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Essay: Civic Fabrication: Social Responsibility in the Architecture Studio

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ABSTRACT This study explores the theme of social responsibility in the design studio through analysis of the first three years of a long-term engagement project, working with three cohorts of final-semester undergraduate architecture students in the area of Dalmarnock, Glasgow. The paper explores the often-conflicting requirements of the community vs the academy experienced when engaging in a Live Project, and seeks to identify the role of the tutor as pedagogue, or ‘enabler’ of learning. The paper asserts the pedagogic value of opening the design studio to external partners, through a project engaged in a real, contemporary issue. The resulting discussion references recent writing on the nature of situated and professional learning; on the future role of the architect; collaboration and the nature of ‘dependency’; and questions the validity of students as agents of change in long-term community engagement.

KEYWORDS social engagement, architecture, civic, situated learning, live projects, interdisciplinary, professionalism
“….institutions in the future will be judged not by what they claim for themselves, but by what they contribute to others; not by what they have come to expect, but by what they commit to.”

Paul Morrell, Collaboration for Change, April 2015

“Imagination is the core of our education and needs to be stimulated wherever it can. I fully defend the right to speculation, but do not accept the imagination is unable to address reality and the here and now.”

Sarah Wigglesworth, RIBA Journal, 26 February 2015

Context: A studio working in Dalmarnock, Glasgow

Up until the 1960s, Dalmarnock was a thriving industrial area, generating power for Glasgow, fabricating iron and steel, including the iconic forth rail bridge girders. Housing regeneration saw the dense patchwork of tenements demolished in favour of tower blocks, which emptied quickly as de-industrialisation took hold, and employment prospects in the area disappeared. At the turn of the millennium, the remaining towers were subject to demolition orders, adding their scars to the many vacant plots. Only one traditional activity remained: the transient settlements of Glasgow’s ‘showpeople’, a community based around providing fayres and entertainments around Scotland. As their itinerant lifestyles were gradually curtailed by societal norms, this population became more entrenched, and became a permanent, but separate, part of the much diminished community of residents in Dalmarnock. In 2006 the area had the highest incidence of unemployment, drug dependency and mental illness, and the lowest life expectancies, in Scotland.

In 2014, Dalmarnock hosted the XX Commonwealth Games, an event which very literally shaped the area for several years leading up to summer 2014, then violently occupied swathes of territory over a two-month period, and is now in the process of demonstrating ‘legacy’ through the lasting effects still impacting the local community.

This Design Studio seeks to place students in the centre of this intense socio-political situation, introducing them directly to major players and inviting them to comprehend the complex interweavings of ownership, economics, motivation, pride and politics that shape the Built Environment. The live nature of the project, and the unpredictable subjective input of the various stakeholders we worked with, has led to complex ambiguities that both tutors and students have had to understand and to engage.

The studio also invites each student cohort, at the end of the semester, to present their ideas back to the community stakeholders, outside the university and in the area they had been addressing. This part of the project has been offered in conjunction with interior design students from Heriot-Watt University, requiring a further inter-disciplinary student collaboration with their peers at another institution. Simultaneously, these same students undertook ‘live build’ projects for a local and enlightened Adventure Playground, working to construct play equipment under the direction of their clients (local children).

Set within the constraints of a ‘traditional’ design studio in a University, and tied tightly to the RIBA/ARB education criteria, this studio negotiated beyond usual boundaries to provide students with a broad experience directly engaged in real-world events, and outside the parameters of a traditional architectural curriculum.

This study incorporates student feedback, feedback from community partners, and examples of student work collected between 2013-15, to debate the value and content of the learning experience, the quality of the product produced by students, and the value of the experience to the local community. Many of the themes echo others’ accounts of delivering Live Projects within the academy. This is a public, but personal reflection by the principal studio tutor, and much of the following discussion is communicated in the first person.

A note on ‘Fabrication’

‘Architects are Fabricators- in both senses of the term. In the sense of those who make things and make up things. All Architects make real the imaginary, make up imaginary worlds in order that they can be constructed, that they fabricate reality- with intent to deceive or conceive?’

M Rakatansky, 2012

The studio name makes explicit reference to the quote above from Mark Rakatansky. Our unit practice requires students to undertake both kinds of fabrication: to make (- play equipment in the community, over summer, fig.1), and to make things up (- projected futures for the area, which we call stories, fig.2). They are also asked to author the design of a building, including detailed technical sections and visuals of its intended inhabitation, the fabrication of which sits somewhere between the two extremes of the definition.

This play on words is a deliberate provocation to the students, asking them if their view of architectural practice is based in the abstract theory of the academy, or the applied techne of physical construction. The implicit dilemma is a conscious attempt to trigger in the students a tacit questioning of the professional role, and ethical position of the architect, which we hope will remain as they continue their studies and commence professional practice. In the immediate studio context, their ‘intent to deceive or conceive’ is unequivocally tested as they are asked to communicate their work to peers and to a variety of community members with different and contradictory values and beliefs. The learning opportunity offered by this challenge will be explored below.

< Figure 1 here / Alex MacLaren >
< Figure 2 here / Alex MacLaren >

An overview of the studio process

Civic Fabrication is one of three design units operating under the umbrella of “Tectonics”, a mandatory course offered in the final semester of a four-year MA Architecture course at the University of Edinburgh. The unit is run by Alex MacLaren and Fiona McLachlan, both chartered architects with a background in professional practice. This course is the final thesis design project for a graduating cohort, and carries 40 credits. The unit of approximately 25-30 students, challenges participants to understand and design the ‘civic’- that is, an architecture of spaces which encourages people to engage in meaningful community interaction, create a sense of place, identity and belonging; is inclusive and inviting; and in so doing fosters an increase in the health and happiness of the community it serves.

The unit begins by introducing students to the local environment, and most importantly, introducing them to members of the local community living or working in that environment. We ask students first to imagine a future for this area, (working up to the year 2100) and then to design a piece of architecture to be constructed now, that would support civic development in that future. The usual academic ‘crits’ are replaced by design review seminars where groups of students present their proposals (we call these hypothetical masterplans, stories) back to the community members and co-professionals. Students are required by assessment criteria to produce detailed technical drawings for a complex final building at the end of this semester, and our unit’s engagement in the wider urban fabric (in terms of both physical area, social community and projected time) take valuable teaching time away from this core aim. As a result we have made the decision to very strictly prescribe the building briefs, requiring them to design a Civic building of approximately 5,000sqm. This constrains the students from significantly innovating in programme, but allows them to focus more time on issues of ‘social sustainability’, from the urban scale to the occupied building and construction detail. In year one, the students designed a ‘Healthy Living Centre; in year two, a Theatre; in year three, a Further Education College. The building programme is not interrogated; it is a vehicle for the wider investigation, a short-cut made necessary by the brevity of the academic semester.

The stringent requirements placed on the output from this unit are related to professional accreditation of the course. Students are required to evidence relevant research; to produce complete plans, sections and elevations of a building of moderate complexity; offer a sustainability strategy for their built proposal; and demonstrate resolution in planning and detailing of the building. The Learning Outcomes prescribe investigation (of structural, constructional, environmental and contextual matters), resolution (of a coherent design proposal) and skills in communication ‘with accepted architectural conventions’.

We take the opportunity to interpret this last as including the effective communication of an architectural idea to a lay audience; our community partners.
Students at this level are under great pressure to graduate well and so are understandably focussed on results, leading to a pressure for the unit to similarly focus on delivering work geared towards these learning outcomes. Whilst not diametrically opposed to the interests of our *end-users*, the tension between the social values of the studio and the academic assessment values increases as the semester goes on.

*Visiting Dalmarnock*

The site is approximately 50 minutes journey by car or train from the university, adding some logistical complexity to engaging the student cohort with their site and community clients. The university hosts the mid-term and final review sessions in which local collaborators joined the group, alongside academic professors and professional architects. Student briefing commences with one day-long organised visit to the site, meeting the local *end-users* and a representative from the major local developer, and incorporating a building tour of the flagship renovation and a coach tour of the area (fig. 3). The group is also briefed on ‘contextual research’ by a small group of students who have graduated from the unit the year before, and in 2014, also some second year students (two years junior to the main cohort) who had authored projects on a site in the area during the previous Semester. This initial exercise in briefing across years offers a ‘soft’ start to the challenges of communicating between different groups, which becomes a core demand of the students throughout the semester. It also expedites much of the general desk-based research, confirming areas rich for further investigation. This work— the students’ *stories*— are presented back to our community partners at interim seminars.

In year one, the initial visits and interim seminars were extremely effective, enjoyed by both students and *end-users*, each of whom gained much from the experience. Conversations in studio were broad and fascinating, and avoided the usual esoteric language of the architectural review. We were emboldened, and in 2014 invited community members to join us for final reviews in the design studio. These end-of-semester seminars were less rewarding: the contrasting requirements of ‘demonstrating technical/theoretical academic ability’ versus ‘effectively communicating with community members’ had polarised, meaning that a substantial amount of work produced was at cross-purposes to the interest of the audience. This was frustrating for both the students and the visitors. In 2015 we elected not to present back to any members of the ‘end user’ community until after the assessment period, and in the less-direct form of posters and an exhibition, trialled successfully in summer 2014.

Post-graduation, all students were offered the opportunity to re-work their projects voluntarily for inclusion in a community exhibition. In summer 2014, funding from Glasgow City Council intended for cosmetic ‘improvements’ along the Games route, enabled us to exhibit in a temporary event space in the area, also designed, built and staffed by students (fig. 4). Well-aware of the lack of amenities in the local area, students served free tea, biscuits and cakes to local people. We partnered with a local cycling charity and *Par Cours* group to provide events which drew people into the exhibition area, and encouraged interaction with a huge 1:500-scale model (fig. 5). In 2015, the University of Edinburgh supported an exhibition in a West-End gallery space curated by a volunteer local amenity group, and collaborated with Heriot-Watt University to spend a week (running concurrent with the exhibition, and linked by live social media messages and daily photo updates) constructing play equipment with and for children at Baltic Street Adventure Play (BSAP).

Students received no academic reward for their participation the summer activities. However, there was significant student support for these initiatives. One participating student articulated her reasons for being involved; “because re-presenting our work in this format is a way of addressing that frustration [of the conflicting demands of the *user-expert* and the *academe*]” (student feedback, 2014). It was a source of great personal pride for me to watch students engaging local visitors to the 2014 exhibition in conversation. Cautioned by group workshops highlighting the anger of local people...
people at the disruption caused by the Commonwealth Games (concurrent with the exhibition), I heard students carefully exploring with an often cynical, defensive, poorly-educated audience, the potential they saw in the area and why they had proposed what they had; and most importantly, listening closely and responding to the views of these visitors with interest and sincerity.

**The Project Brief**

Leaving ‘space’ in the initial briefing presents, open-ended, the contradictions inherent in real-world situations. Students held direct conversations with contributors holding wildly different opinions, engaging them on site, across the area and in our studio: encountering first-hand the dilemmas of a professional seeking to navigate different wishes and value judgements. The community playworker described starkly the lived reality of poverty and ill-health, and the impact of strategic demolitions on daily life; the developer introduced them to land law, finance contingent on political whims, and the importance of community cohesion; a local entrepreneur described the importance of generations-old social divides within the community. This built up a contradictory picture; exposed the regeneration of the area as a ‘wicked problem’, that is a scenario “composed of inter-related dilemmas, issues, and other problems at multiple levels society, economy, and governance”.

The intractable scenario that was revealed to the students was not one the tutors could easily assist them in solving, though to us as practising architects it was not unfamiliar. Our response was to share with the students an open conversation about ways to approach the problems, and the potential impacts of various hypothetical positions. The discussions were inconclusive, and immensely rewarding. Till in ‘Architecture Depends’ (2009) recognises that the profession and application of architecture is contingent on so many other inputs, and suggests that these inter-relationships and complexities must be explored in the academic environment in order to best educate our future architects.

Over the three years we have recognised the pedagogic value of ambiguity, and the risks attached. A looser teaching method applies when engaging with real socio-political contexts within the learning environment. Students’ self-awareness and confidence as a designer was ultimately improved by offering them divergent critique: though initially the confidence of the pedagogue was shaken. Distilling the complex (real) situation (the ‘wicked problem’) to suit a particular academic investigation was a mistake; ultimately students learned more, though floundered for longer, engaging with the incoherent whole. Perhaps this is an example of students acquiring a threshold concept and ‘transformative, integrative knowledge’ as defined by Meyer and Land. Acquiring such knowledge is difficult, challenging, and changes the basis on which the student views their discipline. This is exceptionally difficult to manage in a brief but intense twelve-week semester with little space for reflection, and unforgiving empirical assessment at the end. In common with many final year architecture courses, the final assessment of the work of this cohort is via a portfolio and exhibition, with no credit given for process or activity not evidenced in the curated portfolio. In facilitating student learning through assembling contradictory or inconclusive, messy stimuli, the learning experience is enhanced, but practically there is a high risk that the immediate academic product suffers.

**A Commitment to Engagement**

My decision to work with the Dalmarnock community was not taken lightly. The initial engagement came alongside a personal commitment to remain engaged in the area for a minimum of 4 years. Had I not promised myself that commitment initially, I would not have been able, with good conscience, to take up time on residents’ committees, seek out coffee with the local councillors, and attend public meetings. This commitment had to be a personal one, as academic programmes in this University are not assigned that far ahead. It required a flexibility from me as an academic and practitioner to make promises to remain involved, and it continues to require resourcefulness in identifying ways in which we can engage meaningfully, proactively seeking budgets and funding we might access to support local initiatives. Engagement with non-professional communities takes time. The academic timetable and allocation of staff time are built around the values of the academy, and not currently designed to support or enable long-term relationship-building with...
communities. Current movement in government policy may be changing this situation; this shall be explored later.

In practice, building a relationship between the university and the Dalmarnock community has proved extremely valuable to both students and to the community members: though that value has consolidated and grown over a period of years. Initial comments from the students ‘the site visit brought a lot into perspective, ‘nice to be on a realistic site/programme in an area of great interest (student feedback, 2013), demonstrated to us that students saw value in the engagement. Community members were less forthcoming in the first year, most likely as a result of ‘having been accessed so many times by so many groups in advance of the Games, only to never see or hear from any of them again’ (paraphrasing Marc Cairns of Pidgin Perfect, a local practitioner whose contributions over the this three year period have been invaluable).

In 2014, the project was successful in attracting funding from the inaugural ‘Berkeley Prize Teaching Fellowship’. This small stipend, and the hugely valuable connection with a community of fellows working in architecture schools globally, provided an essential support network in developing the possibilities for end-user engagement. In summer 2014, after year two, concurrent with the games themselves, an especially engaged cohort of students instituted a significant fundraising push. They procured local services from scaffolders, caterers and the one remaining shop, and we succeeded in gaining council permissions and funding to take over a small patch of abandoned land for 6 weeks over the summer for an installation and informal café.

This time the community reaction was much greater. Over six weeks myself and the student volunteers formed relationships with local people, enjoying repeat visits from some families and individuals. Senior community members shared their life stories, and their recollections of previous regeneration initiatives in the area. Younger children joined us to craft monsters for the 1:50 model, colour-in their houses, and draw dragons on the map of Dalmarnock’s future. These conversations eased our emergence in the awareness of the general adult population, and our ongoing presence began to affirm a relationship of trust.

As the students began to set up the summer event in 2014, they had realised the value of having a web presence, and set up a twitter handle in the name ‘ESALADalmarnock’. This generated immediate interest. It has remained a colourful, active and gratifying way for successive cohorts of students to engage with the project, as it allows quick feedback and gives a sense of ‘action’ to less interactive periods. In some ways this a false sense of success: twitter is a self-selecting group and those who engage with it tend to be those for whom communication is not difficult; not our target audience for this project. But it provided a forum in which the students could achieve positive feedback, and broadcast their endeavours. It also (fig. 7) evidenced the mistrust of some of the community in our project: we were ‘outsiders’ coming in uninvited and offering provocative ideas. This is another example of communication outside the studio providing extremely valuable learning, but was also a potentially inflammatory situation which was challenging for tutors to manage.

In summer 2015, the games far behind, our return to the area was greeted with surprise by some in the community, who had experienced the sudden shift of media interest and government money shifting away to focus elsewhere. Funded jointly by an ESALA IAD (Institute of Academic Development) grant and the QAA ‘Enhancement Funds’ scheme via Heriot-Watt University, a group of students from both institutions spent a week building play equipment at Baltic Street Adventure Play, each afternoon critiqued harshly by our young clients as they arrived to play-test the new equipment and direct the next day’s construction. This time, the community response was more effusive and entirely positive. (fig.8). A playworker commented on the tacit inspiration to the local kids in seeing university students engaging in their neighbourhood, and particularly the advantage of strong female role models for the young girls (our student team was 70% female). On this occasion I felt more certain that we had managed to maximise value to both student and community stakeholders. It had been a long haul.
Managing Risk

The physical safety of participants is addressed through routine risk assessments, but we did not initially consider the mental impact of this experience on students and on *end-users*. Some students found the local environment to the site unnerving, and found communication difficult, leading to embarrassment that manifested itself in defensive behaviour, almost to the point of perceived aggression. One of the *end-users* was similarly uncomfortable and intimidated by their initial visit to the university, and reacted initially with a surprisingly forceful critique. Attending a public meeting in spring 2014 with a small group of students, we were overwhelmed by the force of opinion from the 200+ attendees (fig.9)

Avoiding such heated exchanges in our own meetings with community partners was managed by making space for communication between students and *end-users*, and specifically allocating time for non-confrontational communication, and orchestrating this, prior to any direct review of work. Developing a common language takes time and is best achieved by shared experiences. Asking both parties to comment on the work of a third party has been useful, be that a physical site visit (fig.10), a lecture, or drawn work of others. In the post-semester work, shared food and drink, and shared enabling of activities with young children have provided effective and natural ways to negotiate a shared stance on some topics, allowing easier conversations around divergence in others. I would advocate specifically timetabling such sessions into any engaged programme: difficult as that may seem to justify in a tightly-packed, time-constrained semester.

Effective Communication

The impenetrability of Architects’ peer-to-peer jargon is legendary amongst those outside the discipline. One of the primary aims of this unit is to allow students to practise their communication skills outside the academy. In this case we are supported by assessment: through interpreting our ‘communication’ learning outcome as a requirement to effectively communicate to a variety of audiences, we allow ourselves a significant allocation of teaching time to discuss how presentations can be made. In 2014 this included a presentation workshop with a Glasgow theatre client, offered as an optional exercise, and received with unanimous gratitude by the student cohort.

Active reflection on oral presentation skills in the design studio is unusual in my experience; which seems strange given the key role of language in explaining design. “The oral presentation genre plays a crucial role in helping to develop a student’s sense of professional architectural persona”\(^{12}\).

We avoid didactic situations and formal presentations with external collaborators if possible. This reduces the possibility of embarrassment or direct confrontation, and understood by all involved. A successful academic outcome is not a successful community outcome, and to satisfy one may impinge upon the other. For example, an early project concerned with mapping available allotment spaces against land use and contamination had engendered local interest, but was not taken further due to the requirements for the student to ‘prepare…[a] comprehensive design project[s]’\(^{11}\) in order to satisfy professional accreditation requirements. Poor achievement in an academic forum can be catastrophic for a student, but failure to deliver a promised outcome to a vulnerable user-expert can be extremely damaging to trust and human welfare. This was the most important and also the most difficult point to manage. In later years I have become very direct in communicating to the community the constraints of our action, and extremely reticent in making any promises. We have heard repeated anecdotes from our community partners, of the propensity for enthused external visitors to promise and not to deliver; a disappointment that damages the positive impressions created by the initial outreach.
also a collaborative, non-didactic environment maximises opportunities for learning in received pedagogy. We allow, wherever possible, return or repeat visits: the best communication has occurred during post-semester site-based activities, when visitors (residents from the local area) return after an initial conversation with photos, stories or documents of their own to share, and a week’s or evening’s reflections on what they had been discussing on the previous occasion. This means the ‘show and tell’ aspect of our community events has a bilateral nature, and provides the best exchange of ideas and knowledge.

The use of a model and perspective views (as opposed to orthogonal drawings) was invaluable in communicating design ideas to “lay” community members, where traditional projections failed to engage. This advantage is not demonstrated by the traditional peer-reviewed architectural crit. Cullinan, in ‘Why Architects draw’ describes his best community communication as ‘doodling’; “and in our case the doodle tends never to be plans, sections or elevations. They are nearly always three-dimensional doodles”. In Dalmarnock we took ‘three-dimensionality’ literally, with a huge urban model on which children placed their soap- and sponge-models and adapted the students’ original fabrications (fig.11). I would advocate that for all engagement projects, a budget is included for model-making, as it was extremely engaging, but required funds. Enabling this has also required additional logistical planning to store, transport and reassemble the model- but the very significant time and expense of creating this has proved worthwhile.

< Figure 11 here / Alex MacLaren >

Bringing collaborators into the design studio was a greater challenge than our community-based work. Giving our experts comfort and confidence in the academic arena has taken significant time, persuasion and diplomacy. I have never been so keenly aware of the esoteric language of the design studio review as when introducing unconfident non-architects to that forum. The use of certain loaded phrases or language clearly baffled and potentially confused our visitors, and in this situation it was the role of the tutors to spot the confusion, elicit clarification, and subsequently to explicitly reinforce the value of our end-user’s contributions in this environment.

Some students’ cultural responses to material have been unpredicted by tutors. I realized my initial briefing was somewhat predicated on a prejudice that the students would broadly share my own background, and a familiarity with western European culture. The student cohorts have in fact been global in nature.

I have found that ex-EU students particularly can struggle to grasp elements of the socio-political situation in Glasgow, which becomes a core part of the cultural context they are asked to address in the learning outcomes. The questions posed by our unit regarding civic value are intended to pose a difficult ideological/ethical issue for western students; but that challenge was predicated on students bringing their understanding of the context of the UK. The questions were significantly more complex problems to comprehend for students without that tacit understanding of the cultural /governmental context, and /or a very different set of connate assumptions about the role of the state/individual.

Home students, in particular those coming from similar backgrounds themselves, had a much deeper, but also subjective, understanding of the context. Objective analysis, and discursive comments by tutors, contributors or peers had the potential to be emotionally abrasive or distressing. This increases the learning experience for all, but requires students to deal with further unexpected conflict and ambiguity, and increases the challenge in an already stressful semester.

In addition, we all had to learn new non-verbal language, which had the power to activate very powerful divides in the community. The meaning of football colours was incredibly emotive and potentially toxic, imbued with religious and cultural significance that continues to elicit violent reactions in this part of Glasgow. The ‘Yes/No’ campaign for Scottish Independence was also in full sway throughout the first two years of the project, dividing the community into ‘nationalists’ and ‘unionists’, and some projects suggested a political slant in this argument to some of our visitors. Transgressing these boundaries was intellectually rewarding in an abstract academic environment, but a serious and
potentially incendiary action on the ground in Dalmarnock. I was naïvely unprepared for the strength of community feeling, and my lack of understanding of these deep-seated beliefs led to some anxiety. In later years, community partners have been extremely helpful in viewing work and briefing students prior to open community engagement.

‘Real’ Construction

Berryman and Bailey in their paper ‘The Double-Helix of Education and the Economy’ identified the values of real-world situations in the classroom, encouraging a learning experience they coined as ‘cognitive apprenticeships’. Savin-Baden expands this in proposing increased ‘experiential learning’ and problem-solving in Higher Education, in order to increase the efficacy of the learning experience, and of information retention by the learner. We have addressed above the power of ‘real’ socio-political situations; but the unit also took advantage of the more practical applications made possible through community engagement.

The course outcomes dictated that each student must produce detailed technical drawings. We addressed this through two ‘one-to-one’ (=scale) drawing workshops (fig.12), making drawings through a façade, which were later assimilated into 1:20-scale sections. We felt this gave a sense of ‘real’ scale to students’ complex building proposals.

The post-semester activities - constructing play equipment - opened up a much wider discussion around methods of construction, and a much more keenly valuable lesson in materials, weathering and durability than the lines on paper ever could (fig.13). A specific example was in communicating weight: as a student struggled to secure a solid timber beam with an M8 threaded bolt, he wondered at the efficacy of his oversized timber portico (twice the beam depth) with dovetail jointing. This kind of applied, problem-based learning ‘can help students to understand and challenge their situations and frameworks by encouraging them to learn with complexity’.

The build phase also asked students to work with colleagues across disciplines and from a different institution, improving ‘interdisciplinary understanding at an early stage of the young professional’s working life’. It is hoped that the practical and co-operative skills learned in this way will support the students in their future careers.

The process of Assessment, and the assessment of Process

As touched on above, as the project progressed, a keen awareness developed of the difference between ‘learning’ and ‘achievement’ (- or perhaps to borrow words from institutional assessment criteria, ‘evolution’ and ‘resolution’ of a project or design.) The best learning opportunities and experiences often did not create the best portfolio product.

The huge value of the learning experience in undertaking the design process was evidenced by student feedback. I would strongly recommend that, where possible, ‘process’ be recognised as a specific, academically-rewarded part of the course for similar units. This sits uncomfortably with the evidence-based summative assessment procedures common in many undergraduate architecture degrees, and is likely to cause tension between interpretations of ‘success’, as highlighted above. In the final moderations of our unit work against others on the same course, we found our unit’s work to be wider in scope, but less controlled in outcome; lacking in methodological finesse and often less attractive to the peer audience than the more abstract representations of other units.

< Figure 14 here / Rebeca Goodson >

During preparation of this text, it was announced that a student from this unit, Jordan McCrae, had won the 2015 RIAS/a+ds Award for the best undergraduate student project in Scotland. The judging panel for these awards was formed of institutional representatives and practitioners; not academics. Jordan’s success equalled the achievement of Rebecca Goodson, also from this unit, who won the same accolade the year before. The former project was particularly commended for its ‘environmental sustainability’, and the latter for its ‘social sustainability’. Both drew remarks from the judges on their suitability to context: ‘careful and appropriately scaled… adaptive re-use of fabric… build[s] a sustainable community’ (RIAS 2014) and ‘a thoroughly appropriate project for this context, underpinned by a strong strategic approach’ (RIAS 2015). Other award commendations
included further projects with direct relationships to real communities. Each of these award-winning students took every opportunity to engage with community members during their studies, and have continued their engagement in the area (one academic, one practical), beyond the end of the project. They remain engaged, enthused.

Returning to the comment from Sarah Wigglesworth that opened this study; is this an example of “[students’] imagination, [stimulated] to address reality and the here and now.”?

Our means of measuring public success is limited to direct feedback from our main site contacts, visiting end-users, and local visitors to the playground and exhibitions each summer. It is the latter of these that has caused me most concern, as I was worried the project might seem an unwanted casual intrusion into a defensive, embattled community. In the event, we met and formed ongoing relationships with members of the showpeople community, local shop-owners, and even new residents poised to move into the nascent athletes’ village. It has been important for me to maintain these relationships personally, in the gaps between academic activity. This has enriched the project hugely and each year, has given us a great basis on which to build next year’s course.

Certainly we have encountered suspicion and resistance in some visitors, an attitude that says, you aren’t from around here, and so you are an intruder and you have no right to comment on our area. (See fig.7, above). In the vast majority of cases, human contact and communication breaks down that resistance immediately, but not in all cases. There remains a deeply-ingrained mindset evident in a small core of local people over the periods we have been on the site: we are not from Dalmarnock, and should not be involved. It is possible to dismiss this attitude as recalcitrant and unreasonable, but these feelings are deep-held, and by those this project most seeks to enfranchise. I find There is no an answer for this, other than to demonstrate real, lasting value, and commitment beyond self-interest. I am hopeful that continued engagement on this site over a period of several years has begun to build trust and will allow this group to engage. We are planning a larger-scale community build, co-authored by students, tutors and end-users, for our fourth year in Dalmarnock.

Tensions between Academic and Community interests

Jeremy Till’s 2009 book ‘Architecture Depends’ was controversial in its explicit admission that architecture cannot be controlled by the architect. This affronts academia because target of much pedagogy in current Architectural Education is focussed on achieving the perfect representation of an idea. This places an unassailable value on the project’s success within arbitrary parameters and systems of logic, set up within the studio. Guest critics and tutors, invited by the studio leader because of their known viewpoints, reinforce the internal rationale of the studio, helping to achieve a sense of wider relevance. The student learns a myopic language of reasoning and justification, a stylistic palette of representation, and a mistaken sense that architecture can be validated and understood, only by other architects. The judgement of those outside the studio is regarded as peripheral; likely mistaken, ignorant and irrelevant.

Friedson (2001) understands this situation as an inevitability of educating professionals in a higher education institution. “Intrinsic to a faculty that devotes itself full-time to training and research… is its development of special intellectual perspectives and interests that are different from those of the practitioners it trains”21. This describes well the tension experienced between the academy and the applied practice described above, and confronted directly by undertaking situated community projects within institutional curricula. Whilst there is evidence of value in ‘creative tension between different curricular goals and pedagogical actions’22, my experience to date has been that the divergence is such that it is not possible for the educator to satisfy both, without seeking additional support and funding, and acting outside of the curriculum. Changes suggested by government to higher education metrics and funding may incentivise bridging this divide. One extremely successful project at ESALA, running concurrently to our work in Dalmarnock, takes the form of a research project, ‘Mood, Mobility, Place’, combined with a postgraduate design studio, and arising out of a
significant EPSRC research grant in 2013. The security of research funding provided the opportunity to make commitments and demonstrate real impact with the support of the university.

There are signs of a movement towards greater investment in impact and outreach at universities. The ‘Research Education Framework’ conducted in 2014 allocated 20% of the weighting to ‘impacts on the economy, society or culture’\(^{24}\), the demonstration of which will require long-term relationships. Public engagement was recently the subject of a Wellcome Trust Study, which found that ‘[in the arts, humanities and social sciences].. although institutional concern is not evident, such activity by researchers has a rich contemporary history’\(^{25}\). This was my experience: though finding no intentional barriers to instituting community engagement within the design studio, relatively inflexible institutional practices provided significant inherent barriers. For example, the practice of not confirming studios running each year prior to semester start, and/or a requirement from the university finance departments not to carry budget over the end-of-year (July 1\(^{st}\)) deadline, put huge constraints on the ability to assure year-on-year investment in a community. These barriers could be navigated, but only by significant personal investment by the organising tutor.

The Wellcome report concludes that HE is “a sector in transition with respect to public engagement”;

“[T]he research findings convey positive signals that current strategies have been helpful, but also that there are challenges and more to be done…. outputs from the project suggest that further attention might be placed on: ongoing clarity of the commitment to public engagement from the UK funders of public research, further embedding institutional and broader professional systems of reward and support, development of better understanding of the structures within HEIs (for instance, centralised or distributed support for public engagement) that best support… public engagement.”

Wellcome Trust, 2015\(^{26}\).

Conclusions

Students at degree level have experienced at most, only a few months of Architectural Practice. Their formative years in architectural education have taught them to mimic, present to, and seek approval from other architects. This unit offers a different pedagogy: to bring untamed non-architects into the studio; to ask students to grapple with wider social problems; and to then present these to an unpredictable audience whose responses may be contradictory. It is hoped that these students will take this experience with them into practice and become architects with social design and effective communication at their core.

‘Civic Fabrication’ facilitated direct engagement between student and ‘client’ throughout the project. The structure of the programme gave weight and value to the direct input of non-professionals to the course; a practice explicitly supported for one year by a Teaching Fellowship from the University of Berkeley (CA) promoting ‘universal design’. Ex-curricular opportunities were offered to students in the studio to undertake practical construction ‘design and build’ in the Community, leading to autonomous, semi-professional exchanges between students and community members, each negotiated in their own terms. In this special issue of Charrette, I posit that these are the real skills that future architects need to shape the future Built Environment in Scotland.

< Figure 16 here / Alex MacLaren >

The experience of writing and tutoring these briefs has been hugely informative in improving my understanding of how to best deliver value to both students and to end-users as they engage in academic architectural projects. Authoring this unit structure in 2013, I had little knowledge of learning theory or professional epistemology, though my own practise and teaching experience had led to strong implicit beliefs in active learners, situated learning and opportunities for addressing professional ethics. My discovery of the pedagogy supporting active learning came alongside a series of contemporary events supporting the social engagement of architecture. A renewed interest in ‘ethics and the public interest’\(^{27}\) from across the Built Environment, and the introduction of the RIBAJ MacEwen Award ‘to celebrate the best examples… of projects with a clear social
benefitrijk suggest that there is a movement to raise the profile of meaningful stakeholder engagement and ethical practice in the architectural profession; and across the Built Environment.

The material outcomes of the unit to date have been: the students’ individual portfolios; the large-scale urban model; several hundred cups of tea; annual ‘blurb’ publications by the unit28; and a treehouse, a balancing beam, a mended fence and a sandpit in the local adventure playground. The urban model has been well-used. After being worked on ‘live’ by students and children at the event space during the Commonwealth games, it was exhibited for a month in a local church hall / food bank, and now we hope it will finish its days as an arts exercise for children at Dalmarnock Primary. The value of this model, and the ideas is presented, outside the academic environment, has been rewarding for the students who created it. “[I felt we were] addressing the needs of society through architectural proposition- an opportunity never given before.” (Student feedback, 2014)

‘Live Projects’ and community engagement, whilst on the increase, are not the norm in architecture schools. Instead the self-referential discussions behind the closed doors of the architecture studio offer students a drastically misleading representation of the role of the architect in society: it is damaging to the future professionals in our schools. To judge architectural projects only from inside the profession is to shield the students from reality, and prevent them from learning the skills they need to understand and synthesise the needs and aspirations of others, expressed in non-specialist languages and often not articulated clearly. Professional communication outside the discipline is a key skill of the successful architect, and yet we do not facilitate the learning of this skill in architecture schools. Even some of the most well-meaning and ostensibly socially-motivated tutors labour under the misapprehension that they can ‘teach’ their students what it is to consider the views of others, without actually allowing them to engage those ‘others’ directly to gauge their views. The Berkeley Teaching Fellowship asked recipients to investigate ‘the social art of architecture’30 as a priority for Universal Design, because of a realisation that our insular education system is, in practice, teaching a version of architecture without any of the ‘social art’.

Engaging students in practical construction projects in real communities is logistically challenging. These challenges: of timescale, insurances, assurances, assessment and scope have been well-documented above and elsewhere31. This study has presented one way of negotiating these barriers, and has demonstrated real benefit to a local community and to multiple cohorts of students over a three-year period.

The opportunity to reflect on this experience has allowed me to see the project anew as a form of ‘action research’, that is “research which is orientated towards bringing about change… involving respondents in the process of investigation”32. Seen in this light, and against the backdrop of a movement in government policy and a renewed interest in professional ethics from practitioner in industry, I am hopeful that the value of projects such as this will be further recognised by educational and professional institutions, leading to the tacit barriers of funding, assessment criteria and post-semester commitment being addressed, and management of these projects assisted. The students we educate in Scotland deserve the best learning experience we can provide; our communities deserve to see the impact and relevance of academic pursuit to their lives; and in providing this, we may also succeed in enabling the next generation of architects to experience the most effective training for their future practice.

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