

Architecture in the UK: a study in professional entry-routes and entry-gates

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Abstract

Purpose

This paper examines architecture as an example of the evolving context of qualifying routes in UK professions.

Design/methodology/approach

The background and current state of architectural education, qualifying routes and regulatory frameworks in the UK is presented as a case-study, and compared with practices in professional education and qualifying more generally including the use of Degree Apprenticeships.

Findings

Architecture has since the 1960s maintained an entry-route that is premised on periods of full-time academic study plus full-time practice. While a minority part-time version of this route has always existed (and is now being expanded through Degree Apprenticeships), variations seen in other professions such as experienced practitioner entry and accelerated routes from cognate fields have so far been lacking. Pressures for reform are emerging both from external changes affecting the profession and from the high cost of qualifying in relation to median incomes in the sector.

Originality

This is the first review of architectural qualifying requirements that has been made in the context of professional entry more generally.

Practical implications

There is a need for more flexible and less expensive routes to qualifying as an architect, with substantial scope to use practices from other professions and areas of higher education to recognise existing levels of competence and improve crossover with other design and construction fields.

Case-study. Architecture; professions; professional entry-routes; apprenticeships.

Introduction

In the United Kingdom, qualifying as a member of a profession is, with a few exceptions, governed by the relevant professional body or bodies. These may take the form of membership associations, independent regulators, and organisations in which membership and regulatory functions are formally separated. Both the necessity of achieving qualified status and the routes available for doing so vary between and sometimes within professions. In some fields there is a legal requirement to be qualified either in order to carry out specific 'reserved' functions, or to use a protected title such as that of solicitor, dentist or architect. More commonly, particularly outside of the health and legal sectors where the majority of reserved functions and titles apply, qualified status can be a customary requirement of employers or major clients and therefore difficult to practise without, an advantage in the labour or services market, or offer little more than the satisfaction of achievement and belonging (Lester 2009).

During the twentieth century, entry-routes to professions gravitated to a dominant sequential pattern based on full-time education followed by a period of training in practice. This was accompanied by a progressive increase in the level of academic credential needed in order to qualify, with higher education increasingly becoming the norm (Schein 1972, Schön 1983). Subsequently, studies carried out by Lester (2009), Williams *et al* (2012) and PARN (2015) indicate that from the 1990s there has, at least in the UK, been a gradual opening-up of entry-routes beyond this pattern. Many professions now accommodate varied routes to qualifying, to some extent for school-leavers but more so for experienced practitioners and those already qualified in allied or ancillary occupations. There has also been some political will to increase the diversity of entrants to professional careers (e.g. Milburn 2012), although until recently this has been articulated more in terms of improving access to full-time university courses than through creating alternative entry-routes.

In parallel there have been changes in higher education relevant to professional entry, including recognition of work as a source of academically-valid learning (Duckenfield and Stirner 1992, Lester and Costley 2010), to some extent the introduction of short-cycle, vocationally-oriented foundation degrees (HEFCE 2000), and more recently the creation of Degree Apprenticeships, work-based programmes leading to full degrees at undergraduate and postgraduate level (BIS 2015). Of these developments Degree Apprenticeships are beginning to have the largest direct impact on professional entry-routes, as they provide potentially high-quality pathways that enable academic learning to take place alongside work (Lester and Bravenboer 2020). To some extent these programmes signify a return to earlier 'parallel' routes where the academic component was taken typically as a day-release course, but the most effective examples are going beyond this in intertwining theoretical and practical learning in what can be termed an 'integrated' route (*ibid.*).

A further element in this mix is increased demand for professional accountability. High-profile instances of incompetence and malpractice, notably in medicine (e.g. Dixon-Woods *et al* 2011) and the financial professions (e.g. Benston and Hartgraves 2002) but most recently highlighted in the construction sector by the Grenfell fire disaster of 2017, have led to calls for more effective professional regulation including adequate checks on practising ability before final sign-off as a practitioner. Supported by practice-focused notions of competence that emerged in the 1990s

(Eraut 1994), this has resulted in increased emphasis on what needs to be demonstrated at the point of qualifying.

How individual professions are positioned in relation to these trends varies considerably. Some have made marginal changes within the same basic entry-structure, others have created additional routes for instance for experienced practitioners and for progression from allied or subsidiary occupations as well as now through apprenticeships, while a few have moved away from prescribed or recommended routes entirely by simply setting criteria that must be demonstrated at the point of qualifying. An overview, based on 23 professions, is given by Lester (2009), although this largely precedes the (re)introduction of higher-level apprenticeships. In summary a spectrum can be seen between professions that adhere to a single university-based entry-route with minor variations (such as medicine, dentistry and clinical psychology), those that have multiple entry-routes (e.g. surveying, law, accountancy, engineering), and those that have adopted more radical approaches to qualifying such as basing entry on a comprehensive practising assessment without any formal prerequisites (most prominently professions that have formalised their qualified status in the last two or three decades, such as heritage conservation, although many more use this as a means for experienced practitioners to qualify). The overall trend is one of gradual movement from a reliance on specified entry-routes to an emphasis on robust entry-gates.

The remainder of this paper takes a single profession – architecture – and examines its evolution, current position and potential future direction in relation to entry-routes and entry-gates. Having developed from an apprenticeship or pupillage model in the nineteenth century to predominantly university-based, sequential entry in the twentieth, subsequent changes to the structure of architectural education and training have been slow and modest. The regulatory environment in which architecture sits has so far worked to maintain this conservatism, although pressures are building to accommodate more diverse entry-routes. This potential for impending change in a regulated and academically well-established profession makes a study of architecture particularly apposite at the present time.

The portrait of architecture that follows was assembled by the author acting as an external consultant to the profession's regulatory body, as part of a 'rich picture' (Checkland 1981) developed in order to understand the operational context and rationale for revising professional standards. Information was gained through discussions with members of the profession, the professional bodies, and expert groups, and through examining published and internal documents.

Architecture in the UK: profession, regulation, education

Architecture is one of the UK's most recognisable professions and sought-after career choices, with on average 5.6 applications for every university place (RIBA 2020a). Although a school of architecture was established in France as long ago as the seventeenth century, the profession's entry-routes have evolved from an apprenticeship or pupillage model rather than through having a place in the ancient universities (AERG 2013). In the UK architecture started to formalise itself as a profession in 1834 with the creation of what was to become the Royal Institute of British Architects (RIBA). The Royal Incorporation of Architects in Scotland (RIAS) gained its charter in 1916, building on the earlier Architectural Institute of Scotland. The first formal courses to prepare architects were set up in the 1860s, but initially these were run by a separate membership body, the Architectural

Association, independent of both RIBA and the universities; architectural degrees began to appear around thirty years later. RIBA had offered a voluntary examination in architecture almost from its foundation, but from the 1880s this became compulsory for full membership and it later evolved into a sequence of three separate assessments, the forerunner of the current three-part educational structure. By the middle of the twentieth century formal education had largely displaced pupillage, with RIBA seeking in the 1950s to move entry exclusively to full-time higher education (Startup 1984); a common pattern became a five-year full-time bachelor's degree (BArch), providing exemption from the first two examinations, followed by a period of experience after which the final assessment was taken.

From a regulatory viewpoint, architecture is atypical in the UK in that since the Architects (Registration) Act of 1931 it has enjoyed a measure of state protection and regulation, which is rare outside of the health and legal professions, but more so in that the protection is limited to the title of 'architect'. The Act also created a separate body (though closely associated with RIBA), the Architects Registration Council of the UK (ARCUK), to be responsible for registering and regulating architects. A complication is present in that the title of Chartered Architect is governed in the UK by RIBA and RIAS; however, because this includes the word 'architect', the Act precludes it being used by anyone who is not registered. Debate is ongoing about whether protection of title serves any useful purpose either for the profession or for the public (engineers, planners and surveyors for instance lack legal protection of either title or function), and whether a separate registration body is necessary or whether regulation should be overseen by the professional institute. Reviews conducted by Warne (1993, for ARCUK), Ball (2009, for RIBA) and Farrell (2014, for the Department for Culture, Media and Sport) all recommended self-regulation by the professional institute, with the first and last favouring removal of protection of title. The most recent government review endorsed continued protection under a separate regulator (Department for Communities and Local Government 2017).

The Architects Act of 1997 transferred ARCUK's responsibilities to the Architects Registration Board (ARB), a statutory body that is more clearly differentiated from the professional institutes. In 2005 an updated European directive on the recognition of professional qualifications was issued (2005/36/EC, later superseded by 2013/55/EU), with architecture one of the specific professions to which it applied; the directive specified the minimum length and outline coverage of education and training required for mutual recognition, along with situations where alternative routes would be acceptable. In the UK, ARB has responsibility for maintaining the register of architects and setting the standards for entry on to it, as well as ensuring compliance formerly with the EU Directive and now with any successor arrangements that might be agreed. In practical terms this translates into approving qualifications (in most cases university degrees) that contribute to registration, assessing entrants who have taken non-approved courses, and taking action in cases of misrepresentation, malpractice and incompetence. Since the formation of ARB, RIBA has maintained its own course validation process which differs in its procedures but is based on the same specification of content.

Since the 1960s education and training in architecture has been based on the three-part sequence introduced by RIBA, later adopted by ARB. Part 1 is now most commonly met by taking a first degree and Part 2 a two-year second-cycle degree or diploma, most commonly a master's degree. The five-year BArch has disappeared (the BArch title is sometimes used for the first degree), and unlike some other professions with postgraduate-level entry requirements, architecture has not

followed the trend over the last decade to 4- or 5-year programmes leading directly to a master's degree. Part 3 consists of a requirement for supervised practice (a minimum of two years) backed by a professional experience and development record, and a course concerned with the ethics, working context and business practices of architecture; when run by universities the latter is typically a 60 or 120 (UK) credit postgraduate certificate or diploma. The course is normally taken part-time alongside work, or there is a facility just to take the assessment, while the practice element can be partly completed before Part 2 (a common pattern is a year between the Part 1 and 2 courses, and a year or more after completing Part 2). Variations on the full-time model are permitted, and RIBA operates a studio-based route in conjunction with Oxford Brookes University, leading to a certificate at Part 1 and diploma at Part 2.

In addition to officially-approved courses, Parts 1 and 2 can each be met by taking a non-approved architecture course at the relevant level, then passing an assessment process set by ARB (the 'prescribed examination'). This route has typically been used by non-EU-trained architects, but it can also be used legitimately by British entrants who have taken a course that is substantially in architecture but doesn't have ARB approval. Notably, the EU Directive only covers education up to the equivalent of Part 2; any requirements beyond this are at the discretion of individual countries, but they cannot be applied retrospectively to architects who move between EU member states but are already regarded as qualified under the terms of the Directive. This latter situation means that the minimum standard for registration actually varies quite substantially depending on the country in which the architect qualifies (Wright 2013, Farrell 2014).

In terms of the patterns of entry discussed by Lester (2009), architecture sits towards the more conservative end of the spectrum closer to medicine and dentistry than for instance engineering or surveying. There are currently no migratory routes and few joint degrees involving allied professions such as engineering, surveying, planning or landscape architecture, and no means by which experienced but unqualified practitioners can have their existing skill-sets and levels of competence recognised. Along with medicine, architecture has one of the longest and most expensive training routes of any profession, with seven years the minimum time from starting a relevant degree to registering as an architect; in practice the average has been 9.5 years (AERG 2013). This situation needs to be considered in the context of rising student debt coupled with employment prospects and incomes that are less certain than those in medicine. These factors among others are beginning to give rise to pressures for greater diversity in the routes that are available to become recognised as an architect.

Issues in the structure of architectural education

As described above, UK architectural education is based on a three-part structure which typically translates into bachelor's, master's and professional training phases. Part 1 currently serves three slightly different purposes. One of these is the headline function of providing a basic education in architecture as a foundation for further development in Part 2. Given a common pattern of Part 1 students going into the workplace for a year before starting Part 2, bachelors graduates should be capable of making a useful contribution to an architect's practice or other aspect of the construction industry in a supervised, trainee-type role. The need for Part 1 to provide practical as well as theoretical training is further emphasised by the fact that it is used as a qualification in its own right, for what can be termed an 'architectural assistant'; while there is no specific professional

designation for this role, the introduction in 2018 of a Degree Apprenticeship for architectural assistants provides it with a certain amount of recognition. On the other hand, many bachelor's graduates do not pursue a career in architecture but treat the degree as a general preparation in design. These divergent uses create a need for recognition that courses approved under Part 1 are used for purposes other than being the first stage of qualifying as an architect; for instance RIBA has calculated that only approximately a third of students who entered a Part 1 degree between 2000 and 2003 had proceeded to professional registration by 2012 (AERG 2013).

Part 2 is more clearly positioned as a stage geared to preparation as a professional architect. While there is both a small measure of attrition into other lines of work and a proportion of graduates employed in architecture who do not proceed to Part 3, it is rarer for a Part 2 degree to be entered by students who are not considering a career in architecture. Part 3 has the function of a course in professional and business skills and ethics, as well as to an extent an assessment of readiness to practise; however, unlike the assessments of professional competence carried out in some other fields, the latter is undertaken by the university or course provider rather than directly by the professional body or regulator.

At this point it is relevant to note the recommendations of the RIBA Education Review. This review began with a report on the state of architectural education (AERG 2013) and produced a set of recommendations (RIBA 2017) followed by an outline framework for education and ongoing professional development (RIBA 2020b). The recommendations include a proposal to move away from the three-part structure to an integrated pathway that includes 600 (UK) academic credits (including a final award at master's level) plus two years of supervised and assessed practice (a '5+2' year structure similar to that at present). A '4+3' structure was also proposed in which three years would be spent in practice, with one of them supporting work-based academic learning so that the total number of credits remains the same. While the academic part of this structure could be provided by an integrated 5-year master's degree, it is more likely to be met as at present by separate undergraduate and postgraduate components. The main change represented by the RIBA proposal was that Part 3 content should be integrated into the main academic component, so that matters relating to practising as a professional architect are introduced earlier in the curriculum than is implied by the current positioning of Part 3 as a final short stage before registration. A test of professional competence was also proposed, maintaining an assessment of readiness to practise after completion of the minimum two years of practical experience. In parallel, ARB commenced a review to examine entry-routes and requirements in 2020 after a delay owing to the uncertainties connected with Britain leaving the European Union. As its first step a survey and call for evidence was made covering the areas of competence needed by architects, entry-routes, and requirements for continuing development.

Alongside these reviews, the profession also started to engage with Degree Apprenticeships through a 'trailblazer' (development) group of twenty architectural firms led by Foster and Partners and supported by RIBA and ARB. Two apprenticeships were approved in 2018: a bachelor's programme (English level 6) for architectural assistants covering Part 1, and a master's route (level 7) incorporating Parts 2 and 3 and leading to registration with ARB and chartered status with RIBA. Each of these are intended to take four years, with the apprentice being employed throughout but also attending an educational institute and undertaking project-based learning at work. The two apprenticeships are separate, so entrants can swap between full-time and apprenticeship

programmes (although by 2020 only two universities were offering level 6 apprenticeships, whereas seven ran the level 7 apprenticeship with a further seven planning to do so). By 2020 these programmes accounted for under 1% of Part 1 and 5% of Part 2 entrants, and their effect on entry has so far been unclear (Jessell 2019). Evidence from other fields suggests that Degree Apprenticeships can open up professional careers to a more diverse pool of entrants, including mature learners, further education students and young people with no family history of higher education or professional-level employment (Engeli and Turner 2019, Middlesex University 2021). On the other hand there is also evidence that they can simply act as an alternative route for well-qualified school leavers who would otherwise apply for full-time degrees (Policy Connect/Higher Education Commission 2019).

Taking these developments together, three observations can be made. The first is that the idea of '5+2' or '4+3' as a way of defining the length of architectural education begins to look increasingly outdated when new routes are emerging that integrate academic and practice-based learning. A better way of defining these requirements may be along the lines of a minimum number of credits, the final academic level, and (in the absence of a robust practising assessment) a minimum number of years in practice. The potential to use work as a source of academically-valid learning is now well-established, and in this context separate time-based requirements for academic and practice learning appear anachronistic and unnecessary (cf. Minton and Lowe 2019). Secondly, the 8-year timescale for the apprenticeship route appears unduly long, particularly given indications that if academic and practice-based learning are integrated effectively and not just run alongside each other, the total time needed to complete professional entry programmes can actually be less than that of equivalent sequential routes (Bravenboer and Lester 2016, Lester *et al* 2016). As a final point, while the RIBA proposal to integrate Part 3 learning into the main body of the course is eminently logical, within a sequential pathway it removes any integrating element as the student heads towards the point of qualification. The gap between completing full-time professional education (even with substantial placements and on-job training) and becoming a competent practitioner can be substantial (Eraut *et al* 2005, Van Hamel and Jenner 2015), and the benefits of integrating professional education and practice learning, at least in the latter stages before gaining qualified status, are becoming well-recognised (Lester *et al* 2016). At least in theory the current Part 3 process provides a measure of integration following full-time education.

A further factor concerns the lack of any final examination or practising assessment controlled directly by the professional or registration body. A strong trend emerging over the last two to three decades has been for British professions (whether via self-regulating associations or independent regulators) to set tighter criteria for the final award of qualified status, as opposed to relying on approved courses and supervised but only loosely assessed experience (Lester 2009, 2014). To an extent this is a British or Anglophone trend as it is typically a feature of self-regulating professions in the English-speaking world, and as noted earlier it is not reflected in the EU Directive (an attempt in 2010-11 to make the Directive more outcome-oriented, consistent with the aims of the European Qualifications Framework, was not carried through). The closest there is to a practising assessment in architecture is Part 3, which acts as a sign-off for registration as well as the final stage of the educational process. The difficulty of introducing a common qualifying assessment for all architects (including those who have trained in other parts of Europe) has perhaps discouraged development in this area, although now that the UK is no longer bound by the Directive there may be more scope to

do this. The RIBA proposal for a 'test of professional competence' together with the current ARB work on competence requirements may offer a way forward here.

Towards broader entry-structures?

The only current means of meeting the Part 1 and 2 requirements are to pass courses that are either recognised by ARB, or deemed to have sufficiently close coverage to enable entry to the relevant Prescribed Examination (PE). Section 4(1) of the Architects Act 1997 states that registration may be granted on the basis of (a) prescribed (i.e. approved) qualifications and experience, or (b) having a standard of competence that 'in the opinion of the Board' is equivalent, with in the latter case the Board being able to require 'a prescribed examination in architecture' to be passed. The PE is a portfolio-based process in which the candidate provides evidence of training and experience mapped to the ARB criteria, and is then interviewed by a panel of assessors. Pre-2021 there were further complications due to the EU Directive, which tends to assume full-time university attendance; it does however accept an examination of equivalent standard for people who have worked in architecture for at least seven years and trained part-time or through 'social betterment schemes', a term that is not confined to architecture and can incorporate a wide range of provisions including apprenticeships, schemes to support progression from related occupations, and recognition of existing levels of knowledge and proficiency.

At present the only evidence of an equivalent standard of competence that is accepted in the UK is completing a course in architecture or with substantial architectural content, and challenges to this under the Act have so far been rejected by the courts; the apparently innocuous statement 'in the opinion of the Board' has given ARB latitude to interpret 'equivalent standard of competence' as meaning an equivalent standard of *training*. The Act does however appear to allow the Board to recognise a wide range of alternative routes, including potentially to set up an assessment for candidates who lack formal training in architecture but have gained experience in an architectural studio and now work, in effect, as architects. The EU Directive appears slightly more restrictive as it refers to the need for training. It should however be possible to set up a 'social betterment scheme' either directly through one of the professional bodies, or via a university, that provides formal recognition of workplace learning and therefore accelerated routes for experienced practitioners and transferrers from allied occupations.

Currently the main barriers to change stem from two sources. One is a traditionally conservative approach to qualifying, which can be described as predicated on university degrees and being route-based rather than criterion-based. This has to some extent been reinforced by the EU Directive, as although it allows alternatives it is phrased in the language of full-time courses, with more emphasis placed on the length and content of the course than on the standard reached and abilities gained by its end. Exploration of alternative routes has to date been limited to the RIBA studio-based route and now the Degree Apprenticeship, i.e. making essentially the same programmes available in part-time format, and to discussions about how diverse degree courses can be while still being 'principally in architecture' (an ARB requirement reflecting the EU Directive).

The second is the lack of any widely recognised description of what a qualified architect should be able to do. Where professions have moved from emphasising routes to qualification to requirements for qualifying, a facilitating component has been the presence of a formal description

of what can be expected of a qualified practitioner. A few professions have resisted creating practising standards or competence descriptions on the basis that these are too restrictive to capture the artistry and contextual judgement inherent in their work, they gloss over its theoretical and intellectual foundation, the roles undertaken by practitioners are too diverse, or the standards lose currency too quickly. There is a substantial literature debating these points (e.g. Hodkinson 1995, Carroll *et al* 2008, Billett 2009 and Sandberg 2009), and they appear to be well-founded in relation to certain versions of 'competence', including both the functional model familiar in the UK from occupational standards and National Vocational Qualifications, and the behaviourally-oriented models that tend to be favoured in North America and in organisational competency frameworks. However, more recent work on competence and practising standards, stemming from some of the better practice in UK professions as well as work in Europe, suggests that it is possible to produce straightforward descriptions that reflect the complex and diverse nature of professional practice while also being reasonably durable and robust (Lester 2014, 2017).

Taking into account developments in other professions, including adjacent ones such as engineering, surveying and landscape architecture as well as more recently law, this kind of practising standard could facilitate two significant developments in architecture. One is the separation of what is currently the Part 3 course from final assessment for professional registration. This in turn would support a more integrated curriculum (as proposed by RIBA), as well as a critical review of Part 3 content in relation to what is required pre-qualifying (in readiness for working as a professional architect) and what might be considered post-qualifying development (for instance to support practising as a business principal). The second is enabling a means of allowing experienced but unregistered practitioners to qualify as architects without needing to attend prescribed or comparable courses. If introduced purely as an experienced practitioner route this would appear to fall within the provisions of both the 1997 Act and the 2005 Directive. It would require putting in place components including a robust means of assessment, a mentoring and advisory system for candidates, and a process for aiding those who appeared to have gaps in their knowledge and practice (or who failed the assessment) to undertake further learning. While this is a radical move compared with current practice in architecture, something similar has been operated successfully in several other professions including as the only means of qualifying in heritage conservation, a major route in project management and occupational health and safety, and for experienced practitioners in many more fields including surveying, chemistry, environmental science, and various branches of engineering (Lester 2009).

A further area where reforms might be introduced is to increase flexibility in the initial qualifications. At present there is a standard assumption that architecture is entered immediately or quickly post-school, and student architects follow a linear progression through Parts 1, 2 and 3, even if the second and particularly third stages can be delayed. The structure of this system is not particularly helpful to mature entrants who need to continue earning, to those in paraprofessional roles or adjacent professions who wish to become architects, or for that matter to school leavers who are interested in design or the built environment without wanting to make an early commitment to a specific profession. Both Degree Apprenticeships and the RIBA/Oxford Brookes programme provide a certain amount of flexibility, but there is scope for greater use of tools such as recognition of experiential learning, multiprofessional pathways, and building academic learning and credit around workplace projects.

The evolving context of architecture

The above discussion is incomplete without reference to possible future trajectories for the profession of architecture itself, including how it is becoming repositioned in relation to the construction sector as a whole. Farrell (2014) notes that while the volume of work for the built environment professions has grown substantially over the last 250 years, the proportion undertaken by architects has steadily decreased. More recently there has been a trend from large-scale projects being managed by architects on behalf of a client, with various other professionals engaged for specific inputs and construction firms contracted to do the work, to a design-and-build model where the construction company is responsible for the whole project (Jamieson *et al* 2011). This does not eliminate architects from the process (many are employed or engaged by construction firms, alongside engineers and surveyors among others), but it does point to the potential for a different relationship where the skills, qualifications and professional status needed by designers, specifiers and project managers can be decided at least partly by the construction company.

A further factor that is coming into play is the potential for technology to change the tasks that architects undertake. To date technologies such as computer-aided design (CAD), building information modelling (BIM, compulsory for public-sector works since 2016) and virtual reality have largely supported or complemented the work of the architect rather than automated or substituted for any of it (see Autor *et al* 2003 for these distinctions). However, rapid developments in fields such as artificial intelligence and machine learning mean that technology is increasingly able to perform work that has been seen as the preserve of professional practitioners (Frey and Osborne 2013), and an argument has been put forward that advancing technologies have the potential to be more disruptive, greatly reducing the inputs needed from architects, or (at least for routine applications) eliminating them entirely (Susskind and Susskind 2015). The latter authors take a heavily technical-rational and transactional view of what architecture and other professional work involves, and they also give little recognition to the scope that technology offers for its transformation; a more balanced analysis suggests that the role of the architect is likely to evolve, creating a demand for new or enhanced skills. One scenario is that architects become polarised between roles such as project management, creative design, and building conservation, with greater permeability between architecture and adjacent professions. Some recently-qualified practitioners are already describing themselves using terms other than 'architect', and architectural firms creating subsidiaries without reference to architecture (Jamieson *et al* 2011); the converse of this is the growth of unregistered practitioners who operate as architectural consultants, building designers and similar. An extrapolation, consistent with Andrew Abbott's analysis of how professions form and evolve (Abbott 1988), is that new professional groups begin to emerge on the edges of architecture and as hybrids between for instance architecture and building services engineering, architecture and interior design, or architecture and landscape architecture.

Conclusions

Woods (1999) among others makes reference to architecture as having been something of a pastime for gentlemen. This hardly holds for modern professional architecture, but the effort needed to qualify is still high compared with the rewards that can be expected at the median level (Wright 2013). The cost of qualifying under the UK's current fees regime is a factor that potential students

consider, and evidence is suggesting that this is favouring if not gentlemen able to view architecture as a pastime, at least students from wealthier socioeconomic groups (Farrell 2014, Jessell 2018).

The analysis above suggests that the current routes to qualifying in architecture, along with title-based regulation, are lagging behind the profession as currently practised and are not particularly well-placed to address future challenges. At present the title 'architect' has a strong and positive image, architecture as an occupation has a good level of social desirability and status, the field is one of few that encompass both the artistic and the technical in equal measures, and architectural degrees are in high demand. There is little indication that this is about to change dramatically in the near future, but the ability of architecture to maintain itself in its traditionally pre-eminent role in the construction sector is being steadily eroded. The need for more flexible (and less expensive) qualifying routes appears unequivocal, and attention is also needed to how architecture relates to the construction sector as a whole and to other built environment and design professions. Within higher education there is significant scope to make use of practices such as interprofessional courses, work-based programmes and recognition of existing learning and levels of ability, while from a professional and regulatory viewpoint there is both a need and the means to support a wider range of routes by which practitioners can acquire architectural skills and expertise.

As an example of professional entry, architecture currently sits as has been noted towards the more conservative end of current practices, more so for instance than allied professions such as engineering, surveying and landscape architecture. The modest evolution that has taken place can perhaps be explained by three main factors, viz. the presence of separate membership and registration bodies, and overlaps between them; a cautious interpretation of the EU Directive; and a tendency to equate maintaining quality with maintaining traditional entry-structures. More positively, architecture has few structural barriers to widening entry-routes provided that it can do so while maintaining the capability and competence of newly-licensed practitioners; the challenges of doing so for professions such as medicine, where the legal and organisational context of practice is more constraining, would be much greater.

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References

Abbott, A. (1988), *The System of Professions*, Chicago University Press, Chicago.

AERG (Architectural Education Review Group) (2013), *Pathways and Gateways: the structure and regulation of architectural education*, Architectural Education Review Group, Bath.

Autor, D., Levy, F. and Murnane, R. (2003), "The skill content of recent technological change: an empirical exploration", *Quarterly Journal of Economics*, Vol. 118 No. 4, pp. 1279–1333.

Ball, C. (2009), *A report for the RIBA on the registration and regulation of architects: rules and responsibility*, RIBA, London.

Benston, G. and Hartgraves, A. (2002), "Enron: what happened and what we can learn from it", *Journal of Accounting and Public Policy*, Vol. 21 No. 2, pp. 105-127.

Billett, S. (2009), "Workplace competence: integrating social and personal perspectives", in Velde, C. (ed.), *International perspectives on competence in the workplace*, Springer, Dordrecht, pp. 33-54.

BIS (Department for Business, Innovation and Skills) (2015), *The Future of Apprenticeships*, The Stationery Office, London.

Bravenboer, D. and Lester, S. (2016), "Towards an integrated approach to the recognition of professional competence and academic learning", *Education + Training*, Vol. 58 No. 4, pp. 409-421.

Carroll, B., Levy, L. and Richmond, D. (2008), "Leadership as practice: challenging the competency paradigm", *Leadership*, Vol. 4 No. 4, pp. 363-379.

Checkland, P. (1981), *Systems thinking, systems practice*, John Wiley, London.

Department for Communities and Local Government (2017), *Periodic review report: architects regulation and the Architects Registration Board*, DCLG, London (Cm 9383).

Dixon-Woods, M., Yeung, K. and Bosk, C. (2011), "Why is UK medicine no longer a self-regulating profession? The role of scandals involving "bad apple" doctors", *Social Science and Medicine*, Vol. 30, pp. 1-8.

Duckenfield, M. and Stirner, P. (1992), *Learning Through Work: the integration of work-based learning within academic programmes in higher education*, Employment Department, Sheffield.

Engeli, A. and Turner, D. (2019), *Degree Apprenticeships motivations research*, Wavehill Social and Economic Research, Cardiff.

Eraut, M. (1994), *Professional knowledge and competence*, Falmer, London.

Eraut, M., Maillardet, F., Miller, C. and Steadman, S. (2005), *Learning during the first three years of postgraduate employment*, Economic and Social Research Council, Swindon (Project LINEA).

Farrell, T. (2014), *The Farrell review of architecture and the built environment: our future in place*, Farrells, London (<http://www.farrellreview.co.uk>, accessed November 2020).

Frey, C. and Osborne, M. (2013), *The future of employment: how susceptible are jobs to computerization?*, University of Oxford, Oxford.

HEFCE (Higher Education Funding Council) (2000), *Foundation Degree Prospectus*, HEFCE, Bristol.

Hodkinson, P. (1995), "Professionalism and competence", in Hodkinson, P. and Issitt, M. (eds.), *The Challenge of Competence*, Cassell, London, pp. 58-69.

Jamieson, C., Robinson, D., Worthington, D., and Cole-Colander, C. (2011), *The future for architects*, London, RIBA.

Jessell, E. (2018), "Student survey 2018", *Architects' Journal*, July (<https://www.architectsjournal.co.uk/news/student-survey-only-the-rich-need-apply-to-study-architecture/10033472.article>, accessed November 2020).

Jessell, E. (2019), "One year on, are apprenticeships failing to open up the profession?", *Architects' Journal*, August (<https://www.architectsjournal.co.uk/news/one-year-on-are-apprenticeships-failing-to-open-up-the-profession>, accessed February 2021).

Lester, S. (2009), "Routes to qualified status: practices and trends among UK professional bodies", *Studies in Higher Education*, Vol. 34 No. 2, pp. 223-236.

Lester, S. (2014), "Professional competence standards and frameworks in the UK", *Assessment and Evaluation in Higher Education*, Vol. 39 No. 1, pp. 38-52.

Lester, S. (2017), "Reconciling activity-based descriptions of competence with professional work", *Higher Education, Skills and Work-based Learning*, Vol. 7 No. 4, pp. 381-393.

Lester, S. and Bravenboer, D. (2020), *Sustainable Degree Apprenticeships*, Middlesex University/The Edge Foundation, London.

Lester, S., Bravenboer, D. and Webb, N. (2016), *Work-integrated degrees: context, engagement, practice and quality*, Quality Assurance Agency, Gloucester.

Lester, S. and Costley, C. (2010), "Work-based learning at higher education level: value, practice and critique", *Studies in Higher Education*, Vol. 35 No. 5, pp. 561-575.

Middlesex University (2021), *Move On Up? Measuring the social mobility impact of apprenticeships*, Middlesex University, London.
(https://www.mdx.ac.uk/_data/assets/pdf_file/0022/600583/MDX_Move-on-Up_Early-findings_For-screen_AW.pdf, accessed February 2021).

Milburn, A. (2012), *Fair Access to Professional Careers: a progress report by the independent reviewer on social mobility and child poverty*, Cabinet Office, London.

Minton, A. and Lowe, J. (2019), "How are universities supporting employers to facilitate effective 'on the job' learning for apprentices?", *Higher Education, Skills and Work-based Learning*, Vol. 9 No. 2, pp. 200-210.

PARN (Professional Associations Research Network) (2015), *Professional Bodies and Apprenticeships: A Report for the Gatsby Charitable Foundation*, PARN, Bristol.

Policy Connect/Higher Education Commission (2019), *Degree Apprenticeships: up to standard?*, London: Policy Connect.

RIBA (Royal Institute of British Architects) (2017), *RIBA Education Review*, RIBA, London (<https://www.architecture.com/knowledge-and-resources/resources-landing-page/riba-education-review>, accessed November 2020).

RIBA (2020a), *RIBA Education Statistics 2018-19*, RIBA, London.

RIBA (2020b), *The Way Ahead: an introduction to the new RIBA Education and Professional Development Framework and an overview of its key components*, RIBA, London (<https://www.architecture.com/-/media/GatherContent/Social-Value-Toolkit-for-Architecture/Additional-Documents/The-Way-Ahead-brochure-4-Sep-20.pdf>, accessed November 2020).

Sandberg, J. (2009), "Understanding of work: the basis of competence development", in Velde, C. (ed.), *International perspectives on competence in the workplace*, Springer, Dordrecht, pp. 3-20.

Schein, E. (1972), *Professional education: some new directions*, McGraw-Hill, New York.

Schön, D. (1983) *The reflective practitioner: how professionals think in action*, Basic Books, New York.

Startup, H. (1984), *Institutional control of architectural education and registration 1834-1960*, MPhil thesis, University of Greenwich, London (<https://core.ac.uk/download/pdf/9657734.pdf>, accessed December 2020).

Susskind, R. and Susskind, D. (2015), *The future of the professions*, Oxford University Press, Oxford.

Van Hamel, C. and Jenner, L. (2015), "Prepared for Practice? A national survey of UK foundation doctors and their supervisors", *Medical Teacher*, Vol. 37 No. 2, pp. 181-188.

Warne, J. (1993), *Review of the Architects Registration Acts 1931-1969*, Her Majesty's Stationery Office, London.

Williams, C., Hanson, W. and Friedman, A. (2012), *Becoming a Professional: new ways of entering the professions*, PARN, Bristol.

Woods, M. (1999), *From craft to profession: the practice of architecture in nineteenth-century America*, University of California Press, Los Angeles.

Wright, A. (2013), "Survival of the Species: the financial habitat of, and evolutionary pressures on, English architectural education", *Field*, Vol. 5 No. 1, pp. 63-82.