Design Log

Making space in our constructed landscape

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SAUL Y5
Acknowledgements

Special thanks to my parents, family and friends without whom none of this would be possible. I would like to take this opportunity to thank you all for your support, advice and patience, it has meant so much to me.

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Introduction

This text will look closely at the landscape, to understand the topography, ecology, climate and composition, exploring the relationship between land and water, mudflats, islands and the coastal boundary. It is my goal to explore the architectural quality of experience of place, and design an intervention which will be grounded culturally, ecologically and sensitive to our precious landscape.

What interests me is the typology of building on the Irish landscape and how materials, function and a particular time and place dictate architecture of the locality. Culture evolves and changes over time. The architecture of the locality should reflect these cultural changes. This will give new architecture a strong connection to local identity through echoes to its past culture and also by reflecting the present. There is a need to increase appreciation of the Irish landscape as an element of national heritage to demonstrate its relevance in education and public policies and inspire fresh approaches and landscape study and management.
My research will produce a framework for communities to promote and grow their communities and target areas of growth such as tourism, enterprise and regional development. This text aims to explore how human activity and landscapes are interconnected and how we experience landscape, place and space in the context of the architectural environment in an increasingly technological world. It is a parallel study and nature and technology. The conclusion will be a set of principles for how we can build more sensitively in our landscape and give a sense of place and identity to communities within their locale. I will also explore the boundary between land and water. I am interested in how people perceive space around them and how a sense of place can be developed.

"An architect stands before a city seeking to describe it. Lacking a plan, map or survey, he intends to develop one."  

Landscape

Let us start by defining what we perceive as landscape. This will help to set the scene, as it were, for this discourse. What is constituted by landscape? Is a landscape natural or unnatural? There are many misconceptions of the notion on landscape. The Irish landscape has a wide range of characteristic features and a rich variety of distinctive rural landscapes, reflecting both the cultural complexity and natural diversity of the country. By looking at the tradition of vernacular buildings and heritage of a particular landscape, a richer and more grounded design process can be attained with sensitivity to both landscape and culture.

Ireland is renowned around the world as the ‘Emerald Isle.’ Our countryside is perceived as possessing ‘40 shades of green.’ One could say it is part of our culture. Ireland certainly has a diverse landscape consisted of green pastures, hedgerow, moorland, bogs, marshes, mountains and forests, to mention but a few characteristics. While this may be through to certain extent, let us delve further into what shaped Ireland’s terrain and vegetation in the recent past. This, I believe is crucial to our understanding of the world. It is important not to forget that the contemporary term ‘landscape,’ is highly ideological.  

Ireland’s position as an island nation has had an impact on our environment and culture as we know it today. Ireland’s landscape has been inhabited for many centuries and is layered with marks of the past. Settlement has evolved our island under three cruel conditions of isolation, poverty and later, colonization. What did the natural landscape of Ireland resemble 10,000 years ago?

The Irish landscape at this time had been formed in the previous 2 million years, after the last ice age. As the ice advanced it carved and gouged many of the natural features that define our landscape, exposing bare rock and creating mounds of soil cover. This natural process was extremely slow, harsh and brutal. Similarly, but in a different action, when the ice began to melt, it also shaped our landscape. Following the shaping of our geological landscape, the Earth began to warm and vegetation to hold with various species growing in particular soil conditions.  

This is what I shall refer to as natural landscape.

We now have an idea what ‘nature’ looked like when the Middle-Stone Age settlers arrived from Scotland. What we now need to look at is how human actions, patterns of behaviour and technology changed the natural landscape. If we assess human settlement and practices we can begin to understand how our landscape was shaped. Mesolithic hunter-gatherers arrived in Ireland about 9000 years ago, a relatively short period of time in the creation of our planet. These primitive people settled the land, foraging widely; they focused on sea, lake and river shores.

These people had little impact on their environment. It was not until over 2600 years ago that practices and technology changed in order to allow man to harvest even more resources from nature and shape their environment. These industrious people developed tools and started a process which was to shape and mould nature and landscape. It is one the oldest occupations in the world; farming and it’s product: the cultural landscape. It is the industry that has the largest-scale impact of the landscape.
“Cultural advance and population growth, farmers removed the natural forest cover for cultivation.” 7

“An informal, vernacular landscape evolved organically at a level of farm and field, to provide shelter and livelihood, using local skills, materials and traditions.” 10

What are the factors that determine why a particular place is settled or not? The standard approach to such a question within the archaeological literature has concentrated on factors of the environment such as relief, climate, soils, water supply and the seasonal availability of exploitable resources. 3 Human action has transformed the rural landscape.

“Landscape is a synthesis of natural and cultural elements; natural landscapes. The product of geological, climate and biological processes unaffected by humans, are rare, perhaps non-existent.” 10

The synthesis of natural and cultural landscapes, I choose to call the region in which a site resides as constructed landscape.

“Like cities, the rural landscape is our major and most productive creation; it is both an artefact, based on foundations of geology and climate, and a narrative, layer upon layer of our history and nature’s history intertwined.” 11

Therefore, it is plausible that is almost no natural place or landscape. Human activities become inscribed within a landscape. 12 Human productions from landscape enable us to harvest resources from nature and use the forces of nature to our advantage. It is important to note that there is an implied sense of duty of care, or at least there should be.

“In increasingly urbanised societies, there is a misplaced view of the countryside as ‘natural.’ Like cities, the rural landscape is artificial, skilfully contrived through time to meet social and economic needs.” 13

Human activity within the environment is fundamental to experience; without this conscious interaction with the world, there would be no perception of where we stand within the grand scheme of things.

Role in managing landscape

This profound connection to our environment is instilled in every human being to some degree. Our experience of landscape is related. Water is one of the most fundamental components of life. To put it in perspective, if the Earth was the size of an egg, all of the oceans mixed together would represent a single drop of water. JC

“There is a growing awareness that landscapes are important cultural, ecological and economic assets which should be managed in the interest of social well-being.” 14

The use of our coastal environment has changed over recent decades. Man’s activities interact with estuarine and oceanic environment, sometimes in complex and conflicting uses. The boundary between land and water has been subject to settlement for centuries. If man sets forth to harvest the natural assets of the ocean, there is a hope to sustain these resources and that they will prospect but one must also consider the ecological well-being of the total environment and maintenance of its natural qualities. There is great potential in coastal areas; as a tangible and substantial economic asset and on the other hand, a highly abstract and aesthetic value.

“Man is constantly attracted to the coast. He is relaxed, comforted, soothed, and, in a sense, restored as he looks out over bays and oceans. The attraction is beyond definition, but it certainly influences our living habits and choices.” 15

Jacques Cousteau could be regarded for bringing countless children into his undersea world through his TV documentaries and sparking the imaginations of many in his books. Jacques-Yves Cousteau was born on the 11th June 1910 in France. He was an explorer, naval officer, oceanographer, ecologist, filmmaker, innovator, scientist, photographer, author and researcher who studied the ocean and all forms of life in water. Jacques Cousteau tries to describe his relationship to nature and his drive to explore. He finds it a complex topic to express and extremely personal.

“The reason for safeguarding our planet transcends the simple reality that we’re here - that we inhabit Earth. We are part of Earth - product of all that came before, kindred to all that now exists.” 16

Jacques Cousteau’s relationship with nature is based on conserving our planet and its resources and using the power of knowledge to safeguard humanity. This ideology and yearning for knowledge drove him into the unknown. It was an expedition to understand the past, in order to preserve the future. He sees humans as having inherited the earth from Mother Nature and thus responsible for our planets health, not only for human kind but also every creature that inhabits it.

“As an explorer, I cannot dissect the drive to explore; I can only describe it, by telling my own tale.” 17

“To enlarge the human perspective, to build on knowledge for future generations, to identify dangers, and to chart the course to a better world.” 18

He often spoke of looking to past civilizations, to tragedy, famines and natural disasters to plan, prepare and predict for future generations. A change in focus was needed in research and science and every human being must become more aware of their environment. The more we know about natural forces, the better we can prepare for future and ensure humanity survives.

“The ruins below were more than clay; that they were pieces of antiquity, pieces of a vanished way of life, messages from the human past that could inform the human future?” 19

Jacques Cousteau gave huge praise to the human intellect and brain for its capacity to retain information, document experiences and imagine. Cousteau himself was an innovator and helped to develop the aqualung along with Émile Gagnan, to allow divers to dive deeper and stay under water for longer periods of time. A dream come true you could say. He also surrounded himself with people who inspired him.

“The singular beauty of the human brain lies in its potential to accomplish tomorrow even that which it does not imagine today.” 20

I do not wish to be pedantic in discussing the ethics of landscape management, I wish solely to raise awareness of how precious our landscape is. The purpose of the definitions of the above terms is not to give a history lesson, but instead; to set the Irish context in which to explore the architectural notions of space and place with the inhabitant or protagonist central to the experience and perception. We can also conclude that nature is operating in both natural and cultural landscapes. I wish also to draw attention to the fact that landscape requires human consciousness in order to be perceived; which in turn allows us to participate in it.

“The landscape is both medium for and outcome of action and previous histories of action. Landscapes are experienced in practice, in life activities.” 21

The regions considered are all, in their different ways, distinctive natural landscapes with marked differences in local relief highlighting the relationship between sites and their settings, which, I will argue, is of fundamental importance. 22

Experience of Landscape and perception

How do we perceive our landscape? How do we physically experience it? Do we see it as something untouched by human hands and divided from urban life? Heidegger proposes a topological model for thinking about the relationship between people and the landscape as a matter of “thereness” of the self-disclosure of Being in and of the world.23 There is a temporal element to landscape, it is experienced at a time and for a period of time.

“Subjectivity and objectivity connect in a dialectic producing a place for Being in which the topography and physiography of the land and thought remain distinct but play into each other as an ‘intelligible landscape’, a spatialization of Being.”24

Mitchell describes landscape is a particular way of seeing, the linear techniques of perspective developed in landscape painting at this time to create a ‘realistic’ image parallel the development of practices of cartography, astronomy, land surveying and mapping involving geometrical rules.25 Is this what we think is nature? A static representation of landscape as green and aesthetically pleasing.

“But the system of experience is not arrayed before me as if I were God, it is lived by me from a certain point of view; I am not the spectator, I am involved, and it is my involvement in a point of view which makes possible both the finiteness of my perception and its opening out upon the complete world as a horizon of every perception.”26

Being-in-the-world resides in a process of objectification in which people objectify the world by settings themselves apart from it. This results in the creation of a gap, a distance in space. To be human is both to create this distance between the self and that which is beyond and to attempt to bridge this distance through a variety of means - through perception (seeing, hearing, touching), bodily actions and movements, and intentionally, emotion and awareness residing in systems of belief and decision-making, remembrance and evaluation.27

“The appearance of landscape is something that is substantial and capable of being described in terms of relief, topography, the flows of contours and rivers, coasts, rocks and soils, and so on.”28

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Senses

The senses refer to the psychological methods of perception on the body. Our nervous system has a specific system dedicated to each of the traditional senses. The traditional senses are sight, touch, hearing, smell and taste. The senses respond to specific physical phenomenon.

Within architecture, sight, sound and touch are the primary means, by which we understand form, space and materials. Architecture is concerned with the visual. I think that this mode of thinking needs to be reviewed. We have lost some of the ruling forces in sensory architecture. We need to focus on an architecture that has the inhabitant and the experience of space as part of the main design process. There is an obsession with the visual within modern architecture and we have experienced a loss in the olfactory and auditory dimensions of architecture.

“A particular smell makes us unknowingly re-enter a forgotten space completely forgotten by the retinal memory; the nostrils awaken a forgotten image, and we are enticed to enter a vivid dream.”

People are sensory beings and inside the conscious of each person is something which responds to elements within a building or space. Sensorium is a word used to describe the phenomenon which refers to an organism’s perception and how it experiences and interprets the environment within which it lives.

In my opinion, architecture is something deeper and more fundamental than the visual. It is a sensual entity to be experienced. It is metaphysical in essence. Many parts of the human existence can be considered to be metaphysical: thoughts, feelings, memories, dreams, ideas or any other thing that goes beyond the physical world we live in. Humans have dealt with these intangible elements of life since the beginnings of consciousness.

“The Hausa people recognise only two senses; seeing and experiencing. In this culture, the vision sense is only a means for navigating the environment and the experience sense encompasses intuition, emotion, smell, touch, taste and hearing.”

The physical world, and architecture as a part of it, provokes metaphysical reactions in the individual, such as feelings, memories and thinking. Thus, building becomes a very important matter in our existence and for our experience of the world. By exploiting all of the senses, it is possible to create a multilayered experience that evokes a transparency of time, space and memory.

“Memories of previous moves in a landscape are as essential to understanding. Remembrance is a process solidified from things and spatial encounters.”

Place and production or topography and technology are in conflict in late modern architecture. We live in an environment where most of what we see it man-made.

Space in landscape

Space requires a protagonist to be perceived. David Leatherbarrow describes Open space of the physical world as not the framework for creative work in architecture; substituting for it, or serving as its site, is the surface of a drawing - a map, survey or plan - whether executed graphically or digitally.

“Space described as a framework that it uniquely expansive and continuous; it extends and flows from here to there, through and across not only individual rooms, buildings, and sites but entire cities and their surrounding landscapes, and further toward the barely visible horizon, and then beyond it.”

Space is socially produced, and different societies, groups and individuals act out their lives in different spaces. These spaces, as social productions, are always centred in relation to human agency.

Architectural space only makes sense in relation to pragmatic, perceptual and existential space, but involves a deliberate attempt to create and bound space, create an inside, an outside, a way round, a channel for movement.
Place in landscape

Tim Ingold argues that ‘the cultural construction of the environment is not so much a prelude to practical action as an (optional) epilogue’ and ‘culture is a framework not for perceiving the world, but for interpreting it, to oneself and others.’ Personal and cultural identity is bound up with place: a topographic analysis in one exploring the creation of self-identity through place.

“Places are always ‘read’ or understood in relation to others.”

The naming and identification of particular topographical features, such as sand dunes, bays and inlets, mountain peaks, etc., settlements and sites is crucial for the establishment and maintenance of their identity.

Human activity in space

Landscapes, unlike, place: it reminds us of our position in the scheme of nature. Unlike environment or space it reminds us that only through human consciousness and reason; is that scheme known to us, and only through technique can we participate as humans in it. A walk is always a combination of places and times- seasonal and social times. A spatial order of walking can be characterised in terms of an order of possibilities - various ways in which an actor can move and a series of restrictions, for example walls or other boundaries inhibiting passage. Walking is a medium and outcome of a spatial practice; a mode of existence in the world.

Henry Thoreau has a fantastic perception of walking. Walking to him is a profession, it is all consuming. He sets out on a walk not going anywhere in particular, just out into nature from the urban fabric.

“I think that I cannot preserve my health and spirits, unless I spend four hours a day at least - and it is commonly more than that - sauntering through the woods and over the hills and fields, absolutely free from all worldly engagements.”

Thoreau says he ‘absolutely free from all worldly engagements,’ but I would argue that his immersion into the landscape is profound and that he is experiencing the world deeply. His idea of ‘worldly engagements’ are work, paying taxes and banks. He experiences that world and describes it in his own words.

38. C. Tilley, A Phenomenology of Landscape, (Oxford, Berg, 1994) p.27
40. C. Tilley, A Phenomenology of Landscape, (Oxford, Berg, 1994) p.28
42. Henry D. Thoreau, Walking (Unknown, 1861) extract p.1738
How to modernise the act of building in the landscape

David Leatherbarrow, discusses in Uncommon Ground, the dilemma of constructing increasingly technology-laden buildings in the landscape and how do we keep a sense of coherence in its site and surroundings. He says that stable settlements are the framework of culture, and culture of patterns of life, continuity of culture must be reconsidered in a time when global technology cannot be avoided.43

“The act of building in not the work of restoring regional identity or unity, by recreating and coordinating its familiar signs; instead, construction is described as an agency of topography’s perpetual becoming, a process unimpeded by the absence of an “origin” or “natural condition” for either the people or the place.” 44

I would argue that it is of fundamental importance to consider the landscape in which a building is situated. Therefore, the siting and construction of buildings is crucial to our experience of landscape and the space created by the building.

“You can’t say that big is bad; it lacks human scale. Human scale is not so easy, it has to do with proximity and distance.” 45

What is the proximity of space that can be perceived in an architectural work? Does it extend just as far as the boundary of the site, it’s containing walls or as far as the townland it is situated? I argue that building has a far-retching potential within its surrounds, as part of a larger landscape or region in which it is located. Human perception of a building is to bring a human scale to the landscape; it is a basis for positioning himself, conferring scale and measuring his place.

The use of levels inside and outside a building can influence how a person interacts with the space and how they perceive the topography of the site and surrounding landscape. David Leatherbarrow describes Richard Neutra’s Pitcairn House as:

“An entire sectional spread as a series of terraces or site platforms, resulting in a flight of steps from hilltop to valley, with each level resting on and collaborating a geological shelf, making this architecture a version of landscape design.” 46

Conclusion

As already discussed previously, human interaction enables architectural space to become realistic, experiential and credible. There is also a paradox between landscape and industry. Many industries are located on the estuary of the River Shannon. They have a socio-economic value in that they provide jobs and a product or service which we perhaps take for granted. These advantages need to be considered also by the negative impacts on our environment. Population growth, increasingly demands for energy and goods place pressure on our environment to produce sustenance for our modern way of life. It is of utmost importance that we consider our landscape when moving forward.

“We took our charter from the Book of Genesis, which grants mankind dominion over the beasts and felt it was both our entitlement and our duty to tame the wilderness, plough the land and dam the rivers.” 47

Jacques Cousteau may have had a valuable point in exploring our world to find answers, solutions and practices that can sustain us, and keep both ourselves and our planet healthy. The natural and unnatural need to be considered side-by-side; this is our duty. This creates a strangely polarized position.

43. David Leatherbarrow, Uncommon Ground: Architecture, technology and topography, (Massachusetts, MIT, 2002) p.vi
44. David Leatherbarrow, Uncommon Ground: Architecture, technology and topography, (Massachusetts, MIT, 2002) p.ix
45. Peter Zumthor, Atmospheres, (Basel, Birkhauser, 2006)
46. David Leatherbarrow, Uncommon Ground: Architecture, technology and topography, (Massachusetts, MIT, 2002) p.51
47. Brian Hayes, Infrastructure: the book of everything for the industrial landscape, (XXXX=)
Outline of programme and brief

My thesis project is based in Shannon, Co. Clare on the Shannon Esturary. Shannon was first developed by the need for a flying boat harbour. Land was reclaimed from the estuary, breakwaters were built and an 800m diameter circular lagoon was created. This piece of infrastructure, claimed from the estuary, was used for a short period of time. The lagoon is now a unique habitat for migratory birds and all sorts of wildlife; a constructed habitat, artificially created by man.

Shannon is a completely constructed place. Economic pressures called for Ireland to enter a modern way of life and the airport was built in the rural Co. Clare landscape. Marshland was drained, dykes dug and embankments to protect the low-lying area. Over 300km of drainage was placed under the runways, the terminal was built, the airport free-zone, warehouses, small factories and residential units for employees. Shannon town developed quite quickly from a rural area to a modern town.

My proposed programme is a modern container port terminal and air freight logistics warehouse. This is a large brief which on the infrastructural scale of the estuary. The facility will further explore and display the topics which I have discussed in my thesis essay.

My site is located at the convergence of the drainage channels near Drumgeely Hill. A new promontory extends out to the deep water of the estuary. This will be a new vantage point from which to experience both Shannon town and estuary.

I began exploring structure incorporating long clear spans within a grid. A structural system developed within which I generated the architecture. The building comprises mostly of an industrial function. I wanted to explore the boundary between industrial exclusion and public interaction.

I generated a public space programme on the roof of the building consisting of landscaped walkways, tennis courts, outdoor cinema, floodlit playing pitches and café.

Schedule of accommodation

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Bibliography:


Image References

Fig 1 Shannon Aerial with embankments, roads, buildings and green ares. Image by author

Fig 2 Early concept image exploring boundary. Image by author

Fig 3 Plaster cast. Image by author

Fig 4 Plaster cast. Image by author

Fig 5 Plaster cast. Image by author

Fig 6 Scan of contours generated from 10m, 20m and GSI road spot heights. Image by author

Fig 7 Photomontage of site. Image by author

Fig 8 Aerial photo of site and airport. Source: http://www3.airlinesanddesti-