

Professionals: Early Episodes among Architects and Engineers

ROGER WOODLEY

'Professional' has today become a somewhat loose word, often employed to add value, occasionally spurious, to a work activity or to mean simply being paid for it. As a word, if not as a concept, the value of 'professional' is in decline. Even so, the idea of 'professionalism' retains its seriousness, and we are ready enough to criticize certain kinds of behaviour or output, in a range of fields certainly including the construction industry, as 'unprofessional', or describe performance at work as falling below 'professional standards'. In the 18th century, 'professional' and 'profession' were words in the ascendant, their meaning deriving from the original sense of a vocation ('professing'): the concept of an exclusive, and excluding, group of practitioners with proven qualifications, was beginning to be understood. Lawyers and medical practitioners had already made some progress towards professional status, even if architects still worked as individuals and civil engineers were no more than a novelty. This paper explores how civil engineers and architects of the period took some early tentative steps towards establishing, in their respective work groups, 'professional' characteristics, and discusses the particular contribution of Robert Mylne (1733-1811), who had the unusual distinction of being an expert in both

fields.(Fig1.)

Born in Edinburgh, Mylne went to France and Rome in 1754 to train as an architect, having previously completed an apprenticeship in Scotland as a carpenter. This was a conscious career move. The Mylne could boast a long line of Scottish masons (some of whom had been master masons to the Scottish Crown), and Robert's father, Thomas, maintained the term 'mason' as a self description.¹ Thomas's attitude was unlike that of his contemporary William Adam (father of Robert and James), who began deliberately to advertise himself as an architect, and endowed his sons with a similar ambition.² Earlier members of the Mylne dynasty had been involved in bridge-building and water-supply projects - for example, another Robert Mylne (1633-1710) had devised a supply system for the city of Edinburgh - although all this had happened without the term 'engineer' entering their vocabulary.

Besides the family tradition, there is evidence that during his training the younger Robert took an interest in the civil engineering of ancient Rome, but his fame there was ensured by becoming, in 1758, the first Briton to win the architectural prize at the prestigious Consorso Clementino of the Rome academy. On his return to London, his greatest triumph was the building of Blackfriars Bridge where it was necessary to combine seamlessly the skills of the architect (designing the



J. ROBERT MYLNE, F.R.S., ARCHITECT, ENGINEER, SURVEYOR
AT THE AGE OF 24

*From a drawing made at Rome by Birmingham,
engraved at Paris by Vaugelas in 1781*

Fig. 1 The young Robert Mylne, a portrait of 1757.

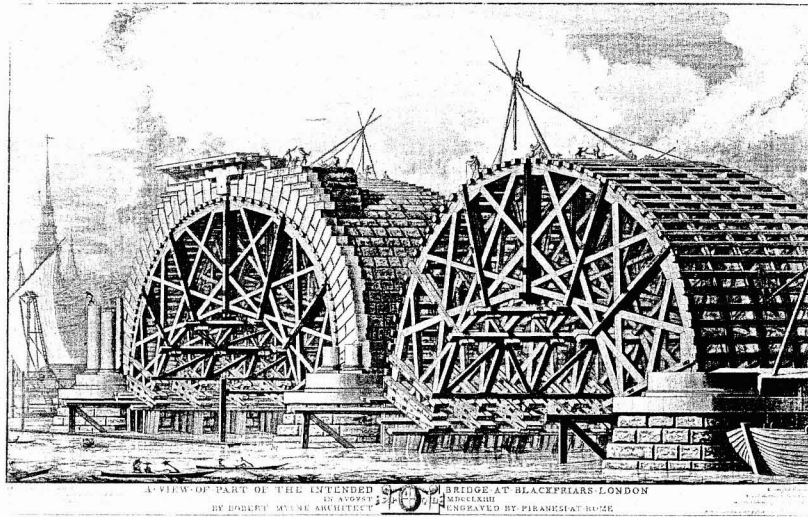


Fig. 2 Blackfriars Bridge, London, 1760-9: Piranesi's famous engraving of the timber centering.

elevations), engineer (founding the piers) and surveyor (overseeing the construction). Although afterwards Mylne practised as an architect throughout his career, he spent an equal amount of time on engineering projects (and as a surveyor), and habitually styled himself 'Architect and Engineer'. It was as an engineer, or engineering surveyor, that he served in his longest permanent post, for the New River Company, from 1767-1810, and it was as an engineer that his first 'professional' instincts showed themselves.

The first publicly recorded adoption of the term 'civil engineer' was by John Smeaton (Fig. 3), in his report on the Forth and Clyde Navigation, published in 1768.¹ The word 'civil', referring to involvement in public works, may be contextually opposed to 'military' or 'naval', a distinction similar to that presumably intended by Sir William Chambers in the title of his *Treatise on Civil Architecture* in 1759. In Britain the development of civil engineering trailed badly behind France, where the *Corps des Ponts et Chaussées* had been established as early as 1716, bringing both roads and river crossings under state control. But the phenomenal growth of industrial production in England made the improvement of inland navigation an imperative, engendering by the 1790s canal mania and, with it, an unprecedented demand for engineering skills. In England, in effect, 'civil' meant 'water'.

It was to Smeaton that the notion of forming a society for practitioners in civil engineering was attributed. The group first met on 15th March 1771 at the King's Head, Holborn.⁴ Later, in the 1790s (writing the preface to

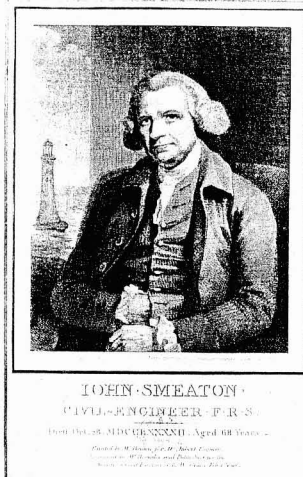


Fig. 3 John Smeaton.

Reports of the late John Smeaton FRS, London 1797), Robert Mylne recalled that "one gentleman" - presumably himself or Thomas Yeoman - suggested such a meeting to Smeaton, who "immediately perceived the utility of the idea".⁵ The character of early civil engineering work was often confrontational. Each new canal proposal was fiercely contested, promoted by proprietors and resisted by landowners, and heated argument in parliamentary committees or the courts was the invariable consequence. The object of a social gathering, therefore, was to encourage harmonious, instead of oppositional, relationships between those responsible for giving expert opinion; "the state of the profession," - Mylne used that term - "then crude and in its infancy, was improper". The aim, he wrote, had been to hold regular meetings "in a friendly way, where (engineers) might shake hands together and be personally known to one another", so that "the sharp edges of their minds might be rubbed off by a closer communication of ideas, no ways naturally hostile".

Paradoxically, people competing with each other in work often wish also to fraternize and 'talk shop'. The first signs of most professional or quasi-professional groupings often appear via the male bonding process of eating and drinking together; examples like the Inns of Court, university colleges or the livery halls of the City spring to mind. Similarly, the new professions of the 18th century frequently began with the formation of a dining club.⁶ Civil engineers were no exception and the meetings of their society took the form of a dinner and no doubt some drinking; but minutes were also kept, officeholders appointed and some serious discussion conducted. Sometimes the tone became light-hearted, perhaps more so than its founders would have wished; for example, the minutes record that one obviously enjoyable evening, under the chairmanship of Christopher Pinchbeck, a clockmaker, was passed "canallically, hydraulically, mathematically, philosophically, mechanically, naturally and sociably".⁷ But when Mylne or Smeaton was present, the minutes give the impression of a more sober and serious atmosphere. A pattern similar to that of the Royal Society was adopted. Sometimes papers were read. Standard works, such as Yarranton's *England Improved by Sea and Land* (1698), as well as Smeaton's books on watermills, were acquired and circulated amongst members on loan. A register was kept and a forfeit was charged to London members in the event of non-attendance.

In 1792, following an apparently unprofessional remark by Joseph Nickalls, a former assistant of Smeaton's who was by then President, much offence was taken and the Society was temporarily wound up.⁸ This seemed to the members, perhaps, the only way of ridding themselves of Nickalls (a prickly character, who in any case died the following year). A new constitution was immediately drawn up by a committee chaired by Robert Mylne, but Smeaton too died before the inaugural meeting of the reformed Society in 1793.

The original Society, over the 21 years of its existence, had collected some 65 members, but Mylne noted that only about 15 were "real engineers, employed in public works or private undertakings of great magnitude."⁹ These included William Jessop and John Rennie, both of whom sat on Mylne's reform committee, as well as Matthew Boulton and James Watt. The constitution of 1792 called for three categories of member: the first, "Ordinary", was represented by the twelve "real engineers" then in membership, "actually employed as such". The second class were Honorary, "men of science and gentlemen of rank and fortune, who, had they applied their minds to civil engineering might, for talents and knowledge, have been real engineers had it not been their good fortune to have it in their power to employ others in this profession" - an early distinction, it might be said, between gentlemen and players. The third class of member, also Honorary, comprised "various artists whose...employments are necessary and useful to...civil engineering".¹⁰ This group included a geographer, an engine maker, and two instrument makers (a skill in which incidentally Smeaton had also been outstandingly proficient).

Mylne became the new President and meetings continued regularly under his leadership until 1801. But thereafter the Society failed to move with the times, and came to be seen by the next

generation as needlessly exclusive and, no doubt, elderly. In 1818, a young engineer, Henry Palmer Robinson, appealed for the formation of a more representative body, and succeeded in persuading Thomas Telford (who had never joined the Society) to become its first president: the body thus formed was the Institution of Civil Engineers. The Society however continued in existence, becoming known as the Smeatonians: it meets to this day and at its annual dinner glasses are still raised in a toast to "*the memory of our late worthy brothers Smeaton, Mylne, Watt and Rennie*".¹¹ And meanwhile separate institutions of Mechanicals, Electricals, Structuralists and many others have come into being to professionalize the work of respective specialists.

Even if the Society of Civil Engineers' concern to remain a "club" deterred it from offering the range of services which the Institution was successfully to develop, it was very early in filling many of the purposes of a professional body. Initially it had formed an excluding group of all the senior experts in the field. It promoted the notion of continuous development and learning, the exchange of ideas and information about new work within a closed membership. In publishing Smeaton's reports, it fulfilled two further common professional procedures, by celebrating its founder and proselytizing his works as examples of best practice for the education, or as Mylne put it, "*actual and practical knowledge*", of future engineers. By its 1792 constitution it established its membership in a hierarchy, a procedure all recognized professions now practise, by grades of examination and designations of status.

With the Society (1771) and the Institution (1818), engineers proved themselves well ahead of both architects and surveyors in establishing their professional credentials. Of course, as men, architects too were clubbable, perhaps even more so. Four of their number, but only four, had been included among the founders of the Royal Academy, including that body's guiding hand, Sir William Chambers. Others had been in membership of the Society of Artists. But these were not bodies confined to architects as such. Furthermore, increasing numbers of builders aspired to architectural status. Freemasonry too had earlier in the 18th century broadened its base by admitting 'speculative' members. Unlike engineers, architects, although identifiable as a distinct employment category, did not seem to see themselves as a collective group, but as individual practitioners. For them, the public conflicts in the courts or before Parliamentary committees which Mylne and Smeaton as engineers had feared would create unnecessary enmity, rarely occurred: any confrontation was more likely to be private, with client or builder, not architect against architect. The competition for business was pursued through the cultivation of clients. If they undertook public appointments, architects commissioned the work themselves. If a direct architectural competition was held, such as that won by Mylne for Blackfriars Bridge in 1759, the entrants might puff the claims of their own designs by pamphleteering, but had no occasion to face each other in a public debate. But even if there was thus less pressure to form an association like the Society of Civil Engineers, there was some consciousness, on the part of individuals like Robert Mylne and Robert Adam, that they had superior qualifications to mere builders and needed to publicise the fact. To be an architect was always to convey a social superiority over others in the construction trade (including measurers, who later would develop into surveyors).¹² By 1791 such feelings were undoubtedly part of the motivation behind the formation of the Architects Club.¹³ The founders were a group composed of Henry Holland, James Wyatt, S P Cockerell and George Dance the Younger, but the early records (most of which, unlike those of the Society of Civil Engineers, have been destroyed), show that Holland was the chief initiator.¹⁴ He copied out the rules of a "*Club of Physicians*", who happened to meet at the hostelry where the four architects also held their early discussions - the Thatched House Tavern in St. James's: he thus saddled the Club with a needlessly strict set of regulations. The four decided that the qualification for membership should be RA, ARA, Gold Medallist, or a member of the Academies of Rome, Parma, Florence or Bologna (an awkward stipulation as Holland himself had never been to Italy, but the deficiency in his case

was tactfully overlooked). In the record of the founding quartet's first meeting, the other architects who met the qualifications were recorded, exactly thus: "*Sir W. Chambers, Robt Adam, Richard Norris, Richard Jupp, John Yenn, John Soane, Robt Brettingham, Thos Sandby, Robt Mylne, Revett, Lewis, Hardwick, Paine*".¹⁵ Mylne was at that time chiefly involved with his own water engineering projects during the canal boom, and was soon to be busy drawing up the rules for the reformed Society of Civil Engineers: however, as an architect whose success so conspicuously began in Italy he could hardly, given the entry requirements, have been overlooked. He was also the only person on the list apart from Chambers who could boast Fellowship of the Royal Society.¹⁶

The Club was launched on the usual social lines, dining at 5pm at the Thatched House on the first Thursday of each month, with "the bill was sent up at 8". The annual subscription was 5 guineas. Members could bring guests and meetings seem to have been a mixture of socialising and discussion, but some attention was given to matters of professional interest. Among the early rules was one requiring each member to produce a new architectural design each month or pay a fine and the merits and demerits of these designs were presumably then debated at the monthly meetings.¹⁷ A sub-committee was set up to consider the question of fire-resistant materials, chaired by Holland and publishing its findings under the pseudonym of the "Associated Architects".

There were debates about a definition of the role of an architect - a natural preoccupation of a professional grouping. It may be that Soane's noble definition of 1788, establishing the principle of disinterestedness, was used for this discussion.¹⁸ Soane's own relationship with the Club, however, was never happy and he resigned in 1797, predicting (wrongly) the imminent demise of the Club itself. Internal disputes certainly occurred with frequency. They had less dramatic results than Nickalls' insults to Smeaton, but caused great anxiety to Holland, whose aspirations for the Club were of a professional bias similar to Mylne's. One quarrel, in which Holland, Dance and Mylne all featured, arose from Lord Thurlow requesting Holland to design him a villa, but later, becoming doubtful about the expense, asking Dance to make an independent estimate of the cost.¹⁹ Holland felt that Dance, as a member of the Club, should not have undertaken his part of the commission, but Dance's contention seems to have been that refusal would be a discourtesy to Lord Thurlow.

Mylne, who had himself a reputation for being fiercely combative, was on this occasion prominent as a peace-maker.²⁰ In a letter of May 1795 he chided Holland for nursing premature expectations that the Club might exercise a self-regulatory role within an embryonic architectural profession. In these initial stages, he said, the Club could hardly be expected to do more than provide a meeting-place. He seems to have had in mind a parallel with the engineers: "*From the nature of our professions, we must always have matters of dispute and contest with one another in the Wide World, and disputes whet our spirits as well as our talents*".²¹

But despite these philosophical counsels of toleration, it was Mylne who drafted a resolution for the meeting on 6th October 1796 to prevent a recurrence of the issue. The resolution proposed procedures to ensure that in such situations an architect should check that no previous architect was under contract to the client, or, if so, should inform the original architect of the new commission. In the RIBA's current *Code of Practice for Architects* there is a similar provision - a striking survival of a principle which can be shown to originate in Mylne's resolution.²²

The Club survived until the 1820s: but, like the Society of Civil Engineers, was too select to satisfy the younger generation, some of whom responded in 1806 by forming, with equal lack of success, the short-lived London Architectural Society. There were further initiatives, but none met what Colvin neatly pinpoints as "*an association which would seek to define the obligations of an architect towards his client, and gain for its members a status in business and society comparable to that enjoyed by other professional men*".²³ Only the Institute of Architects (later Royal) was to prove capable of that, and its birth had to await another generation. Professional bodies have to be

more than dining clubs and the Architects Club, like the Society of Civil Engineers, refused to abandon that pleasure. Nevertheless, in its concern to develop expertise in technology, in its exclusiveness, and in its emphasis on communication between members, it may be said to have exhibited several of the characteristics of a modern professional body.

In 1792, some other architects who held posts with major public bodies, perhaps aggrieved at their exclusion from membership of the Architects Club, decided to form their own group, calling it the Surveyors Club. 'Surveying', more than now, conveyed two distinct meanings: it might mean an architect's job with the particular oversight of a structure of a group of buildings, or, separately, the process of building inspection and perhaps the estimation or measurement of materials, values or costs. The Surveyors Club's members included several minor architects, who held permanent posts with institutions such as livery companies.²⁴ Again, its chief activity was regular dining but in its short life, unlike the Architects Club or the Society of Civil Engineers, it did not develop any particular characteristics of professional behaviour. The foundation of the Royal Institute of Chartered Surveyors (1862) was to take a generation longer even than the RIBA (1834).

It seems fair to observe that the formation of these various associations of specialist practitioners set a separate course from that followed somewhat later by the leaders of the construction trade. In building as such, the advent of contracting in gross in the early nineteenth century initiated a development towards groups of fellow-employers, or generalists, rather than individual experts. Although the foundation of the Builders' Society in 1835, with similar objectives to the architects and civil engineers, might have led in a 'professional' direction, in practice the preoccupation with employment and business issues such as legislation and labour led the leadership of the construction sector to become for the most part collectives of employers' organisations rather than professional bodies.

So, by contrast, what constitutes a profession? The elements are seldom precisely defined, but clearly they include the convening of a body of experts, who decide to regulate themselves and their work activity first by mutual recognition, then by forming a register of members, and excluding others. Professions concern themselves with furthering their own standards, levels of knowledge and influence, and the foundation of an education syllabus for the next generation. They are supposedly more disinterested than straightforward employers, and less concerned with profit (although they like to agree of fee policies). Their representative bodies form procedures, outside of the public arena, for handling disputes between their members, and employ disciplinary methods to deal with those whose behaviour falls short of the required standard.

The early associations in civil engineering and architecture with which Robert Mylne became involved in the 1770s and 1790s manifested many of these characteristics. Even if they did not directly lead to the establishment of the current bodies for these professions, the Society of Civil Engineers and the Architects Club should certainly be regarded as important prototypes. And Mylne himself was unique in being a founder member of both. He was most unusual at the time, or indeed since, in having attained a prominent role in both areas of work. There was very little cross-fertilisation, and only a few minor architects ever became involved with the Society of Civil Engineers; and the Architects Club's membership criteria were more or less guaranteed to exclude any other engineer of the period but Mylne, with his Italian medal. This alone would make Robert Mylne a character of some distinction, but taken in conjunction with his vivid personality, it is odd that he should have been so largely forgotten. Yet 'professionalism' implies a certain anonymity: and it was as a 'professional', in the best contemporary sense, that Mylne, one suspects, would like to have been remembered.

Correspondence: Dr Roger Woodley, 7 Theed Street, London, SE1 8ST

References

1. Thomas Mylne was a man of some distinction, as Deacon of the Edinburgh Lodge and a member of the Mylne dynasty. It was in that tradition that he arranged orthodox apprenticeships for his sons, as carpenter and mason respectively, rather than encourage any larger aspiration. Moreover, the gulf between 'architect' and 'carpenter' was probably a good deal less than it might be perceived today. One (quite deliberate) effect of professionalism has been to distance members of professions from their counterparts in crafts or trades.
2. John Fleming, *Robert Adam and his Circle* (1962), p.51 passim.
3. A.W. Skempton (Ed.), *John Smeaton FRS* (1981), p.4.
4. For detail of the early days of the Society of Civil Engineers, see minutes in the Institution of Civil Engineers' archive and a general account in Garth Watson, *The Smeatonians* (1989), Chapters 1 and 2.
5. The quotations are from Mylne's preface. A copy of Smeaton's Reports is in the Library at the Institution of Civil Engineers.
6. A.M. Carr-Saunders and P.A. Wilson, *The Professions*, (Oxford, 1933), p.300 - still the classic work on the development of the professions.
7. Minute of 5th April 1778.
8. See minutes, Mylne's preface and Watson (op.cit.).
9. Mylne's preface.
10. Ibid.
11. Watson, op.cit.
12. F.M.L. Thompson, *Chartered Surveyors, the Growth of a Profession* (1968), p.70 et seq.
13. For more detail on early professionalism amongst architects, see Barrington Kaye, *The Development of the Architectural Profession in Britain* (1960); F. Jenkins, *Architect and Patron* (Oxford, 1961); J.M. Crook, 'The Pre-Victorian Architect - Professionalism and Patronage', *Architectural History*, 12 (1969); and J. Wilton-Ely, 'The Rise of the Professional Architect in England', in S. Kostof, (Ed.) *The Architect*, (Oxford, 1977). For a more recent survey, see *Georgian Architectural Practice*, papers of the Georgian Group Symposium 1991, ed. by Giles Worsley (1992).
14. See Henry Holland's papers in the British Architectural Library, RIBA.
15. All these important and interesting names receive coverage in Howard Colvin, *Biographical Dictionary of British Architects 1600-1840*, (1995).
16. I am grateful to Frank Salmon for drawing this to my attention.
17. According to the account in Carr-Saunders and Wilson, op.cit. p.301; but there is no evidence of this in the Holland papers.
18. These are Soane's memorable words: "The business of the architect is to make the designs and estimates, to direct the works, and to measure and value the different parts. He is the intermediary agent between the employer, whose honour and interests he is to study, and the mechanic, whose rights he is to defend. His situation implies great trust; he is responsible for the mistakes, negligences and ignorances of those he employs, and above all, he is to take care that the workmen's bills do not exceed his own estimate". (From *Plans, Elevations and Sections of Buildings executed in Several Counties*, 1788).
19. The story is recounted in Dorothy Stroud, *Henry Holland, His Life and Architecture*, (1966) p.135 et seq.
20. Mylne was described by James Elmes (who had known him), as "a man of austere manners, of violent temper, (who) appeared to have a contempt for every art but his own and every person but himself" (*Civil Engineer and Architects' Journal*, Vol. X, 1847, p.340).

21. Letter filed as HoH 2/7/4 in the Holland papers (apparently not seen by Dorothy Stroud).
22. See *Architects' Code of Professional Conduct* (pub. RIBA April 1997), Principle 3 and para. 3.8
23. Colvin, op.cit. Introduction, p.42.
24. Colvin (op.cit) mentions William Purser, Edward Mawley and Peter Upsdell.