I’ve been exploring the movement between and through built forms that can free them from being a spatial limit and instead allow them to become a temporal and spatial experience. This experience includes an awareness of the movement and intensity of daylight and the natural world around us. I am considering the importance of the route or journey, and how this journey might continue into the building. These ideas are manifest in forms that challenge the traditional notions of wall, roof and floor, just as dance, as a particular form of human movement, challenges the notions of the limits of the body.
The Weaving of Traceforms and Built Forms

Figure 1
Diagram drawing connections between ideas
This is the story of a journey: a personal one, a physical one, and a metaphorical one. Initially my thoughts were to design through primarily considering people’s movement through space and how their experience of that space could be amplified. As my ideas developed my thesis became about the importance of the relationship between architecture and movement. Now it’s titled *The weaving of Traceforms and Built Forms*. Traceform is a term used in dance to describe the invisible lines movements make in space. I’m thinking about the architecture that forms around this, that happens along a route and that encloses and weaves around that route, enhancing the experience. Buildings are generally static; it’s the movement through them that gives them dynamism. People are central to architecture, and should be its main concern. Where people interact with what I make I’m interested in what they see, hear and smell. As Christopher Day writes “We don’t just look at architecture, we live in it.” Yes we look at architecture, I won’t claim to lack an interest in form or beauty, but ultimately architecture is not sculpture, and should not be thought of as such.

In thinking about people, their wellbeing is important. In order to feel well we need a sense of the changing light of day and the passing of the seasons. We require a sense of something greater than ourselves, such as nature. What I’m considering is a route by a river and canal in Limerick which provides all of these things. It already exists, and is frequented by people walking, running, cycling and fishing. People row and kayak in the river. It is an ever-changing scene of the shifting movements of water and people. What I’m making is a strand to weave around this one in parts, creating moments of intensity. The connection diagram I made (figure 1) can be seen as a metaphor. I’m adding functions, which will be connected by this “line” but aren’t immediately obviously related to each other. They relate to the existing functions of the route, as well as providing for new ones, such as performance. This route exists as a place for leisure and physical activity. I’m proposing strengthening its use in this way, and also introducing cultural activities to it, making places of intensity along this connection.

My ideas did not begin on this site, nor are they necessarily tied to it. I will go on to discuss the ideas that I have brought together here and how they have been gathered from what I’ve read and seen, as well as precedents I’ve studied and how these have been tested in architectural terms. We began the year testing our ideas through a series of primer projects. They have each pushed my thinking forward in different ways.

The first project was in Shannon, in the harbour by the airport. The brief was for cold storage units, and any other programme we felt was appropriate. My project was about moving along an edge, which can be seen in figure 2. Two modes of movement passed by each other: various vehicles travelling at approximately 50km per hour, and people walking at roughly 6.4km per hour. To register the former, lights were added along the side of the road, one to be passed every second. As the road curved away from the estuary these lights clustered together to give very brief glimpses of the view. As the site is so flat, I felt that vertical elements were important. A second set happened as a register for pedestrians, one occurring every minute. These were placed along a timber walkway that began where the road and estuary diverged. Here, a small building allowed people to leave their luggage and pass under a concrete threshold to the walkway. The path moved along to pass by a concrete cold storage building, which could be seen from the arrivals door of the terminal. The path continued, moving down to a level below the road and up again to pass another cold storage unit, which was a visual link to the terminal building. People could move up to a balcony from which to view the estuary. The final building was a low kayak store with a slipway to the sheltered lagoon. Figures 4 to 6 are sketches of the vertical elements and walkway.

The project was about a registering movement and seeing the sequence of movement through a space as a type of ritual to design for. In relation to ritual and ceremony, I was reminded of a book, *Des/IRE: Designing Houses for Contemporary Ireland*. Emmett Scanlon writes very eloquently here about architecture. He describes it as a celebration of the rituals of daily life. This kind of idea could lead to the very careful design of the details where people and architecture meet. He has a way of speaking about everyday considerations that lends them importance. I see this idea of ritual/ceremony as also being connected to narrative. To quote the writing of Peter Cook:

> "The English subscribe to such notions that 'to go is better than to arrive' any number of associations can be brought to bear on this issue: the tendency for the English Novel to be a series of meanderings towards a final situation that may be meaningful but not conclusive; the delight - in literature, drama and aesthetics - for the fascinating aside, byway, counterplot or glimpse."

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Figure 2
Model of Shannon project, showing route made along an edge.

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This was one of the things I was thinking about initially: what happens on your way to a place? It is interesting that Cook relates it to literature and drama, that he sees this as a tendency, not just in the physical world, but in the world of the arts also. The importance of the journey is also referred to by Richard Sennett, in relation to 18th Century planning. He writes:

"Instead of planning streets for the sake of ceremonies of movement toward an object, as did the Baroque planner, the Enlightenment planners made motion an end in itself. The Baroque planner emphasized progress towards a monumental destination, the Enlightenment planner emphasized the journey itself."

To the Enlightenment planners the journey was the important thing. There is a distinction made here between “ceremonies of movement towards an object” and motion that is “an end in itself.” The latter is concerned with the journey only. I’m partly concerned with the journey, but I’m also interested in the ceremony of

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The Weaving of Traceforms and Built Forms

Figure 7
Drawing of Templehof site with my proposal, highlighting the different conditions surrounding it.
movement.
I see my project in Templehof as being related to this “making of a journey”. This was the second primer project, which took place over the space of a week in Berlin, on the site of the now closed Templehof airport, a massive open space surrounded by the city of Berlin. My original idea was to add a community to the site, but became more about working with the edge. I saw the edge as a thickness of different experiences people passed through. The context surrounding the site was diverse. There were some very structured parts and some much looser. The structure I proposed provided an edge or frame where there wasn’t one, and dissolved where one existed. The experience was amplified by juxtaposing the proposal with the context people had just passed through, (Figure 7). The structure matched the scale of the existing building while near it, and gradually reduced in scale as it moved away. An inner layer of cultivation contrasted with this, being high where the building was low (trees) and low (allotment gardens) where the building was high.

Figure 6 is a model describing one part of the proposal in more detail. Here people would move through the rigidity of city blocks, five and six storeys high, under a steel structure, three storeys high and mainly unbuilt. They would then move through trees where wider spaces led them towards the runway, where most activity occurred.

Between the project in Templehof and the final primer project in the University of Limerick, and also through the latter project, my ideas shifted somewhat. Firstly there was the introduction of the idea of texture/weaving.

“Texture is associated with both “textile” and “context”. It derives from the Latin texere, meaning “to weave”, which came to mean the thing woven (textile) and the feel of the weave (texture). But it also refers to a “weave” of an organized arrangement of words or other intangible things (context). A textile is created by bringing together many threads and, as such, represents ordered complexity.”  

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The image of bringing together many threads is a suitable metaphor for my thesis. I’m interested in texture, as in the texture of surfaces, and how light acts differently on them creating different effects, depending on the time of day and intensity of light. In the text just quoted, Adams et. al. refer to textile as “the thing woven”. The project in UL was about making a woven structure. This was worked on over a fortnight, on the very familiar site of our own campus. The idea was for us to each develop our own project, but to negotiate with each other about how our projects would meet. I wanted to continue the undulating nature of the ground into the building. I think of weaving as a kind of “natural” way of putting materials together, and as a flexible structure. I really like how light filters through a woven surface; it creates very particular patterns. Figure 8 shows a woven structure and how it might be made, while figure 9 shows the pattern of light through a simple woven surface.
I was also thinking about the intervention I made as moving from the more formal and structured part of the university to being by the water. It became a pathway and series of spaces that were sunk into the ground. These were spaces for the practice and performance of dance. The pathway led to the canal, which was crossed by a light bridge to a piece of land between that and the Shannon, under the “living bridge”. Here a space for the performance of dance was made in a circular shape with tiered seats down to it and a view from the bridge above. Figure 10 is a model of the proposal. Two important things came out of this, firstly the idea of weaving, and secondly dance as a brief.

The idea of weaving, and particularly the kind of forms it makes bring to mind the term “organic architecture”. I always thought of this as referring to the kind of forms produced by 3D modeling software, and I dismissed it, thinking of it as being driven by the desire to make something with complex geometry, simply for the sake of it. It was when I saw the architecture of Hans Scharoun referred to as “organic” that I took a look again at what this meant. The website articulatedashboard.net gives the following definition:

“While Organic Architecture does describe environmental concerns, it also embodies the human spirit, transcending the mere act of shelter into something which shapes and enhances our lives.”

This kind of quote, though probably overly sentimental, links a type of architecture with its importance in people’s lives. It connects to the idea of wellbeing and the built environment that I will go on to discuss. Organic architecture seems to be what links a lot of my ideas.

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Hans Scharoun’s architecture is referred to as organic. It has unusual forms, due to it being driven from the inside, and often from the movement of people, rather than from an overall idea about form that programme has to be forced into. The Philharmonie in Berlin was my first experience of a building by Scharoun. Having been lucky enough to attend a performance there I realized there was something special about it. In the dark it was lit by a warm light. There’s a sense of knowing where to go, though the architecture is in no way typical. The stairs stand out in my memory as being shallow, and covered in soft carpet. The experience of being in the concert hall was a sense of being in the centre of something. The sound was impressively clear there. When people spilled out into the foyer and balconies during the interval the space seemed to be specifically calculated for them. It suddenly came alive as it was filled with people. Figure 11 shows this space as it is during the day. This is an example of the success of architecture that is specifically designed for the people finding a route through it and their place in it, which I found inspiring.

The precedent I studied was the Staatsbibliothek, also by Scharoun. This is a massive building, dealing both with the functional requirements of processing and storing millions of books, the training of librarians as well as the facilities for public use. It is, like the Philharmonie, unusual in its form. The idea of a valley was associated early on with the building. The high library stack was to correspond in height to a guest house intended for the opposite side of the road (never built). The building gradually breaks down towards the front to a less imposing scale. The exterior form was very much influenced by a planned motorway that was to pass by the east side of the building. This is where the stacks are and the façade is completely closed to this side. It is somewhat unfortunate that there is now a theatre to that side, which the library turns its back on.

Internally the library has a generous entrance space. You are immediately guided to the main stairs. As you move into the library you become aware of its labyrinthine quality. Movement is a guiding factor, with three different types of stairs linking different parts of the building. In moving up the main stairs you repeatedly turn back on yourself, getting new views all the time of the spaces from which you came. The reading rooms are given special treatment, being on kinds of "shelves". Very particular dome shaped lights bring light to the reading rooms,
as well as larger pyramid shaped openings in the ceiling. These are shown in figure 12. The reading rooms also have views to the trees on the west side of the building. Factors such as access to natural light and views of nature are important in the relation between buildings and wellbeing.

In her book *The Power of Place* Winifred Gallagher writes about the link between sunlight and mental wellbeing. She says that “over the course of a day, a week and a year most of us seek places that produce different degrees of stimulation.”

In essence what we want from the environment is difference. At different times we seek different kinds of places. My architectural project links Limerick City and the University via the canal. This movement by the edge of water has the potential to be linked to wellbeing and the route provides the different levels of stimulation mentioned by Gallagher.

In *Healing Spaces, The Science of Place and Well Being* Esther M. Sternberg writes about the science behind beliefs in the link between place and well being, and the joint research between neuroscientists and architects that’s driving this research forward. She refers to Jonas Salk, the immunologist and virologist who built his own research centre, The Salk Institute.

“Salk vowed that...he would build the facility in a place suffused with light and surrounded by beautiful views – a place that would inspire the imagination of other scientists just as Assisi had inspired him.”

The architect he chose was Louis Kahn. He specified that each researcher, as well as having lab space, should have a private office overlooking the sea. The institute is made up of two four storey buildings that are aligned so that the beams of the setting sun fall directly between them. A narrow channel of water that runs the length of the promenade between the buildings empties into a reflective pool, which catches the sun’s rays. (Figure 13) This is an inspiring example of what designing for wellbeing can achieve.


*“Sternberg, Healing Spaces, 23.*
The link between place and wellbeing is further explored in the writing of Emmett Scanlon. In an article about architecture and health he says: "Our emotional and psychological wellbeing is entirely and unarguably connected to the quality of our built environment." This again highlights the link between wellbeing and the environment, and therefore places high importance on the quality of that environment. I know that there’s a link between wellbeing and the environment. I know this because I feel different in different places, and I’ve been in the kind of places where you get a headache by just being there! The lights are too bright, the room is too hot, there seems to be no fresh air. In order to avoid designing such places it’s necessary to have some understanding of how the environment affects us.

In her book *Healing Spaces* Esther M. Sternberg refers to many Modernists as having this understanding. “[Roger Ulrich’s] ideas are based on a long tradition in modern architecture that posited a connection between architecture, health and nature.” She refers to architects such as Aalto and Neutra as being “explicit about the health benefits of well planned architecture and about the importance of nature and natural views in health and healing.”

Frank Lloyd Wright is one of the architects she refers to. He is also often quoted on the meaning of the term “organic architecture”. He writes:

“So here I stand before you preaching organic architecture: declaring organic architecture to be the modern ideal and the teaching so much needed if we are to see the whole of life, and to now serve the whole of life, holding no ‘traditions’ essential to the great TRADITION. Nor cherishing any preconceived form fixing upon us either past, present or future, but - instead - exalting the simple laws of common sense - or of super-sense if you prefer - determining form by way of the nature of materials…”

This doesn’t really resonate with me. This quote by Eileen Gray does, however:

"Architecture of the exterior seems to have interested architects (of the avante garde) at the expense of architecture of the interior. As if a house were to be conceived for the pleasure of the eye rather than for the wellbeing of the inhabitants.”

I don’t necessarily think the “pleasure of the eye” and the “wellbeing of the inhabitants” are mutually exclusive but I certainly agree that the wellbeing of people should be carefully considered. Having taken a class in Utopian Studies, the idea of the utopian method as having a role in our work is very much in my mind. The utopian method can be defined as “the imagined reconstruction of society.” The utopian method functions to critique, compensate, and to propose or instigate change. Bloch described it as “extracting the utopian essence from the ore of human culture.” In this way the work of the architect can be seen as a utopian endeavour. Lyman Tower Sargent makes a counter argument to this. He writes: “Architecture is rarely utopian because it fails quite consistently to be concerned with people and communities.” Eileen Gray and Christopher Day would be in agreement with him here. My architecture challenges this, and takes on the utopian method as a way of working.
The Weaving of Traceforms and Built Forms

Dance in plan when hands and feet touch the floor
Movement in space of same dance
dance represented in elevation and plan
movement of feet across space

figure 14
sketches of dancers
I mentioned earlier the link between movement and experience. I've considered movement in a number of ways. In the project in UL, I made the decision to design for a particular kind of movement, i.e. dance, and I have carried this forward. I've looked at dance in terms of understanding its relation to space, as shown in figure 14, as well as becoming more familiar with contemporary dance, and dance in Ireland, as that's what I'm designing for.

In the introduction to Dancing on the Edge of Europe Fintan O'Toole talks about the history of the culture of dance in Ireland. Dance Hall acts came in in the 1930s effectively banning dancing at crossroads and in houses where they could not be supervised (by the clergy). O'Toole notes:

"This didn't stop the dances, but it did coral indigenous dance into official, controlled and narrowly conservative channels where the possibilities of innovation-let alone the fusion of old and new into an original Irish form... were scarce."\(^{19}\)

It's clear he sees the history of dance as a series of connected events, whereas I was thinking of it as the story of different types of dance, a story that didn't have one continuous narrative. It's interesting to see dance in this way, and to see that he thinks what happened in the 1930s had an influence on contemporary dance in Ireland.

Arthur Young, commenting on the Ireland he toured in 1770 said: "Dancing is so universal among them that there are everywhere itinerant dance-masters."\(^{20}\) It shows that we have a strong history of dance, which has everything to do with ordinary people. There must be fragments of this history left within us.

Reading interviews with choreographers, such as Mary Nunan and Michael Keegan Dolan, gave me some insight into contemporary dance, particularly in the context of Ireland. Thinking about choreographers' work I wondered how they recorded their ideas, or took notes about the decisions they had made. I found the answer on the blog of Jody Sperling. She described the process as building a vocabulary of steps or movement. She names the moves in order to clarify them and remember them later. She then makes the movements into a sequence, which correspond to a structure, whether musical, conceptual or narrative.

\(^{17}\)Moylan and Baccolini, Utopia Method Vision, 53.
\(^{18}\)Lyman Tower Sargent in trialogue with Nathaniel Coleman, and Ruth Levitas in Imagining and Making the World: Reflections on Architecture and Utopia, Nathaniel Coleman, ed. (Oxford and Berne: Peter LOang, 2011.)
\(^{19}\)Fintan O'Toole, foreword to Dancing on the Edge of Europe: Irish Choreographers in Conversation, ed. Diana Theodores (Cork: Institute for Choreography and Dance, 2003), ii.
\(^{20}\)O'Toole, foreword, iii.
“Sometimes I’ll write down the sequences, but very often I do not.... When it comes down to it, fundamentally, dancing is NOT writing. It is, like an oral tradition, passed down body to body...Choreography is often generated communally. My dancers contribute to ‘vocabulary building’.”

This served to clarify for me the process involved in choreography, particularly when she says that it corresponds to a structure, whether musical, conceptual or narrative. I read somewhere that contemporary dance is not necessarily related to music. It now makes sense that the dance could be telling a story, or expressing a concept that doesn’t need music, or that music would interrupt.

Rudolf Laban is an important figure in the history of contemporary dance. In A Movement Perspective of Rudolf Laban, the dance form he developed is described as involving “self-discovery, self awareness, expression and communication...” This expresses what the basis of contemporary dance was, that is about the self, and discovering or expressing something through dance. “It is the way in which Weight, Space, Time and Flow are used which gives each effort its distinctive power, shape, duration and rhythm.”

He seems to be providing a way of understanding dance, and movement in general. It can be judged by these factors, almost in a scientific manner. These factors relate to effort rhythm. He says that it is the effort rhythms of groups that create atmosphere. I’m not quite sure I understand what effort rhythms are, but there is definitely something in the mass movement of people that creates atmospheres. These kinds of things change the city. Limerick City becomes a very different place on the day of a rugby match for example.

I have looked at movement in Limerick City, in particular on the main street, O Connell Street, under different conditions (figure 15-17). One is the day of a rugby match, where the space of the street is completely taken up by people. On “normal” days people move around each other on the pavements, vehicles take up the space of the street, and people sometimes negotiate between them. On a day when the street was closed to traffic pedestrians fill it with their movements, crossing in diagonal lines in ways they would never do otherwise.

On the topic of choreography and movement Lawrence Halprin is a landscape architect interested in the choreography of movement through public space. He writes:

“To be properly understood modernism is not just a matter of cubist space but of a whole appreciation of environmental design as a holistic approach to the matter of making spaces for people to live...modernism, as I define it and practice it, includes and is based on the vital archetypal needs of human beings as individuals as well as social groups.”

Again, he is expressing views similar to those quoted earlier of Eileen Gray, Christopher Day and Lyman Tower Sargent. He writes about movement in the city in a very vivid way. He sees movement in the city through the lens of choreography. He writes:

“The type and design of space has a vital influence on choreography. Long linear vistas, overly great space, undifferentiated and uninterrupted streets, lack of colour are dull and uninteresting, not so much because of their static visual qualities but because they are uninviting to move through at pedestrian speeds. ... If he finds no fixed intervals, or changes, or points of interest, he will even choose not to walk through these amorphous kinds of spaces.”

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Thornton, A Movement Perspective of Rudolf Laban, 42.

Thornton, A Movement Perspective of Rudolf Laban, 47.


This statement relates to one I quoted earlier by Winifred Gallagher, about the need for change, or variation in our environment. I also took from this the idea of points of interest. It is referred to by Alison and Peter Smithson also in relation to the city. They write:

"We have long regarded the ideal city for the present as relatively loose, with infrastructure of urban motorways and points of intensity scattered through the urban area."27

Points or interest of intensity are what I’m making. I need to be careful about the word “point”, however, as this is not what I really see them as any longer. Alison and Peter Smithson go on to discuss the measure of intervals between these places of intensity. They decided that they should be 5 minutes apart on the motorway and 7 by rail or tram, “in order to maintain flexibility and sustain the legibility of the fabric of the city.”28 This is based on the village of Bath, where the main built events are 400 to 600 yards apart. This made them 2 to 3 minutes apart for horse vehicles and 5 to 7 on foot.29

I looked at points of intensity in the existing structure of Limerick City, and imagined where more of them would happen at these 5 to 7 minute intervals on a route along the canal, as can be seen in figure 18. I later moved away from this idea, and chose the sites of what I made because of specific qualities they had, such as being the point where a stream meets the river, where you can hear the water moving, or where the activities on a rugby pitch meet those of the people on the route. Comparing the site plans, however, they are quite similar, so I have, unknown to myself, returned to the idea of these places being separated by intervals of time.

In the book Urban Lifescape: Space, Lifestyle, Consumption, Gitte Marling writes:

"An urban songline indicates the connective pattern an individual etches in the townscape through daily travel. A songline thereby delimits an individual’s domains and places of mental and symbolic importance...The distance between two such places is measured in time and not in distance. A songline comprises the urban space each individual uses and in which daily life is lived – dwelling, working, leisure activities, shopping, using public institutions and other activities."30

In this way the route I’m making can be seen as part of the songlines of the people who use it, and as important to their daily lives. The fact that the distance between places is measured in time is referred to here again. Songline is a term that originated in Australia. It is explained in the following way by Bruce Chatwin:

 "Each totemic ancestor, while travelling through the country, was thought to have scattered a trail of words and musical notes along the lines of his footprints, and how these dreaming -tracks lay over the land as "ways" of communication between the most far-flung tribes. "A song”, he says, "was both map and direction-finder.”31

This in some way relates to the ideas described in Walkscapes the Surrealist’s deambulation was referred to as “an exploration between walking life and dream life.”32 Their trips were described as a form of “automatic writing in real space, a literary/rural roaming imprinted directly on the map of a mental territory.”33 I like the image of “writing in real space”, as if they’re making some kind of invisible map just by walking it. It reminds me of a quote by Laban:

 "Movement is, so to speak, living architecture... this architecture is created by human movements and is made up of pathways tracing shapes in space, and these we may call ‘trace forms’."34

29 Smithson, The Charged Void, 123.
33 Careri, Walkscapes, 80.
34 Rudolf Van Laban et al., Choreutics (London: Macdonald and Evans, 1966), 5.
figure 18
Map linking Limerick City and the University of Limerick, showing earlier speculations of points of intensity in purple and sites chosen in brown.
The Weaving of Traceforms and Built Forms

Figure 19
Observations made of route from University to City
This brings me back to the title *The Weaving of Traceforms and Built Forms*. So far I’ve only alluded to what my project is. What I am creating is a series of spaces or “events” along the River Shannon and the Park Canal between The University of Limerick and Limerick City. This is a very suitable site, in that it is a route, with various types of movement along it and it’s beside water, providing the link to nature so often referred to in relation to wellbeing. It is also a very apt place for the introduction of dance spaces, considering that it is the link between the Irish World Academy of Music and Dance and the community of dancers, such as the Dagdha dance company and dance schools for children which exist in the city. This is a community formed out of shared interest, not a shared place, but they can be brought together through making links and new places. This is a distance of about 3.5 km, along a pathway that already exists (figure 19). The canal was constructed between 1757 and 1758 to facilitate the transport of goods to and from Limerick City. It transported goods such as turf, potatoes, coal, Guinness and quarried stone. It was part of a network of canals, linking Limerick and Dublin cities.35

Peter Cook refers to “the secret delights”36 of the suburbs of London; this is an image I associate with. There are a number of strands in what I’m doing. Firstly there is the creation of spaces for the performance and practice of dance along this route. Secondly there is the provision of facilities for functions that already exist along the route. These include changing spaces for people using it to exercise, shelters and benches, as well as a café and terraced seating for the rugby pitch beside the route. In Event Cities Bernard Tschumi refers to programme in the following way.

“One may combine or assemble programmed activities so that they charge a special configuration in such a way that, by mixing otherwise common or predictable programmatic items, they generate uncommon or unpredictable events.”37

This combination of dance functions and existing leisure activities does this. Part of my work is also in small moves, little improvements that would give a positive sense of the place like changing the surface, or linking it to surrounding areas. This route floods when the river floods. I’m considering this situation, and how the route might still be usable by providing a raised walkway that could be laid out when the water rises, like is done in Venice. I can see what I’m proposing working in two ways. In one way it changes that route in the everyday uses it is put to, intensifies use, and introduces some dance activity. In another way it could open it up as a space for festivals or celebrations, the route could be filled with the movement of people between “places of intensity” where performances happen.

Providing for cultural and creative activities is necessary in Limerick City. This becomes even more important in light of our realization of the fleeting nature of economic success. “The Arts have the power to move us, to provoke debate, to educate, and to challenge accepted wisdom. The arts are our cultural conscience.”38 It is a sad reflection on society that funding for the Arts is one of the first cuts when recession hits. The Dagdha dance company, which I mentioned earlier, have lost their funding, and so no longer have a place from which to carry out their activities. In a practical way if the University could fund places for dance, then groups like this could avail of them.

I have seen an underlying current of potential in Limerick, such as on the day of a rugby match, or on St Patrick’s Day, when there’s a positive atmosphere. There’s a sense that a change of attitude would go a long way in changing the city. I see the provision of cultural spaces as proving this change. The idea is also to encourage more physical activity along the route.

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36 Cook, *The City Seen as a Garden of Ideas*, 27.
To give a more specific description of what I’m making I refer to figure 20. The university is in the top right corner. The copper piece is the route I’m referring to. The first “event” you come upon is a place for the performance and practise of dance, as well as a café, changing spaces for those exercising on the route, and terraced seating for when a performance is taking place. You are led off the existing route, closer to the water, and then back onto it again. This isn’t a point as such. The architecture gradually appears, like movement caught by a camera, and disappears again in this way. In *The Eyes of the Skin* Juhani Pallasmaa writes,

“A building is encountered; it is approached, confronted, related to one’s body, moved through, utilised as a condition for other things. Architecture initiates, directs and organizes behaviour and movement.”

This is how I see what I’m making. It’s a part of the route, not something on the route. This kind of idea is referred to by Ester M. Sternberg in relation to Disneyland. There it is called a “cross-dissolve” and happens where “each space slowly dissolves into the next as visitors walk along.” This is done by “adding cues, perceived through all the senses, which signal the new land you are approaching, and at the same time subtracting cues from the one you’ve left behind.” It also relates to my idea of the journey continuing into the building.

The ground changes first. Then you’re under a roof, but not inside a building. Then you’re surrounded by a structure, but still not protected from the elements. Finally you’re really on the inside, before moving again through the sequence in the opposite order. This first structure contains individual practice spaces for dance, which have a roof floating above them to reflect the sound back into the space while leaving a little spill out to the passers-by. (Figure 31) These are surrounded by places to sit. Next there’s a café, with different layers of inside and outside. (Figure 22) The dance performance space is the main focus, with the seats rising up above the stage. It is situated so as to allow for informal gathering. Close to the stage there are public toilets and changing/dressing areas for performers. (figure 27)

The next place you come to is again off the route, by a bridge. You are surrounded by trees, and can hear the water rush as a stream meets the river. This is a bird observatory, or simply a place to sit. (figure 37) The site reminds me of the following quote from Ester M. Sternberg:

“In quiet places, we hear the life around us and come into closer contact with our world. We are in touch with nature, in tune with our thoughts, and aware of forces greater than ourselves. As Henry David Thoreau said in Walden (1854), “I wish to hear the silence of the night, for the silence is something positive and to be heard...the silence rings. It is musical and thrills me.”

This structure brings you below the level of the bridge, taking in the view of the river that has just opened up at this point, as well as the view of the stream in the opposite direction. The path wraps around, becoming the walls and roof of the structure. Next you are at the point where the river meets the canal. A bridge happens, that provides a means of crossing the canal, a shelter, and a space for dance that doubles as a space to fish from. (figure 41) Next you are beside a pitch. The structure makes terraced seating and some sheltered space to the pitch side, and a bench and cover to the canal side. (figure 52) Gradually the city becomes audible. You pass under a bridge, with cars overhead.
The city is before you. The culmination of these “events” is at the point where the canal meets the Abbey River in the city. Here I am making use of existing (now derelict) structures on the site, and using the same grid structure to roof over them. One is a set of long buildings beside the canal. Here there is a restaurant and garden space. Across the canal is the former Lock Keeper’s House, to be the new site of dance performances. Here the grid structure makes a roof and comes down to the ground to enclose a space outside the existing building. (figure 39) This is a prime location for dance in the city, a place visible to passersby, surrounded by the movement of water. I referred earlier to challenging the traditional notions of floor, roof and wall. The spaces I’m making are not conventional in form. They are curved structures, where one surface is the wall and roof, and in some cases the floor. The structure is a timber gridshell. It is made up of two layers, which are joined so as, structurally, they work as one. (figure 28) A layer of diagonal battens makes the structure rigid. Towards the bottom of the structure these are replaced by cladding, which allows the structure to be protected from flooding. In other parts the final layer, on top of the diagonals, is a layer of polycarbonate shingles. (figure 25) In parts this layer is omitted to allow a connection to the outside and for air to circulate. Internal walls do not meet the grid structure. Truly internal spaces are surrounded by timber stud walls. In the city site this grid shell structure is also used, but it acts mainly as a roof, resting on existing walls or new columns.

The site of this route and the activities that happen along it bring to mind the work of Dr Minaly Csikszentmihalyi. In *The Element* Ken Robinson refers to Dr Csikszentmihalyi as having performed “decades of research on the positive aspects of human experience - joy, creativity, and the process of total involvement with life I call flow.” Dr Csikszentmihalyi is quoted by Winifred Gallagher as describing flow in the following way:

“When we’re in flow, whether while playing the violin or climbing a mountain, our actions merge with our awareness. We stop being spectators of our own experiences...We feel a sense of oneness with something larger than ourselves, whether it’s a musical tradition or nature or a deity. This intense focus also means we forget our daily problems.”

This complete absorption in something, and concern only with the present, is recognized as having benefits for our mental wellbeing. Gallagher writes that Csikszentmihalyi has found that we’re generally happiest in public settings with other people around, which is the situation of people along this route.
My thinking is very much in line with this. I’m interested in architecture that relates to the place in which it finds itself, and the greater world it inhabits. I’m interested in an architecture that has people’s experience as its main concern. Their wellbeing should be a key consideration in design, as it is greatly impacted by the built environment, the quality of which we are partly responsible for.

I feel that I now have some understanding of dance, what contemporary dance involves, how dance can be linked to wellbeing and how it has roots in our history. My exploration has been very much about movement. There’s a real link between movement and architecture that has been mentioned by a number of people I’ve
Figure 22
plan of first "event", showing individual practice spaces, cafe and stage
The Weaving of Traceforms and Built Forms

quoted. Buildings, such as the Staatsbibliothek have been designed by primarily considering the sequence of movement through them. Certain types of space encourage different types of movement, such as this route encourages movement for leisure along it. Our natural movements are fluid; I've considered an architecture that reflects this. I began by looking at woven structures. I made wire forms that were organic in their nature. These became a grid shell structure; initially a single layer, then a double layer. Grid shell structures that have actually been constructed are rare, but not unheard of.

I have not reached the end of this journey yet; it some ways it is only beginning. There's much more that I would like to explore in this project. The main things would be to develop the scheme at each location in more detail, and to learn more about the structure and how it would be manipulated to make new forms. I began by stating that I've been exploring the movement between and through built forms that can allow them to become a spatial and temporal experience. This is a boundary that I've probably only begun to push. To conclude, I refer to a quote by Jorn Utzon, referencing some of my ideas, in more self assured language than my own.

"[Being an architect] demands... an understanding of walking, standing, sitting and lying comfortably, of enjoying the sun, the shade, the water on our bodies, the earth and all the less easily defined sense impressions. A desire for well being must be fundamental to all architecture if we are to achieve harmony between the spaces we create and the activities to be undertaken in them."

Figure 23
section showing relationship to River Shannon and exiting route
Figure 24
View from river of dance space among the trees
Figure 25
section through cafe showing layering of structure, the building’s relationship to the ground and the surrounding context
Figure 26
Pattern of shadows made on existing path by grid structure
Figure 27
The dance performance area with light filtering through the grid structure to become a play of shadows on internal surfaces
Figure 28 (left) 1:5 sectional model through dance performance area and seats, studying how structure would be made.

Figure 29 (left) Detail of node connection of double grid shell.

Figure 30 (top) Detail of initial single grid shell with single bolt connections.
The pattern made by light on the floor and walls of the dance spaces
Figure 32
Light filtering into the internal space of the cafe
Figure 33
The initial view of dance space
Figure 33
The wrapping of the structure around the spaces
Figure 34
The gradual move from outside to inside
Figure 35
Light spilling into the internal spaces
The Weaving of Traceforms and Built Forms

Figure 36
Shadows made on path by grid structure
Figure 37
view of observatory from existing path with new surface
Figure 38
final structural idea for observatory
Figure 39
culmination of route in city, connecting across the canal, with dance performance space visible to all
Figure 40
proposal for site in city


Figure 41
early idea about woven structure, later thought of as the form of the bridge

Figure 42
same model photographed as if viewed while in motion
Figure 45

Figure 46

Figure 47
Sketch models studying different possibilities of making spaces, mostly out of one surface.
Figure 51
concept models showing various ideas for interventions on the site
wire and veneer models, considering the forms of the dance space/cafe, observatory and terraced seating/covered walkway