LearnxDesign

An Architecture of Experience

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Abstract: *We currently inhabit a visually dominant world where the impact of technology is evident in every sphere of life. Such technologies have provided architects with highly sophisticated computer tools that are utilised in the design, process and communication of their work.*
Has this resulted in a move away from principles that we once deeply valued; regionality, craft, and longevity and been replaced with speed, homogeny, expediency and globalisation? Could this reliance on technology be desensitising us, resulting in visual dominance at the expense of a multi-sensory outcome, where architecture is viewed as a visual art and not one that is body-centred?
This paper explores this phenomenon and reports on a teaching methodology that attempts to address this through a series of multi-sensory design projects and workshops, where the physical nature of space is explored through hands on experiments. Students are challenged to move out of their comfort zone and seek different modes of research and methods of exploration. The pedagogic aims are to embed a physical way of working that will create embodied experiences, enriching the student's process into one that combines the poetics and pragmatics as the physical and digital complement each other. (194 words)

Key words: architectural education, design process, multi-sensory, per-formative

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Introduction: To be Human?

What is it to be human? It's a question which philosophers, scientists, and religious leaders, amongst others have discussed, and debated at length without resolve. Conflicts, racism, evolution, emotion, are all part of this 'state'. For architects and designers, is the question any less loaded? As makers of places to contain humans it is important that we, as a profession fully acknowledge the human occupant and their physical and emotional needs, be that for living, working, learning, relaxing or simply 'being', if we wish to make places that not only purposefully house the occupants, but also have the potential to enhance their lives. Being aware and designing for the unique perceptual and emotional needs of human beings is paramount if good quality and successful architecture is to be produced. That is an architecture that not only meets the technical requirement of the brief but also meets the needs of the occupants beyond scientific criteria.

The human body is an amazingly complicated measuring device that can receive and assimilate multiple streams of data simultaneously regarding the environment within which it rests. This 'data' collection and analysis occurs intuitively and results in us being able to determine at any one time how the environment we are in makes us feel. Our bodies are in constant dialogue with their environment, acknowledging and responding to visual information but also the invisible qualities of the space; and from the collected data, the body can very rapidly determine if it is to hot, or to cold, comfortable or other wise from both a scientific and body centred point of view. Environments can be designed to affect the human occupier in particular ways, in both measurable and un-measurable ways. A sacred building may evoke a sense of drama and reverence in a very controlled manner; a classroom can instil a sense of comfortable optimism in its pupils and a home should provide a sanctuary that feels safe and secure to its occupants.

These are accompanied by other technical requirements regarding acoustic, temperature, air quality and materiality.

During the past two decades designers and architects have become pre-occupied with technology and the potential that it can offer within the realms of design. Technology has open up seemingly endless possibilities in every aspect of design and construction from the initial concepts of form finding, to environmental controls, and ending in the construction of highly complex designs. Buildings, structures and places have been designed and constructed to produce outcomes, some of which might easily be described as being in the realm of visual fantasy. The product of a process where the computer provides the vehicle for design may be perceived to be visually driven and might be described to fall into the realm of visual art. Bloomer and Moore (1977), in their book 'Body, Memory and Architecture' make the distinction between the "feeling" of space that is developed and sensed by the whole body and the "objective" space described through mathematical and graphic measurement. They go on to state that objective space has no requirement for a 'centrepiece' where as 'body spatiality' in contrast reflects on the inner human, drawing on body memories as reference points, which they refer to as 'Landmarks'.

Some buildings that have been produced as a result of a highly digitally technical process are considered to be a success, whilst others are perhaps less so, and may lack longevity in the

current climate of rapid change and growth. The measurement of success is complex and this paper will not dwell on this. What it will consider is the holistic human experience and how designers can be in control and design for human needs, optimising the potential of a multi sensual experience. Pallasma (2009) in his book 'The Thinking Hand' states that with the on-going use of digital technology as the primary design tool, it is his belief that some designer's connection with the haptic qualities of space has been distanced.

Are the appropriate environmental and emotional needs of the occupants being designed in parallel where the affecting needs of the human users are equally considered beside the scientific design data, and are designers recognising and optimising the power of these sensual connections?

Has the process of design and the medium of that process i.e. the computer, removed the designer one step too far from the qualitative aspect of the designs leaving the intangible qualities to develop as a number of consequences rather than embedded parts? And furthermore, has the rapidity of construction and the endless choice of materials and techniques facilitated this production that has disconnected the outcome from its context as well as its occupants, producing a type of architecture that is 'global' and lacks regionality, longevity and true sustainability? Pallasma's (2005) observations share the same concerns. "Architecture has the capacity to be inspiring, engaging and life-enhancing. But why is it that architectural schemes which look so good on the drawing board or the computer screen can be so disappointing' in the flesh'?"

These observations can be levelled across many of the creative disciplines and in education as well as practice. As an architectural educator I have observed over the last 20 years the developing relationship that students have with technology. I am fearful that proposals that are being made as 'visions for the future' do not concern themselves with the human user, nor the particular and unique contexts within which they are being inserted. They are generally fuelled with fashionable visualisations that are distanced somewhat from reality, as students default to the computer to solve all their design issues and are reluctant to explore the full range of media available to them. Using computer-drawing programmes, students generally capture a 'virtual world' of sunshine, texture-less surfaces and smiling happy families, and not one that reflect that of the 'real world'. Student, pre computer, would embark upon a different design methodology, making multiple sketch models to test and explore ideas about space and light, combined with sketching and drawing, this is now sadly the exception rather than the norm. The ability of the student designer to be nimble enough to move from one medium to the next, revealing different aspects and qualities of their design as they go, is no longer common practice. Students almost exclusively design on their computers and have a reluctance to print out till everything is 'perfect'. 3D models are made and programmes that support sunlight studies are available, but these do not give the first hand experience of placing a physical model in the sunshine to observe light and shade, and through that very immediate exploration will also feel the warmth of the sun or the coolness of shade during that process. Context is another factor that requires consideration, Google searches with Street View (Google, 2015), and other factual information can be sought through desktop studies with no need to leave the comfort of the studio. Registering the sense of place needs time and patience on location, not just a few snap shots and a cursory visit. And what of the other senses how are texture, acoustics and oudours explored, recorded and embedded appropriately in design work? Our students are the next generation of designers and therefore our responsibility as educators is key to equipping them with the curiosity, confidence and

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skills for designing in the future. It is fundamental that their approach is one that is appropriate to the context within which they will practice. We must also take responsibility for this trend and design briefs that are current, relevant and based in the real world, allowing student to meet with a real client and present their proposals beyond the confines of the architectural studio. The design of programmes should reflect and reinforce the connection between designer and user, embedding a social responsibility into their thinking which is essential if they are to fulfil their role as responsible designers. There are no definitive answers as to how to embed a good, thorough process of design, but this paper presents one route that adopts a 'learning through doing' approach. The students become 'actors' within their design work. They engage with relevant activities and environments through a series of workshops and short projects, introducing them to the notion of multisensory design and how this can enhance proposals, and in turn provide environments appropriate to the activity and inhabitant they contains. Connections are made with potential clients so that conversation can be had beyond the usual student-to-student (architect-to-architect) dialogue.

Both the measurable and the un-measurable need to be carefully and equally discussed as integral elements during the process, if the resulting environments are to enhance human experience and provide spaces and places that are intelligent in respect of comfort and wellbeing. Truly sustainable environments may be the result of this holistic process where a multi-sensory approach is utilised to respond to the needs of the users with both a physical and psychological awareness.

Peter Zumthor (2006) in 'Thinking Architecture' states that 'the strength of good design lies in ourselves and our ability to perceive the world with both emotion and reason. A good architectural design is sensuous. A good architectural design is intelligent.'

Whilst discussing teaching and architecture he goes on to say 'All design work starts from the premise of the physical, objective sensuousness of architecture, of its materials. To experience architecture in a concrete way means to touch, see, hear and smell it.'

The programme structure also encourages student to draw upon embedded experience, that is to say, discovering things that they didn't know they already knew, and along side this create new embodied memories for future use. The computer and all it can offer as a recording, design and drawing instrument is maintained along side hand drawing, model making, writing and per formative studies, what ever may be deemed appropriate for the particular design project.

Figure 1: Placing the occupant at the centre of the proposal provokes consideration about the quality of that experience.
Source: Taylor, J.

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The Course

Mindful of the technological context, this paper proposes a methodological approach to teaching the next generation of designers, embedding sensory explorations along side the more pragmatic measurable qualities of environments. It reports on an undergraduate course where students work over the duration of the academic year on a series of carefully constructed briefs, workshops and activities focusing on a user oriented approach. These are deliberately designed to develop a process where the physical i.e. the measurable aspects of the proposals sit hand in hand with the experiential qualities; in the quest for new environments that support and enhance the experience for the user. The use of current technologies is integrated with explorations that delve into the pragmatics as well as the poetics of the design proposal. The idea being that the 'human user' is placed centrally within the design and the understanding of the sensual experience that is created, are embedded in the process and the outcome.

The aim being to design a structure that propels the students into an exploratory process where the design of the sensual, felt experience within their proposals are developed beside the more pragmatic design issues. Students we encouraged to research through experimentation, where there interaction with space is not hypothetical but real.

"A man without memories loses his past and with that his future. He can no longer relate to his environment nor with himself"

www.slowarcitecture.com (2015)

The concepts of slow architecture; regionality, sustainability, materiality, construction, craft and permanence are all recognise as desirable concepts within the course's ambitions, and the introduction to a movement that has developed from similar concerns is helpful for the students, giving a degree of gravitas to the concepts of the course. The adoption and development of these philosophies gives a direct connection to human experience through referencing to, and careful consideration of these values.

There are three components, each requiring careful consideration both individually and as part of a collective; these are the Briefs, the Site, and the Process.

Each of these three elements are constructed and designed to work together in harmony, with the understanding that the correct balance of the three parts will provide a robust context and a framework for students where the design of the sensual, felt experiences within their proposals are developed in parallel with aesthetic concerns and the pragmatics issues relation to environmental strategies, structure and construction. All facets being considered collectively so that together the result will be one where spatial and experiential proposals compliment and are enhanced by the technical strategies. Students are encouraged to research and develop their thinking through experiments and role play where workshops and supporting project work involves real life experiences and not hypothetical imaginings. The resulting course attempts to provide an interactive and energising approach to design where the designer becomes immersed in the project, as an actor in the work, and empathy and embodied experiences are played out in the resulting proposals.

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The Brief

The briefs are constructed in a position mindful of the programme's ambitions, and are centred on specific activities and placed in appropriate contexts. Two main design project cover the requirements of ARB/RIBA, and each covers a different area; the first discovers at a macro scale and investigates settlement and explores the placing of a small public building within a chosen town; the second requires explorations and outcomes at a micro level and challenges the students to design a public building in the landscape, resolving the proposals at a detailed level exploring environmental strategies, structure and construction alongside the demands of the design brief. A theme for the years work is selected so that connections between the design projects can be made, and potential client groups are contacted and established for the session. As the requirement of the programme is the design of two buildings, this is considered simultaneously. Each brief confronts and ask students to tackle real and current issues. Activities that connect to the programme and demand hands on play are designed as well as opportunities to explore and experience particular environments, all supporting and enhancing connections with the specific demands of the brief.

The briefs are written to confront and tackle current issues, and activities are selected that require specific environments and have particular relationships with the human senses. Examples include a musical retreat to support a 'town of music', where acoustics are essential as part of the study; this was explored and understood by playing instruments and creating soundscapes in a variety of spaces where volume and materiality were tested against each other. A Cook House; in this project food was grown by the group in an allotment, designed and built by the group who cooked shared and ate the produce. In this project taste and touch were particularly essential; and furthermore in an Art House where the control of light was fundamental to the success of the studio spaces and explorations to test these was carried out using large scale physical model, video and photography.

Along side the 'particular' and 'special' spaces that are required to meet the demands of the brief, are the provision of ambiguous environments for the everyday more prosaic activities. And here spaces are designed where human experience and comfort are also carefully considered, be it when the inhabitant of the project is sleeping, working, washing, resting, walking or eating; inside and out of the proposal, and within a community situation or in solitude. This provides the framework for an architecture where the human experience is realised and enhanced.

The briefs are written in such a way as to allow experimentation and they aim to be as un-prescriptive as possible within the framework of the course, whilst meeting the Institutional and Professional learning outcomes and graduate attributes.

The Site

Next are the Sites, the contexts within which the students will base their proposals. The understanding of the uniqueness of place is important particularly in relationship to slow architecture where regionality, appropriateness of placement and materiality is essential. A connection with the place and user of the building is desirable helping to ground the project; and a landscape with texture and a particular sense of place is sought. Previous studies have taken the students to a Cistercian Abbey near Stranrear, a Roman fort in Perthshire and the designed estate of an Art loving Marquis on an island off the West Coast of Scotland, all

unique and inspiring as well as appropriate to the content of the brief. Local specialists and community groups are also contacted so that they can interact with the student group as the 'client', giving a real life dimension to the project.

The Process

Process is the third element and this is structured to guide students through various workshops and experiments utilising many mediums. The computer has its place, as it would be foolish not to take advantage of the possibilities that it can offer, but being mindful that this is often the students' place of comfort. A plethora of appropriate mediums are encouraged to suit different ways of thinking and exploring be it model making, poetry, analytical drawing or role-play. It is a cyclical process and aims to help prevent students being stuck in a design vacuum or within the cul-du-sac of a particular design tool. This allows personal exploration into the particulars of different spaces.

The process begins with site registration; this goes beyond analysis and involves prolonged periods of time on and around the site. Drawings, measuring, researching, recordings, filming and story writing are encouraged, as students get familiar with the context. They are also encouraged to recognise intuitive responses and these are shared with the year group. The need for the students to take ownership of the place, and to carefully observe and interact with it is important in giving them the knowledge and understanding of the context that they are designing within, the hope being that the resulting outcome is for that place and that place only.

Workshops exploring materials and full size making with hands on participation sit beside performative studies where students own experiences are realised. Developed through role play, activity diaries, spatial mappings and less formal studies, this immediacy of connection with the particular activities being studied is sought, for example the experience of 24hrs of solitude, communal dining, mixing concrete, writing poetry, shaping timber and video model workshops all contribute to the process; in each case the act of doing and making being fundamental to the creation of a connection with sensuous places resulting in spaces where experience is designed and not a resultant of other choices and decisions. Experts are invited to work in the studio with the students – musicians, chefs and artists alongside architects who are experts in particular design fields.

Conventional drawings are mandatory allowing the factual to be communicated, after all we still need to know where the front door is and how public and private thresholds are dealt with, but these are complimented with computer generated images [figure 8], films, paintings and books which try to communicate the softer and un-measurable qualities of the human experience being sought.

To complete the session the students' final challenge is to design and exhibit their work in the Town within which the projects are located, bringing conversations with their 'client' into the public realm.

The Structure

To explain the structure and delivery of the course, the extracts that follow attempt to capture in summary what occurs in studio across one such academic year. Other courses run

at the same time, such as History of Architecture and Urban Design and Professional Studies. Architectural Technology is an integral part of the studio design project and is delivered in parallel with Studio. The aim of this integrated approach is to try to further reinforce the connection with design and performance, the poetics and the pragmatics, each supporting and complimenting the other.

Each extract is taken from the many briefs that were delivered across the academic year, and intend to give an insight into the course structure and its aims.

The un-measurable:

"This first exercise in Stage 3 asks you to carefully consider the un-measurable and explore tools that allow you to communicate this phenomenon i.e. its odor, acoustic, temperature, etc. and alongside this 'drawing' of the 'psychic spirit', you are also required to write a short piece of text to describe the space. This may be in the form of a poem or a short narrative."

Figure 2: Tiree Ferry Terminal.
Source: More, R.

The Town Study:

"This year stage 3 will concern itself with the written and spoken word. We will explore writing, publishing, reading and storing of books through a number of literary focused projects. We currently sit on an interesting threshold, a place where the eBook and all the convenience that come with this mode of reading is becoming ever more favoured over the physical artefact. The year will consider this moment in time, addressing if convenience may supersede the sensual qualities that accompany reading from a 'real' book. These considerations will also address how the equivalent technologies in the creation of buildings has resulted in an architecture that may be considered to be desensitised – as with the e book; has digitally generated architecture become more about the technology and what it can allow architects to design, and less about the inhabitants of the buildings and their experience, enjoyment and enrichment when inhabiting the spaces within and out with the building…….Out first project will take us to the Midlothian town of Penicuik, a dormitory town to Edinburgh, UNESCO's City of Literature. Ironically the city was awarded this prestigious title as Penicuik's paper making industry closed down. How does this small town benefit from its proximity to all that the literary capital has to offer, of does it see itself as literary independent?"

"Before you can embark on this venture you will need to become much more familiar with this place – you will have to get 'under the skin' of this town, and try and understand what makes Penicuik.....Penicuik. This will require a profound understanding of the complex factors that have formed the town and its environs. Your reading of the town will be predicated on a thorough analysis of context.

Today sees Penicuik further evolving, with the closure of the last remaining paper mill in 2005 the demand for a large indigenous workforce is no longer required. The town is largely a commuter settlement servicing the nearby City of Edinburgh. With the opening of a large

supermarket away from the town center and a new library also off the main street the heart of the town is now very different. With chain stores and developer housing, is Penicuik in fear of losing its identity, and involuntarily being propelled in to a globalised and homogenised world? In alignment with our ambitions to design architecture connected with place and responsive to the needs and comfort of humans, we will consider the concepts of SLOW ARCHITECTURE as a means to support are proposals through engagement with the Movements philosophy of regionality, sustainability, materiality, construction and permanence."

Figure 3: Penicuik a Town of Books.
Source: Timofejev, A.

All extracted from Penicuik - scratching below the surface.
Several visits to the town were made, harnessing the power of the group a thorough study of the town was carried out with physical surveys and research, complimented with meetings and discussions with local community groups.

A New Public Building:
"Designers of public buildings are compelled to improve the quality of the external public realm in terms of townscape and in the internal public realm of the public facility provided. Accordingly you are offered the opportunity to situate a proposed literary venue within the urban context of Penicuik, with the possibility of contributing to the 'rebirth' of this settlement. It will engage with the Slow City movement in its ambition to provide an enriched public realm, reflecting on the past, engaging with the present in both a social and physical sense and providing an enriched town environment for the future. The program should focus on creating a viable concept for a 'literary center' that goes beyond the idea of a library or performance space. Embracing the town's past and complimenting the proposed 'museum of paper making' at Bank Mill, the existing library and public venues; your proposal will provide a place for reading, writing and performing and will celebrate the town's past history through books. The facility will provide a home for 'Wild Hawthorn Press', currently located at Little Sparta. It will through that organization also provide an introduction and connection to the gardens. But the proposal will be much more; it will have community spaces for weekly book clubs and recitals and be the public link for writers who will be residing at the proposed residency at Little Sparta. It will also have a wider ambition in the context of literature and will provide a vital connection with Edinburgh "The First City of Literature" (UNESCO 2004). Through this link the proposal will embrace book festivals, storytelling events and other annual literary carnivals.

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Figure 4: A use of mixed mediums is encouraged.
Source: Brooker, E.

The proposals should extend beyond the perimeter of the proposed building, extending into the public realm and create positive and vital external rooms for the people of Penicuik to inhabit on a daily basis, but also during special community events held in the town.
The proposed 'book factory' building should provide well designed spaces for a variety of different activities, things such as recitals/performances, exhibitions, teaching rooms, workshops, a shop, library, café, offices etc., allowing the venue to have the flexibility to provide all day and year round programming."
Visits to Edinburgh's story Telling center and Poetry Library were made with lectures and talks from the architects and the users of the building.
To support the book-factory project and in an attempt to connect with the subject of papermaking, several sessions to make this beautiful product took place. The students attended a paper making class with expert Alison Newton from PULP, where a very enjoyable and productive day was had. Paper was made from recycled sheets and denims as we discovered a little about art of making this special material. This practice continued for some beyond the workshop with paper being produced upon which their work was presented.

Figure 5: Papermaking. Source: Crotch, J.

In parallel to this the students were introduced to the nearby gardens of Little Sparta, home to the late artist, *poet and philosopher Ian Hamilton Finlay.*
"The gardens of Little Sparta will form the locale for your proposals. They have been carefully, thoughtfully and beautifully designed and constructed by Ian Hamilton Finlay and his many collaborators. The gardens are full of themes and narratives both in the made landscapes and the carefully positioned works of art. Craft and simplicity are key components of the work. All this together should be reflected in your proposals.

You are challenged to make a proposal for a writer's residency. This will be a place where writers can absorb themselves in their work. The architecture that you design should play a fundamental part in this cerebral process. The buildings relationship with the gardens and the wider landscape should be considered alongside the needs of the occupant. Human comfort, health and security are essential ingredients, but the needs of each writer will be as different as each human being is unique. The building will be 'off grid' and will therefore have to be low energy as it will rely on the site and all that it can offer to produce the power to light and heat

the spaces you design, as will the provision of water and the handling of waste. As well as the comfort of individuals living in the retreat, the environment for the books contained in the library will need to be considered. Stable temperature and humidity is a prerequisite for the library and the safekeeping of the books. It should also be a source of inspiration from both its contents and from being contained within it. The other public space is the reading and recital hall. This should be and uplifting, elegant space that brings the writers together in a formal environment, different to that of their living accommodation. It will be a place to per-form, share and celebrate the writer's work.

Figure 6: Site explorations
Source: Crotch, J.

Several visits to this unique and inspiring place were made, timed throughout the year so that different climatic conditions were experienced, from the warmth September sunshine to driving sleet and bitingly cold temperatures in February. To support site analysis, students worked with Glasgow author and poet Louise Welsh, to captured the sense of place through words and rhyme working on the site with her to capture atmospheres. Through a number of additional workshops and lectures she shared her own experiences as a writer in residence and ran writing workshops to allow student to more fully understand the activity that they were designing for.

Figure 7. Hand and computer complement one another as an analytical tool.
Source: Hughes, J.

Other workshops included working with concrete, expert and enthusiast David Bennett gave lectures and worked with the students to make concrete. The students experimented with colour, aggregates (including boiled sweets), formwork and scents. Working with this material gave the group a more meaningful understanding of this material and complimented similar timber workshops run by the studio team.

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Figure 8. Feeling materials is critical to the design of the experience of space.
Source: Crotch, J.

Further workshops explored solitary space:

"Keep a 'diary' over the 24hr period that records not what you do but how you feel - frustrated, warm, inspired, secure......Be critical of how well the space fulfills its purpose and how it supports your spiritual well being, then, create an abstract interpretation of your response"

Cooking and communal dining formed the focus of another workshop:

"One of our greatest resources that is most difficult to consciously tap into is the stuff that we don't realise that we already know. As we work through this programme we must first consider the needs of the end user, their 'LIVING NEEDS'. This type of knowledge cannot necessarily be taught or learnt, but needs to be identified and acknowledged. The communal areas in the residency require you to design a space for 15 people, initially strangers, to come together and share cooking, eating, relaxing, talking and living. What is important in these spaces? ...consider both practical requirements and the quality of the experience. Do we want sunlight at the breakfast table or outside space in summer? How are the meals planned and prepared – who clears up? How does the space relate to the context – is a view of the landscape important or do you wish the residents to focus inwards on the activity of dining?"

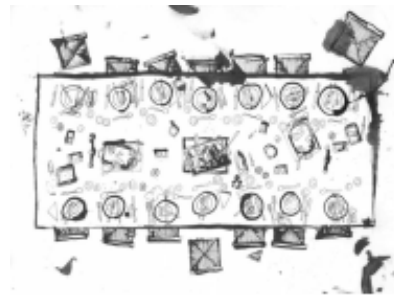Figure 8. Communal Dining.
Source: Crotch, J.

Figure 9: The meal.
Source: Knight, W.

Group and individual tutorials supported students through the process and reviews of work were held at regular intervals. To conclude the year a public exhibition of the work was designed and staged in Penicuik where the community groups were invited to view the theoretical plans and insertions designed for their town, this was supported by a year book, designed and published by the students, which captured the work of the year through the two main design projects and all the additional workshop and trips that had taken place. The degree show provided a fitting climax to show case the work, at which a number of student's

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work was recognised for its excellence, through several internal and external project and portfolio awards.

The Outcome

The program has been running for a number of years now and students who have worked within it have produced some thoughtful, competent and appropriate outcomes. Success has been noted by both the RIAS and the RIBA in their annual students awards, however all the students who have immersed themselves in this course have produced commendable outcomes and engaged in a process that has enabled them to think more holistically about their proposals.

It is interesting to note that a combination of physical and digital has not resulted in a dilution of the outcome of either, in fact both areas of skill appear to have benefited by this collaboration. The combination of working in a cycle from a physical medium to digital to physical etc. helps students to experiment and reveal aspects of their proposal that may not have been exposed in what has become a more conventional process where one medium is used almost exclusively.

Figure 10: Designed Experience, the studio. Source: MacLachlan, N.

Development

Building on the success of the programme is the development of a postgraduate elective, which explores engagements with the senses in design and poses similar questions to those that were asked during the design and development of the undergraduate course. However, the elective is open to students from art and design as well as architecture and this provides a context for multidisciplinary discussion about holistic design thinking in relationship to the senses.

The course begins with a critique on the current climate within which all the students are currently practicing where technology and visual outcomes predominate, and questions the potential of engaging more completely with the human senses. Research into the work of practitioners is reviewed and discussed prior to students carrying out their own experiments. Various examples by artists, designers and architects are explored in order to provoke thinking and discussion into the untapped potential of sensory engagement. As with the undergraduate course, active participation to explore and test ideas is an essential component of the course as the students work their way through the power of touch, smell, taste and sounds as well as visual phenomenon.

To conclude the elective the students are challenged to design a project to explore the potential of harnessing sensual experiences in their own work. These are recorded and reviewed to the full cohort for critique and sharing of knowledge. Ceramic drinking vessels,

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puppet theatres, blind explorations of landscapes and the capturing of the sound of the city are some of the many and diverse pieces of work that are a result of the elective.

The course is now in its third iteration and each year there has been significant interest from the students group with full enrolment achieved. This suggests that this is an area that many students can find a connection with and are keen to explore in more depth. Its general approach facilitates an application of thinking into their own practice. To support the elective and provide a forum for the students to share their work a website has been constructed, and here the work of practicing artists and the students cohort sit side by side.

The course continues to run and develop, continuing its aim to support students reach their potential in the production of their work from painting to textiles to public space. Producing outcomes that engages their audience in a multi experiential outcome.

Conclusion

We are currently caught up in a world that allows no time to stop, think and to appreciate and enjoy all the really important things in our lives. This shift has been facilitated by the rapid development, use and reliance on the computer and all that it can offer in every sphere of our existence from shopping to socialising, design to construction, and information to communication. But the computer cannot make certain judgements – it cannot tell us if the shoes we purchase on e-bay suit us, if the match.com date is our sole mate or if the environments we design are uplifting, comfortable or inspiring to inhabit.

The course outlined has been developed from a sceptical observation of the impact of this digitally dominant context, and has detailed a nuanced teaching methodology that attempts to alter how students can be encouraged to design in a more holistic manner. It would be a naïve vision to imagine architectural design without the use of the computer; therefore this course attempts to find an appropriate balance. The design processes described accepts the possibility that the reliance on the computer as a design tool can distance the designer from the outcome, and lays out a methodology where the computer can be used in collaboration with physical experimentation; allowing body and computer to work together and be supportive as each part meets its potential.   The students involved represent our next generation of designers and makers of place, so the embedding of a process that harnesses all available tools to maximise the impact of the outcome for a human audience must be a benefit to our future society in the design of architecture and place that is felt as well as viewed.

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