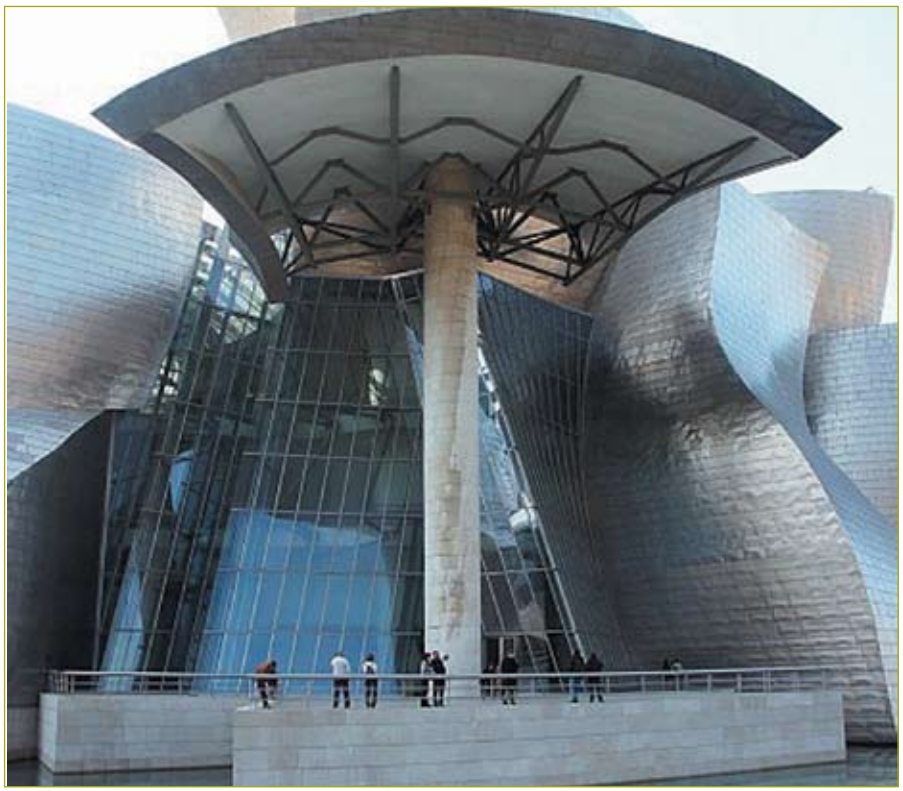
A three-dimensional career

VIRGINIA MATTHEWS finds out why architects need a passion for making life better, a strong sense of commercial awareness, good technical drawing skills – and they don't need to be good at maths

"We could start going to careers fairs in T-shirts saying 'Maths A level not required', but I suspect that the whole proficiency with numbers question is one that we will continue to be asked." The speaker, Chris Ellis, acting director of education at the Royal Institute of British Architects (RIBA), stresses that a career in building or landscape architecture is unusual in employing both the logical and more creative sides of the brain.



Mary Ann Sullivan, Bluffton University

Artistic skills

Yet while designing a new town, shopping village or airport undoubtedly requires both artistic and hard-nosed practical skills, it is not necessary to study Pythagoras or indeed Picasso to develop the three-dimensional thinking that characterises the skilled architect.

"Being able to hand-draw plans is a useful talent when you set out on the road to becoming an architect", says Ellis, "but increasingly, the more detailed planning is done using sophisticated computer-aided design." He adds: "Sketching an initial proposal is important even for an architectural practice which is 100 per cent computerised, but actually understanding how a building might look and work – and being able to communicate that vision to others – is not quite the same thing as being able to draw a perfect sketch of it."

If following in the footsteps of Sir Christopher Wren or Basil Spence does not necessarily entail advanced drawing or mathematical skills, what it does require is a fascination with the built environment and the impact buildings have on communities and the environment. Says Julia Barfield of Marks Barfield, the architectural practice behind the London Eye: "I feel that my work really makes a difference to people's lives and when it comes to hiring policy, I look for people who share that passion for making life better."

Controversial buildings

While radical modern architecture has stern critics – among them, the Prince of Wales – society looks to architects to create buildings that reflect how we choose to live and work today, even though the buildings themselves may be highly controversial.

While around 40 per cent of the profession were once employed in the public sector; invariably in local authorities, that figure is down to 10 per cent today. With the bulk of the profession now working for clients in the private sector – advising anyone from a householder wanting a modest extension to a supermarket looking to build a multi-storey shopping complex – it is little wonder that today's architect is more commercially aware than ever before. As experts in building design, architects use their creative skills to advise a diverse range of individuals and groups on conservation and development matters. It goes without saying therefore that the ability to work as part of a large construction team, and to have the confidence to fight one's own corner, are, along with economic realism, essential pre-requisites of the job.

Given the sheer diversity of the profession – which has earned plaudits for innovations such as the Eye, brickbats for projects such as the Millennium Bridge and, away from the headlines, quiet praise for thousands of new hospitals, roads, factories and schools all over the world – it is hardly surprising that so many young people are attracted by this well-rewarded and increasingly international career. Yet with an apprenticeship that currently spans

seven years both in and out of the lecture hall – including five years of undergraduate study – relatively few end up becoming fully qualified.

Before looking at training requirements, it is worth noting that while architecture has an overridingly white, male and middle class image, RIBA says things are changing. At present, nearly 40 per cent of entrants to architecture degree courses are female, and some 12 per cent of student architects are from ethnic minority backgrounds.

Ellis agrees that the profession is not particularly family friendly at present and says that it has the kind of long hours culture associated with all deadline-oriented professions.

Whatever a would-be apprentice's background, for today's generation of school-leaver, a five-year degree programme recognised by the 172-year-old RIBA – as well as a broad secondary education encompassing both arts and science – is essential.

Architecture schools

Schools of Architecture vary widely, says RIBA, and it is important that candidates choose schools that match their fields of interest. While some are based in a university's faculty of art and design, and are badged as BA degrees, others may be BSc-based in the departments of engineering, technology or construction.

'Having studied architecture for three years, many students switch to a new career field'

The distinction between an arts or engineering-led course will prove to be vital as a candidate progresses through the three-year RIBA Part 1 degree, which is followed by a paid year in practice, and the two-year Part 2 programme, again followed by a year's paid work.

Technical drawing skills are an essential component of all courses, but candidates are expected to show a portfolio of sketches and drawings. While the Part 1 degree equips students with important professional skills such as 3D visualisation, technology, environmental design, management practice, law and the history of the profession, many students drop architecture as a career option at this stage. In the year 2005 for example, 2,961 students enrolled for the Part 1 course but only 1,030 made it through to graduation from Part 2.

Transferable skills

"We find that having studied architecture for three years, many students are happy to switch to a new career field such as graphics or web design," says Ellis. "What these career-switchers find is that the skills they have learned over that three-year period are eminently transferable to a whole range of other employment sectors."

While Ellis agrees that a seven-year apprenticeship is a major disincentive for many, plans are afoot to bring the scheme down to a more manageable six years before a practitioner can join the all-important UK Register of Architects. Once the training has finished, a UK architect is entitled to practise across the EU, but to work as an architect in the US for example, he or she must take further exams.

Stephen Harte is assistant head of architecture at Hampshire County Council, where his projects have included designing libraries, fire stations and new schools. He says: "I came from an arts background and although I haven't got A level maths, it's never been a problem. I have always been able to rely on my own numerical skills, or have been put in a team which already had a maths specialist."

"When people criticise architects because a building is perhaps too revolutionary for current design tastes, I always tell my friends that to be an architect is to be very team-based. That may mean that one can lean on others when the maths is too hard, but it also means that when a building is commissioned, lots of people aside from the architect have been happy to give it the go-ahead."

Harte says he enjoys working in the public sector because there is a clear "social element" to his work and he gets a "great thrill" from seeing buildings he has been associated with.

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