ARCHITECTURE AS CABARET: FROM GENIUS LOCI TO LOCUS GENII

Chris Heuvel

Nottingham Trent University School of Architecture

Thomas travelled eastwards to spread his ideas in the domain of a chief Square-Pusher, who commissioned him to develop and deliver a new and academically rigorous training course, and provided him with impressive resources for the purpose…

Start-Up Capital

The research and insights offered in this paper originate in observation of a particular teaching session at NTU in 2011, when T (part-time lecturer's name withheld in the interests of confidentiality) was due to run a studio-based seminar for first-year architects as part of their 'Construction Technology' module. The students were to suggest / discuss parallels between their experience / observations in a practical materials-based 'workshop' run the previous week and practices/situations related to the building industry in general. The day had begun well, T reported afterwards, with a stimulating keynote lecture about the classification of construction materials, followed by a laboratory visit where they had seen and handled actual samples. Now, back in what they had come to regard as their 'home' base, the students were reflect on what they had learned to date, before being introduced to the first of their main assignments for the year. T was feeling pleased, as the students had been responding with interest and enthusiasm to all the ideas to which he had exposed them. To T's disappointment however, the 'seminar' seemed quickly to "dissolve into chaos" (as he reported in a de-briefing after the session).

Crisis

When T entered the room ('Studio 101'), he found that it was partially occupied by others already – architectural technologists, he discovered, engaged in animated conversations at tables around the edge of the space. T therefore had to spread his group through the middle of the room, and to locate himself somewhere near the centre. Some of his students were almost out of earshot (hardly audible above the general hubbub in the room), some had difficulty seeing the small TV-screen on which he was displaying photographs taken the previous week as prompts for discussion, and all seemed to be distracted by the presence and chatter of the other students. Instead of encouraging his students to volunteer discussion-points, T felt himself obliged to move point-by-point through a check-list he had prepared earlier, raising his voice in ways that tend to discourage response (especially from quietly spoken students). Almost every time a student did speak, T had to ask them to repeat themselves, and then had to re-phrase their observations for the benefit of their colleagues at the other end of the room.

Inflation

As T hastened through his 'list' (aiming now to complete the activity and move on to the next exercise as quickly as possible), the students found they had less and less opportunity to speak for themselves: it was clear that the authentic learning that spontaneity can generate (Piaget, 1974; Gardner, 1991) was being inhibited. Instead of the session being centred on the students' reflections (fulfilling one of T's intended learning outcomes), it seemed to consist almost entirely of one-way feedback from the tutor. The students, in only their second term at college, were no doubt unaware of T's frustration that the session was not going to plan – they may have thought he was accustomed to having to operate in this manner, or even well prepared for it (with his pre-prepared 'list'). From T's point of view, however, he was "embarrassed that such an inferior educational experience had been inflicted upon them" (to quote his own words again).

… While the Square-Pusher was occupied with external affairs however, Thomas promoted his preferred project-based approach, and used all the resources for the open-ended improvement of research, analytical and creative skills instead of simply providing the required information and guidance…

Borrowing Requirement

A number of features in this 'critical incident' might merit analysis in terms of pedagogical theory, aiming to provide practical recommendations for preventing or handling similarly disturbing situations in the future:

●   T's problem might be identified in terms of group size (on the grounds that 50 is far too many for a 'seminar'). In fact, the School has subsequently introduced a timetabling 'policy' of maximum 15 students in a seminar, although it has been observed that even groups of 7-10 "are only really viable if a really substantial task is to be undertaken and if considerable support and advice is given on project and team management" (Race, 2007: 128). Timetabling details such as the split between lectures, seminars, tutorials etc (or the division of students into different groups) need to be driven by the teacher given responsibility for delivery, rather than by managerial or administrative staff.

●   T's problem might be attributed to insufficient use of technology (or use of insufficient technology): deployment of more sophisticated IT facilities, for example, might have permitted more effective methods of interacting with large groups – perhaps in conjunction with e-Learning exercises designed to achieve similar objectives: "increasingly, tutors are discovering the advantages of supplementary forms such as the virtual seminar, which provides the opportunity for students to reflect on points in the discussion, read, research and think, before replying" (Fry et al., 2003: 317). Such a session would no longer need to be based in a design studio, of course.

●   T's problem might be related to the nature of the activity proposed for his students: alternative exercises could be devised, so long as the principles of 'constructive alignment' (Biggs, 2003: 27) are respected in order to maintain congruity of learning outcomes and their assessment: "if students are to learn desired outcomes in a reasonably effective manner, then the teacher's fundamental task is to get students to engage in learning activities that are likely to result in their achieving those outcomes" (Shuell, 1986: 421). The problem is that over-prescriptive pre-definition of learning outcomes may be considered to inhibit the 'discovery-learning' (Bruner, 1961) or research-based education (Bransford, Donovan, & Pellegrino, 1999; Marzano, Pickering, Blackburn & Arrendondo, 1997) that needs to be

characteristic of architecture, being – almost by definition – a constructivist (or rather, 'constructionist' – Papert, 1991) discipline.

All the above approaches (and no doubt others too), each stemming from separate aspects of the 'uncommon currency' situation, may be underpinned by highly respectable bodies of educational theory, characterized generally by the rationalist conceit that survey/analysis/plan (Geddes, 1915) is an eminently (if not exclusively) valid methodology: "culture shapes the mind… it provides us with the toolkit by which we construct not only our worlds but our very conception of our selves" (Bruner, 1996: x) – selection of 'perspectives' is itself an operation grounded in cognitive theory. This paper must begin, therefore, by rejecting any functionalist notion that the best way to understand the original incident would be "a careful survey…of all attainable considerations which will define and clarify the problem in hand" (Dewey, 1916: 88) in the hope of discovering a 'best fit' solution capable of resolving a maximum number of anomalies associated with the situation. It would perhaps be more productive to focus instead upon a single aspect of the circumstances (going for depth rather than breadth): as an architect, one is instinctively inclined to regard a situation such as this as an opportunity to explore the relationship between learning and environment, in the hope of deriving recommendations for (or insights into) the best use of spaces such as NTU's new Studio 101.

Exchange Rate

With their claim to be professionally committed to promotion of the built environment as a positive influence upon human behaviour/experience, it may seem entirely predictable that architects should identify the physical surroundings as a potentially significant contributory factor in relation to the problematic Studio 101 situation. But how significant? When – for the purposes of this paper – architecture students were asked to rank factors influencing their design education in order of significance, it was found that they located "clarity and stimulation provided by the project Brief" and "enthusiasm and effectiveness of the studio Tutors" ahead of their studio environment (and the latter only equal in significance to "external circumstances such as other programme pressures and personal situations"). For an architectural educator however (having drawn the students' attention to

the irony of their response to the survey in the context of their chosen degree-subject), the opportunity to explore the relationship between effective learning and environment was considered particularly valuable, as "there is only a limited literature that aims to relate space issues to teaching and learning, or to research" (Temple, 2007:4). One of the legacies of Modernism is that most architects today operate on the premise that certain characteristics of a space can have a beneficial impact upon the quality of its occupants' activities: T's experience in NTU's Studio 101 might therefore serve profitably as a basis for reflecting upon the effectiveness with which teachers of architecture use their students' learning time.

Credit Squeeze

Herman Hertzberger, himself an internationally respected teacher of architecture, has designed more than 30 schools and has written extensively (1991, 2000 & 2008) about the interaction between architectural context and educational effectiveness: "the most basic physical conditions for education: four walls, some openings to let in light, a roof… new forms of learning will require new spatial conditions alongside the traditional teacher-fronted lessons" (Hertzberger 2008:8). Whereas Hertzberger seeks to associate new forms of learning with correspondingly appropriate spatial arrangements, however, the NTU case-study must proceed in the opposite direction, beginning with the space as a 'given' (in conjunction with a managerial system that determines the nature, if not the activities, of its occupants) and identifying modes of learning that will either suit the context or be determined by it.

Quantitative Easing

In selecting this facet of a specific (and perhaps non-typical) 'critical incident' for analysis, it is not the intention to deflect attention from T's possible inadequacies as an architectural educator, nor from the clearly mistaken assumptions or inflexibility in his session plan, nor from the unwisdom of his self-conscious haste to escape a situation he found uncomfortable. It would be inappropriate to attribute all T's difficulties to one 'external' factor – namely, the physical environment allocated as his teaching-space. In the debriefing after observation of his session, T himself claimed

that he had originally entered Studio 101 (like his students) with "not the slightest" sense of trepidation or anxiety about the location for the proposed activity – certainly, with none of the antipathy that used to be robustly expressed in occasional full-time staff team meetings. Quite the opposite – T expressed the view that the new NTU studio environments represent good exemplars of the kinds of flexible working environment for which the School should be training the professionals of the future.

...The Square-Pusher was bitterly disappointed when she found out that her investment had been squandered on process rather than product, and not at all consoled by arguments that this represented a sounder strategy in the long term...

Cash Flow

For further verification that T's 'critical incident' was neither a one-off nervous reaction to being observed (subjective), nor an isolated instance of an atypical problem (objective), some initial research was conducted informally in order to establish to which there was (ontological?) evidence of 'real', ongoing conflict in relation to studio use. In the context of such evidence, greater pedagogical value might be claimed for this study's conclusions – for NTU in the first instance, and perhaps now for the AAE, as a guide to potentially appropriate teaching/learning activities to organize within such spaces, underpinned (of course) by notions of strategic direction. Having considered such evidence, it will then be appropriate to draw also upon a few other sources in an endeavor to organize T's unfortunate experience into a narrative with a moral – making it capable of yielding some useful conclusions and recommendations.

Equities and Bonds

Justification for identifying the Studio 101 situation as an issue meriting attention was relatively easy to find: heated discussion of the best use of NTU's new design studios is regularly minuted in course committee meetings associated with every programme across the School (invariably recording students' negative description of 'problems' in advance of positive suggestions for 'solutions' offered by hopeful teaching staff). To evaluate the extent of consensus however, some minor research was undertaken into various users' characterisation

of the spaces in question, in order to allow comparison of different stakeholders' perceptions of the physical environment:

visitors' impressions: as recorded in External Examiners' reports, NTUs' new studio spaces are hugely admired as professional-quality facilities, on the grounds that they appear well equipped in terms both of furniture and technology, attractively clean, light and airy (new members of staff often express surprise to hear their more experienced colleagues suggest that the studio spaces might not be completely fit for purpose).

lecturers from other disciplines: in order to avoid possible bias due to views expressed only by members of staff particularly associated with the teaching of architecture (arising, perhaps, from nostalgia for older studios no longer in use), informal interviews were conducted with teaching staff from other parts of the School. The findings involved consistent expressions of antipathy to the new studio spaces (very similar to those occasionally overheard in the School of Architecture staff-room).

the students themselves: two separate opinion surveys were conducted - at the mid-point of the year for both first-year and second-year undergraduates (admittedly, with neither group having any alternative experience with which to compare the learning-spaces they were allocated). In both surveys, the difficulty of having to share their studio environment with others was identified as a major issue (second only to their all too familiar complaints about lack of access to the space after 8pm in the evenings or at weekends – an issue that really is in the hands of our managerial and administrative colleagues).

the college management: further to exhortations before each year begins that staff should "manage our students' expectations," the College Dean (accompanied by the Vice-Chancellor) happened to pass through the studio spaces T was using for his seminar that particular morning. In addition to asking the students how they were enjoying the course, he drew their attention to "the quality of the studio space and how well-equipped it is." Ironically, in the survey of factors influencing their design education, students ranked "availability of

drawing equipment, CAD programs, and modelling materials" as the very least significant.

Such convergence of views suggests good grounds for identifying T's 'critical incident' as indicative of at least a school-wide issue, and therefore meriting closer analysis of its precise nature as a basis for drawing conclusions about effects on the students' design-learning.

Securities

In assessing the philosophical validity of identifying the physical environment as a significant factor in T's 'critical incident,' it might be asserted *ab initio* that inert context should not be mistaken for instrumentality. Following Wittgenstein or Chomsky, the focus should be less upon the environment, and more upon the uses to which it is put. First, one might consider what thinking lay behind NTU's decision to create such spaces – what kinds of 'learning experience' were originally intended to take place within the studios? The School's 'Learning and Teaching Coordinator,' who was responsible for leading the NTU users' team in consultations with Hopkins Associates (the architects for the refurbishment of this part of the campus), has confirmed that NTU considered a substantial body of literature supporting the creation of 'social learning' spaces – most significantly, a HEFCE study on 'Designing Spaces for Effective Learning' (JISC, 2006). Much of this discussion relates to open-access resource areas, of a kind usually associated with 'libraries' and 'IT facilities' rather than with design studios. The strategy of providing a generally 'sociable' environment for learning may well have certain merits in terms of flexibility and future-proofing, but – for that very reason – may fail to suit the more specific needs of architecture students. An institution that proposes to embed a School of Architecture needs to facilitate the development of not just a broad but a deep 'culture', extending far beyond the provision of even a high quality and well equipped studio environment (an argument, perhaps, for only appointing managers with a strong architectural background themselves). Following the assertion by Race (2007:13) that "any learning experience is likely to involve several" of the facets into which Gardner (1993) subdivides intelligence, it would seem to be 'interpersonal intelligence,' rather than the 'intrapersonal' kind, that is cultivated by the new studios. NTU seems to have mistaken 'open access areas' for 'design

studios' – the two ought rather to be recognised as very different kinds of environment. What the NTU team should have sought instead, in the interests of the School's architecture students at least, were studies on 'learning spaces for effective designing.' It is therefore appropriate to consider an altogether different body of literature, related to the nature of design teaching and to the traditional location of such activity in the specialist kind of environment identified as 'studio.'

...When some neighbouring chiefs came to visit the Square-Pusher however, they complimented her on the wisdom of such a strategy, and confirmed that this kind of approach exactly reflected their own aspirations...

Gold Standard

The key text analysing the nature of teacher/student interaction within the traditional design studio environment is undoubtedly Schön's 'The Design Studio' (1985). Schön has identified two distinctive features of effective studio-teaching situations – first, the discussion must keep switching between the processes of actually designing and of learning to design; and secondly, the only effective mode of familiarizing oneself with such processes (as either student or teacher) is through actually engaging in them – through project-centred action rather than through talk. For this reason, the design studio has to be the locus of production, the main place where students actually strive to originate and develop their designs, the environmental hub of their creativity. If the aim is to teach how to design rather than merely about design, the studio cannot simply be the place where students pin up their work-in-progress for discussion with tutors. And there can be even less educational benefit in using the studio simply for the display of already-completed design work. Architectural educators need to be able to catch their clients in the 'live' act of designing, in order to explore ways forward together with them – showing them not just design alternatives but (more importantly, in the very act of showing them) demonstrating how designers think. This requires constant recourse to a variety of what Schön calls 'normative design domains' – ideas that can make no sense to a student except through reflection upon successful practice. Perhaps the 'problem' with the Studio 101 space may therefore be identified as an outcome of the way in which, for

administrative or managerial reasons – or, more likely, out of institutional blind habit, they are required always to be formally 'timetabled' as teaching spaces (ie associated with specific taught sessions) rather than for ongoing and open-ended design activity in what are mostly classified as 'non-directed' teaching hours. Perhaps this is another consequence of being required to operate within a higher education system centred around the evidence-based (tick-box) achievement of prescribed 'learning outcomes.'

Stewardship

NTU's endeavour to operate a design-related curriculum within a 'social learning' environment needs to rest upon conflation of the two associated bodies of literature. The resultant compound will then have implications both for the nature of the design teaching and for the management of the space. As the literature on studio space reveals, problematic situations such as that encountered by T (albeit in the context of another part of the curriculum) will impinge significantly upon the quality of design education – an effect which may be observed with even sharper clarity in the context of an architecture course that is deliberately envisaged and operated as a humanities discipline rather than as part of professional training. On finding himself obliged to operate in what T, and his students, and his staff colleagues, have all identified as an unsuitable environment for proper design education, the natural response – stemming from vocational commitment to architecture as a discipline – is to fight all the harder to provide the richest possible educational experience for every student encountered. To some extent, such a response might represent unwitting avoidance of the real issue however.

…The Square-Pusher then realised the merits of Thomas' ethos and agreed to promote it strongly across the whole of her domain. Thomas was encouraged to continue developing his ideas and to apply his techniques more widely than before, until his approach was suddenly denounced by the quality police, who had secretly edited his kind of activities out of the mainstream documentation.

Depreciation

Because Studio 101 is not set up and operated as their main locus of creativity, NTU students are obliged to develop their designs mostly 'at home' and to use the School's facilities primarily for 'show and tell' sessions. Being unable to interact with their students while they are actively engaged in the design process, tutors are obliged continuously to respond to concepts and schemes in which the student has (it is hoped!) already invested significant effort. Educators need to be careful to avoid retracing the student's design thinking too far (for fear of discouraging them with calls to 'start again'); looking forward instead, the tutor has simply to help the student make a decent case for whatever design they have developed. Having worked out their ideas in isolation, the students can interact with their tutors only while presenting them, with the consequence that the discourse tends to be more concerned with presentation than with content.

Investment

Having expressed commitment to do one's best for the students within the context in which they are required to be taught (ie coping as bravely as possible with the symptoms), it would be professionally negligent to ignore the causes of such unfortunate circumstances for our students, seeking above all opportunities to remove them. Educators need to be enabled to provide treatment rather than palliative care. The real origins of T's 'problem' (irrespective of the suitability of Studio 101 for design education) may be traced to the university's timetabling system. It was a great achievement last year (in terms of instilling a greater sense of camaraderie, if not culture, within student cohorts) to have begun allocating specific studio spaces on a regular basis to separate programme groups (although the Architectural Technologists have yet find a home of their own). Such progress has more recently been undermined however, with the timetabling of studio-space for formal 'lectures' on the grounds that some cohorts are so large, or some activities so demanding in terms of space (for example, certain Review sessions, or the end-of-year degree-show), that there is no room for other students to progress their design-projects 'in the background' – the space is sometimes taken over entirely for specific taught sessions rather than simply (and continuously) available as the main location for students' creative endeavour.

Fiscal Policy

The above discussion suggests two specific actions for consideration by an Architecture School's management team (assuming they understand that architecture – which may be just one of many programmes run by the School – merits special attention):

a)   in order to overcome possible trends towards the privileging of form over content (ie presentation over practicability) – advise architecture students that their educators (in any 'spare' time they have) are always ready and willing to give them personal tutorials to help them resolve ongoing design problems. This suggests the inclusion of an 'on duty' rota in the timetabling of staff hours – a demand likely to be resisted strongly, of course, by staff who lack commitment to the development of a strong culture within the School.

b)   in order to reduce the possibility of specific taught sessions (except for tutorials) being timetabled for a studio space, allow each course team to request continuous use of a particular studio by students from all years of their programme during all non-directed learning hours.

Through such a combination of tactics, it might become possible not merely to prevent unproductive and disheartening situations such as T's 'critical incident' recurring in the future, but to improve the quality of design education in any School of Architecture that possesses a 'Studio 101'.

Notes

The Acts of Thomas is an early 3rd century apocryphal text, describing the work of the patron saint of architecture. Other references are available on request from the author.