



Association of Researchers in Construction Management

Building a discipline
The story of construction management

Edited by
David Langford and Will Hughes

Association of Researchers in Construction Management (ARCOM)
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INTRODUCTION: WHAT IS A DISCIPLINE?

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This book is about a community reporting on itself. In doing so, it will not be solipsistic but will attempt an even-handed approach to the question. In order to analyse the question sources from official statistics through to sociological discourses of what contributes to a discipline will be cited. Let us start with a definition of a discipline:

The Latin origin of the word (*disciplina*) derives from the Latin verb “to learn” (*discere*). More contemporary definitions suggest that it is, “a branch of learning or scholarly instruction.” (*Concise Oxford English Dictionary*: Soanes and Stevenson 2008)

The phrase ‘scholarly instruction’ is informative. It suggests that a ‘discipline’ is passed down through programmes of learning and that, moreover, this learning is, in part, the formal transition of knowledge, but is also as much a socialisation into the values and the ways of thought of a discipline. From this, a ‘discipline’ is then a point in the development of thinking. It may start with a trade or craft, then develop into a profession and then move on further to a ‘discipline’ as distinct from a ‘profession’. The difference between a discipline and a profession is important.

A profession is clearly a body of knowledge which has been gathered to ensure an evenness of standards of services to the public. This standardisation is often regulated by law such as in the case of the Architects’ Act (1997) but in all cases it requires members to act at a prescribed level of competence in a narrow field. Often the expected body of knowledge for the membership of a profession is laid down – tightly in some cases – such as the Project Management Body of Knowledge (2008) convened by the Project Management Institute in which adherence to ethical standards is expected.

However, these restrictions do not apply to a ‘discipline’. The boundaries of a discipline are broader than those of a profession and are likely to span over several professions and conjoin with other disciplines. In the case of Construction Management, the ‘discipline’ will spread across the professions of Architecture, Planning, Engineering and Surveying in all of their diverse forms. Construction management (CM) will also join with other disciplines but it is distinct from each of them. So, the disciplines allied to the professions connect with CM but it is a wider spectrum

embracing the social sciences, ecology, management theory, history and many others which will form boundaries with CM without provoking unseemly turf wars.

The question still remains – if a ‘discipline’ is distinct from a profession then what exactly is it? Certainly it has some connection with what is taught in Universities. One approach is to say that what is taught in Universities must be ‘discipline’. Using this classification system adapted by the UK Joint Academic Classification of Subjects (JACS) used by the Higher Education Statistics Agency and the University and Colleges Admissions Service to evaluate student numbers for the subjects of Architecture, Building and Planning are grouped as disciplines. Sub-categories in this group are relevant and illuminating: for example ‘Building’ has six sub-categories as follows:

- Building
- Building Technology
- Building Surveying
- Quantity Surveying
- Construction Management
- Building not classified elsewhere

The ‘Building not classified elsewhere’ category is interesting of itself. While the Architecture and Planning categories carry the *caveat* “to be used sparingly”, no such warning is given to this Building miscellany sub-category. This of itself tells us a story that one of the features of ‘disciplines’, especially new ones, are characterised by being both interdisciplinary and heterogeneous. Surely these are essential characteristics of Construction Management? Indeed, one may argue that these very characteristics of being both interdisciplinary and heterogeneous have held CM back for so long from being thought of as a discipline in its own right. Here, there are issues of boundary management which fall under the spotlight. Consequently, it behooves the CM community to maintain its distinctiveness. This question is perhaps modernistic in that it presumes a set order of knowledge within one field. The CM community, as a whole, recognises that interfaces with adjacent disciplines are forever changing. However, we must be thankful that turf wars between the adjacent disciplines are rare but in order for CM to be fully accepted as a discipline the following subsidiary questions need to be answered:

- What is the core of the discipline of CM and where are its margins?
- Can we define a content?

- What are the dominant methodologies used?

In order to answer these questions, Del Favero (2009) has proved helpful. She classifies disciplines in four ways:

- Codification
- Paradigm Development
- Consensus
- the Biglan Model

These will now be examined in turn.

Codification

A discipline codifies what it knows. This may be in Codes of Practice, bodies of knowledge and in particular in the production of Journals and other reading matter (see Chapter 5). CM would seem to pass this test. It would be tempting to be seduced by the ‘codification’ argument because most of the ‘codification’ is done by academics. But, a little humility is required. Many academics work by developing a conceptual understanding of the world and work by induction from the particular to the general. Much of this extrapolation is judgemental and this can only point to the purely general, the abstract, the formal. That which is alive, liveliness remains inaccessible.

Paradigm development

This theory, developed by Kuhn (1996) suggests that disciplines are defined by paradigms which may be thought of as ‘models of thought’. This condition is exhibited in mature disciplines, particularly those which have well-defined ways of discovering new knowledge. This is likely to be strongly empirical and to fall into the positivist tradition of carrying out research and is more often associated with the physical sciences. The paradigm itself is governed by wide acceptance of what exactly new knowledge is but disciplines such as CM are unlikely to pass this test as many of the studies undertaken are not subject to replication given the heterogeneous methodologies used. However, studies on methodologies by Dainty (2008) and Smyth and Morris (2007) in the respective fields of CM and Project Management showed that positivist methodology was the dominant form for research studies. Therefore, replication studies similar to those found in the physical sciences should be possible.

Consensus

A discipline may be found where there is coagulation of ideas around a field of study, immersion in the same Journals, the same professional

allegiances. Again, these features are likely to be found in those same physical or 'hard sciences' and less so in the social sciences. In the Arts and Humanities subjects, consensus is said to be rare. While CM does not carry the authenticity of the physical sciences as a 'discipline', there would seem, at least anecdotally, to be a broad consensus about what themes are deemed to be appropriate for research. Appropriately, there are groups within the discipline, indeed any disciplines that lie outside of the consensus.

Broadly gathered under the banner of 'Critical Construction Management Studies' (which mirrors the 'Critical Management Studies' grouping in the discipline of 'Management') there is a groundswell of academic and professional opinion which challenges the orthodoxy of government and business thinking. These developments are important signposts in the development of a discipline. The emergence of certain 'schools of thought' is a signal of a maturity but thankfully the CM community has resisted demarcation and tribal squabbles.

The Biglan model

Biglan (1973) developed his understanding of how 'disciplines' are classified by studying the academic staff of a state university and a liberal arts college in the USA. In essence, it uses the three ideologies discussed above to synthesise a taxonomy of 'disciplines'. According to Del Favero (*op. cit.*), a 'discipline' can be identified by three dimensions as follows:-

- existence of a paradigm.
- degree of practical application.
- involvement with living organisms.

CM satisfies all three criteria as a discipline. The first dimension has been discussed; the second is self-evident and Biglan's study (*op. cit.*) showed that applied disciplines have a strong commitment to consultancy, producing technical reports and peer evaluation. The third dimension was bifurcated by academic staff in areas where living organisms were studied tended to form groups populated by postgraduate students and assistants with non-life groups showing a greater commitment to teaching. CM would seem to fit the discipline in which people, as living organisms *par excellence* are the frame work for study. This preference echoes the works of the historian Lucien Febvre (1933) who noted that:

History is the study of people, not the study of things or concepts. Ideas stripped of the people who express them ... institutionally separated from those who create them. No, there is no history than that of the people.

In this context, the third criterion of Biglan is satisfied for CM to be considered as a 'discipline'.

From the above, it is asserted that CM is a 'discipline'. Further evidence is presented in the subsequent chapters which chart the growth of provision of the subject in the Universities, the rise in the number and range of Journals and the other supporting institutions.

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