Blueprint for all

# Getting into architecture

HKS

Blueprint for all

This toolkit is to help give you a basic understanding of what an architect is and what they do.

Architecture is a diverse and exciting profession and the skills you learn can be applied across many other careers and interests. At the end of this booklet there are further resources you can use to explore this topic.

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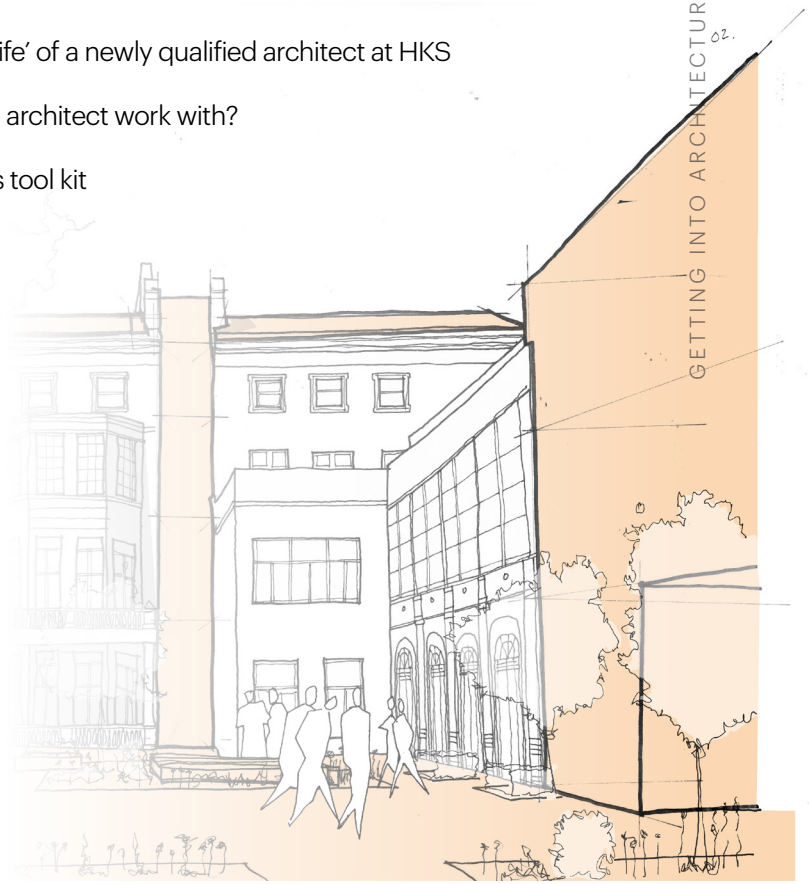
Glossary

# 1. What is architecture?

Architecture is all about designing and making the spaces for people's everyday lives.
It is a broad subject that can cover the smallest house to the largest skyscraper. It can meet needs as simple as providing shelter or as complex as designing a city.
Architecture combines aspects of both science and art, requires creativity, and at its core is problem solving for our environment.
Architecture is important. We spend around 90% of our time inside or using buildings and good architecture can help make our lives easier and more comfortable.
For example, well designed hospitals can help patients heal more quickly, and good schools have a positive impact on students' grades.
Architecture can become the historical representation of a generation, or the cutting edge face of a new technology. You can experience architecture wherever you are.

# 2. What is an architect?

Architects design buildings and spaces. The architect often leads the design of a project and will be responsible for developing the idea and concept.
They will work with a **client** to develop a brief (outlines the needs of the client e.g.. size of project, site etc), and must balance artistic vision with technical and practical skills to ensure that a building will work and can be constructed. An architect does not work in isolation - they must collaborate with other **professionals** and can be responsible for coordinating a team and the design work.

Architects can also be responsible for overseeing or working with builders to construct a building. This can involve being the client's eyes and ears; ensuring that their needs are met. On large projects, the architect may also work directly for a builder to complete technical aspects of a design and ensure its completion.
Many architects specialise, for example, becoming experts in residential design, sustainability, master-planning or technical design.

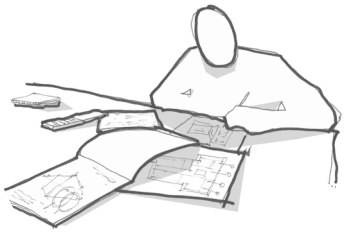
# 3. What does an architect do?

As an architect you may spend your career designing new buildings and spaces. This can involve working with other professionals to push boundaries to benefit society and the built environment.

Architects may work on varying projects from a small interior space to a school or even a city. Architects can also work on old buildings: extending, refurbishing or conserving buildings of historical importance. Many architects become specialists in this field with in-depth knowledge of craftsmanship and materials.

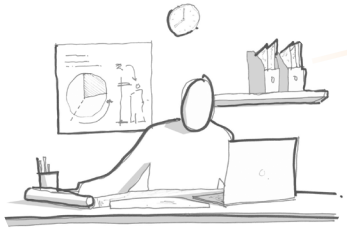
As an architect, you may spend your career working in your home town, or travelling the globe working in foreign countries.

Architecture and the process of designing a building can be complex, but there are a number of steps that are always involved:

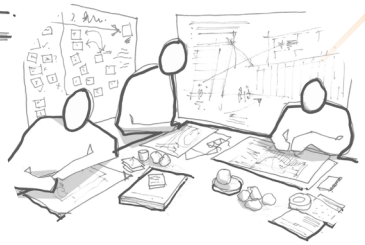


**Design:**
Various tools and methods can be used to capture and represent ideas, including sketching, writing and model making. Design is an on-going process through which ideas are tested and developed.

**Develop:**
Design ideas can be tested through drawing, making models or prototypes, or developing computer mock-ups.

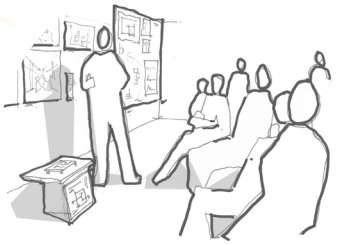


**Research:**
The architect needs to understand the building they are designing - how people use it, how it's built, and the site and setting it is within.



**Team Work:**
Collaborating with other team members to problem solve and come to conclusions. The beginnings of an idea or concept may be identified through group discussion where thoughts can be discussed and tested.

**Engage:**
Buildings don't exist in isolation, and it is important to engage with neighbours and stakeholders, such as the users, to hear their views.



**Present:**
Architects need to be able to communicate their ideas, listen and respond to feedback.

# 4. How to become an Architect

Post Key Stage 5 (year 13), there are currently two routes in the United Kingdom to become a qualified architect:

- **University route**
  University study and periods of paid work
- **Apprenticeship route**
  University study whilst working (paid work)

The apprenticeship course is a newer route, in comparison to university which is the most common.

You will need to secure an apprenticeship placement with an architectural practice (architecture companies are called practices) to start an apprenticeship course at university.

Both routes are outlined on the time-line opposite.

Like doctors, the title 'architect' is protected by law, so you need to be registered with the **Architects Registration Board** to call yourself an architect. You can then become a member of the Royal Institute of British Architects (RIBA).

| UNIVERSITY ROUTE | YEAR | APPRENTICESHIP ROUTE |
|---|---|---|
| **Part 1**<br>Study an **undergraduate degree** in architecture. Upon completion you will be a part 1 architectural assistant. | 1 | **Apprenticeship Level 6***<br>Study an **undergraduate degree** as part of your apprenticeship. Study in a university one day or two days a week and work the rest of the time in an architectural practice. Upon completion you will be a part 1 architectural assistant. |
| | 2 | |
| | 3 | |
| **Part 1 Year Out***<br>Work for a year in an architectural practice as a part 1 architectural assistant. | 4 | |
| **Part 2**<br>Study a **postgraduate Diploma** or **Masters** in architecture. Upon completion you will be a part 2 architectural assistant. | 5 | **Apprenticeship Level 7***<br>Study a **postgraduate Diploma** or **Masters** as part of your apprenticeship. Study in a university one or two days a week and work the rest of the time in an architectural practice. |
| | 6 | |
| **Part 3***<br>Work full time and study part time for a **post graduate Diploma**. | 7 | |
| **Register as an architect with the Architectural Registration Board (ARB).** | 8 | **Register as an architect with the Architectural Registration Board (ARB).** |

The above illustrates the typical routes, some universities may differ.
* This is expected to be paid work.
Look here for more information:
architecture.com/education-cpd-and-careers/how-to-become-an-architect
architecture.com/campaign/apprenticeships


# 5. ‘A Day in the Life’ of a Part I architectural assistant at HKS

“I joined HKS six months ago after completing my university degree. So far I have worked to support a project team on a new primary school project and I have supported the practice’s entry into a competition to design a new hospital. These projects have given me an invaluable insight into professional life and how architects work in the real world. This has been inspiring and I have also enjoyed using the drawing and design skills I learnt at university to assist my colleagues. I work under close supervision from the project architect which has allowed me to ask them questions about their role and work. It’s great to finally put my skills into practice!”

## Part 1 architectural assistant: Key job roles:

- Assisting with creating materials for presentations.
- 3D computer modelling and drawing work with guidance from the project architect.
- Attending client and team meetings with the project architect.
- Accompanying the architect on site visits.
- Model making.
- Learning about wider professional skills - communication, administration, financing etc.

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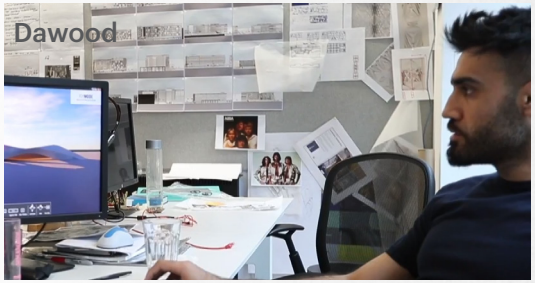
HKS




# 6. ‘A Day in the Life’ of a Part 2 architectural assistant at HKS

“I have been with HKS for almost 4 years, having joined after completing a Master’s degree (RIBA Part ll) at London South Bank University. I have worked on a wide variety of projects across sectors including hotel resorts and schools, and in a number of different countries. I have supported bids, made presentations to clients, helped to develop designs, and worked both independently and under guidance from my mentor. As I have completed my Masters and worked in other practices before joining HKS, I’ve been given responsibility which has been both daunting and exciting! It’s been great to travel outside of the office either for projects or for other architectural events, and I’m gaining confidence all the time in my professional abilities.”

## Part 2 architectural assistant: Key job roles:

- Collaborating on design and technical work with colleagues.
- Preparing and giving presentations.
- Drawing and 3D computer modelling including visualisations.
- Working with external team members such as engineers.
- Carrying out project research and presenting this to the design team.
- Design work.

If you have an iPhone or Android smartphone just open your camera and point it at this code to see a 3D visual image

HKS

Camille

# 7. "A day in the life' of a newly qualified architect at HKS

"I graduated with my Part 3 from the University of Westminster in 2017 and have been registered with the Architects Registration Board (ARB) since. Before that I worked as a Part 2 architectural assistant and tutored at a university. I have worked on hospitality projects which include hotels and villa complexes. As a qualified professional I am expected to exercise independent judgement and expertise in running projects and leading design work. I have a mentor in the office who is able to give me advice when I need it, but I enjoy the challenge of representing HKS to clients and responding to challenges directly. Architectural education is long, but I've found that there is so much that you can't learn from a book. I've faced many challenges that I haven't immediately known the answer to, but part of being a good architect is knowing the limits of your knowledge and where to go to find answers."



## Newly qualified architect: Key job roles:

- Work independently to develop design and technical work.
- Assist leading the design process.
- Lead teams in planning and carrying out work.
- Review work for technical compliance.
- Prepare reports, documentation and drawings.
- Manage project resources.
- Attend site visits, give presentations.
- Liaise with clients and other professionals.

If you have an iPhone or Android smartphone just open your camera and point it at this code to see a 3D visual image

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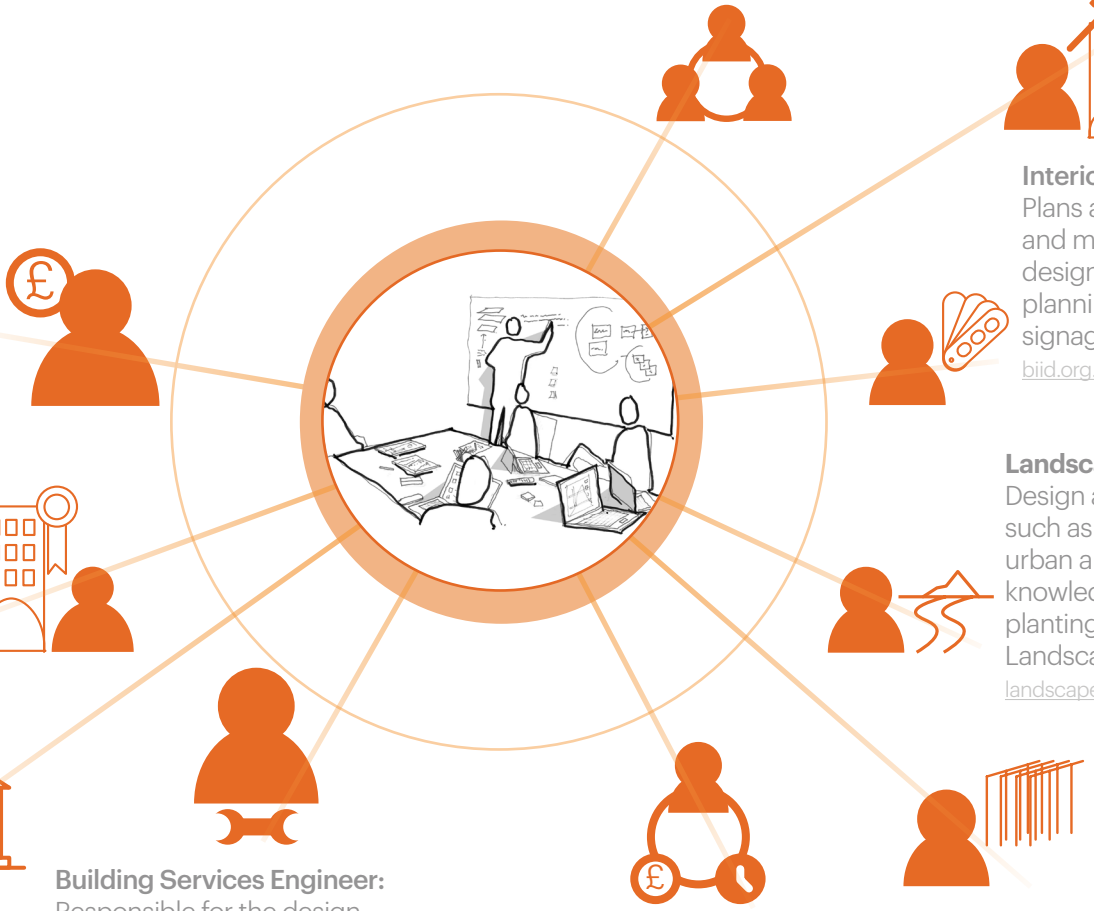
# 8. Who does an architect work with?

Architects do not work in isolation. They must work in a team with many other people in order to develop and construct a design, including other professionals and specialists. Key people you may work with include:

**Wider Community:**
Architects must consider the needs of the wider community as well as those of their clients. This can include neighbours, community groups or statutory bodies such as Historic England who look after our historic environment. Collectively these groups are called "stakeholders".

**Contractor:**
Often referred to as "builders", contractors carry out construction work. Can be a "general contractor" or a specialist in a particular type of construction.
ccscheme.org.uk/



**Client:**
The person who has commissioned (asks for) and pays for the project. Architects may work with clients to develop their brief, seek their approval for decisions, or represent and protect their interests when dealing with other professionals and organisations such as the contractor.

**Interior Designer:**
Plans and designs internal spaces and may be involved in developing design styles and colour schemes, planning spaces, designing signage and selecting furniture.
biid.org.uk/about-us

**Building Control:**
Either managed by Local Authorities or independent Approved Inspectors, Building Control is a set of national technical standards that a building must meet.
planningportal.co.uk/info/200128/building_control

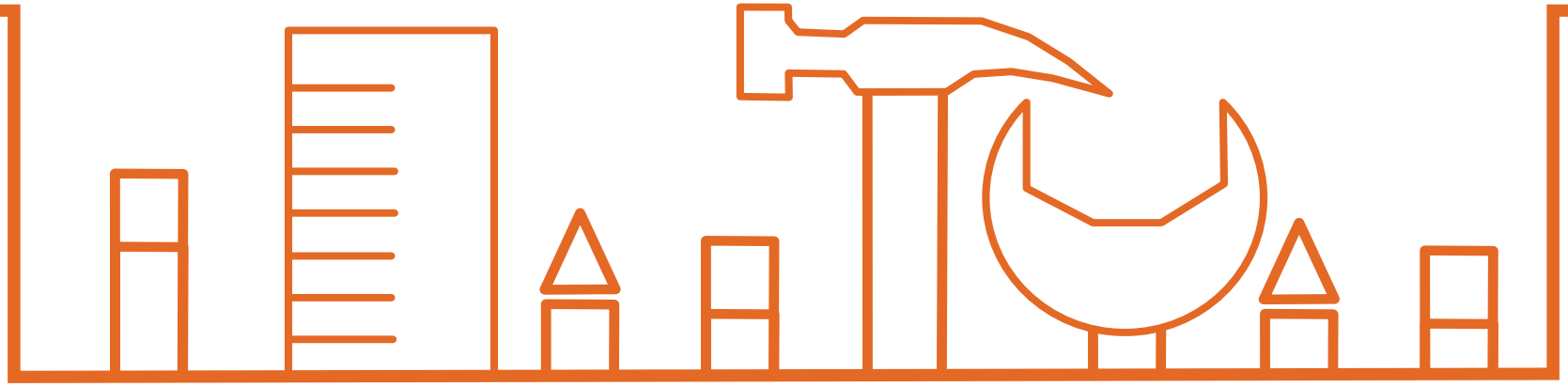
**Landscape Architect:**
Design and plan external spaces such as gardens, resorts and urban areas. Has a specialised knowledge of ecology and planting. Represented by the Landscape Institute.
landscapeinstitute.org/

**Town Planner:**
Town Planners manage the approval process that buildings must go through in order to be built. Represented by the Royal Town Planning Institute (RTPI).
rtpi.org.uk/

**Building Services Engineer:**
Responsible for the design of the electrical, mechanical, plumbing or other specialist services that a building needs. Represented by the Chartered Institute of Building Services Engineers (CIBSE).
cibse.org/

**Quantity Surveyor:**
Advises on project costs. Works to define and manage budgets. The Royal Institute of Chartered Surveyors (RICS) is their professional body.
rics.org/uk/

**Structural or Civil Engineer:**
Structural Engineers design the frame (connected parts that support the building) and foundations of a building. Civil Engineers work on a range of projects including bridges, roads, railways and other large structures. Represented by the Institution of Structural Engineers (IStructE) or Institution of Civil Engineers (ICE).
istructe.org/
ice.org.uk/



# 9. An architect's tool kit.

Architects need to have a range of skills and tools to help them develop designs, communicate ideas and solve problems. As you choose your path through education, it is worth learning about and developing a knowledge of the following skills:

**1.Sketching.** Hand drawing is a crucial skill for an architect, allowing them to communicate an idea or record a building or space. This may not always be accurate sketching, as long as it communicates your message. Anyone can learn to draw with practice, patience and confidence.

**2.3D Computer Modelling.** Architects use computer software to model designs in a virtual 3D space. 3D prototypes of buildings can now be developed and explored in Virtual Reality.

**3.Model Making.** Making a model of an idea or design is as important a skill as sketching, and can help you understand complex geometry. Models can be quick and rough to help explore an idea, or detailed and accurate for presentations. 3D printers are also becoming more common in architecture and are a great tool.

**4.Speaking and presenting.** Architects need to explain their ideas to others clearly and concisely. Confidence in presenting takes time as not everyone is a natural, but it is an important skill.

**5.Photography.** Photographs can record or show a building in much greater detail than drawing, and is a good skill to develop.

**6.Scale.** Scale is a drawing method to represent information accurately and at varying levels of detail and size.

**7.Writing.** Being able to put down your thoughts and ideas in clear and concise language is a crucial skill. Architects write many reports on their designs and need to be able to express their thoughts through words.

**8.Graphic Design.** The ability to draw diagrams, lay out attractive and clear documents and sell ideas through good graphic design.

# 10. Next steps...

There are many websites that you can visit to explore architecture and the role of the architect further:

**architecture.com**
The website of the Royal Institute of British Architects - the professional body that represents architects in the UK.

**arb.org.uk**
The regulator of architects working in the UK.

**stephenlawrence.org.uk**
We work with young people from disadvantaged backgrounds aged 13 to 30 to inspire and enable them to succeed in the career of their choice.

**designingbuildings.co.uk**
Wiki covering the whole construction industry and built environment.

**londonfestivalofarchitecture.org**
London's annual architecture festival.

**openhouselondon.org.uk**
Annual event offering free entry to buildings across London.

**open-city.org.uk**
Organisers of Open House London and other architecture events.

**opendoors.construction**
Open Doors offers a unique chance for you to go behind the scenes of live construction sites, offices, factories, and training centres across Great Britain.

**dezeen.com**
**designweek.com**
Architecture and design websites.

**hksinc.com**

# Glossary

**Apprenticeship** – Gaining the necessary skills for a profession while you work, often includes some studying.

**Built environment** – Human-made spaces, areas and buildings.

**Client** – A person or company who pays for a service or products.

**Construct** – To build or make.

**Conserving buildings** - To protect a building from harm or destruction.

**Craftmanship** – Skill at a role which involves making things.

**Degree** - Certification students get when they graduate from a university. Undergraduate education is education conducted after further education (e.g. A levels).

**Masterplanning** – Designing an area, a group of buildings and spaces or even a whole community area.

**Postgraduate Diploma** - You can undertake postgraduate study after you have completed an undergraduate degree or have equivalent work experience. The award of this is called a postgraduate Diploma or other.

**Prototype** – A first or early model or initial draft of something.

**Residential** – Buildings designed for people to live in.

**Refurbishing** – To change the design of an existing building or space.

**Scale** - The proportions of a building, object, area of land etc with reference to a module or unit of measurement.

**Sustainability** – Sustainability is concerned with whether environmental resources will be protected and maintained for future generations.