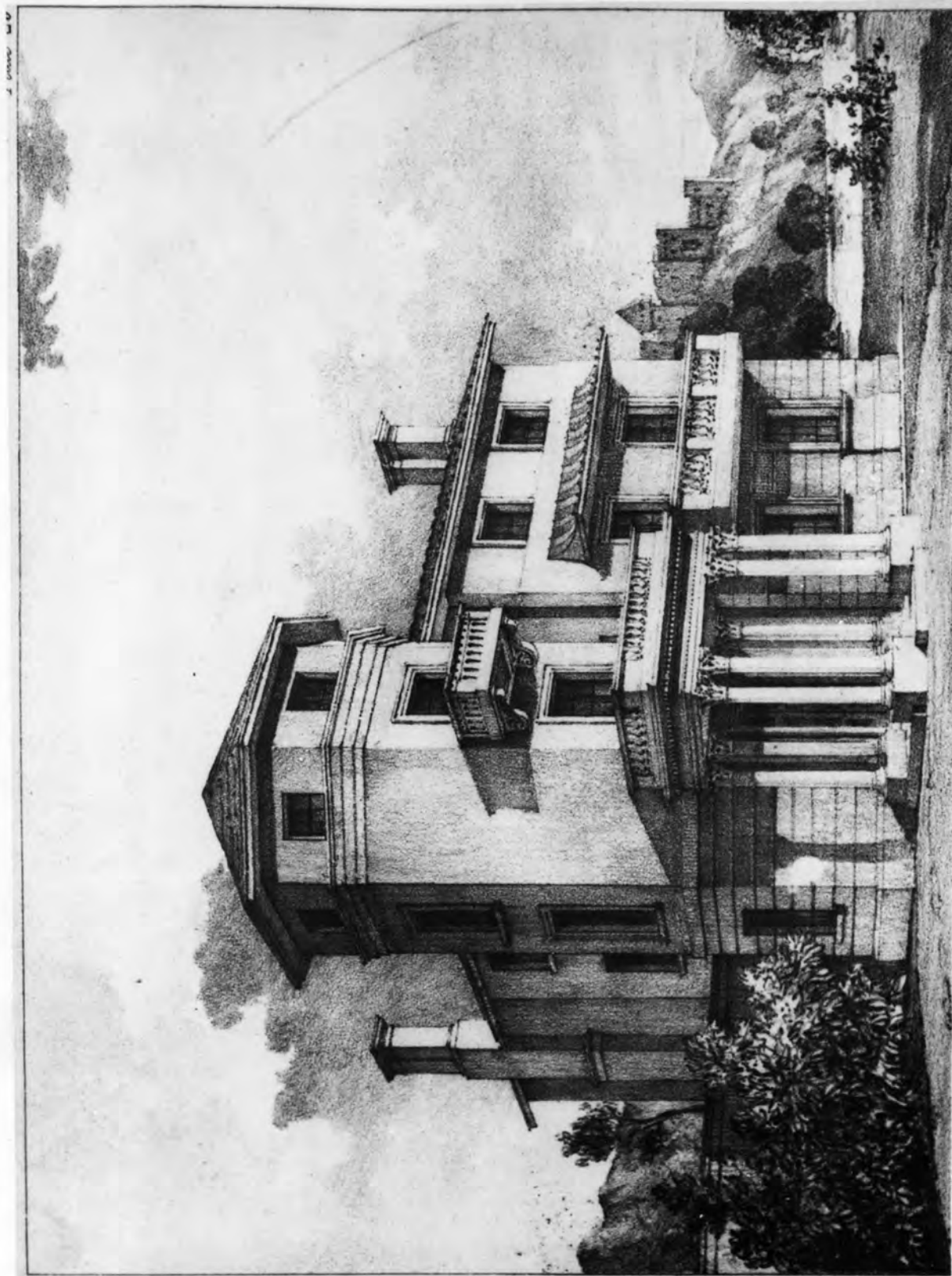
Intended for a summer retreat "...within a few miles of Liverpool." (p.9)



39. Lugar (1828), Plate XI. Puckaster Cottage, Isle of Wight.  
"...the outside...an improved and enlarged fisherman's hut...." (p.11)



40. Lugar (1828), Plate XIII. Yaxham Parsonage, Norfolk.



41. Jackson (1829), Plate 25. Design No. V.

42. London (1833), Design XVI, Figs. 112-115. "A Dwelling for a Man and his Wife without Children." (p. 67)

walls from the platform to the roof, give a certain expression of dignity to the exterior of this dwelling which every one must feel. But this expression is sadly counteracted by the mean, crouching appearance of the thatched roof, which, both as regards the material of which it is made, and the form in which it is disposed, is altogether unsuitable for the walls. In general, the truncated gable ends, such as are seen over the entrance-door, and at both ends of this cottage, convey the idea of imperfection of

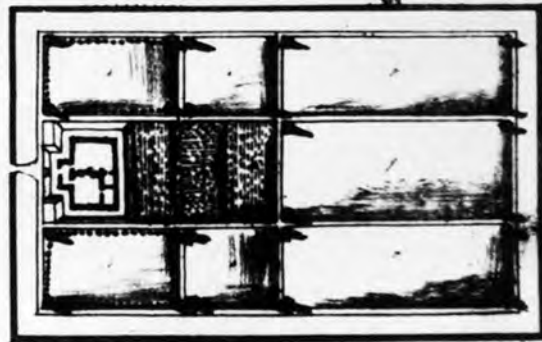
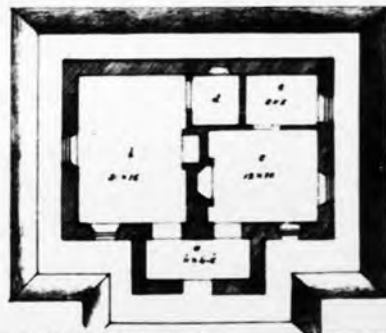
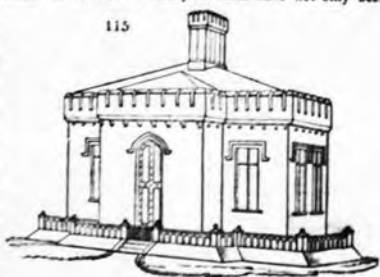
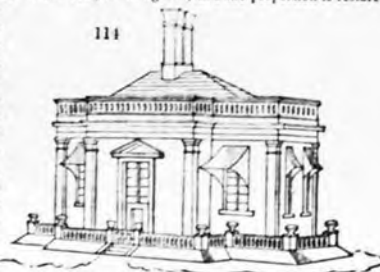
form, of restricted resources, and of meanness and tameness of character. If we suppose the

pediment of the gable ends completed, even though the building continued to be covered with thatch, the effect (fig. 112) will be superior, and will leave much less to be wished for. But still the expression of a thatched cottage, as such cottages are generally seen and formed in Britain, is not complete; the walls continue to be too high, and the roof too low in the pitch, or not sufficiently steep on the sides; that is, the proportion between the walls and roof to which we are accustomed is violated. Lower

the walls, and increase the surface of the roof, as in fig. 113, and the proportion is restored, the eye satisfied, and the expression of a thatched cottage comparatively complete. Let it not be supposed, however, that we prefer these proportions to those given in fig. 112 with a view to the principle of use; but for the sake of maintaining the beauty of style, we would, with windows of these proportions, introduce the Italian or Grecian roof of low pitch, similar to that of Design XV. Cottages with truncated gable ends, and with roofs, sometimes thatched and

sometimes of slates, seem to be much approved of by many British architects; and many of them have not only been

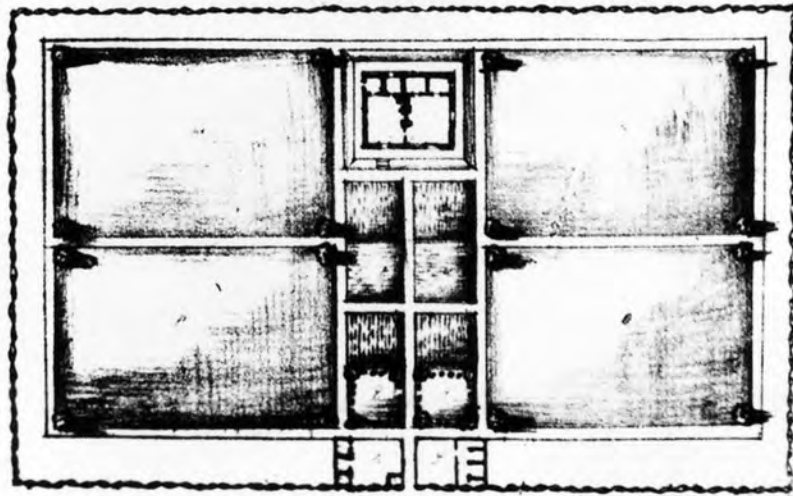
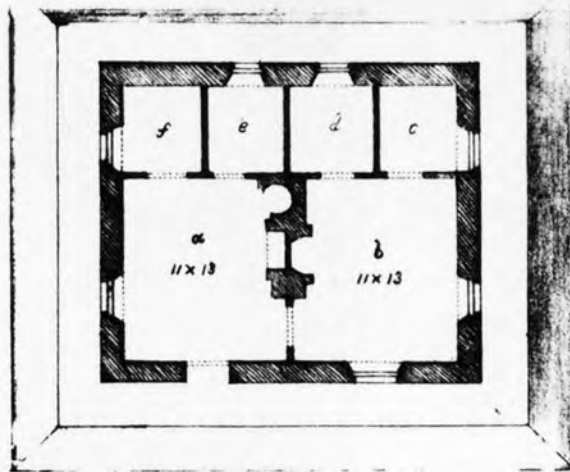
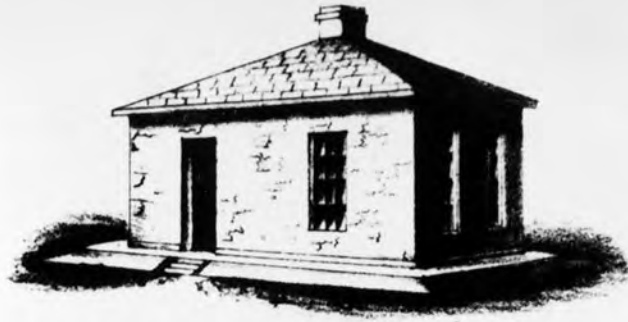
built, but several Designs in this manner have been published. We have no doubt they pleased at the time of their first introduction, from the novelty of the form, and they still please some; but we doubt much if the pleasure they communicate will stand the test of time. There is scarcely any architectural landscape painter who, if he were left to his free choice, would introduce Design XVI into his composition in preference to fig. 113; at the same time we



J. R. Lacey.

M. 28. 6.



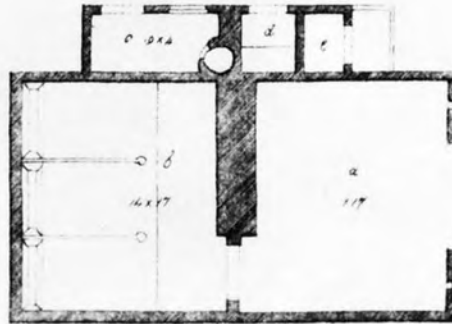
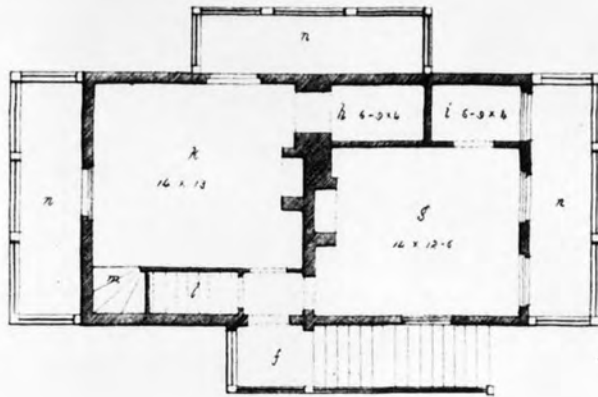


*J. A. Libby.*



*M. S. Co. N.Y.*

43. Loudon (1833), Design XXI. "A Dwelling for a Man and his Wife, without Children."  
 "...a dwelling of the humblest class..." (p.87)

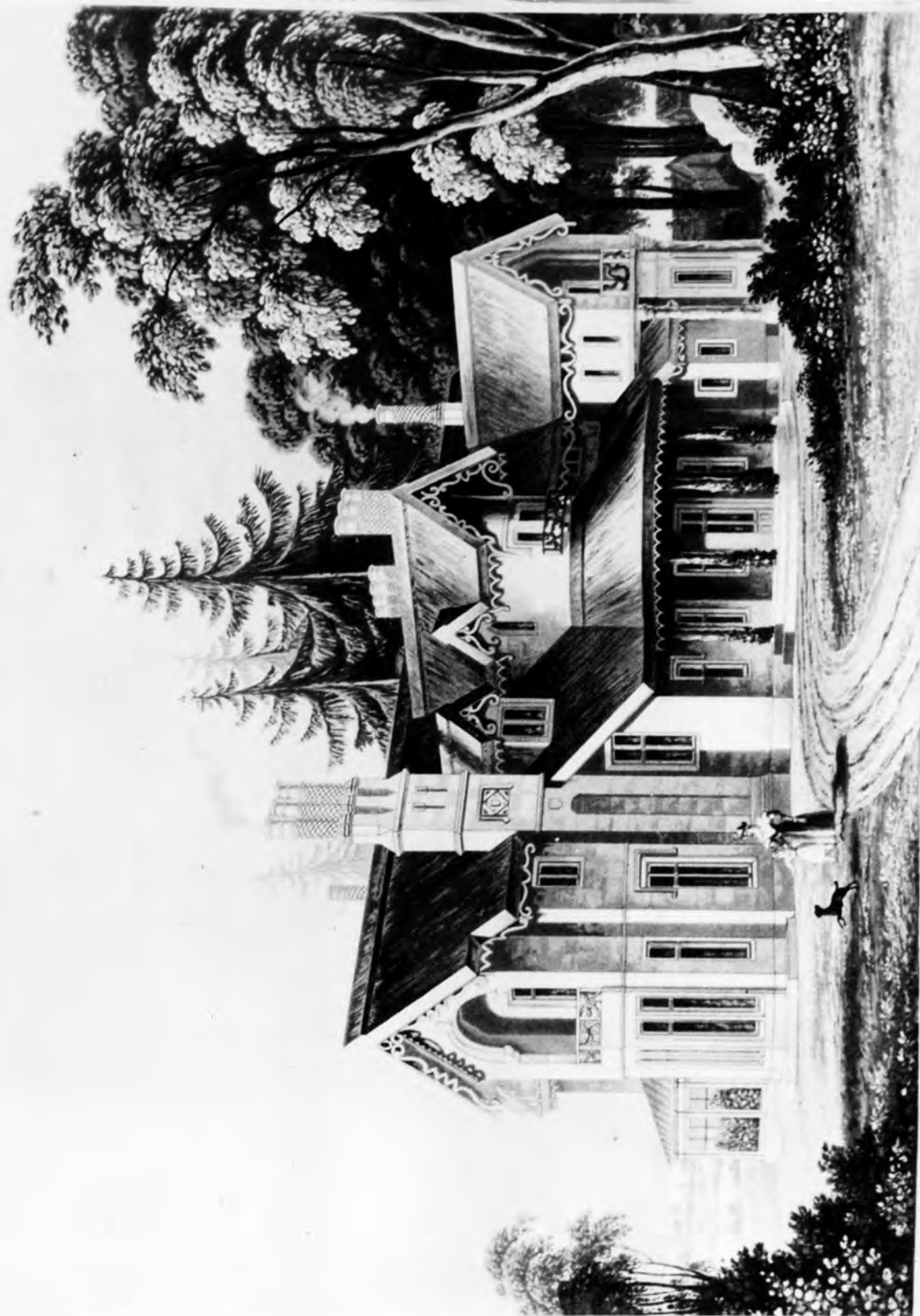


*J.P. Lithog*

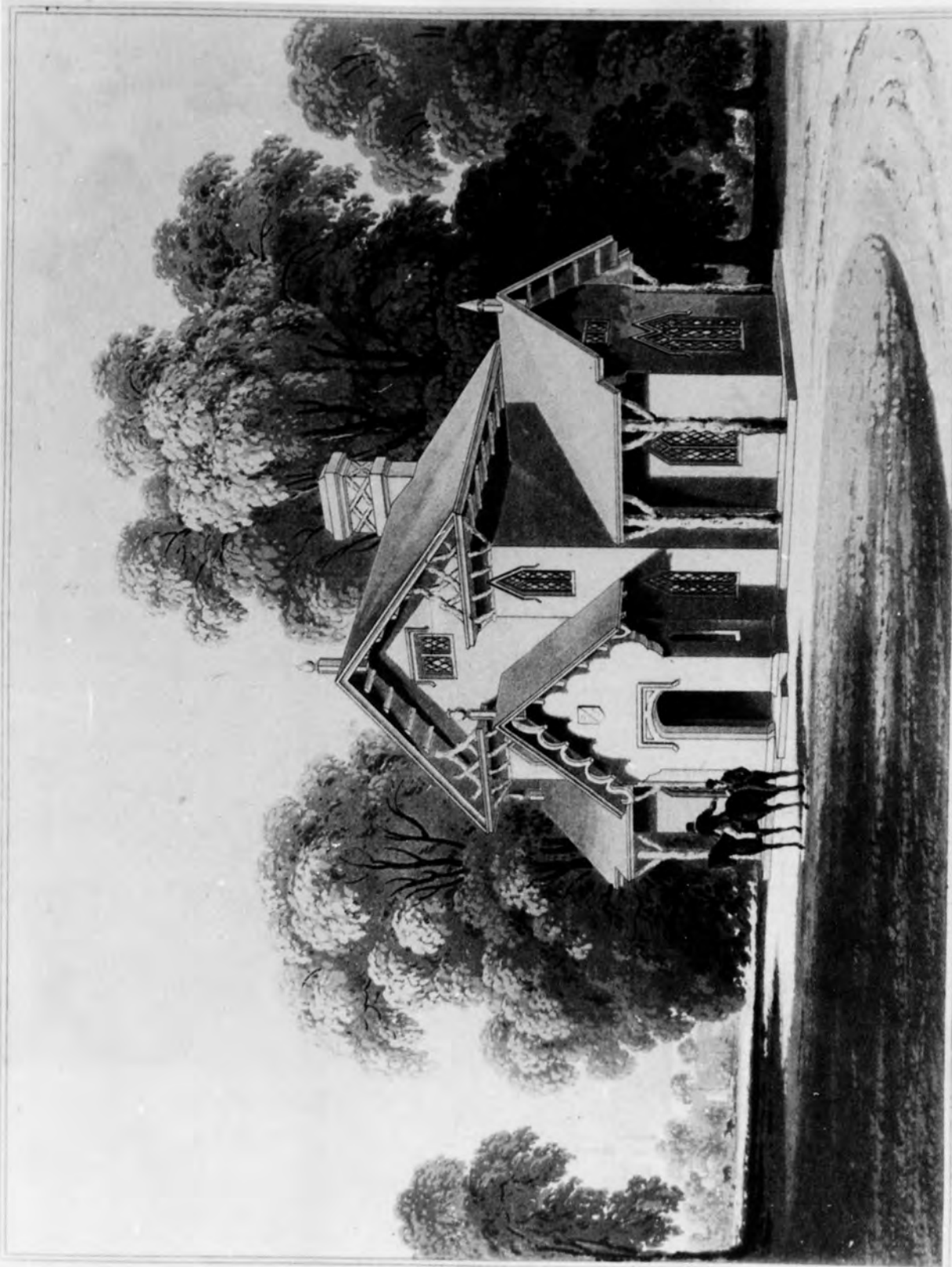


*W. & Co. Eng*

44. Loudon (1833), Design XXVI. "A Cottage Dwelling in the German Swiss Style for a Man and his Family, with accommodation for two Horses and a Cow." (p.98)



45. Goodwin (1834), Plate 15. Villa in the Cottage Style.  
£2750 in brick and stucco, £280 extra for stone  
quoins.



46. Goodwin (1835:1), Plate 4. Design No. 2, Bailiff's Lodge.



END ELEVATION, AND ENTRANCE.

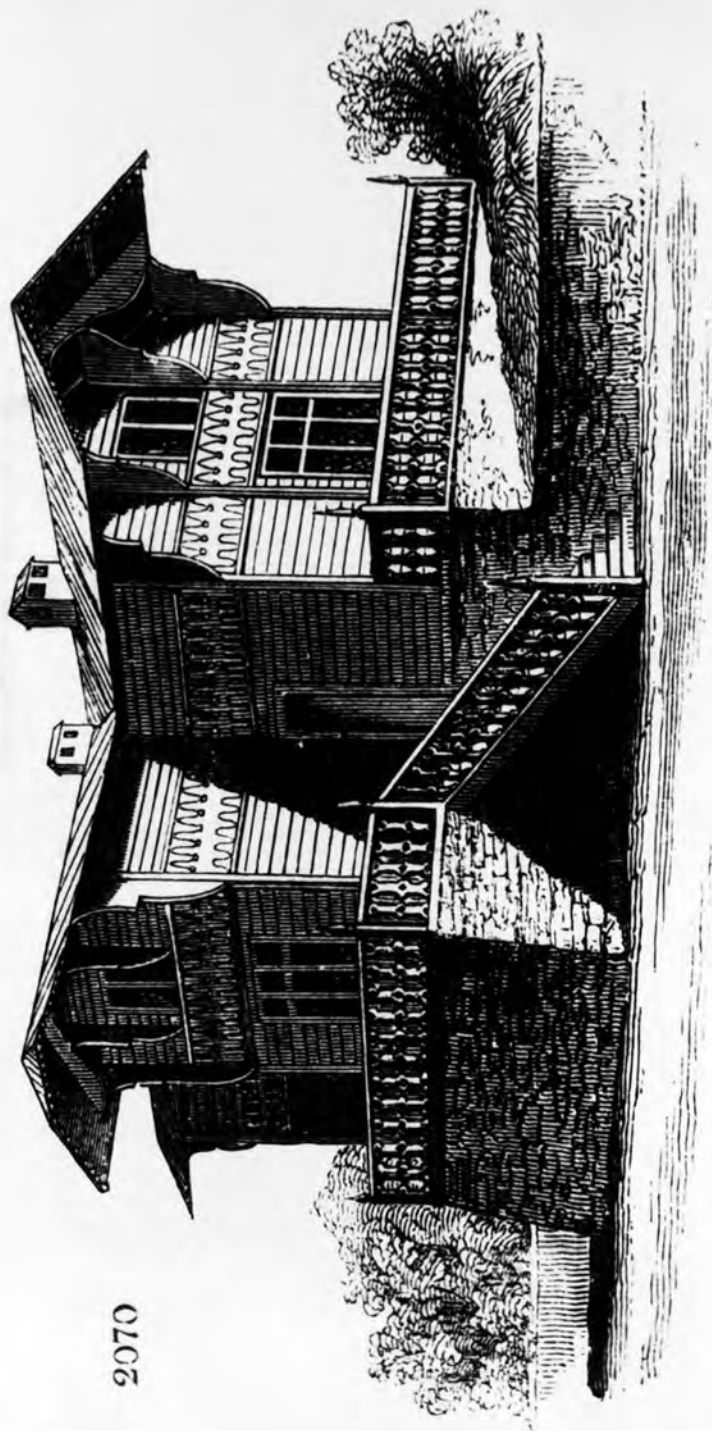


PRINCIPAL ELEVATION

Scale of Feet



47. Goodwin (1835:2), Plate 3. Design No.1, A Peasant's Cottage.  
 "...designed as a secondary Gate Lodge...." (p.3)



2070

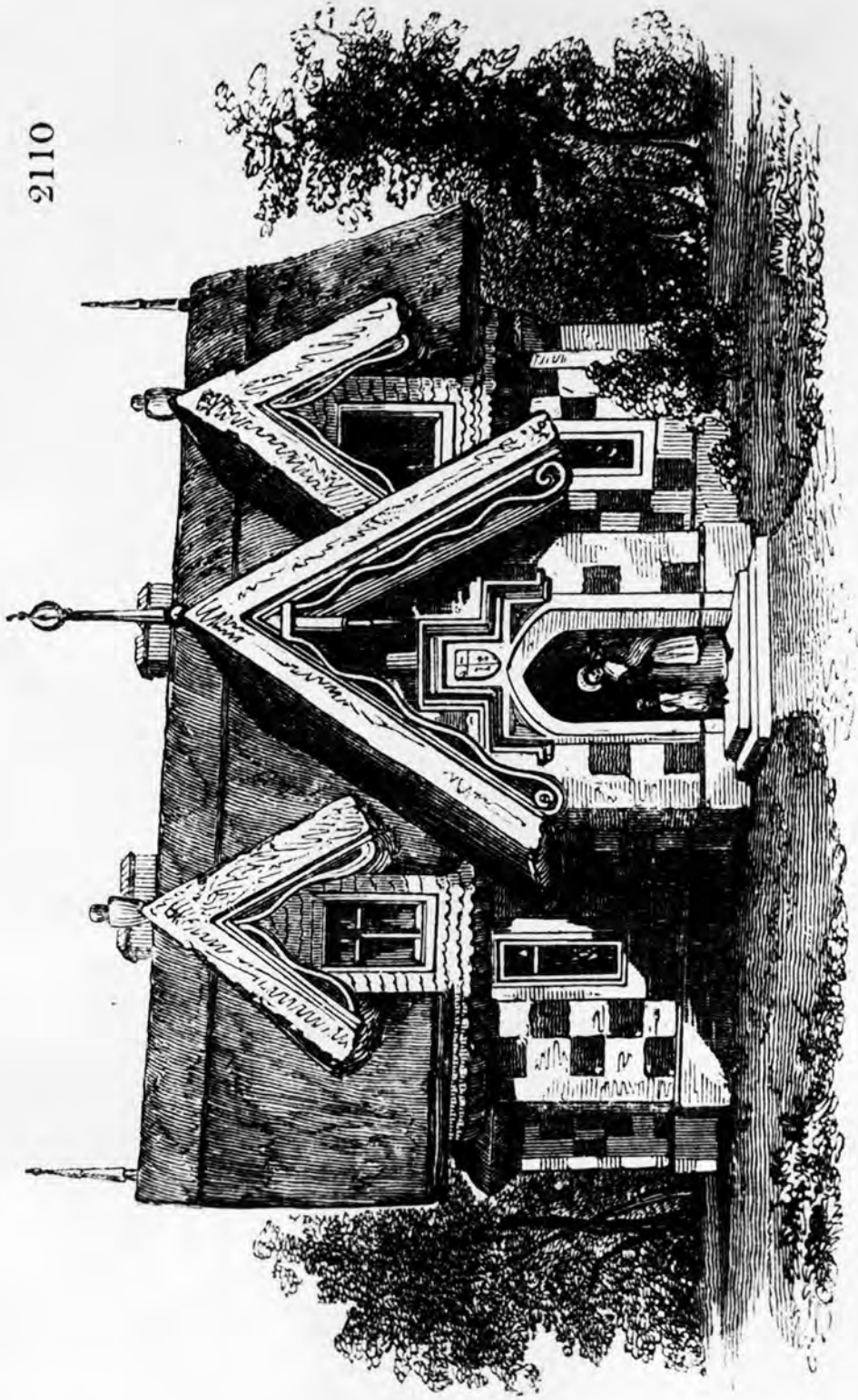
48. Loudon (1842), Design II. A Gate-lodge, combining a Stable, in the Swiss Style. By R.Varden. Architect. (p.158)

2102



49. Loudon (1842), Design XI. Four Ornamental Cottages. By  
E. B. Lamb, Esq., F.I.B.A. (p.1170)

2110



50. Loudon (1842), Design XVI. The Dairy Lodge erected at Chequers Court, Buckinghamshire. By E. B. Lamb, Esq., F.I.B.A. (p.1173)

