

## **The contribution made by the Journal *Construction History* towards establishing the history of construction as an academic discipline**

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### **Abstract**

*This short paper takes a look back at papers published in Construction History, the peer-reviewed journal of the Construction History Society, presenting the range of subjects covered under headings such as main theme, period of history, location of subject, type of building or other structure and aspect of the building design and construction process. In an important sense, the 179 papers published in the journal have greatly helped to define the scope of the subject during the 29 years since its first publication. Finally, this paper comments on the state of development of the history of construction in Britain, and in the wider context of the EU, towards being a fully-fledged academic discipline in the way that history of science now is.*

### **Introduction**

*Construction History* is the international, peer-reviewed journal of the Construction History Society. It was first published in 1985, two years after the formation of the Construction History Group which later changed its name to the Construction History Society. Mark Swenarton was the first editor assisted by Simon Pepper as Abstracts Editor and Robert Thorne as Reviews editor. Mark asked Chris Powell to join him as co-editor for issues three to five (1987-89) before he stepped down to concentrate on *Architecture Today*. Robert Thorne and Chris Powell took over as editor, with Simon Pepper on Abstracts and Robert and Chris remained editors until their retirement in 2012. Since that time, Nick Bullock (who stepped down in 2013), Bill Addis and, most recently, Hermann Schlimme have been co-editors.

### **Papers published in Construction History**

The papers published in *Construction History* during the last 28 years give an indication of what subjects have been aired under the overarching scope of the emerging-discipline. During this period there has been no attempt by either the Committee of the Construction History Society or the editors of *Construction History* to define carefully what subjects might fall within the scope of “Construction History”, and what not.

The journal was initially published annually, 27 issues appearing between 1985 and 2012. From volume 28, published in 2013 the number of issues per year has increased to two a year with additional special issues, reflecting the growing interest in the field. In these 28 Volumes (31 issues) 179 papers have been published.

## Thematic analysis of papers published in Construction History

The tables in the following sections show the results of an analysis of the titles of the papers according to 7 categories:

- Main theme of papers
- Period of history considered
- Location of subject
- Type of building or other structure
- Stage within the design / construction process
- Building element or design issue
- Construction material

### *Methodology*

The analysis was carried out by the author, based on the titles of the papers published and pre-existing knowledge of the content of many of these papers built up over 25 years, as well as pre-existing knowledge of many of the authors and their interests in construction history. It was not based on a recent, detailed reading of each paper.

### *Main theme of construction history*

Table 1 shows the numbers of papers written on various main themes of construction history. The most popular subject has been, not surprisingly perhaps, the design and construction of buildings and engineering structures. It is interesting that all the remaining subject areas have attracted a very similar degree of interest.

Table 1. Main theme of the papers

	No.	%	
Design and construction	74	37	
Historiography	15	8	
Sources	7	4	
Books, bibliography	12	6	
Science, theory	6	3	
Innovation, technology transfer	17	9	
History of construction firms	9	5	
History of other organisations	5	3	
Biography	18	9	
Policy	5	3	
Economics, commercial issues	14	7	
Labour, trades, professions	16	8	
Training, education	2	1	
Total	200		

*Period of construction history*

Table two shows that the dominant interest of authors has been the nineteenth and twentieth centuries. This does reflect the construction history of Britain. Surveys of a similar Italian publication would probably show greater interest in ancient and Renaissance themes and less in the 19<sup>th</sup> century. In France the interest would probably be more focused on the Enlightenment and nineteenth centuries; in Germany the focus of attention would probably be the nineteenth and twentieth centuries, while in Spain the mediaeval / Renaissance would probably dominate.

Table 2. Period of history considered in papers

	No.	%	
Ancient	2	1	
Mediaeval / renaissance	11	6	
1600 – 1800	31	16	
1800 – 1850	47	25	
1850 – 1914	39	21	
1914 – 1945	34	18	
1945 –	26	14	
Total	190		

*Location of subjects and structures considered in papers*

Although the *Construction History* is now firmly established as an international journal, its origins lie in the UK. It is therefore no surprise that the geographical locations of the subjects considered in papers are mostly in the UK. Nevertheless, a good number of the EU subjects were written about in the first 20 years of publication. With English as the language of publication, the majority of other papers have dealt with themes in English-speaking countries, mainly the USA and Australasia.

Table 3. Location of subjects and structures considered in papers

	No.	%	
UK	64	42	
EU	43	28	
USA	25	17	
Russia	4	3	
Latin America	5	4	
China	3	2	
Other	7	4	
Total	151		

*Type of construction considered in papers*

Nearly half of the published papers have dealt with the design and construction of particular types of buildings. The distribution is shown in Table 4. Of these papers, about a third were devoted to named individual buildings while the remainder dealt more generally with a class of structure such as housing or railways.

Table 4. Type of construction considered in papers

	No.	%	
Churches	14	16	
Housing	22	25	
Education	5	5	
High rise	9	11	
Bridges	12	15	
Docks, dams, industrial	8	10	
Urban development	5	7	
Military	5	7	
Railways	4	5	
Other	11	15	
Total	74		
A named structure	22	36	

*Stage or aspect of the construction process considered in papers*

The vast majority of papers dealing with the process of delivering buildings have concentrated on their design and construction. Table 5 shows that a significant number have also been concerned with off-site manufacturing processes associated with the design and construction of structures. Management and contractual issues have attracted comparatively less interest. For instance, the work of the quantity survey (cost consultant) has yet to be addressed by an author.

Table 5. Stage or aspect of the construction process considered in papers

	No.	%	
Design & construction	69	69	
Industrialisation, prefabrication	6	6	
Manufacturing processes	16	16	
Construction management	8	8	
Contracts	1	1	
Total	100		

*Stage or aspect of the construction process considered in papers*

The majority of those papers that dealt with specific elements of buildings were devoted to the structure of buildings and, particularly, their roof structures. Building services have attracted only a few papers and building façades, little more. Other aspects of building engineering, including acoustics, fire resistance and provision of a healthy internal environment have attracted very little interest at all.

Table 5. Building element or aspect of design/construction considered in papers

	No.	%	
Structure	21	39	
Roof	16	30	
Building services	6	11	
Façade, envelope	9	17	
Acoustics	0	0	
Fire resistance	1	2	
Health	1	2	
Total	54		

*Construction materials considered in papers*

Building is, fundamentally, about materials and how they have been used in construction. About a third of all papers address various construction materials, directly or indirectly, and these were quite evenly spread across the main materials that have been used.

Table 6. The construction material considered in papers

	No.	%	
Masonry / stone	13	17	
Brick, fired clay	11	14	
Timber	16	21	
Iron, steel	16	21	
Cement, concrete	12	16	
Aluminium	3	4	
Other	6	8	
Total	77		

## Is the history of construction now an established discipline?

Two aspects of this question need to be considered: what is the nature of an academic discipline, and whether a supposed discipline is demonstrably separate from other, related disciplines.

### *The characteristics of an academic discipline*

Before considering how or whether the papers in *Construction History* have contributed to establishing the history of construction as a discipline, it is appropriate to summarise what might be needed to confirm whether a certain subject is a “discipline” or not.

For the purposes of this paper, it is assumed that a discipline is an area of study and research at a university which has a name that gives it a discrete identity.

This would suggest that there should be at least one department or academic unit that includes the name of the discipline, and that there should be at least one member of staff at professorial level (in the UK, or a chair in most other countries). There should be some research, funded by a funding agency, being undertaken within the field of activity, and evidence of related publications such as books, conference papers and peer-reviewed papers. There should also be research students working towards doctorates (PhD) and some students at postgraduate level and/or undergraduate level who study publicly-advertised courses or course modules in the subject area. A discipline would also be expected to support formal, national and international congresses, and at least one peer-review periodical.

Table 7 shows a crude assessment of how the history of construction meets these criteria, in the UK and in the wider context of the European Union.

Table 7. Characteristics of a discipline and suggested “scores” in UK and EU

	UK	EU
1 or more University-based Research unit / Department	✘	✓
1 or more Professorial chair	✘	✓
Private research students	✓	✓
Funded research students	✘	✓
Books	✓	✓
Occasional meetings / workshops	✓	✓
Conferences with published proceedings	✓	✓
1 or more Peer-review Journal	✓	✘
Occasional lectures to students	✓	✓
Undergraduate taught courses / modules	✘	✓
Post-graduate taught courses / modules	✘	✓

There is likely to be much discussion about this simple assessment since there are many ways of understanding what is meant by “a course or module in construction history”, especially when comparisons are made across national borders and different education systems. Likewise when it comes to defining “funded research”, both at post-graduate and post-doctoral levels. Some research undoubtedly addresses construction history, but most often under the name of “architectural history” or architectural conservation. The assessment has been made mainly on the basis of whether the name “construction history” is used to describe courses or research programmes. A much more detailed study would expose these differences and nuances.

### *Differentiation of Construction History as a discipline*

Of equal significance to the nature of a discipline is whether or not a supposed field of interest be considered as a discipline separate from its near neighbours.

An analysis of neighbouring subjects enables an assessment to be made as to how distinct the subject of construction history is from related fields of interest. One can imagine a Venn diagram showing areas for two disciplines, and an area of overlap in which a certain paper might be judged to fall, for example, in either the history of construction or the history of architecture.

It should also be noted that possible overlap between disciplines is, of course, highly subjective. A paper discussing the design and construction of a Victorian textile mill, for example, might be considered by different people as construction history, architectural history, engineering history, industrial archaeology, engineering heritage or architectural heritage. Indeed, papers on construction history have been, and can still be found in journals devoted to these other disciplines.

The following table shows a rough assessment of the overlap between pairs of subject areas, based on the titles of papers published in *Construction History*.

The data were determined by asking the following question:

If *Construction History* did not exist, in which journal in a related discipline, would it be most likely to be published?

To a large extent, the answer to this question is what would have been the case 30 years ago, before *Construction History* had been founded.

The data illustrated in Figure 8 suggest the following points:

- There is already a good separation between the history of construction and the various strands of heritage studies – conservation, restoration, etc.
- It would be worthwhile marketing *Construction History* to authors who currently publish papers in journals devoted to the following fields of interest:
  - architectural history (e.g. *Journal of Architectural Historians*),
  - history of technology (proceeding of the Newcomen Society, *History of Technology*, *Technology and Culture*),
  - history of building and civil engineering (e.g. *Engineering History and Heritage* from the ICE), and
  - economic and business history.

Table 8. Crossover with other disciplines

	No.	%	
History of architecture	71	26	
History of urbanism	16	6	
History of technology	62	22	
History of building engineering	43	15	
History of civil engineering	24	9	
Industrial archaeology	1	0	
Architectural heritage	3	1	
Civil engineering heritage	0	0	
Economic / business history	50	18	
Military history	8	3	
Total	278		

#### **Access to papers published in *Construction History*.**

A full list of the papers published in *Construction History* can be downloaded from the CHS Website.

Since the rise of the internet the Construction History Society has actively sought to link the Journal to the modern world of access via the Internet. Since 2011 the full text of the journal has been available on Proquest and since 2013 it has also been available on JSTOR. In both cases the last two years of journals are embargoed. The Journal is thus available through not one but two separate digital publishing outlets, which together are the most commonly used science and humanities resources.

The subject of impact factors, has only begun to be addressed recently by the Society. There use in the arts subjects is still hotly disputed, although they are widely accepted in the sciences. Increasingly however Universities are looking to these indices when considering academics for promotion. The Journal *Construction History* is being submitted to Thomson Reuter's Web of Science. This is now almost a requisite of an academic journal, since only those papers published in Journals registered with Reuters are accepted by many Universities as counting towards the various forms of assessing the research quality of University departments and their staff.

## **Conclusion**

The very existence of *Construction History* as a peer-review Journal has done much to help establish the subject as a discipline.

The wide range of subjects addressed by authors has done much to establish what the discipline of construction is, and what it is not.

The availability of the Journal via both Proquest and JSTOR will improve access to its full content, and the inclusion of the Journal in the Web of Science will attract more potential authors.

Nevertheless, the existence of the journal, by itself, does not mean that the history of construction is now established as an academic discipline. This will only be achieved when various different countries have established professorial chairs and research units dedicated to the history of construction (by name). Alongside this step forward is the beginning and continued growth in funded research in the field. The UK is beginning to make progress in this respect but it lags behind Germany, Italy, France and Spain.

It should probably be concluded from these various observations that construction history has not yet fully achieved the state of academic discipline, either in the UK or in the EU as a whole. It has not yet reached the status of, for example, History of Science which is now widely established and to be found in many Universities. It is of some consolation that it took well over half a century for History of Science to become established; the history of construction is scarcely 30 years old.