

SIR JOHN SOANE

The Royal Academy Lectures



Edited with an Introduction by
D A V I D W A T K I N

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LECTURE I



MR. PRESIDENT, – Architecture in particular, and the arts and sciences in general, for their great use and ornament in civilised society have in all ages been cultivated and cherished; and although the decision of the famous question proposed more than half a century past by the Academy at Dijon, ‘Respecting the good or bad tendency of the Arts and Sciences’, was against the received opinion of their being beneficial to society; the Romans, however, in common with all enlightened nations thought so differently from J. J. Rousseau (who gained the prize on that occasion) and the Academy at Dijon that, even in the time of Septimius Severus, they were anxious to preserve at least the knowledge of architecture, that the most able architects were invited to Rome from every part of the empire, and entrusted with the care of the public works. Schools of design were also established with the laudable intention of forming artists who might hereafter in their works emulate the perfection of those majestic edifices which had been raised in the times of Pericles and Augustus.

In subsequent times, in different countries, academies have been established, professors appointed, and public lectures and practical instructions given in the most liberal and extensive manner; and in this country, soon after the accession of his present Majesty, a Royal Academy was instituted for the especial encouragement of the arts of design. And amongst the laws of this Institution it is declared that, ‘There shall be a Professor of Architecture who shall annually read six lectures, to form the taste of the students, to interest them in the laws and principles of composition, to point out to them the beauties or faults of celebrated productions, to fit them for an unprejudiced study of books, and for a critical examination of structures.’

The duty here imposed on the Professor of Architecture is no inconsiderable task, yet I have ventured to meet the frightful responsibility of this arduous and, to me, painful situation from my love for the art and regard for this Institution, and from another motive, perhaps equally powerful, namely that no other member would encounter the difficulties.

The student in architecture has also many and great difficulties to encounter, but they may be all overcome by reasonable assiduity, and proper application. He must be conversant in arithmetic, geometry, mechanics, and hydraulics; and [be able] to explain his ideas with clearness, correctness, and effect. He must be familiar with the use of the pencil; he must not be satisfied with geometrical delineations, for the real effect of a composition can only be correctly shown by perspective representations. The student must therefore be fully acquainted with the theory and practice of perspective, and be able to sketch his ideas with facility and correctness.

Our late ingenious Professor of Architecture, Mr. Sandby, particularly recommended to the young student to accustom himself to draw after real buildings and natural objects, without rulers and compasses, that he might acquire a facility of drawing by hand, and correct that hardness that generally predominates from the habit of using rulers and compasses only. By this method of study, the young artist would at the same time observe the natural effects of light and shade, in the various tints produced by different objects. Such was the advice of Mr. Sandby, a man whose name must live in his works, when the many amiable qualities of his mind shall cease to be remembered.

‘Tread lightly on his ashes ye men of
 ‘Genius – for he was your kinsman;
 ‘Weed his grave clear, ye men of
 ‘Goodness – for he was your Brother.’¹

The student must also draw the human figure with taste and correctness, and have a competent knowledge of painting and sculpture. He must read much and reflect more. He must live in the bosom of his profession, for architecture is too coy a mistress to be won without constant attention.

The mind of the student should be impressed with the absolute necessity of close and unremitting attention, of deep and indefatigable research. From earliest youth not a moment must be lost by him who desires to become a great artist. He who seeks superior excellence must search deeply into the motives and principles which directed the minds of the great artists of antiquity who produced those works of elegant fancy, of true refinement, and correct taste, which have done so much honour to the human mind and will ever be the admiration of enlightened people of all ages and of all countries. By referring to first principles and causes, the uncertainties of genius will be fixed, and the artist enabled to feel the beauty and appreciate the value of ancient works, and thereby seize the spirit that directed the minds of those who produced them. We must be intimately acquainted with

¹ Laurence Sterne, *The Life and Opinions of Tristram Shandy, Gentleman*, 6 vols, London 1773, vol. v, p. 11 (GL 28H).

not only what the ancients have done, but endeavour to learn (from their works) what they would have done. We shall thereby become artists not mere copyists; we shall avoid servile imitation and, what is equally dangerous, improper application. We shall not then be led astray by fashion and prejudice, in a foolish and vain pursuit after novelty and paltry conceits, but contemplate with increased satisfaction and advantage the glorious remains of antiquity.

I must caution my young friends not to expect great novelty in these discourses, for novelty and flights of fancy, however amusing, cannot be very instructive, and of course not very conducive to the main object of these lectures which is to trace architecture from its most early periods, and to show its various stages of progressive improvement in different countries, as well as the causes thereof. And this investigation, I trust, will show why most nations have adopted different ideas of building, depending on climate, materials, and other considerations, and that architecture does not owe its origin to any particular people, which I hope will be fully established from the descriptions of ancient writers, the remains of antique buildings, and the works of the great restorers of art, in subsequent times.

I shall endeavour to make the works of the ancients and moderns familiar to the student, and point out to him, according to the best of my judgement and experience, their beauties and defects, and the various means by which the great masters of antiquity attained such superior excellence and such high pre-eminence. The mind of the student cannot be too much impressed with the intimate connection between architecture, painting, sculpture, and decorative landscape gardening. From the study of these arts, architecture derives much of its powerful effect, mighty grandeur and fascinating scenery. By these means I hope the student will not only be enabled to pursue his studies with full confidence, on sure and rational principles, but that the latent seeds of genius will be called into action, and the power of architecture to affect the mind be fully known and felt, as well as its use to civilized society.

I trust that all defects, whether in language and arrangement, or in the drawings and models, will be imputed, not to any want of zeal and application on my part, but to the difficulty and extent of the task I have undertaken. And if in the endeavour to discharge the duties of my situation, as pointed out by the laws of this Institution, I shall be occasionally compelled to refer to the works of living artists, I beg to assure them that, whatever observations I may consider necessary to make, they will arise out of absolute necessity, and not from any disposition or intention on my part merely to point out what I may think defects in their compositions. For no man can have a higher opinion of the talents and integrity of the architects of the present time than myself, nor be more anxious on all occasions to do justice to their merits and fair pretensions to fame.

Architecture from the earliest periods has engaged the attention of mankind, nor can this be wondered at when we see how necessary and how useful it is. It protects us from the shivering lightnings and furious tempests, from the heats of summer and the severities

of winter; and by its powers the comforts, conveniences, and refinements of life are increased.

Architecture likewise defends us from ambitious neighbours; it instructs us also in the art of building ships, by whose assistance we are enabled, in defiance of winds and waves, to penetrate into the most distant parts of the globe, and to enrich our country with the various productions of other climes.

Hence we may derive the origin of civil, military, and naval architecture.

Civil architecture, which alone will be the subject of these lectures, is both essential and ornamental; it is partly an art, and partly a science; it consists of the theory and practice of building.

The term building at first presents to the mind little more than the idea of something merely mechanical, to be done by line, level, and compass. But this is only the first impression. When we penetrate into the recesses of this noble and useful art we are equally surprised and delighted; we soon perceive that its leading principles are founded on the immutable laws of nature and of truth; that in many of the great works in architecture there is a sublimity of thought, a fertility of invention, and a boldness of design, which exalted minds alone could produce; whilst the variety, elegance, and characteristic propriety of the ornaments evince the most solid judgement and the most correct taste; indeed, the harmony and superior charms that we see in many of the works of antiquity almost realise the fabled power of Amphion's lyre.²

If through the medium of those works we consider the subject, we shall then do justice to the wonderful powers of architecture and place it in the first rank of refined art and exalted science.

Nature in every country indicated the necessity of shelter, and if, according to some writers, we suppose mankind in their most early and uncivilised state divided into different classes, namely, hunters, fishermen, shepherds, and husbandmen, each of these would have different ideas of comfort and convenience. And if we consider the local circumstances of the materials of different places, we shall easily see why the architecture of some countries resemble (although very remote from each other) whilst in others it is totally dissimilar.

The hunter, having pursued his game, takes for his resting place the first cavern that presents itself, so does the fisherman also; the shepherd, who attends his flock from place to place, takes with him his tent of skins; the husbandman alone is fixed: he must watch the seasons, wait his harvests, and gather the fruits of his industry. The husbandman therefore requires a permanent dwelling for himself, and fit places to receive his stores. Thus we have the first use of the cavern, the tent, and the hut. To these different modes

² In Greek mythology, Amphion was a harpist of such skill that the stones of the walls of Thebes were drawn into place by his music.

of sheltering mankind we owe most of those marked characteristic distinctions to be found in the works of India, of China, of Egypt, and Greece.

In all countries natural caves in the rocks exist; but, as nature did not always keep pace with the population of mankind, and more habitations became necessary, men themselves then formed caves in the rocks similar to the models which nature had provided for them; for man is such a creature of habit that, even when he quitted his caverns and shady retreats, and formed habitations in the open fields, he still worked from the same prototypes, and from them formed dwellings of the most simple kind.

Man, by nature a social being, can only exist in society; we can therefore readily suppose that he soon added hut to hut, and tent to tent, and that from such feeble beginnings arose towns and cities.

From ancient writers we can form some idea of the nature of the dwellings of which the first towns and cities consisted. Diodorus tells us that the early dwellings were formed chiefly of reeds and of wood.³ According to Strabo,⁴ the primitive people having felled a quantity of trees and enclosed therewith a large wood, they raised a number of huts for themselves, and hovels for their cattle.

Cæsar, in his Commentaries, speaking of the ancient Britons, says: a thick wood surrounded with a ditch and rampart was by them called a town.⁵ Vitruvius tells us that in the first ages men lived in forests, woods, and caves;⁶ and in Genesis we are told that Abraham and his successors followed a pastoral life, and lived in tents.⁷

The first city we read of was built by Cain, and probably consisted of little more than huts and tents of the most simple kind. The first house we have on record was erected by Jacob; after this we are told of the city of Babel, built with bricks; and in the sacred writings also we read of the superb and mighty city of Nineveh, which was so extensive in the days of Jonah that its streets were in length three days' journey.

Semiramis likewise founded the proud city of Babylon which was surrounded with lofty walls having gates of brass, and being enriched with public buildings of the most costly and extensive kind.

Among the great works of antiquity the Mausoleum of Ninus is spoken of as an edifice of almost incredible extent, and as rich as art, unfettered by expense, could make it. But this building, however magnificent, was far surpassed by the mausoleum, mentioned by Vitruvius, built by Artemisia to the memory of her beloved husband Mausolus, which building, from its great superiority over all others, gave the name of mausoleum to all such edifices.

³ Diodorus Siculus, i, xliii, 1-5.

⁴ Strabo, iv, v, 2.

⁵ Julius Caesar, *De bello Gallico*, v, 21.

⁶ *De architectura*, ii, i, 1-3.

⁷ *Genesis*, xi-xxv, *passim*.

Pliny the elder also speaks of this proud edifice in high terms, and describes it pretty much at large in the 36th book of his *Natural History*.⁸ This would be a fine subject to exercise the mind of the artist, and I therefore refer my young friends to Pliny's description.

Of the great and stupendous buildings with which Nineveh, Babylon, Troy, and many other mighty cities of antiquity, were once adorned; of the great and numerous works ascribed to Sesostris; the immense Labyrinth of Egypt, the Lake of Moeris, with its magnificent mausoleum, and mighty pyramids, nothing remains of their ancient splendour, not even a stone or inscription, to point out their situation. The palace of Priam, also, with its pavilions and domes, lives only in Homer's song; nor have the brazen walls, the silver pillars, and the golden doors of the palace of Alcinous been able to withstand the ravages of time and the enmity of rival nations. All is buried in the silent grave.

'Jam seges est ubi Troja fuit resecandaque falce
' ruinosas occulit herba domos.'⁹

It is to the ancient historians and poets that we are indebted for all we know of these great works, as well as of the wonderful costliness and surprising magnitude of many others.

Of the accuracy of their descriptions we might sometimes doubt, if we had not still remaining such very extensive ruins of some of the works of ancient times in India, Persia, Syria, and Egypt, as well as in Greece and Italy. Of these numerous and mighty ruins, perhaps those of Palmyra and Baalbec will be sufficient for my present purpose, which is chiefly to impress the minds of the young students with the utility and necessity of consulting ancient authors.

In these drawings (copied from Wood and Dawkins)¹⁰ are shown the remains of many magnificent temples, colonnades, and other buildings crowded together, most of them of prodigious magnitude, of costly materials, and expensive execution. These mighty ruins do not rest on description; of their existence we can have no doubt, and surely they will justify us in giving full credit to the existence of many of those wonderful and mighty structures which we only know from the descriptions of ancient writers.

Among the various stupendous works of the ancients, the prodigious excavations in rocks and mountains demand our attention; many of them are of such a remote antiquity as baffle every attempt to ascertain the period of their formation. We know indeed that the custom of forming such excavations, whether as dwellings for the living, depositories for the dead, or as temples to the gods, prevailed in countries remote from each other, and moreover in nations separated by great differences of government, customs, climate, and religion.

⁸ Pliny, *Historia naturalis*, xxxvi, 30-31.

⁹ Ovid, *Heroides*, I, 53, 56.

¹⁰ Robert Wood, *The Ruins of Palmyra*, London 1753, and *The Ruins of Balbec*, London 1757.

The excavations in India claim great attention; those of Elephanta, Salsette and Ellora produce the most lively sensations, sometimes by the simplicity of their forms, often by their magnitude and grandeur, and sometimes by their similarity to the works of the most polished nations in the most enlightened times.

The cavern of Elephanta is a square excavation of about 120 feet, and 15 feet high. The ceiling is flat, supported by immense pillars and decorated with colossal sculpture. The quantity, the masses, the gloom, the breaks of light and shadow, must altogether produce a most awful and sublime effect.

The excavations at Salsette are even considerably larger and more imposing than those of Elephanta. A great number of immense pillars, with bases and capitals richly sculptured, support the vaulted roof of this prodigious work, and also the mountain over it. In the plan of this excavation we see a great similarity to the forms used in Roman buildings.

But these excavations fall very short indeed of those in the mountains near Ellora. We there have a town of them of prodigious grandeur and elegance. They are in general crowded with columns and colossal sculpture, all cut out of the solid granite rock. In these works, whether we consider the great labour and difficulty of execution, the symmetry and variety in the plans, the breadth of light and shadow, the awful gloom, the happy and powerful combination of forms, we are highly interested, and the effect of the whole almost surpasses the utmost extent of our imagination.

The pagodas and many other great buildings in India are also astonishingly curious. They are in mass, figure, and extent equal to the buildings of the Egyptians; nor can this be wondered at, for in general they owe their origin to the same causes.

These works are proper subjects for the contemplation of the artist who will from them enlarge his stock of ideas.

I shall therefore refer him to the superb views of India now publishing by a member of this Institution,¹¹ regretting however that we are not yet in possession of geometrical drawings of the parts from actual mensuration, without which no correct judgement can be formed of their true value to the architect.

In the mountains near Persepolis are likewise many sepulchral chambers cut out of the solid rock.

I have given a drawing of one of them from Le Brun,¹² which is decorated with pillars whose capitals are composed of busts of bulls surrounded with a large quantity of allegorical sculpture.

¹¹ Thomas and William Daniell, *Oriental Scenery*, 6 vols, London 1795–1801.

¹² Soane made great use of the author he knew as Le Brun, in fact Cornelis de Bruyn (1652–1726 or 1727). On 23 May 1806 he bought copies of his *Voyage au Levant* (Paris 1714, translated from the Dutch edition, Amsterdam 1698), and *Voyages de Corneille Le Brun par la Moscovie, en Perse, et aux Indes Orientales* (2

The sepulchral chambers at Termessus are also cut out of the solid rock. Two of them in particular attract our attention, whose fronts of Grecian design are characteristic of their destination.

Before I quit the subject of excavations, I shall produce a drawing of one of those at Corneto, the early works of the Etruscans, for which I am indebted to a member of this Institution.¹³ These works are particularly interesting from their resemblance to some of those already spoken of, and likewise from the decorations of monochromatic paintings like those on some of the Etruscan vases. One of these excavated chambers is of a quadrangular figure with a flat roof supported by four massive pillars finished with capitals, composed of a few simple parts with painted ornaments. On the wall is a deep frieze enriched with paintings. The roof is curious from being formed by beams into panels with square risings like those in the ceilings of some of the Greek temples.

At Palazzolo is a monument of the elder Tarquin cut out of the solid rock, in which some have imagined they discovered in the roof thereof a groined arch.¹⁴ I shall probably speak of this monument as well as those at Corneto more at large in a subsequent lecture.¹⁵

Egypt abounds with natural excavations from which the Egyptians seem to have taken their taste as well as the first ideas of their building; and we may also observe that even in their subsequent and most splendid works they never lost sight of their primitive model. The cavern is perpetually the type of their architecture, and from the extensive remains of their works as represented by Norden, Pococke, Denon, and other travellers, its progress may be traced from the most simple constructions to the highest degree of excellence that the Egyptians ever attained.

The temple at Syene may be taken as a work only one step removed from the primitive cave. It is of the most simple kind, consisting of a porch with a single row of pillars, and two rooms behind them.

At Esna is another work of a more enlarged disposition. The porch is composed of two rows of pillars, and the interior has a greater number of divisions than the building at Syene.

At Edfu is a disposition yet more enlarged: the porch has four rows of columns with

vols, Amsterdam 1718), which contained over 320 plates. The *Voyages de Corneille Le Brun* seems subsequently to have passed out of Soane's possession, for he bought a replacement copy on 3 November 1814.

¹³ It was probably Flaxman who gave Soane the drawing of the tomb at Corneto. In an allusive note in SM Archives MBiii/10/1, f. 19, Soane referred to this tomb as well as to the cave at Wookey Hole, Somerset, and also reminded himself to 'Speak to Mr Carter [presumably the antiquarian, John Carter] respecting chapels &c in rocks'.

¹⁴ This rock tomb was traditionally supposed to be that of Consul Gnaeus Cornelius Scipio Hispallus (died 176 BC).

¹⁵ Soane did not cite Corneto or Palazzolo by name in subsequent lectures.

a spacious area before it. These three buildings may be considered as so many examples of the earliest efforts of the Egyptians.¹⁶

At Luxor is a temple [of Amenhotep III] far exceeding the buildings already spoken of; it is a wonderful proof of the perseverance and industry of the Egyptians, and also of the sublimity of their ideas. At the entrance is a hall of immense grandeur, with a flat ceiling supported by an immense quantity of pillars. Beyond this hall is a peristyle whose columns of prodigious diameter lead to an open court. In the front of this court is the porch of the body of the temple with four rows of columns in depth, and double colonnades on each side. There are also other rows of columns in the part before you reach the sanctuary, wherein was placed the statue of the god.

Herodotus, who travelled over Egypt, and whose accuracy is generally admitted, speaks of a temple to Diana in the city of Bubastis as a most uncommon and beautiful edifice which he describes as being disposed in a manner very unlike any of those he had before seen.¹⁷ It was placed in the middle of an enclosed area of 625 feet square, surrounded with magnificent porticoes, and the walls richly adorned with sculpture. From the description of Herodotus we may presume that the temples of Jupiter Serapis in Pozzuoli, of Isis in Pompeii, and of the Sun in Palmyra, were very like in their form and disposition to that of Diana in Bubastis.

But grandeur and enormous masses were not confined to the architecture of their temples and palaces. Their sculpture was generally colossal; nay, even their obelisks, apparently only for decoration, were frequently of prodigious and gigantic dimensions. Of the origin, figure, and general application of obelisks, as well as of the amazing powers used in moving them, I shall have occasion to speak at large hereafter.¹⁸ The pyramids, likewise, from their number and prodigious magnitude, claim no small degree of our attention, and admiration. Their forms, although of the most simple kind, produce the greatest variety of effect. They are sometimes conical at their bases, but in general square.

At Cairo are three pyramids of surpassing extent, placed near each other. The largest of them is about 700 feet at its base, and about 500 feet high, gradually diminishing to a flat space at the top, of some few feet only in extent, probably intended to receive a statue. But notwithstanding this flat space, the pyramid, from its great height, seems to finish in a point. This amazing structure occupies a space of about eleven acres which is almost as large as the whole area of Lincoln's Inn Fields. Three hundred and sixty thousand men are said to have been engaged seventy years in erecting this enormous pile. Indeed, the pyramids alone would have been sufficient to immortalize the sovereigns of Egypt, and to have proved the ardent and successful desire of the Egyptians to transmit their names to

¹⁶ Ptolemaic temples were, in Soane's day, thought to be of a much earlier period.

¹⁷ Herodotus, ii, 137-138.

¹⁸ Lecture iv, pp. 105-6, and xii, pp. 257-7.

posterity. Such indeed is the solidity of the public works in general of the Egyptians that neither time nor the convulsions of nature, nor the revolutions of empires have destroyed them, nor the power of merciless and extirpating conquerors removed. Many of their prodigious works still exist, and will exist, in awful ruin and majestic state to the last moment of recorded time, even to that general convulsion of all things when, in the language of our immortal bard,

‘The cloud-capt Towers, the gorgeous Palaces,
 ‘The solemn Temples, the great Globe itself –
 ‘Yea, all which it inherit shall dissolve.’¹⁹

It is impossible not to be impressed with the grandeur and magnitude so peculiar in the works of the Egyptians in general, but particularly in their sacred buildings: the extensive approaches to some of their temples, formed by avenues of colossal sphinxes and other animals, the long unbroken lines of the architecture, the large quadrangular pillars of gigantic dimensions placed near each other in single, double, triple, and sometimes in quadruple rows, always supporting flat roofs and forming deep recesses. The extent of these structures tires the eye, their grandeur and unaffected simplicity fire the imagination, whilst the varied play of light and shade, bursting through different parts in every direction, and occasionally falling upon the colossal sculpture on the walls, must always produce the most powerful effects on the beholders. But although we may be dazzled and surprised by the magnitude and solidity of these works, yet we are by no means satisfied; for, instead of those varied and characteristic modifications, instead of that beauty and variety which grow out of correctness of design, instead of the graceful and harmonious disposition of parts so visible in Grecian works, we have in these only uniformity and tiresome monotony in the general forms as well as in the details. Nor can we be surprised at this when we recollect that the principal features of the Egyptian architecture were taken from caverns formed in the rocks, to which they adhered so rigidly that even when round pillars were used internally, as they sometimes were decoratively (not constructively), they were rounded for use, and not for beauty. Nay, even when we see pillars in the fronts of their temples they are always confined by massy piers at the angles, like those before shown in the front of one of the sepulchral chambers at Termissus.

The essential qualities of Egyptian works are prodigious solidity and wonderful magnitude. These are the leading objects and prominent features in their architecture and sculpture. Indeed, in all their works everything seems calculated for eternity; and if solidity,

¹⁹ Soane was fond of Prospero’s words from Shakespeare’s *The Tempest*, quoting them again in Lecture viii, and even appending them to Gandy’s remarkable painting of the Bank of England in ruins, ‘Architectural Ruins – a vision’, when he exhibited it at the Royal Academy in 1832 (see the Royal Academy Exhibition Catalogue, London 1832, p. 42).

quantity, mass, and breadth of light and shadow, were the only requisites in architecture, we should find all that could be desired in the works of the Egyptians.

If I have been correct in describing the characteristic and essential features of Egyptian architecture, what can be more puerile and unsuccessful than the paltry attempt to imitate the character and form of their works in small and confined spaces? And yet, such is the prevalence of that monster, fashion, and such the rage for novelty, that we frequently see attempts of this kind by way of decoration, particularly to many of the shop fronts of the metropolis.²⁰ Nor does this evil of applying without recurrence to first principles end here. The Egyptian mania has spread further: even our furniture is decorated with the symbolical forms of the religious and other customs of Egypt.

Grecian architecture, which now claims our attention, owes its origin and perfection to causes very different from these already spoken of. The Greeks were the fathers of science and of art. Their climate, their laws, their mode of life, all contributed to gain them a superior rank in the higher walk of intellect. The principles of their architecture must be sought for in other prototypes than in those which gave birth to the great works of Egypt, India, and Persia. Heaviness and monotony must now give place to elegant conceptions and correct conclusions drawn from philosophical reasonings. The Greeks, it must be admitted, cultivated architecture so successfully that they left to succeeding ages only the humble task of imitating their works, works which will be ever admired but perhaps never be equalled.

Greece abounded in timber proper for building, more than in stone and marble; and if we examine their early works we shall see what effect materials had on their manner of building.

Their first dwellings were doubtless of the most simple kind, probably a few trees, conical on the plan, placed in the ground, reclining against each other, and meeting at their tops in a point, with merely a space left for entrance, and the rest of the outside covered with clay, leaves, rushes or reeds. Such most likely, was the extent of their first essays, not unlike what we see in our hop grounds wherein the poles (at one time of the year) are set up preservation, and occasionally used for shelter.²¹

The conical figure being found inconvenient, other insulated huts, whose ground plan formed a square or parallelogram, soon succeeded. A few trees, placed perpendicularly in the ground, and others laid across, formed the outsides and roof, and, like the former,

²⁰ George Underwood, Soane's pupil from 1807–15, made a lecture illustration for Lecture 1, apparently not used, of the neo-Egyptian *Courier* newspaper office in the Strand (SM Archives, Drawer 27, set 6, no. 11), reproduced in Celina Fox, ed., *London – World City 1800–1840*, New Haven and London 1992, pl. 294.

²¹ In a rare manuscript note in his own hand in this fair version of the lectures, Soane here added in the margin: 'add a description of Fishermen's Huts at Walmer'. It is attractive to find his interest in the origins of building extending from the primitive hut to modern fishermen's huts and hop shelters. The note was probably added in 1812 when he was making designs for Lord Liverpool at Walmer, Kent.

were covered with reeds and clay. The roof being laid nearly flat soon admitted the weather. This inconvenience once felt, the active powers of the human mind soon suggested the idea of a more elevated or pointed roof, in which the origin of the pediment, as well as other constituent parts of the succeeding architecture of the Greeks, is easy to be seen (pl. 2).

Thus huts were formed sufficiently capacious to receive a few persons; but, as families became larger, the buildings were necessarily extended, although the same manner of constructing them continued. The horizontal beams, in particular, being of course considerably lengthened, curved downwards and threatened ruin. A row of posts or supports however, placed from front to rear, dividing the entire space into two equal parts, removed the defect and gave security to the inhabitants. This mode of construction probably suggested the idea of that particular manner of using columns to be seen in one of the temples at Paestum, and in an Egyptian temple, of which I shall have occasion to speak hereafter.

A row of pillars dividing a large room into two equal parts might be necessary for strength and security, yet the inconvenience and awkwardness of such an arrangement must have been soon seen and felt; and the transition to another, namely that of two rows of pillars dividing the room into three equal spaces, would soon follow. Three equal spaces were a great improvement on the first idea, but they did not give all the advantages required. Another alteration therefore succeeded by making the centre space considerably larger than the sides. This gave the idea of those beautiful peristyles in Grecian and Roman buildings hereafter to be spoken of.

By increasing the dimensions of these early buildings we have seen one difficulty arise out of the great length of the horizontal beams, which has been removed by rows of posts placed under them from front to rear; but another difficulty arose from the increased magnitude of these habitations. The rafters, as well as the horizontal parts, were increased in length, and therefore wanted supports. These supports were placed immediately over the others, under the beams, and probably gave the first indication of pillars placed upon pillars; and in this early work we perceive the reason why the Greeks, faithful to their primitive model, made the upper pillars in the hypaethral temples so very short in proportion to those immediately under them. Of this disposition I shall have occasion to speak more at large hereafter.

Thus much for the origin and progressive improvement of the simple insulated hut. If we now suppose it surrounded with a large area for convenience and security, as well as to determine the extent of each man's occupancy, and further suppose this space enclosed with a hedge or wall, we shall then have the progressive state of primitive buildings.

From such simple ideas and almost imperceptible changes we owe all the beauty, scenery, and enchantment in the forms of the great Grecian edifices whose stately structures, whose elegant forms and magnificent appearance, have been for ages the delight,

wonder, and admiration of the most refined minds of all countries, and will continue to be so long as any knowledge of pure art remains, or superior intellect is cultivated and respected.

It cannot however be supposed that Grecian architecture assumed at once the perfection which it attained in the time of Alexander the Great. There must have been many progressive steps between the primitive buildings and the Temple of Minerva in the Acropolis of Athens, the Temple of Theseus, and such like structures.

Yet the progress from the hut to the elegant structure must have been rapid, for, to the honour of architecture, it should be remembered that there was no town in Greece that had not some public monument frequently constructed with the most costly materials, and adorned with ornaments of the most exquisite taste and correct fancy. These superb monuments, although we must not suppose all of them of equal importance and extent with the temples just mentioned, were, when in their perfect state, a source of glory to the Greeks; and their invaluable remains serve us for models and cannot fail of exciting the most enthusiastic admiration. In these ruins we perceive those elegant forms and beautiful combinations which the most solid and correct judgement and the most refined taste could produce.

How much it is to be regretted that Wheler and Spon were not architects.²² They visited Greece more than a century ago when many buildings were in existence that are now entirely destroyed, and others were then of course in a much less dilapidated state. It is to the laborious accuracy of the classical Stuart and the indefatigable Revett,²³ and their associates, that we are indebted for our knowledge of the remains of Grecian architecture. Since their time, I regret to say, many of those glorious ruins have been entirely destroyed, some by the barbarous inhabitants of Greece, for ignoble purposes, and others, shameful to relate, have been first mutilated by mistaken zeal, and the precious fragments afterwards conveyed to foreign climes.

When the Grecian states lost their liberty and became colonies to their successful rivals, the Romans, they likewise lost in a great degree their love for the arts, but not entirely so long as the empire of their conquerors continued. Indeed, Hadrian found in Greece artists that would have done credit to the best times of Athens and Corinth.

The buildings of ancient times show the splendid effects of architecture, and its power to affect the mind. They also show the prodigious attention paid to the art, an art of all others the most useful, the most costly, and the most laborious. The influence of architecture on the minds of men appears to have been general in all ages. Not only Alexander, Pericles, Augustus, Hadrian, and such wise princes, felt its beauties and powers,

²² Jacob Spon and George Wheler, *Voyage d'Italie, de Dalmatie, de Grèce et du Levant . . . 1675 et 1676*, 3 vols, Lyon 1678. Soane did not own this but its translation as *A Journey into Greece by George Wheler, Esq., in company with Dr Spon of Lyons*, London 1682.

²³ James Stuart and Nicholas Revett, *The Antiquities of Athens*, 4 vols, London 1762–1815.

but even the minds of Domitian and Nero were so occupied with it as to be frequently turned from the pursuit of their brutal and diabolical purposes. Indeed, their disgraceful and disgusting scenes of depravity were suspended whilst they erected works of such magnitude and public utility as would have done honour to the taste of Pericles or to the policy of Augustus.

When we reflect on the innumerable and mighty monuments which history informs us the industry of men have raised in all parts of the globe, we are anxious to inquire into the causes that have operated so generally on the minds of men to make such sacrifices to adorn their countries. We are filled with enthusiastic emotion at the amazing time and expense that must have been consumed, with the millions of money that must have been expended, together with the constant exertion of body and mind to produce such prodigious works, works whose very ruins fill us with respect and veneration for their godlike founders. And if the ruins only of a small number of these mighty works produce such emotions, what would the sight of Nineveh, Babylon, Troy, Athens, and Rome have produced when in their most perfect state?

If the noble and useful arts of engraving and printing had been known to the Greeks and Romans, what treasures we should now possess. The great works of antiquity would have been familiar to us; we should have had the invaluable treatises on architecture of those great men whose names alone are now all we know.

Vitruvius would not have been left to his commentators: we should have had his full thinking. Alas! this is in vain. Let us therefore profit from the labours and zeal of those who have endeavoured to preserve and make us acquainted with the precious fragments of antiquity; let us tread in their paths; let us from their labours endeavour to discover the principles that directed the great artists of antiquity; and when we have no remains of their splendid and glorious works to direct our studies, and to animate our minds to exertion, let us consult the poets, historians, and orators, wrecks of whose works have happily reached us. From them we shall collect great and useful information such as will enlarge and exercise the minds of real artists, notwithstanding what has perished of ancient works, from various causes; enough yet remains, if we have industry and application, to make us acquainted with the grand, sublime, and beautiful in architecture; enough yet remains to enable us to restore the art to at least a large portion of its ancient glory.

Yet with all these opportunities and facilities, many and very great sacrifices must be made to acquire superior excellence, which I trust the young artist will readily submit to, when he recollects the honours that have ever attended high acquirements, and that it was by the possession of great talents and probity that Dinocrates became the constant attendant on Alexander, and Apollodorus on Trajan. And to the eternal honour of our art let it be remembered that Semiramis made the plans and assisted in the execution of many of her great works, and that Pericles, Hadrian, and many other great princes of ancient times not only patronized and loved the arts but many of them were themselves artists. Indeed, in all

ages and in all countries architecture has been frequently practised and always encouraged by the most powerful princes and by the most able statesmen.

Let the young artist treasure up in his mind the advice of the father of architects, namely, that he prefer a little with a good name to abundance attended with infamy. That he be docile and not intent on gain; that he wait until he be sought for, and not by intrigue attempt to grasp at everything; that he be extremely careful as to the expense of his works, and keep in remembrance the Ephesian law by which, when an architect received the charge of a public building, he was obliged to deliver an estimate of the expense, and to assign over his goods to the magistrates until the work should be completed. If the expense agreed with the estimate he was rewarded with high and distinguished honours. If it did not exceed more than a fourth part, the excess was added to the estimate, and supplied by the public, but if more than a fourth part was expended, his goods were most justly seized to make up the sum.

In this country we have long had too much reason to complain of mechanics of every description from the bricklayer to the paper-hanger being identified with architects; and, of what is equally fatal to the advancement of the art, that architects, who ought always to be the intermediate persons between the employer and the employed, lose that high distinction and degrade themselves and the profession by becoming contractors, not only in the execution of their own designs but like-wise those of others. Let our young artists follow closely the precepts of Vitruvius: they may then reasonably expect that these and many other such evils will cease; that none but men of talents will be sought for; that their names will be transmitted to posterity; and that our great public and private works will no longer be entrusted to ignorant mechanics, nor our streets and public places disgraced by the errors of mercenary men, nor by the mistaken and ill-applied fancies of speculators, but instead of their abortions such edifices will be raised as would have done honour to Greece and Italy in the highest periods of their splendour and glory.

This Institution will, I hope and trust, ever stimulate the young artists to high emulation and inspire them with a true regard for the arts; and when we recollect the elegant fancy and classical purity displayed in many of those works for which premiums have been adjudged, as well as the great and progressive improvements so very visible in our annual exhibitions, we may with the poet reasonably expect that

‘The time, not distant far, shall come
 ‘When England’s tasteful youth no more
 ‘Shall wander to Italia’s classic shore,
 ‘No more to foreign climes shall roam
 ‘In search of models better found at home.’