Architecture at A-Level: A Case Study

Robert Atkinson
Richmond upon Thames College
June 2010

Abstract

This paper describes an A-level course (a two-year course for 16-19 year old students), which concentrates entirely on architecture, using an art studies syllabus as its basis. The course has run since 2001, during which time it has grown considerably in popularity. The first year concentrates on the history of architecture and on how different histories are perceived from different viewpoints, using a comparative analysis of several buildings. In the second year the emphasis is on how architecture emerges from and affects social interaction, through a close study of a single building. The paper goes on to discuss the value of the course and qualification, especially in relation to further architectural study at university.

Introduction

In early 2001, while giving occasional architecture lectures to A-level students (16-19 years old) at Richmond upon Thames College, it occurred to me that it would be possible to construct an A-level course entirely about architecture (something which does not exist in its own right) using an art studies syllabus as its basis. A pilot scheme was put in place for a short version of the course in time for the start of the new academic year in September 2001, aimed at students already in their second year at the college. This proved successful, and the following year it was advertised in the college prospectus to new applicants as a full A-level, simply called 'Architecture'. It has grown steadily, and last year attracted around 100 students.

The design and running of the course has brought into focus several issues of architectural education: the value of the qualification within an overall academic portfolio, the relevance of an architectural education at this age to further architectural study at university, and in particular the meaning that the built environment has to teenagers and how it can best be presented and explained to them. This paper is an account of the course itself and an analysis of how these issues have affected the way it has developed.

The A-level System

In England and Wales post-compulsory education (education in the two or so years following the end of the compulsory phase at age 16) has tended to be broadly divided into two types: vocational education, whose primary purpose is to equip a student for direct employment or apprenticeship, and academic education as preparation for entry to university, in which the A-level system is the dominant model. There are exceptions: universities increasingly accept vocational qualifications for entry, while the International Baccalaureate and other rigorous tests challenge the A-level's authority as a measure of academic achievement. However the A-level system is, currently at least, the most widely accepted method of academic preparation for this age group.

An A-level is a course in a single, defined subject area. It has two sections: an AS (Advanced Subsidiary) which is the first half of the complete A-level course and is valid as a qualification in its own right, and an A2, which as the second, more advanced, part of the course leads to the full A-level qualification. A full programme of A-level education typically includes three full A-levels and one AS, taken over two years.

The subject areas themselves are determined and defined by the QCDA (Qualifications and Curriculum Development Agency), whose qualification and subject criteria are developed by the Awarding Bodies (sometimes referred to as examination boards) into syllabus specifications (QCDA, 2010). These specifications are used by schools and colleges as the basis for the content and assessment of their courses. Generally, therefore, the range of A-level courses that a school or college offers will be from within the range of subjects that the QCDA and the Awarding Bodies define and specify, and will follow their naming strategy (for instance Physics, French, or Modern European History)[1].

Architecture is not a defined subject within this framework, and there is no Architecture specification as such. The reason for this may partly lie in the history of the subject as a university course. Architects have until comparatively recently been educated in an apprenticeship in an architectural practice. It is only since the post-war construction boom prompted a more organised approach to education that university courses began to supplant the apprenticeship model, and only since 1980 that the majority of architects were educated in this way (Farren Bradley, 2000, p.179; Webster, 2008, p.64). Architecture has not, therefore, developed as an academic pathway with a clearly defined route from compulsory,

[1] While this paper was being written the government announced its intention to dissolve the QCDA and distribute its functions to other agencies.

through post-compulsory, to higher education (as may be seen, for instance, with science, modern languages, or art), and the opportunity to study architecture before university has tended to be limited to extra-curricular projects or to relatively small components of art or art history courses. There is, however, a subject specification called Art: Critical and Contextual Studies, which in the form published by the OCR (Oxford, Cambridge and RCA) examination board permits a course design which concentrates on a single area of artistic production, such as architecture. It is this specification that forms the 'vehicle' for the Architecture A-level.

The Underlying Syllabus

The Architecture A-level course is designed within the OCR Art: Critical and Contextual Studies syllabus (OCR, 2007), and this is the title of the A-level that students are awarded. The syllabus is itself an 'endorsement' of (meaning a specialism within) the more general Art and Design A-level specification, and although it is more of an 'artistic study' than an 'artistic production' syllabus it retains a lot of the practical nature of its parent.

The rationale of the syllabus is to raise "a critical awareness of the social, cultural, historical and economic meanings contained within own and others' art and design work" (OCR, 2007, p.33). The emphasis on meaning does not preclude formal analysis, and an understanding of space, scale, structure and shape are among the range of skills that may be demonstrated through students' work. Variety is encouraged in the work itself. Phrases such as "an ability to compare and evaluate through academic and visual processes", "visual analysis through practical art work", "critical analysis through written work", and "balancing written and visual materials" (OCR, 2007, p.33-34) give an idea of the way in which the syllabus brings an inquiring, analytical mode of study into a practical artistic environment. The result is a syllabus which provides an unusually flexible platform for a wide range of study methods and work styles, covering an equally wide range of study subjects.

The AS and A2 parts of the syllabus are each comprised of two units. The first (60% of the mark) is in each case a general project, designed within given criteria by the course teachers, based on subjects chosen from within one of six 'thematic specialisms'. The second (40%) is a research project leading from a 'starting point' chosen from a range of given items, leading to a timed practical exam. It is the fact that one of the thematic specialisms is 'The Built Environment', and that an architectural subject is always given as one of the starting points, that makes the syllabus attractive as the basis for a course specialising in architecture.

The Course Rationale

The broad nature of the Architecture course reflects the rationale and modes of work of the Art: Critical and Contextual Studies syllabus. It is essentially an investigation into the meaning of architecture, though what that meaning is and how it is discovered needs further explanation, which I will attempt below. For the most part, however, the work involves the study of existing examples of architecture, either (in the AS) through a historical comparison of many examples within a fairly restricted analytical framework, or (in the A2) through a single building study across a much broader framework. Some design work is done, but always as part of a study of existing buildings.

The relationship between the more detailed course structure and the syllabus is not so straightforward. The syllabus's flexibility has allowed the course to develop according to principles and impetuses which come from elsewhere; in particular, from a developing perception of students' understanding of the built environment and the ways in which they are able to express their understanding at different stages of their own development. In a sense the course has had a life of its own, shaping itself over the years within the sympathetic envelope of the syllabus. To pretend that there has always been an overarching rationale would not be quite right, but it would be true to say that as each component has developed, the relationship between them has become clearer, until quite recently the relationship itself has been given a priority in fixing the shape of the components.

The diagram below (figure 1, also see figure 2 following) illustrates what has emerged as a simple guiding principle that links the different approaches of the AS and the A2. It is based on a table of areas of analysis, ranging from local to broad on one axis, and from environmental to human on the other. The A2 uses the full table as the basis for a comprehensive study of one subject. The AS uses a subset of areas - the more local/environmental quadrant - as the basis for comparative studies of a range of subjects.

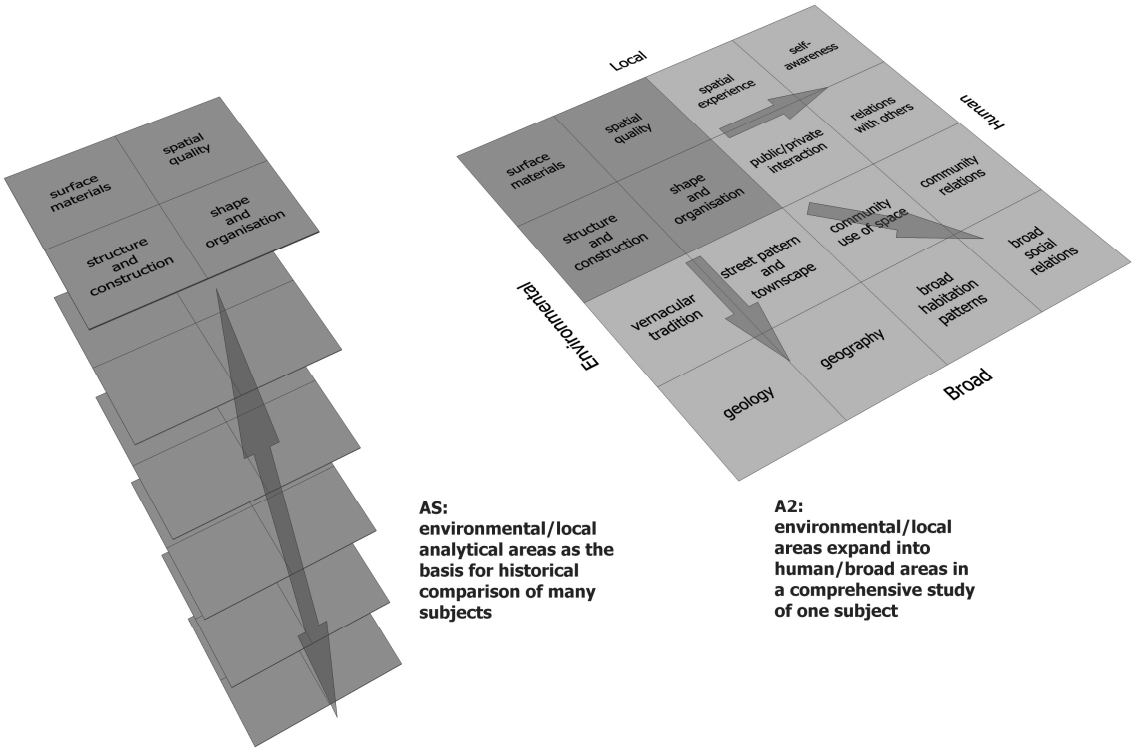

Figure 1: AS and A2 areas of study

The Course Structure

In line with the syllabus the Architecture course has two units in each of the AS and A2 years: a major, teacher designed project (in which the principle illustrated above is expressed most clearly) and a minor unit based on a subject chosen by the examination board, which acts a kind of consolidation of the skills learnt in the major unit.

Year and Unit		**Proportion of mark**
AS (First Year) Unit A	Teacher-designed coursework portfolio in eight stages; subjects partly chosen by teachers, partly by students.	60% of AS 30% of full A-level
AS (First Year) Unit B	Research and design exercise on a subject specified by the exam board.	40% of AS 20% of full A-level
A2 (Second Year) Unit C	Teacher-designed major project on a single subject, chosen by students.	30% of full A-level
A2 (Second Year) Unit D	Research and design exercise on a subject specified by the exam board.	20% of full A-level

AS Unit A

The first unit of the course is described in the Art: Critical and Contextual Studies syllabus as a 'coursework portfolio', and asks for a body of work with certain required components, including a historical timeline and analysis of twenty relevant works. We have adapted this outline into an eight-stage exercise whose emphasis is on historical comparison and on the way that the analytical categories of surface, structure, space and shape can be used to illustrate connections (or contrasts) between apparently widely differing buildings. In the early stages of the course, where architectural analysis is an unfamiliar concept for almost all the students, this type of formal comparison is relatively easily understood. Its essentially visual nature lends itself to more engaging teaching methods - slideshows and building visits - and it can be reinforced by the quite wide-ranging literature that analyses architecture in the same terms (e.g. Unwin, 2009; Ching, 1996; or older publications such as Muschenheim, 1964).

Architectural history is introduced into the unit as a practice as much as a fact. The first few stages proceed from the comparison of two examples (by way of an introduction to both history and analysis) to a compact timeline involving twelve local buildings to illustrate (in a sketchy fashion) the history of Western European Architecture. But the point is made to students that this timeline is a limited and singular view, and that history is something that is 'told' from a particular standpoint. In the following stage they are asked to construct a different timeline with their own choice of buildings; possibly, but not necessarily, intersecting with the 'taught' one. The ethnic diversity of our students (which I will expand on in a later section) makes this transition from 'our point of view' to 'your point of view' a particularly charged and interesting moment, and quite suddenly puts the students in the position of trying to decide what their point of view is. For many, this results in a rather haphazard and hasty immersion in architectural research - a useful exercise, but not necessarily related to a personal sense of cultural background. However for a significant number of students the project represents a chance to express a strongly felt identity in a way that they may not have been able to do before - by constructing a history from their own perspective.

Subsequent stages draw inwards again to a more detailed study of an individual building in a student's own timeline, in a group of linked stages collectively termed a 'Personal Study'. The first of these is a research stage. The remaining two consist of a small design project in which an understanding of the building's underlying design principles is demonstrated through a process of analysis and synthesis. The object of this is to design some small and simple structure which relates in some way to the subject building, or to make a proposal for an alteration to its setting. The aim is not to produce something aesthetically pleasing or

functionally successful, but to demonstrate through sketch drawings a process of identification of formal qualities of the building, and to create a composition using the same qualities.

Underlying all the stages of the unit is an intention to develop students' analytical skills in both writing and drawing. There is always an assumption among students that the type of drawing that will get them the best marks is what they think of as 'architectural', meaning either very neat straight-line plans and sections, or perspective renderings that are as close to photographic as possible. A kind of re-education is necessary during the unit, where students are helped to understand that each drawing has a particular communicative or explanatory task, and that diagrams that mean something, even if sketchy, are preferable to mere description.

Classroom teaching is varied. Each stage has an introductory slideshow, but following that the atmosphere is very similar to an art class, with students working in the classroom while individual tutorials take place. Each stage lasts two or three weeks, and students are expected to keep up, moving on to the next stage even if they haven't finished the last one to their own satisfaction. The end result is an A3 folder of work, divided into stages, and (hopefully) demonstrating the development of understanding and skills that is expected over the duration of the unit.

	AS Unit A Stages
1	Introduction: A discussion and essay on the theme 'What is Architecture?', and an introduction to drawing techniques.
2	Building Comparison: A comparison of two buildings chosen from the timeline in Stage 4 for their contrasting formal qualities. This stage is an introduction to architectural analysis within the categories of surface, structure, space and shape.
3	Building Comparison: A visit to the two buildings of Stage 2, followed by further analytical studies.
4	'Taught' Timeline: A very compressed view of Western European Architecture from the Romanesque/Norman period to the present day represented by examples which can be seen in a short visit to central London (including the two buildings of Stages 2 and 3).
5	'Own' Timeline: Students choose their own architectural examples to construct a timeline which may intersect with Stage 4, or may be completely separate.
6	Personal Study Research: One of the buildings from the Stage 5 timeline is selected for in-depth research in a 1000-word essay.
7	Personal Study Design: A design for a small, simple structure which relates to the building of Stage 6, or a proposal for an alteration to its setting.
8	Personal Study Model: A model-making exercise for the Stage 7 design.

A2 Unit C

The approach in the second (A2) year is altogether different. Figure 1 above suggests a diachronic/synchronic difference in which the change from AS to A2 is from a series of architectural examples viewed historically and compared in purely architectural terms, to a single example seen contemporaneously in the context of broader social, political and economic processes. Underlying this, though, is a more fundamental change of view from architecture seen as a collection of objects, separate from the observer, whose meaning is more symbolic than environmental (in the sense that they are chosen as components of a timeline which may symbolise a student's own perceived cultural history), to architecture seen as something integral to existence in the physical world, and which both emerges from and affects social interaction in a way that directly involves the subject. The challenge in the A2 year is to persuade students of the significance of this change of view, and that they, as well as their adult teachers, can experience architecture as active, socially engaged 'subjects'.

Research (and memory) suggests that teenagers' experience of the spatial environment is characterised by two things: firstly, by a perception that it is a fixed entity representative of adult authority, and secondly, by its role as a stage for life's dramas, both romantic and territorial (Travlou, 2003; Travlou et al, 2008). Both of these are echoed in adult experience, perhaps with less intensity, but with the great difference that the shape as well as the use of the environment is in play; that the environment is a mouldable entity which is produced from within social action rather than merely controlling it from outside, or acting as its container. While it may not be possible to instantly convert teenage students to this realisation, the purpose of the A2 year of the course is to introduce them to the concepts which will help them to move from a perception of architecture as something done in a remote sense 'by architects', to something which involves everything, everybody, and, most importantly, themselves.

The introductory part of unit C has, for the last few years, consisted of an exercise where students choose some very small, familiar spaces, internal or external, often from home or from the college itself, and analyse them in depth in two related studies: a 'space study' and a 'social study'. The space study is a detailed investigation into the material characteristics and shape of a space and the relation of these to its perceived subjective qualities. The social study is an exercise in watching how people use the space, in becoming aware of how the space affects one's own behaviour within it, and in examining how 'public' and 'private' zones are created by peoples' occupation of the space.

These 'Mini-Studies' begin the process of drawing students' perception of the environment into something which is both self-aware and objective. They are so simple and local that students often object to being taken back to some 'less sophisticated' type of study, but a return to a kind of beginning seems necessary to enable the change of direction in the A2. The Mini-Studies also provide the beginnings of what might be called an 'analytical toolkit' for the Main Study that follows.

The Main Study

The Main Study is the core of Unit C, and is an investigation in which a single building forms an 'anchor' position, but which spreads inwards towards individual experience and outwards towards politics and geography. The subject building is chosen by the student, but although the parameters are quite broad students are encouraged to find something local, familiar and accessible rather than an iconic piece of architecture (qualities which are also encouraged by the underlying syllabus). Students quite often choose their own home (possibly continuing work done in the mini-studies), a church or mosque, or occasionally their previous school.

The Main Study is guided by the table already referred to (see figure 1 above and figures 2-4 below). The table is not so much a direction to include work as permission to extend the project into areas that might not have been thought valid territory. There are core areas of study which are compulsory, but beyond these areas students are able to shape their study according to where their interests and the subject itself leads them. Types of thought and lines of enquiry that might occur to a student in a moment of speculation can be located on the table and brought into some relationship with the core areas.

The table has the quality that the boundaries of the building as a physical object are not immediately apparent on it, and the building is diffused into surrounding areas of enquiry. The intention is that students are led into an understanding of the building not as a discrete object, but as a series of experiences, relationships, causes and effects, where the physical and the social come into contact with each other in a multitude of ways. Corners of the building and the things that occur in them are made to seem as important as the building as a whole, or the building as a component of a larger environment.

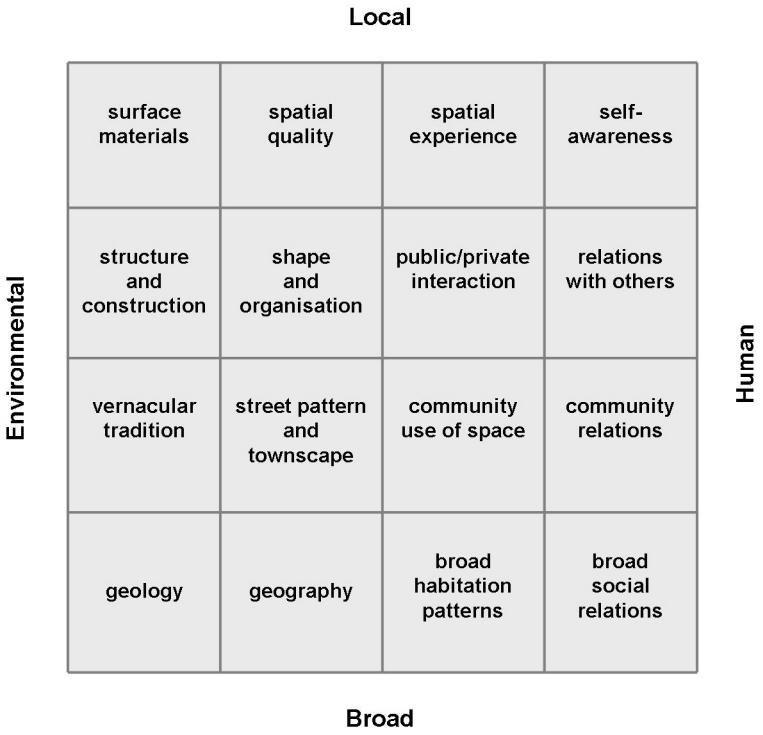

Figure 2: The Main Study table of areas of enquiry.

The table also functions as a framework for other areas of architectural discussion. The two figures below show how areas of practice relating to architecture can be located, and how some of the texts that students are introduced to can be related to each other (titles are given in the references section).

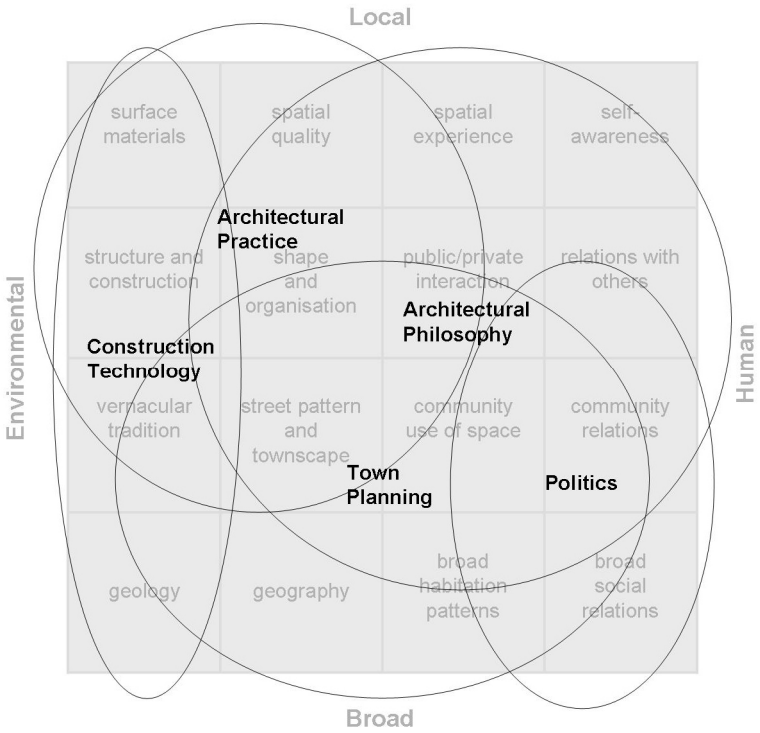

Figure 3: The table used to locate areas of architecture-related practice.

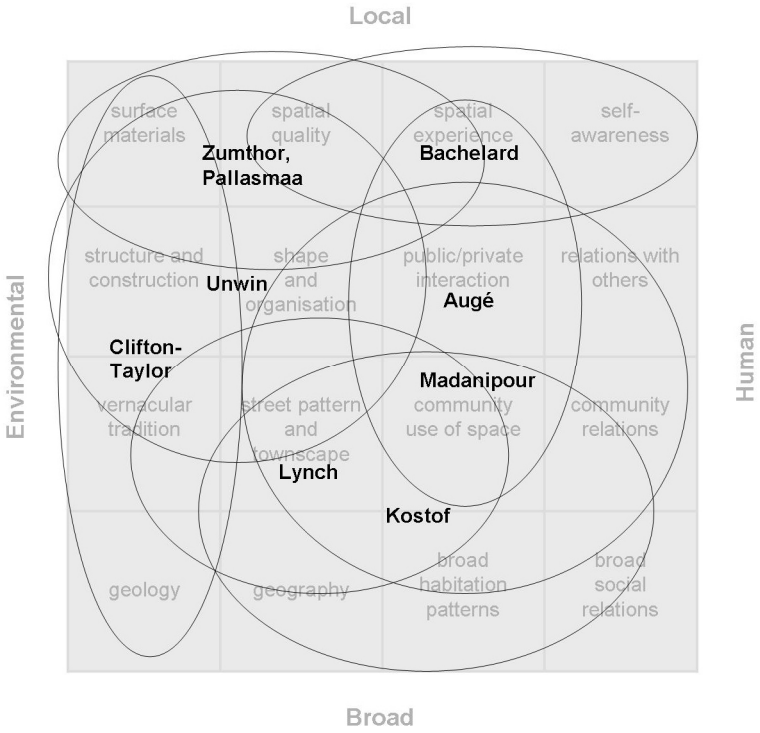

Figure 4: The table used to indicate relationships between key texts used in the Main Study.

The stable reference that the table represents is important in a unit where every student is studying something different, and from a different point of view. The Main Study is very much an individual project for each student. The precise areas covered, the order and manner in which they are presented, and the presentational techniques used are not dictated, but part of a student's own design. In the occasionally haphazard work pattern of the early part of the unit it helps greatly if students can locate their own work on the table to check that they are covering the required areas and to begin to perceive the shape of their overall project.

Students work much more independently in the second year: lectures on areas of analysis are given perhaps once a week, but the rest of the time is spent in individual tutorials. Students are expected to spend a lot of time visiting and investigating their subject building, and the amount of contact time is less than in the first year. The change in work style is intended as a transition towards the type of independent study expected at university, and it is sometimes quite difficult for the students to come to terms with: some thrive, but others become lost in the illusion of freedom. We have recently experimented with web-logs (blogs) as a method of checking and feeding back on students' progress more frequently than their tutorials allow. Because so much of the students' early work is research - photographic and internet - blogs make a natural and straightforward repository for it. Blogs are visible to staff and other students, and are easy to connect to for presentations (crits) in the classroom. This method is still in the process of development, but it may be that blogs can give a valuable discipline to students who find the A2 work style a little too flexible.

Units B and D

Unit B (the minor AS unit) and unit D (the minor A2 unit) are different in their approach from the major units A and C. In each case an architectural subject (i.e. a building) is given by the exam board, OCR, as a 'starting point' for a design project. The nature of the project is also given, with two or three options. The body of work tends to be similar in each unit: research and analysis of the subject building, a design process which uses ideas gleaned from the study work, and a model-making exercise under timed exam conditions.

These units act as a sort of relief from the strictures of the major units, and the AS unit B is also useful as a transition to the second year. It is similar to the last few stages of the major AS unit A, and students are by that time familiar with the type of work expected. We therefore take the opportunity here to change the teaching method to something more akin to the second year: instead of being given precise instructions in a stage-by-stage approach,

students are given areas of information with suggestions about the type of work they may do in response to it. Their project becomes their own, and they have the responsibility for its final shape.

The College and the Students

Richmond upon Thames College is a Further Education college in Twickenham, South-West London, offering vocational and academic courses to predominantly 16-19 year old students. It currently has around 4,500 students, which makes it one of the larger colleges of this type. Its location makes it accessible from North-West and South-East London, and this is where many students come from, giving the college an unusual diversity in the cultural background and ethnicity of its population. This is reflected in the Architecture A-level. The ethnic background of the 100 students who joined the AS year in 2009 was given as:

Asian or Asian-British Bangladeshi/Pakistani	5
Asian or Asian-British Indian	4
Asian other background	10
Black or Black-British African	23
Black or Black-British Caribbean	6
Black other background	2
Chinese	1
Mixed – White and Black Caribbean	8
Mixed – White and Asian	1
White – British	17
Other White background	15
Other	8

Unlike other A-level courses in Art and Design at the college, the Architecture course does not ask for an Art GCSE on entry, just an 'enthusiasm for drawing'. Apart from this the entry requirement is the same as for the majority of A-level courses in the college. The students who join the course are therefore not only culturally diverse, but have a wide range of academic predispositions and work styles.

In trying to build on this rather than merely accommodate it we are helped tremendously by the flexibility of the underlying syllabus. As well as the opportunities discussed earlier for the investigation and expression of culture through architectural study, students can also, to a large extent, work in a style that favours their natural abilities. This has obvious and straightforward advantages: students who have a natural fascination for the subject and are keen to engage with it are not hindered by having to work in a constrained fashion. However

while the syllabus allows a high mark to be achieved through an 'illustrated essay' style of work as much as through a practical art/graphic presentation, this may not be the best type for a student preparing a portfolio of artwork for entry to an Architecture course at university. Bearing this in mind, we try, in the AS year especially, to encourage all students to work in all the available methods, and to push them to develop skills in unfamiliar areas as much as possible without compromising their final mark. Most students take well to this approach, and it tends to fit in with the production of a portfolio for interviews which typically occur in the first half of the second year.

Enrolment Figures

The table below shows a numerical history of the course. It is arranged so that the same cohort of students is shown horizontally, progressing from AS to A2. Most students take four AS subjects in their first year, at the end of which they choose one to remain as an AS only, taking three through to the following A2 year. The difference between the AS finish and the A2 start figures reflects this. In addition, there is a certain 'drop-out' rate, reflected in the difference between the start and finish figures for both years. The first year of operation in 2001-02 was an AS-only trial, and so did not offer progression to A2.

	AS start	AS finish			A2 start	A2 finish
year	number of students			year	number of students	
01-02	30	19				
02-03	33	28		03-04	19	19
03-04	59	54		04-05	39	37
04-05	64	57		05-06	43	39
05-06	73	63		06-07	53	47
06-07	65	55		07-08	43	39
07-08	103	92		08-09	72	62
08-09	104	81		09-10	65	64
09-10	100	96				
total		545				307

Progression to University

The Architecture course attracts those who are interested in the subject or who want to find out about it as well as those who are already intent on an architectural career. An informal count at the beginning of the first year generally shows that the students are split into approximate thirds between those who are definitely thinking of an architectural career, those who are definitely thinking of another career, and those who don't know. Students generally take three full A-levels, and one would expect that for the student cohort in those subjects which (such as architecture) have a direct equivalent at university, an average of one third would choose to progress into it.

The progression figures for those who went from the course to university in 2009 are:

Total number who finished the A2 year (less than the number who started the AS the previous year as some choose to take an AS only, and some drop out of the course)		62
Total number who went directly to university - all subjects (UCAS)	39	
Number who went directly to university to do non-architectural subjects (UCAS)	10	
Number who went directly to university to do architecture-related subjects (interior design, architectural technology) (UCAS)	9	
Number who went directly to university to do Architecture (UCAS)	20	
Number who took a gap year or went to an art foundation degree	23	
Gap year/ foundation degree students who went on to study architecture or architecture-related subjects (conservative estimate of 50%, based on UCAS statistics for direct progression)	11	
Total who went on to architecture/ architecture-related subjects	9+20+11=	40
Number of students from the college who went directly to do Architecture, who had not taken the Architecture A-level course		0

Items noted (UCAS) are based on Universities and Colleges Admissions Service statistics.

It is apparent from this table that the number of students who went to university to study Architecture or architecture-related subjects out of the total number who went directly to university (40 out of 62, or around 65%) is higher than would be expected. It is also striking that no students went on to do Architecture who had not been on the course (out of a total of around 1100 who completed their A-levels at the college in that year). I think that one might tentatively draw some conclusions from these figures:

1. That those students who entered the course either already with an ambition to pursue Architecture at university, or without their mind made up, were encouraged by the course to continue with the subject.

2. That the course appears to have equipped those who wanted to apply to an Architecture course at least sufficiently for them to have succeeded.

3. The fact that there were no Architecture university entrants who were not on the course suggests that, in spite of those professing not to have made up their mind, many had in fact made a definite decision about their future career and perceived the Architecture course as a valid pathway towards it.

Discussion: the Value of the Course

In analysing the value of the course, three questions seem pertinent. Firstly, how valuable is the qualification for entry to an architecture course at university; secondly, how relevant is the training given in the course to further architectural education at university level; and thirdly, how valuable is the course in its own right as an education in architecture?

The Value of the Qualification

The entry requirements for architecture courses at UK universities are for a certain level of qualification (meaning, in the case of A-levels, a certain number at a particular grade or above), and a portfolio of artwork.

The choice of A-level subjects themselves has traditionally been a less important factor. At the start of this paper I briefly discussed how architectural education's roots in the apprenticeship system had carried its naturally broadly-defined entry requirement through into universities. Together with the perceived width of the knowledge base necessary for architectural practice, this is reflected in the RIBA's advice to prospective students: "Almost all subjects taught at school and college are relevant to architecture, giving you the flexibility to choose the subjects you are strongest in, and which you enjoy" (RIBA, 2010). The breadth of choice is echoed in the individual entry requirements of most universities, though some go on to add or subtract particular qualifications. Many echo Cambridge's advice in encouraging an art subject but discouraging subjects which, though still in the field of design, get too technical too soon: "The majority of applicants have studied Art or History of Art, which provides a better preparation for the course than subjects such as Design Technology and Technical Graphics" (Cambridge University, 2010). A few universities go further in categorising some subjects as 'Less Effective Preparation'. 'LEP' is a term used by some leading universities in relation to applications in general to describe A-level qualifications which, although acceptable as one of the subjects offered by an applicant, should not make up a greater proportion (Bell, Malacova, Vidal Rodeiro and Shannon, 2007, p.19). Bath, for instance, lists 20 LEP subjects for its Architecture course (Bath University, 2010).

The Architecture A-level's value as a qualification offer for entry to an Architecture degree course has to be judged in terms of how its base syllabus (Art: Critical and Contextual Studies) fits in with these considerations, since this is the title of the qualification that students will be awarded. Although Bath's list of LEPs includes many subjects with 'Studies' in their title, this syllabus is not one of them, and as a part of the larger Art syllabus, but with

leanings towards History of Art in its subject areas, the Art: Critical and Contextual Studies qualification would seem to be a positive enhancement to a student's qualification offer, especially if the student does not have another Art subject. This is borne out by experience: no students have encountered a problem in having this qualification as part of their offer, and many have reported a positive response from universities.

The Relevance of the Training

The second part of the question is how valuable the training given in the course is to further architectural education. It would be quite legitimate to ask whether a university education that lasts seven years needs any additional preparation in its own subject. The studio-based environment of architecture at university is strikingly different from school or college, and a visit to any degree show will give the impression that this dramatic transition is marked by induction exercises which are often not directly architectural at all, but treat design in a more abstract manner - a process which may free and fire up the imagination of new recruits, but also seems to represent a kind of 'ab initio' starting point which not only doesn't require, but rejects, any prior knowledge.

On the other hand a need has been expressed for some kind of architectural awareness among incoming students. When I was first investigating the possibility of an Architecture A-level (then proposed as an AS only) I sent a letter to the heads of around 20 university Architecture departments asking for their opinion. All those who replied did so in positive terms. The following extract from the reply from Peter Jacob, then Head of Architecture at Kingston, is fairly representative:

"I welcome the idea of an AS course in Architecture as one of our difficulties is the problem of architecture being a subject not very well covered in secondary education in the UK. While it is helpful for History and Theory to be taught it would be particularly useful to develop the students' practical skills of freehand drawing, sketching and model making but not - please - the kind of project work done for the current Design and Technology A-level. It could be much more allied to the variety of skills in the present Art and Design foundation course."

That was nearly a decade ago. More currently, the guidance given to applicants by some universities shows that architectural knowledge and understanding are desirable qualities. Newcastle University, who give one of the more comprehensive descriptions of entry criteria, asks for, among other things:

- commitment and insight into Architecture
- knowledge and understanding of Architecture as both a profession and an art
- understanding of how Architecture relates to the wider world
- significant reading around the subject of Architecture
- knowledge and understanding of current debates in Architecture
- knowledge and understanding of different Architects and their work

(Newcastle University, 2010)

As the course has developed we have tried to ensure that it responds to these (perhaps contradictory) demands, though not to the extent of designing it purely as a preparation for university. The quotations above suggest that the value of the course might lie in three areas; skills, knowledge and understanding, and I will discuss these below.

The skill set of students joining the course is tremendously varied, and it often becomes apparent during the course that that students who in many other ways have an aptitude for architectural study, do not, initially at least, have strong graphic or artistic skills. However unlike an Art course whose focus is on a practical outcome and the skills which that requires the Architecture course treats practical work as a means to an analytical end, and this seems to engender a more relaxed attitude to its development. Graphic diagrams and sketches can be used in conjunction with writing and photography in an overall demonstration of architectural understanding, and students have the opportunity to acquire or develop particular skills over the duration of the course. The artwork that a student ends up with depends very much on how they approach it, but those who intend to carry on with architecture at university are encouraged to make the most of the opportunity to experiment with graphic, artistic and model-making work, and to explore as many ways of using it to explain and analyse architectural subjects as they can. At its best the work that students produce is lively, expressive, personal, varied, and full of cross-connections between written and graphic elements.

Knowledge is something that one might expect from a course which is, partly at least, about architectural history. When a potential student (or their parent) asks what will be learnt on the course, it is more often than not factual knowledge that lies at the root of the question. Some essential factual knowledge is therefore taught, but more as the basis for an exploration of what knowledge is and how it is gained than in its own right. The vast field of the subject makes an attempt to give a global knowledge impossible, but students will, in their future work, need to know how to acquire knowledge of a particular subject, how to relate it to other subjects, and how to judge the validity of knowledge itself. It is these areas that the course concentrates on.

Understanding is a little more difficult to explain. I have discussed how, in the AS part of the course, understanding is gained in the relationships between architectural 'objects', almost as things which can be held in the hand (as is reflected in figure 5). In the A2 year the students are drawn out from behind the camera lens, as it were, and into the world itself. This is a different type of understanding: the realisation that the physical and social qualities of space have a direct effect on one's sense of occupation, and that occupation itself affects the space (figure 6). These two types of understanding are what a student will take with them to university. The second, familiar but unconventional, is perhaps more useful in that it awakens an awareness of something which for most of us has become so familiar that it is invisible. This awareness of one's self in relation to space is fundamental to architectural design, and while the development of design skill is itself beyond the scope of the course, the understanding encouraged by the A2 year is a valuable precursor.

The Value of the Course as an Education

The third part of the question is how valuable the course is as an education in its own right. Education in the built environment tends to be fragmented and specialised, representing it either as a practical vocation, as the subject of art historical inquiry, or as the product of political and commercial processes. Yet our engagement with the built environment is as primal and continuous as our engagement with the spoken word. It is integral with our physical and social existence. It is always there, an essential component of our 'being' in the world. To see an architectural education merely as a step towards a specialised course seems unsatisfactory, and somehow misses the point.

It would be too ambitious to claim that the course brings its students closer to an understanding of their own being, but it would be fair to say that by showing them the scope and depth of possible modes of engagement with architecture as well as its physical nature, it has the potential to greatly increase its meaning to them. This is something of manifest value, irrespective of whether a student continues with a career in the subject.

Conclusion

Introducing a course which did not previously exist brings with it certain responsibilities. Applicants have a right to expect that any course an educational institution offers will be relevant and valuable in what it professes to teach. A course that takes on the name of a particular vocational university education and profession has a special obligation in this respect.

I have struggled in the description above with blurred concepts of knowledge, understanding and meaning, but a more straightforward measure of the course's success in providing what it promises lies in the statistics. Since its inception the course has given an architectural education to over 500 students (the number who have achieved at least an AS), and (interpolating currently available information) helped around 200 of them to a place in a School of Architecture or a related course. It has, moreover, encouraged a high proportion of ethnic minority students into the subject, and opened it up to many who, by not taking Art at GCSE, may otherwise have been excluded from it.

I think this is a significant achievement, and the success of the course raises the question of whether there is in fact a place for an A-level specification in Architecture. This is not a new idea: the RIBA began the process of developing an Architecture A-level in 2005, although it didn't come to fruition (Dorrell, 2005). One answer is that the present situation is completely satisfactory, and that the evidence above shows that the Art: Critical and Contextual Studies syllabus functions well as a basis for an Architecture course. On the other hand, Art: Critical and Contextual Studies is designed as a broad art study syllabus. Its architectural component is one of many, and the study methods and analytical criteria asked for are not always strictly applicable to architecture. While the syllabus demands an element of investigation into the social and economic basis of art, there is an underlying assumption within it that architecture is one of the visual arts.

An Architecture specification starting from scratch with architectural modes of analysis could give a much more comprehensive approach, perhaps incorporating guidance on how to set up a course in specifically architectural terms, and with projects set up in a way that elicits spatial and material responses as well as visual ones. There is little doubt that there is a demand: it is after all the word 'Architecture' that attracts students to our course, and it may be that the time is right to provide a specification which responds to this unambiguously.

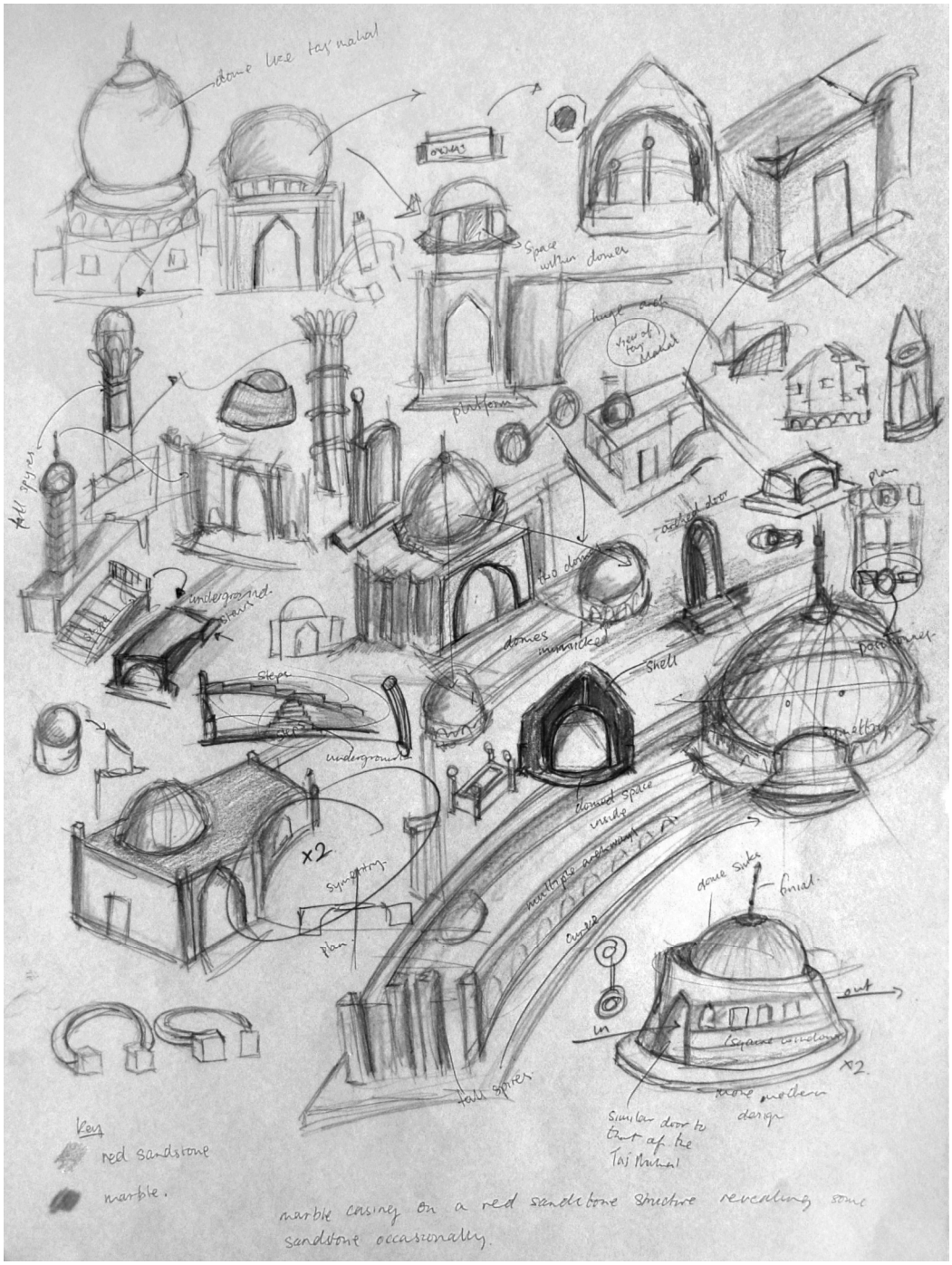

Figure 5: An example of AS work, examining components of the Taj Mahal as part of a design exercise. (Student: Asif Khan).

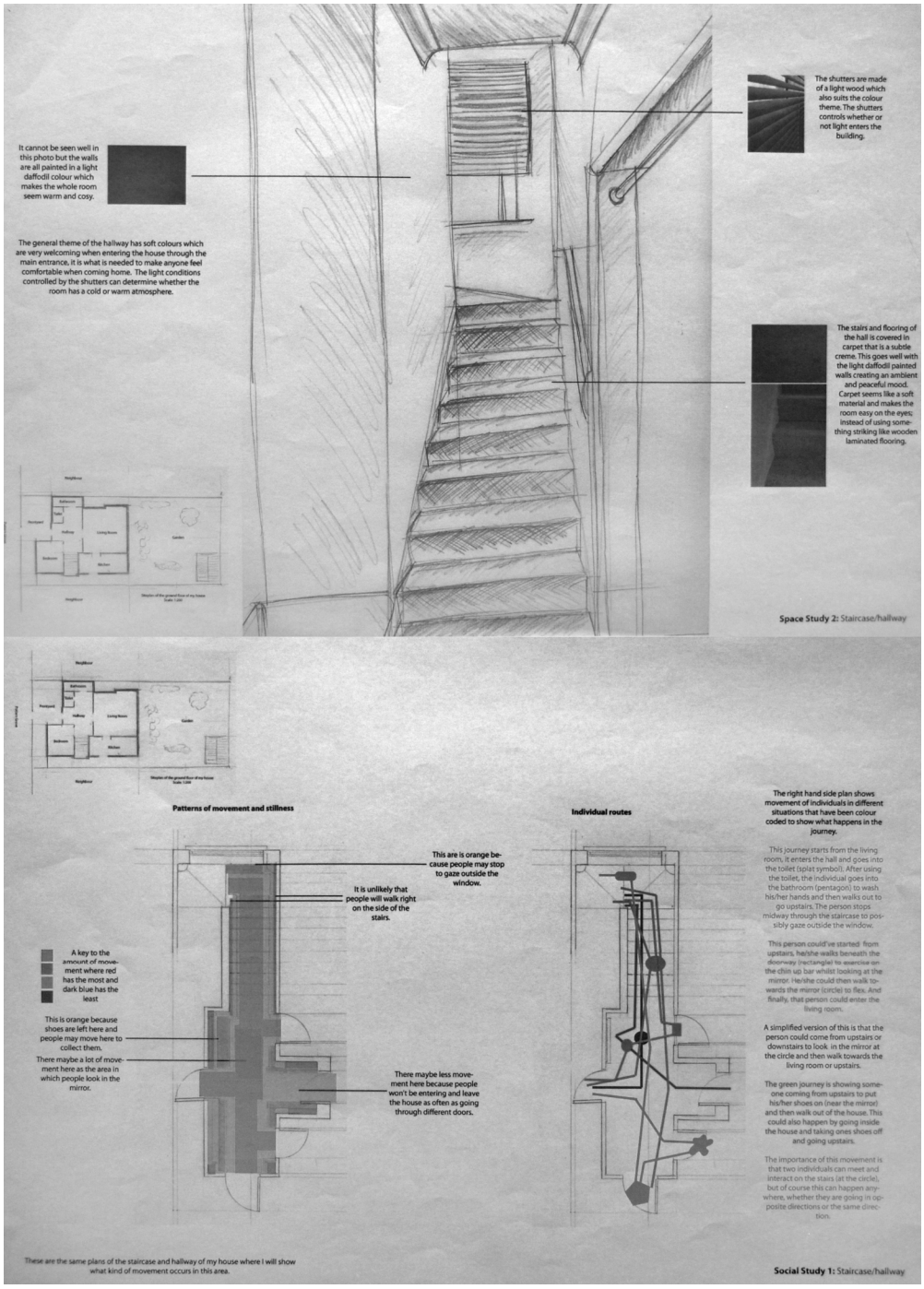

Figure 6: An example of an A2 'mini-study', examining the physical and social qualities of a staircase. (Student: Vuong-Viet Tran).

References

Augé, M. (1995). *Non-places*. London: Verso.

Bachelard, G. (1969, first published in French 1958). *The Poetics of Space*. Boston, Mass: Beacon Press.

Bath University (2010). *Architecture, Entry Requirements*, [online], Retrieved 16 April 2010 from: http://www.bath.ac.uk/study/ug/courses/EUG-R1/

Bell, J., Malacova, E., Vidal Rodeiro, C., Shannon, M. (2007). A-level uptake: 'Crunchier subjects' and the 'Cracker effect'. *Research Matters*, (3), p.19-25.

Cambridge University (2010). *Undergraduate Admissions, Architecture course requirements*, [online], Retrieved 16 April 2010 from: http://www.cam.ac.uk/admissions/undergraduate/courses/architecture/requirements.html

Ching, F. (1996). *Architecture: Form, Space and Order*. London: John Wiley.

Clifton-Taylor, A. (1987). *The Pattern of English Building*. London: Faber and Faber.

Dorrell, E. (2005). RIBA set to begin push for architecture A-level. *Architects Journal,* 21st April, 2005

Farren Bradley, J. (2000). Learning in practice. In D. Nicol & S. Pilling (eds.), *Changing Architectural Education* (p.179-190). London: Spon.

Kostof, S. (1999). *The City Assembled: the Elements of Urban Form Through History*. London: Thames and Hudson.

Kostof, S. (1999). *The City Shaped: Urban Patterns and Meanings Through History*. London: Thames and Hudson.

Lynch, K. (1960). *The Image of the City*. Cambridge, Massachusetts: MIT Press.

Madanipour, A. (2003). *Public and Private Spaces of the City*. London: Routledge.

Muschenheim, W. (1964). *Elements of the Art of Architecture*. London: Thames and Hudson.

Newcastle University (2010). *Additional Information for the degree of BA Hons Architectural Studies - K100*, [online], Retieved 12 April 2010 from: http://www.ncl.ac.uk/documents/ugarchstudiesentry.pdf

OCR (2007). *AS/A Level GCE Art and Design Specification*. Cambridge: OCR.

Pallasmaa, J. (1996). *The Geometry of Feeling*. In K. Nesbitt (ed.), Theorizing a New Agenda for Architecture. New York: Princeton.

QCDA (2010). *About A-levels*, [online], Retrieved 16 April 2010 from: http://www.qcda.gov.uk/qualifications/3930.aspx

RIBA (2010). *Becoming an Architect*, [online], Retrieved 16 April 2010 from: http://www.architecture.com/EducationAndCareers/BecomingAnArchitect/Becominganarchitect.aspx

Travlou, P. (2003). *Teenagers and Public Space: Literature Review*. (Openspace Report). Edinburgh: Edinburgh College of Art and Heriot-Watt University.

Travlou, P., Owens, P., Thompson, C., Maxwell, L. (2008). Place mapping with teenagers: locating their territories and documenting their experience of the public realm. *Children's Geographies*, 6(3), p.309-326.

Unwin, S. (2009). *Analysing Architecture*. London: Routledge.

Webster, H. (2008). Architectural Education after Schön: Cracks, Blurs, Boundaries and Beyond. *Journal for Education in the Built Environment*, 3(2), p.63-74.

Zumthor, P. (2007). *Thinking Architecture*. Basel: Birkhäuser.

The author: Robert Atkinson, RIBA, MSc. Robert studied Architecture at Kingston University and was in practice for 15 years before setting up the Architecture A-level at Richmond upon Thames College. He has since gained an MSc in Architectural History from The Bartlett School of Architecture, UCL.