# The use of ethnographic accounts for understanding culture in construction

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**Abstract**

Culture, in the sense of a way of life, is increasingly seen as a topic worthy of study within the construction management community. There are two major reasons for this: i) recognition that the changed practices which the industry is required to undergo are inhibited by convictions about what is normal, right and proper, i.e. the existing culture; ii) recognition that increasingly global markets require people from many different nationalities and backgrounds to work together. However, while there is agreement that culture is important, there is less agreement about how most usefully to conceptualise it, study it and demonstrate the ways in which its assumed importance actually manifests itself. A major feature of the disagreement is between those who try to achieve a 'deep' understanding of a culture by extensive participation in it - the ethnographic route; and those who seek to provide an objective account, analysed into components which may be used as factors in a variable analysis. Hitherto, in construction industry research, it has been the second approach that researchers have generally taken. In this paper, we present some findings of a study of construction projects which has taken the former route and consider what can be learnt from them.

**Keywords: Culture, Ethnography, Knowledge, Disputes, Research Methods.**

Several years of ethnographic research at the University of Birmingham has enabled us to characterise several important features of the construction industry in the UK. One of these is the existence of two distinct approaches to knowledge about the physical possibilities and constraints of construction. Each of these approaches consists of a different set of practices for the acquisition, constitution, evaluation and application of knowledge. Each leads to the constitution of a body of knowledge which, while often complementing the other, can sometimes come into contradiction with it. The difference between them closely parallels the distinction which Ryle (1963) draws between 'knowing how' and 'knowing that'. The competing claims to truth which arise out of these contradictions can often underpin disputes which appear, on the surface at least, to be primarily about conflicts of economic interest. We offer three examples.

One occasion concerns the judgement of a contractor, that the reinforcement in a concrete slab was overdesigned; and the decision to take much of it out, in the absence of the RE and immediately before the concrete pour, in order to make up for a potential financial loss on the contract.

A second occasion concerns the finding, by a contractor on site, that a section of reinforcement could not be fitted into place. The contractor made representations to the consultant, that the placing of the reinforcement was physically impossible. The consultant replied that the contractor had been warned that placing the steel would be difficult and they had contracted to do it. The contractor responded that they had not had reinforcement drawings at the time; and that anyway, impossible is impossible.

The final occasion concerns the construction of a loading gantry by site operatives. This was found by the Resident Engineer to be unsafe and was referred to the contractor's engineers for redesign.

A somewhat smaller gantry, with the same basic design features, was designed and built. The designer of the original gantry, a formwork carpenter, continued to maintain that the redesign was unnecessary and that his own design had been proved adequate by use on previous occasions.

One thing that these three incidents have in common is that, to varying degrees, they reflect a conflict of commercial interest. This is perhaps clearest in the first example, where the contractor made a direct saving by reducing the quantity of reinforcement in the slab. In the second example, depending on whose version we believe, the contractor was trying to avoid a particularly difficult task, or the consultant was trying to avoid the cost and embarrassment of redesign and to save his client from having to pay for delays which the consultant had himself caused. In the last, the operatives wished to avoid having to dismantle and rebuild the gantry.

However, running through these three examples (and countless others) is another common thread, concerning the ways in which the opposing sides in the conflict assess and validate the truth of a proposition. Thus, in all three cases, the contractors were arguing from a basis of knowledge gained from experience, while the engineers were arguing from engineering principles which form part of a professional and scientific body of knowledge. This can be most clearly be seen in the last example, where the carpenter specifically referred to his past experience, to validate his claim to knowledge. In the second, although the contractors defended their position by claiming an absence of drawings prior to contract, it was their immediate experience of attempting to place the reinforcement on site, which led them to claim that the task was impossible. In the first example, the arguments are not explicit, since the action of the contractor was covert. However, in justifying his actions to the researcher, he referred to previous, similar jobs in which he had 'used a lot less rebar'. The resulting structure, he claimed, was 'perfectly sound'. (On a subsequent telling of this story, an engineering graduate asked, 'How did he know that there weren't plans to add another six stories at a later date?')

It remains to be specified precisely who holds these attitudes. A clear cut distinction cannot be drawn between engineers on the one hand and contractors on the other. For one thing, the two classifications overlap. Experience on site is an important factor in determining the relative importance given to each type of knowledge. It may be helpful to think in terms of a continuum, with manual operatives at one extreme and design engineers at the other. Site engineers would be midway between the two.

However, the difference between the two attitudes can be profound. As Willis (1977) observes, the preference for experiential over book knowledge can be extremely strong among manual workers:

> "The shopfloor abounds with apocryphal stories about the idiocy of purely theoretical knowledge. Practical ability always comes first and is a *condition* of other kinds of knowledge." (p56)

Similarly, engineers' confidence in their professional and scientifically based knowledge can lead to distrust and contempt for the extemporized solutions emanating from site.

## Conclusions

We note three consequences for change management in the industry, in particular for developing new ways of avoiding and settling disputes.

First, the adversarial nature of the UK construction industry has long been a source of regretful comment. By describing this and similar formations, it is intended to promote greater understanding between different perspectives within the industry. If differences which are regarded as purely matters of commercial interest, can be seen as stemming from genuine differences of opinion, it may be possible to develop more constructive solutions to them.

Secondly, as step towards this and towards the narrowing of differences in the first place, the following directions for the improvement of training and professional development are suggested:

- Steps could be taken to ensure that design engineers have greater experience of work on site, as part of their professional development;
- Courses in engineering could be made available to the more intelligent and capable site operatives, as part of a systematic approach to developing a skilled workforce.

Finally, and more generally, there is a clear implication, in order to engage an important section of the industry, innovation should be presented in a practical, rather than a theoretical manner.

## References

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