Ways of Choosing: The Role of School Design Culture in Promoting Particular Design Paradigms in Irish Architectural Education

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KEYWORDS

design culture, design paradigms, school culture, values in design, personal design philosophy, design excellence, design process, sustainability in design education

Architectural education must produce graduates which have demonstrated standards of knowledge, skill and competence for practice as an architect, who possess particular professional attributes and who are also aware of their civic responsibilities. As such, graduates are taught to question and direct design conditions from particular design paradigms and stances. In the context of two dichotomous design culture stances — Architectural Design Excellence (ADE) which prioritises aesthetic architectural ideals and space-making, and Sustainable Performance Excellence (SPE) which has technical prowess and the built environment response to social, environmental and economic sustainability as its focus — this paper studies the role of school design culture in Irish Schools of Architecture in providing the focus on what constitutes architectural design excellence, and what shapes the framework in which these ideas sit.



INTRODUCTION

Architectural education in Ireland — as elsewhere and within other professions — is a somewhat unique educational environment, as it must provide for both professional and academic requirements within its system. The necessities of the architecture profession compel architectural education providers to produce graduates which have demonstrated standards of knowledge, skill and competences as well as professional attributes necessary for practice as an architect, and who possess an awareness of their civic responsibilities; both in being bound by professional codes of ethics to act and to build in a way that has societal values at its heart but also on a broader, more 'values-based' system which asks student architects to develop as professionals who consider the interests of society as a whole (RIAI, 2009) to shape a better world. As such, graduates are taught to question and direct design conditions from particular points of view (D'Anjou, 2010) and to create "good" architecture through the application of dependable professional education (D'Anjou, 2011). The content and themes of architectural courses must therefore be both creative and technical, freeing and curtailing, locally responsive but universally responsible.

This particular dichotomous system is the focus of this study, and it is very much apparent where the need to engender graduates who can achieve excellence in architectural design sits alongside the necessity for them also to be capable of achieving prowess in technical design; particularly with the need for built environment generally and buildings specifically to respond to the environmental, economic and social requirements of sustainability and have a technically sustainable approach. Previous research by the authors undertaken in a similar UK context has described in depth this dual context of architectural design paradigms; one which focuses on achieving sustainable design (SPE: Sustainable Performance Excellence) and another which focuses on a more 'traditional' idea of excellence in design (ADE: Architectural Design Excellence). This previous research studied how both SDE and ADE are defined (Gwilliam & O'Dwyer, 2018a), how much overlap between these two fields of architecture exist in architectural precedents and prize winning architectures (Gwilliam & O'Dwyer, 2018b) as well as exploring the ways in which Irish practice and industry could synthesise these two fields in a more holistic design process that could deliver buildings that are concurrently beautiful and sustainable, equating to Holistic Design Excellence (HDE) (O'Dwyer & Brophy, 2017). The focus of this paper is the architectural educational system — where architects learn how to design

in a 'plenum' of minds — and thus where there a consensus signalling of ideas occurs to graduates about what constitutes design excellence, and what implicit values, philosophies and culture shape this excellence.

CONTEXT

Irish architectural education standards are governed under the 11 attributes and aspects within the EU Qualifications Directive (2013/55/EU); which relates to technical and aesthetic design abilities, knowledge of the arts, history & theory, urban design, regulations & technologies, understanding of structure, comfort and people, and buildings & the environment, the societal role of the profession and methods of investigation (EU, 2013).

What do architects learn in university?

These standards within the Directive support the creation of "good" architecture, but their interpretation by individual schools through frameworks for excellence and associated embedded design culture remains ambiguous, particularly regarding emphasis of technical and/or creative aspects.

Architecture schools teach an Architectural design process to students with the aim of engendering the above attributes. Whilst this process is not a linear rational practice, it does possess structure, components and procedures (Stolterman,



Fig. 1a: The SDE and ADE dichotomy

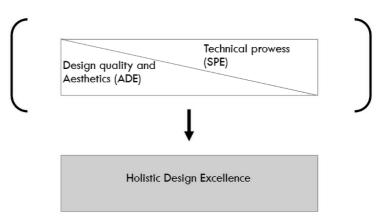


Fig. 1b: Towards Holistic Design Excellence

2008) and typically has embedded the generation of an underlying design concept (Heylighen, Neuckermans, & Bouwen, 1999). Integral to the design process' underlying framework of ideas is the design culture, philosophy and values each school of architecture nurtures in its students; the ethical code it imparts; and how it frames what the nature of architectural design excellence is. This hidden culture — and the resulting influence of the design paradigm lens it applies — is the focus of this paper.

Irish Architectural Education System

There are six schools of architecture in the Republic of Ireland (one yet to be accredited by RIAI) and two in Northern Ireland, ranging from those established in the early part of the C20th to this year. (Fig 2).

Although under different regulations and systems, the Northern Irish schools are included in the study as many students from the Republic attend Northern Irish architecture schools, and vice versa, teaching staff move back and forth between the two jurisdictions and many schools on the island of Ireland have dual accreditation of both RIAI and RIBA. Various routes of study options are available (Fig. 3a) and student numbers vary across the schools, with an average of 34 students per year of study (Fig. 3b), though two schools have numbers in the 50–100 range.

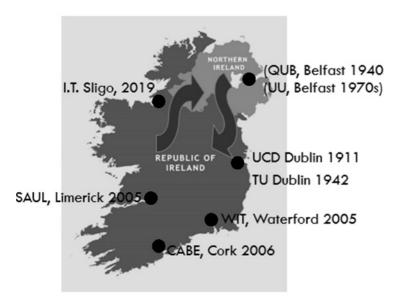


Fig. 2: Schools in Ireland, Authors graph

The Architecture schools are positioned mainly in Engineering and Science faculties, with a range of subject "bedfellows" ranging from Engineering to the arts (Fig 4), potentially causing cultural signalling or associations from these bedfellows.

The hypothesis emerges

This paper aims to study the framework for excellence of this often unstated, hidden design culture, and explores how each schools' veiled culture emphasises particular decision making processes — whether based on belief systems or systems of rea son and logic, inductive reasoning or deductive logic, experience or reality (Jones, 1962). It evaluates the current state of play in Irish schools of architecture in terms of the extent to which

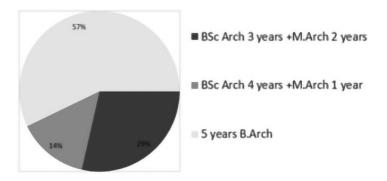


Fig. 3a: Study option routes, Authors graph

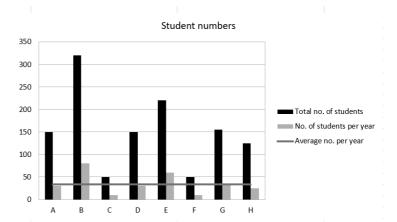


Fig. 3b: Student Number, Authors graphs

the nature of choices and actions designers make are arbitrary or are instilled with meanings by the designer and form "part of a certain way to envision the world" (D'Anjou, 2010, pg. 99).

It aims to study how design culture is defined and fostered, analyses how it may vary and appraises how it is instilled in students. It questions how much a graduate is moulded, motivated and controlled into their role (D'Anjou, 2010) as an architect; the "ways of choosing" (D'Anjou, 2011, pg. 141) instilled in them.

It questions whether a preconceived notion of professionalism should set the priorities of the school's curriculum and how the balance is struck within school design culture between abstract and real-world subjects, both within the architectural school and in terms of the particular attributes instilled in their graduates; with a particular emphasis on how both architectural (ADE) and sustainable (SPE) design excellence paradigms are promoted within the culture. This understand-

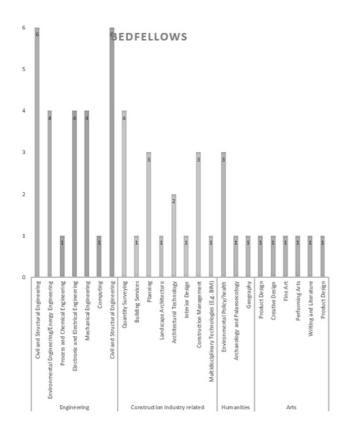


Fig. 4: Bedfellows: frequency of subjects/courses available within same faculty of all schools, Authors graph

ing is sought to establish how these two paradigms ADE¹ and SPE² might be resolved, where such a resolution takes the form of the future synthesis of architectural and sustainable design qualities in order to deliver architectural education processes, languages and design tools, through a new lens: Holistic Design Excellence (HDE).

As such this paper explores the relative influence, robustness and flexibility of school design culture as a vehicle for this synthesised HDE; and how this wider change may begin to be implemented through interventions in architectural education (Bamford, 2002).

METHOD

Position Statement

It should be noted that this paper is a development of earlier research themes and a summation of preliminary findings on research recently undertaken as part of a PhD programme of study which has the principal aim of establishing a process for the development of HDE in architectural education. As such any inherent author bias and assumptions resulting from this staring position are acknowledged, and indeed this acknowledgement is required for the $Pragmatist^3$ research position and ensuing Grounded Theory approach undertaken for this phase of research.

Method

Purposeful sampling was used to select directional and leadership staff (e.g. heads of schools/programme leaders) of Irish architectural schools to participate in semi-structured interviews; following a grounded theory approach which deliberately delayed immersion in literature to avoid the formulation of theories based on existing ideas (Charmaz, 2016). It should be noted that whilst the grounded theory approach does

¹ the pursuit of a more dynamic creative knowledge which relates to aesthetics, imagination and intuition

² and a more static knowledge related to benchmarks, and performance evaluation

³ Followers of a Pragmatist research position start off with the research question to determine their research framework and view research philosophy as a continuum, rather than an opposing stance where objectivist and subjectivist perspectives are mutually exclusive. Pragmatism emphasises the methods which work best to address the paritcular research questoin, with Pragmatist researchers working with both quantitative and qualitative data as this enables them to better understand social reality.

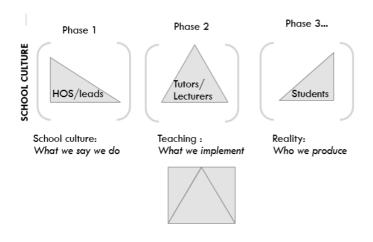


Fig. 5: Tripartite research map, Authors graph

not necessitate an involved literature review to drive the theories to be tested, D'Anjou in particular has been found to be useful as a key text in framing the particular theoretical paradigm considered here. Interviewees were selected as key figureheads who foster, maintain and promote the culture and philosophy of learning within each school (TCD, 2013) and who are thus ideally placed to explore the nature of the design culture of each of the Irish schools. The average duration of an interview was 74 minutes.

The semi-structured interview style was adopted to allow for the gathering of opinions, experiences and attitudes rather than 'facts' (Bryman, 2012; Wahyuni, 2003). Question prompts centred around personal, school and national design cultureand probed attitudes to the role of professional processes within architectural education.

The potential limitations of basing evaluations on school culture on the views of individuals is acknowledged, however, this is Phase 1 of a 'tripartite' approach to exploring school culture (Fig 5); firstly, by interviewing directional staff, secondly by gaining the views of other teaching staff and thirdly student views. In this way a fuller picture can be gained in order to understand: what the school says it is doing, what is implemented, together with an understanding of the nature of the product of the education — the students, the type of professional that is being 'produced': in terms of graduate architects' world view and instilled values and attributes.

After each interview detailed notes and author reflections were prepared. Each interview text was transcribed and then initially manually coded. A core set of codes were initially derived from extensive reading and rereading of the interview notes

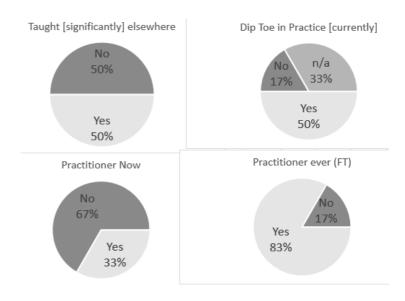


Fig. 6: Interviewees and practice, Authors graph

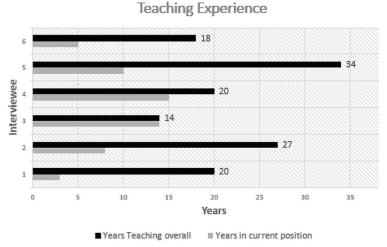


Fig. 7: Interviewees teaching experience, Authors graph

and reflections and expanded as the transcriptions were also read and re-read, and more detailed coding was undertaken. Qualitative analysis of the codes was performed initially in summarising and grouping the responses. Then, quantitative analysis was done developing the themes and establishing sub-themes and then counting instances of interviewee opinion which fell into these coded categories. Combining these two types of analysis enabled triangulation of findings, with generalisations supported by counts of instances of opinion and deviant cases with outlying themes and opinions to be in-

cluded, considered and discussed. This paper will summarise this initial manual coding and preliminary findings from the 7 no. Phase 1 interviews which have taken place, presenting emerging themes. It is intended that once further interviews have taken place and the interview phase is concluded, more refinement of these themes can be undertaken using detailed digital coding following the same analysis method.

Interviewees

There was a 50/50 split in interviewees who had taught in other institutions (which might either highlight their immersion in their own school's or place them in a position to compare to others). Most were no longer practitioners, though had been in the past, and half currently practiced in industry occasionally, (Fig 6).

All had at least 14 years' experience in teaching architecture, one with 27 years' experience, and all with at least 3 years in their current position (Fig 7). No particular trends were noted in terms of the relationship between teaching and practice; for example, the interviewee teaching the longest is still practicing whilst the second longest in teaching is not.

FINDINGS — DESIGN PHILOSOPHY

This section will discuss a snapshot of the emerging findings on the role of design philosophies in framing how design excellence is signalled to students, with a view to this being a possible window to the wider national design culture and profession.

Role of Personal Design Philosophy

It is not surprising that questions asking interviewees to 'define their current personal design philosophy' resulted in a multitude of broad replies. However, notwithstanding this a number of recurring themes could be identified.

Defining design philosophy

The most prevalent 'definition' described design as being about "people and spaces", that it was about making spaces "better" or "transformative" — that somehow the solution should be greater than the sum of the parts. This notion was as much about surpassing peoples' needs as merely responding to a brief, if not more so. Secondary meanings — in terms of those which were most frequently mentioned — included ideas about design as a craft, culture and climate, in not only "having,

holding, developing and realising ideas" but in communicating them, in making connections between ideas, with "making" as a way of contributing to a wider societal value. This latter description also pointed to the idea of values in general — about how design is about "ascribing and synthesising values". Notably, what was inferred here from interviewee probing and evaluation is that the 'values' referred to here are equivalent to the school design approach — how the school ascribes values and meaning and how it defines "good" architecture, their framework for excellence.

Change in design philosophy over time

Interestingly, the majority (67%) of interviewees stated their personal design philosophy had not changed over time, suggesting a resolve in the philosophy that does not ebb and flow, and therefore perhaps is not easily open to change. This finding could be interpreted as signalling to the depth of a particular belief instilled in architects through education and the strength this gathers over time. Indeed, those teaching the shortest amount of time where those who said their philosophy had changed, with it seemingly more embedded in longer established educators. Of those who stated their philosophy had changed — whilst there was no strong correlation between their exposure to teaching in other schools and a potential change in their philosophy — exposure to different disciplines and university approaches, different life experiences as well as seeing architecture as an "expanding field" were the contributing factors.

Change in design philosophy over time

In terms of setting a school design culture in motion, there was an intriguing split between those who agreed that their own personal design philosophy aligned with that of the wider school culture (34%) and those that did not (33%), (with the remaining third being those interviewees who felt their school did not have a particularly strong culture). This alludes perhaps to the role of particular personalities in driving and forming school culture; as will be further discussed below.

Role of School Design Philosophy

Analysis distinguished two types of schools: those with a well-defined school culture, and those which consider school culture to be fluid. Also revealed was the importance of staff values in studio to temper this culture in the latter types of schools.

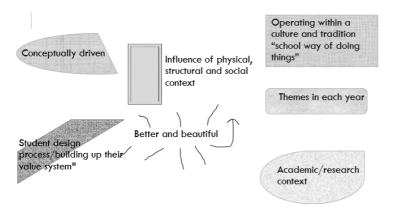


Fig. 8: School Design Philosophy, Authors image

Defining school design philosophy

Similarly to the personal design philosophy, the characterisation of the school culture⁴ is sporadic, though dissimilarly there are few identifiable trends and more difficult to group common recurring elements. The types of school cultures are described in a myriad of ways; as much about the content and the students as the context and wider society (Fig 8).

This is not altogether surprising in that each school is 'setting its stall' (in so far as comparison to other schools in the Irish context might be made) as a unique approach to understanding architecture and how architecture students might be educated.

Presence, Strength and Flexibility of School Design Philosophy

There was an ambiguity of feeling when interviewees were asked if their school had a definitive school culture, with 60% stating it did, and 40% not. Interviewees with a more defined school culture tended to have more long established staff compared to more rolling staff intakes where culture was not well defined; which correlates to the finding above in relation to the change of personal philosophy over time, where sense of culture is strengthened and deepened simply given enough time to do so.

⁴ In the context of this paper, "School Culture" and "School Philosophy" are interchangeable terms used to refer to the set of design values and philosophies that the school aims to instil in its students. It includes — though this list is not exhaustive — staff, students, context, research, curriculum, how the school defines architectural excellence and quality, graduate attributes and diversity. In this way "school culture/philosophy" is not defined in same way as "studio culture"; as it goes beyond studio to the wider modules, mechanisms, educators and context of the school as a whole.

Where it was perceived that there was no definitive school culture, this was stated to be due to the fact that the culture was still emerging/evolving, or that there were so many different educator passions and specialisms that this inevitably led to personality driven streams and themes within the school instead of a collated 'whole'. This perceived lack of a school philosophy was not necessarily viewed in a negative light, in fact one interviewee stated that they would be "suspicious of a complete hegemony of what's considered important". Indeed, it was viewed as a "living document", varying with staff interests and life "disruptors" that "stop you in your tracks". A converse problem caused by this was seen to be the sporadic approach that then ensues and a "dilution of energy"; with no themes, briefs or projects for particular years. Whilst this was not seen as a problem per se, it caused difficulties in the practicalities of teaching, and the embedding of particular [potentially ever changing] values and ideals within students.

Interviewees placed within well-defined school cultures on the other hand, did not feel that culture was flexible, but rather that it was hard to depart radically from and that the "default settings dominate", in both staff and students — curtailing experimentation or deviation in the education process.

Implementation of School Design Philosophy: the role of staff

The aforementioned potential tensions in the practicalities of teaching in schools without strongly defined cultures find unlikely bedfellows schools with strongly defined cultures when it comes to how school culture — and particular values and beliefs — are implemented in teaching and instilled in students, with similar trends found in both. Whilst some interviewees stated that the module briefs and descriptors used signalled the overarching culture and values (for that module if not for the wider school), all stated that what is then actually implemented is through the studio and the studio themes, which can be tempered through the studio tutors, process and discussions. What this translates to is though the school may set out its values and design culture in its school documentation, this is moderated— and can be manipulated — in its implementation through studio, so that in reality the students' schools 'produce'; the values they ascribe to and the way they are taught to view the world, is skewed and influenced by particular staff interests, values and passions.

The interviewee with the most well defined school culture viewed that culture as something students definitely feel, an expected "currency" in design, but still saw this as a result of the strength and longevity of the particular personalities

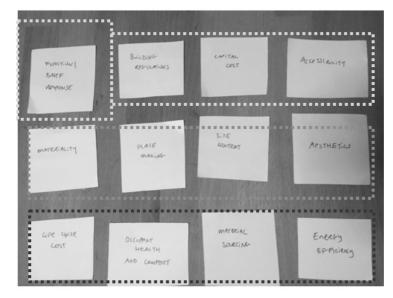


Fig. 9: ADE and SPE issues, Authors image

teaching within this shared culture and values; perhaps more akin to an orthodoxy modulated by passionate believers.

Teaching staff therefore ultimately decide which values and issues to emphasize, and which to ignore, what to signal to students has meaning, what is part of a "good" design architecture and culture and what can be disregarded. This potential culture moderation through studio process and staff was alluded to by all interviewees, albeit to varying degrees of depth.

Implementation of School Design Philosophy in teaching and students: the role of staff

This theory is reinforced when looking at the responses by interviewees on prioritising particular given themes/ issues which students should consider and emphasize in their designs. Interviewees were asked to rank a list of 12 issues (Building regulations, Capital Cost, Materiality, Aesthetics, Site context, Placemaking, Function/brief response, Material sourcing, Energy Efficiency, Life cycle cost, Occupant health and comfort and Accessibility) (Fig 9). This list of issues was filtered down from a broader list by the author, and cross checked by authors colleagues, as being a crude but fitting mixed representation of both the ADE and SPE design paradigms, albeit in a reductive fashion, and were used with a view to probing interviewees underlying emphases on particular design culture approaches.

Notwithstanding the acknowledgement that interviewees knew of the authors research interest in sustainable design and the potential bias that could instil in interviewees responding with what they thought the author might want to hear, ADE themes were prioritised in the main over SPE ones. However not unilaterally and not starkly. Although much deeper analysis is required, what also emerged is that the emphasis given by interviewees here — though somewhat crude — did not wholly align with the school culture they had defined earlier. Again, this would suggest that each individual tempers that wider culture through their own philosophical lens.

Role of National Design Philosophy

With regards the national level, interviewees were asked about how evident they felt their school culture was to a wider national audience, and how it might differ from the culture of other Irish schools. Overwhelmingly, the perceived internal view of each school matched the external view, including cases where there was no clearly defined culture. When comparing and discussing the culture of other schools, qualities were identified as being both positive and negative, across and even within interviews (Table 1). This could be surmised as pointing to the particular lens each interviewee views the culture of other schools. It should be noted that it was very difficult to draw interviewees on what they meant by "good" or how they ascribe value to this term.

POSITIVES	NEGATIVES
"Good student work"	"Poor" Student work
"Good" staff (strong, smart, talented, amazing, respected, consistent, collegiate)	Ego-driven
Strong leadership; like-minded team of "passionate believers"/ "x-school way of thinking"	An orthodoxy
Admired strong links with "good" practitioners	Preciousness. Good practitioners do not always equal good teachers
Context as idea spark, liberating structure, of the place	Context as limiting, a confining structure, too 'x'-centric
Research profile;	Academic, elite, intellectualising;
Also storytellers, creative, discourse	Also divorced from reality
Diverse approach and themes	Sporadic, disparate, no overall ethos, "an operation not a culture"
Gets "best" students, a particular student intake type	Doesn't get "best" students"

Table 1: Positives and Negatives of School cultures

Design Philosophy Summary

Interviewees personal design philosophy in the main did not change over time, and only for a third of interviewees did it resonate with a wider school culture. This suggests two simultaneous things, one, that it is difficult to exert change in an individual's personal design philosophy (and so instilling a HDE philosophy where there is previously none would be difficult) and two, it is possible for educators to educate within a wider school culture that does not align with their own design philosophy (which indicates potential for educators to work within in wider HDE culture even where it does not align with their own values).

This freedom of an individual educator to go "off-piste" from the school culture within their teaching — in particular in studio modules — is reinforced when the wider school culture findings are reviewed. In schools with well-defined cultures there is less flexibility, however, in both scenarios educators can moderate and manipulate the wider school philosophy towards their own values, though this is achievable to a lesser extent within a well-defined — almost dogmatic — school culture. This suggests that were a HDE culture to be instilled at a school level, staff buy-in would be crucial— staff values would need to be translated to champion HDE issues and themes. These initial findings suggest ADE themes are still prioritised in the main. Further phases of research will gauge the depth of this assertion.

At a wider national level, the positivity and/or negativity of how a HDE culture might sit within the exiting national school culture is difficult to evaluate given the diversity of opinion on what is good or bad. These findings require deeper investigation in the further phases of research.

FINDINGS — WIDER CULTURE

This research then sought to cast the net wider to what student attributes architectural education generally should foster and to the role of professionalism in creating a school design culture with a view to assess the current state of play with regards to ADE or SPE leaning tendencies with schools.

School Culture and Student Attributes

This paper positions architectural education as a way of acculturation into being an architect. The nature and content of that education, and the context it occurs in are seen as key ingredients to the creation of the school culture and this process. To

that end, interviewees were asked which attributes or elements of the school design culture they would like students to possess.

Responses centred less on knowledge, or definitions about what kind of architecture students should be taught to create, and instead focused on the process of learning to be an architect — about creating particular design frameworks from which students could pull on and apply certain criteria. All interviewees expressed versions of wanting graduates to be researchers, synthesisers and critical thinkers who possess curiosity and are open and always learning. Alongside these central themes, attributes such as being good with people, having transferable skills, being ethical decision makers and "confident contributors" to society were all recurring theme responses.

All of these themes hinged on what kind of person a graduate should be and the life skills that should be imparted on them through the architectural education system. There was very little reference to the kind of designer they should be, bar the suggestion that they should draw on particular criteria within a design process; but no detail was offered on what those criteria are or should be. This suggests that interviewees wanted students to have a particular frame of mind, but what that frame of mind should be is yet to be fully defined. These emerging findings begin to imply that this frame of mind can be linked to the professed school design culture

School Culture and Professionalism

Interviewees were also asked about three aspects of professionalism as related to maintaining accreditation of their course:

- 1 meeting the criteria and review process of being a professional accredited course of architecture.
- 2 the criteria this process requires,
- 3 the influence of these aspects on the school design culture.

For each aspect, the complexity and critical thinking this theme ignited in interviewees was reflected in the number of conflicting elements given in the responses; indeed, one interviewee described their thought process on this theme as "constantly talking myself out of one thing and into another".

In terms of the first aspect, the process is perceived to have both a number of positives and corresponding negatives: as a close review of what the school is doing and saying (+) but also demanding and burdensome (-); an enabling guide (+) but also too prescriptive and leads to a "compliance culture" (-); it will "root everyone out of their corner" (+) yet it can be orchestrated (-) and finally though it is helpful and supportive

(+) it is also perceived as a political process run by people with "axes to grind" (-).

The criteria that the profession require in the learning outcomes of each module and in the school as a whole again provoked a duality of response. While they were considered both durable and timeless; they were also seen as vague and broad. The need to set a particular benchmark was acknowledged — likened to "lik[ing] to cook with a recipe". The criteria were also viewed as too rigid and narrow, while although they could be used for way finding in terms of ring-fencing themes and requirements within a potentially broad curriculum, it was considered that this tends to result in learning outcomes which are either too specific or too global. Finally, though the criteria were seen to be reasonably considered, many were viewed as "legacy" criteria, that were quite outdated.

Finally, in terms of the influence of professionalism on the school culture the same incongruity is seen; overall it is viewed as giving legitimacy to the education offered, with robust integration to the industry and the profession, the process considered to be clearly defined and deliberate rendering a visibility of what 'learning to be an architect' is. However, this also means that fluidity and spontaneity are difficult, with teaching "tending towards the default". It was perceived that this had resulted in standardised and sanitised projects, where pursuing alternatives perceived as a "high stakes exercise", ultimately leading to particular types of building/project types being pursued — or at least it was raised that the process "is [often] interpreted like that".

Wider Design Culture Summary

These things taken together point to an uncertainty as to the overall value of the professional requirements for architectural education. However, what is apparent is that for better or worse they exert a reasonably consistent strong influence on the design culture of the school although the relative strength with which certain ADE or SPE elements within these requirements are applied remains unclear. In any event, the conflicting opinions suggest that the method of instilling a HDE culture in a school needs to go beyond criteria and standards, that although this leads with the stick, it needs to be balanced in some way with a carrot.

CONCLUSION

Results presented here reflect initial findings from a variety of viewpoints from interviews held with leaders within Irish schools of architecture on the role of personal and school design philosophy and culture; exploring the degree to which cultures are implicit or explicit, fluid or rigid, freeing or restrictive.

This paper presents these findings from a particular acknowledged viewpoint — intending to uncover the current extent to which a particular ADE or SPE design culture might be apparent and encouraged and the ways of choosing either paradigm may potentially be emphasised within personal and school culture, wider national culture and the emphasis that the professional accreditation process makes on each layer of these design cultures.

While more detailed analysis and evaluation of responses presented here is necessary, an emerging theme can be reasoned from the preliminary findings of this first phase of research with directional staff; that of the strength of the mindset of the school culture as a lens through which the skillset of architectural students is moderated, and the confirmation of the importance and power of educators at the studio coalface of architectural education in driving this mindset. Beyond this, the desired student attributes, the wider school culture and the prescription process all influence this subliminal mindset culture.

This is reinforced through each aspect of the findings discussed. In terms of professionalism, though each school goes through the same process with the same criteria, each approaches and applies those criteria in slightly different ways; there is a freedom and flexibility within the regulation. This echoes other findings discussed here where it is a 'do as I say, not as I do' attitude; wherein each school applies the criteria with different emphases; sometimes explicitly but more importantly implicitly through the values that are subconsciously stressed in the studio teaching, and perhaps more tellingly which are ignored; signalling what is 'good'/'bad' architecture. Students read this very quickly, with one interviewee noting students "say what they think we want to hear". Ultimately the approaches, values and stressed aptitudes override the specific knowledge, skills and competencies required in a professional process.

Colloquially, within architectural discourse, themes centred around architecture as a mindset, as a vocation, as 'pure' learning tend to be related more to an ADE design paradigm centred around design quality and aesthetics, with their counterpart themes of architecture as a skillset, an apprenticeship, as 'training' rather than 'learning' related to the more technical performance driven SPE paradigm. Although ultimately both need to be considered in any architectural design culture in the promotion of an Holistic Design Excellence (HDE), what these findings suggest is that the ability of the mindset culture to be a lens through which particular skillsets are focused is a

powerful, robust design culture which is an appropriate vehicle in which an HDE design culture could be promoted. What remains to be determined is what such a hybrid HDE mind and skill set could look like and how it could be implemented.

In conclusion, these emerging findings suggest such change could not be solely implemented from a modifying of professional attributes required in graduates, or a changing of school culture in a formalised way, but also requires change in staff values and a signalling by staff through studio that HDE themes and issues equate to 'good' architecture. As such, the tools at the authors disposal to investigate this theme include the professional prescription process, the studio briefs and the degree of malleability of the minds of student mentors towards adjusting any purist ADE or SPE approaches towards a HDE mindset. Further phases will address these issues, with a view to asserting that it is through the lens of school culture mindset at all its levels; and developing the guidance and tools to implement this mindset, that a synthesising of ADE concepts with a SPE approach to form a in a hybrid HDE school culture mindset can occur, that will enable architectural school cultures to work towards transforming architectural education — both explicitly and implicitly — towards a Holistic Design Excellence framework for 'great' architecture and architects.

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