An Urban Recovery Strategy - Limerick
Addressing the Issue of Waste
Table of Contents

Introduction- pg 2
  Thesis Intent
  Site/Programme
  The Architectural Project

The Thesis Essay- pg 4-19
  An Evolved Equation, An Architecture of Change

Analysis/Research- pg 20-64
  Preliminary Sketches/Models (Semester 1)
  Research of Limerick’s Disuse (Semester 1)
  Preliminary Project Proposals (Semester 1)
  Preliminary Sketches/Models (Semester 2)
  Site Investigation (Semester 2)
  Preliminary Project Proposals (Semester 2)
  Research of Structure and Materials (Semester 2)

Site Description/ Outline of Project Brief/Programme- pg 65-68
  Site Analysis, Location, Existing Programme
    Proposed Brief of Site
    Proposed Programme of Site

Schedule of Areas- pg 69-70
  Diagram of Site Programme and function

Final Proposal/Presentation- pg 71
Introduction

Thesis intent-

My intent of my architectural thesis is to make the public aware of the rising issue waste in our world. **Waste is unacceptable.** We need to re-see waste as a resource rather than a by-product to be left to the wayside. We must not let waste go to waste.

Limerick city is consumed by waste; waste architecture, waste sites and waste product. The intent of my thesis is to cure the city of this disease of dereliction; to recover and salvage what can be saved, and to disassemble and recycle the rest.

Site/programme-

The site I have chosen on which to base my architectural thesis is located in Limerick between Thomas Street and Roches Street and adjacent to Wickham Street. It is heavily disused/vacant, and is located on the main route from the train station to the city-centre/milk market. It contains two mill buildings, one of which (on Thomas Street) has been vacant for five years now. The aim for the site is to reuse the vacant buildings, remove the buildings unfit for reuse (allowing the block to become more permeable) and adapt/restore the buildings that can be salvaged (the Thomas Street mill).

The programme I envision on this site is a city-centre recycling hub, where residents and businesses of the city can drop off their recyclables for free. Located adjacent to the recycling centre will be a workshop run by a FAS scheme, where furniture can be made from the recycled material and sold onsite. Open public areas will be located onsite along with a cafe and bicycle dock.

The architectural project-

The best form of defence is prevention. To combat the waste in our lives we must stop producing it. I envision an architecture of evolution, an architecture that can be built, un-built and re-built. An impermanent architecture that can be disassembled when not in use. The adaptation of the mill building in this project will be built from a recyclable architecture derived from recycled materials. It will be a spectacle to draw the public to the site to bring them face to face with recycling.

Not only will this intervention deal with the issue of waste but it will also be a statement. A statement forcing the public to open their eyes to the possibilities waste holds; waste does not have to look like waste, it can be beautiful and wonderful, it does not have to be limited to furniture and facade, but that it can also be structural.
An Evolved Equation

An Architecture of Change

Niamh Lynch
1/15/2013

Waste is unacceptable in our world of impending disaster. We let buildings rot and yet continue to build. How can we prosper when we are living in a world of ghosts? We need to change our ways of seeing, thinking and making. We need to adapt if we want to survive.

This thesis contains two modes of exploration; discovery and representation. The Photographic-essay and The Written-essay

They are working parallel to one another to introduce, clarify and portray to the reader, the contents of this piece.

They are separate entities, which may be read in isolation of one another, but they are also completely intertwined, with each photographic-essay introducing and emphasising the points of the written-essay that follows.

Table of Contents

Photographic-essay Part 1
Waste is Unacceptable.
Architecture: What is Waste?
Waste as an Obstacle
Re-seeing Waste as a Resource
Beauty in the Derelict
The Benefits of Preservation versus Demolition

Photographic-essay Part 2
An Architecture of Evolution.
An architectural Exorcism
Thinking Outside of the Box
A New ‘Beautiful’ Equation
WASTE IS UNACCEPTABLE
Niamh Lynch
SAUL
An Urban Recovery Strategy Limerick, Addressing the Issue of Waste

Waste - Architecture
Waste - Plot
Waste - Product

We cannot develop, prosper or advance in a world of ghosts.
Re-Seeing Waste
As A Resource
Robert Harbison

'This ugliness does not become beautiful until one realizes that all these signs tell us it will be swept away.'
‘...practically any human thing slipping into dereliction, the forecast of ruin, engages our feelings about where we see our selves in history early or late, and (in poignant cases) our feelings about how the world will end.’

Robert Harbison
Waste is Unacceptable.

We are living in a world teetering on the edge of global catastrophe. We are in economic crisis, we lack natural resources, and we are dealing with global warming and over-population. In other words, we are in immense trouble. Our main priorities at this time should be in improving ecological relations, reducing/reusing waste and eliminating environmental impact. In the book, Cradle to Cradle (2009) Braungart and McDonough write about seeing “waste as food, as a nutrient for what’s to come”, and this should apply to architecture. We should be designing with the idea of reuse in mind; the use of recycled/regenerated materials in our designs and the reuse of these materials when our design are no longer in use. We must look at the processes of building now through the eyes of the environmentalist and look to find ways in which we can eliminate waste and environmental impact. To achieve optimum eco-friendly standards in our designs, we need to have zero waste from the beginning; from when the materials for our designs are manufactured, to when they are transported, to when they are constructed onsite. The ideal of dealing with reused/recycled materials in our designs is redundant if the processes to manufacture these regenerated products cause environmental harm and waste. We need to create a closed cycle in the building industry, where nothing goes to waste. It all must feed back into the system. As a race, we must ‘make do’ with what we have, and we must re-imagine our waste as something with the potential to become new again. We must evolve in our ways of thinking, seeing, and making, if we want to survive; we must adapt.

Architecture: What is Waste?

The waste-plots of our cities are more often than not, caged by fences or walls due to ownership and health and safety issues. Waste-architecture can be seen with the doors and windows boarded for security reasons. All this creates is a wasteland, and a hideout for some junkie to use in peace. These spaces do not bode with the public well. They are unnerving, and unsettling uncomfortable. The unhabited aspect of these spaces makes one uneasy, even in broad daylight. If the quality of the waste-architecture is not fit for immediate reuse, then the question becomes, regenerate or demolish? Cost will be a huge driving factor here, but each site and each building will have their own characters and possible assets to offer to its new function.

**Waste-architecture**: Building free from inhabitation; where there is no active function, due to vacancy, and/or disuse, and/or inaccessibility, and/or dereliction, and/or abandonment, etc
- Vacant Waste-Architecture: Building free from inhabitation
- Where there is no active function, due to building being currently unoccupied
- Disused Waste-Architecture: Building free from inhabitation
- Where there is no active function, due to partial removal of original structure, and/or function
- Inaccessible Waste-Architecture: Building free from inhabitation
- Where there is no active function, due to lack of access to building
- Derelict Waste-Architecture: Building free from inhabitation
- Where there is no active function, due to degradation of existing conditions of building
- Abandoned Waste-Architecture: Building free from inhabitation
- Where there is no active function, due to desertion of building by owner

**Waste-plot**: site free from constructions; where there is no active function, due to vacancy, and/or disuse, and/or inaccessibility, and/or dereliction, and/or abandonment, etc
- Vacant Waste-plot: Site free from constructions
- Where there is no active function, due to site being currently unoccupied
- Disused Waste-Plot: Site free from constructions
- Where there is no active function, due to removal of original structure, and/or function
- Inaccessible Waste-Plot: Site free from constructions
- Where there is no active function, due to lack of access to site
- Derelict Waste-Plot: Site free from constructions
- Where there is no active function, due to degradation of existing conditions of site
- Abandoned Waste-Plot: Site free from constructions
- Where there is no active function, due to desertion of site by owner

**Waste-Product**: product devoid of function; due to disuse, and/or degradation, and/or abandonment, etc

Waste as an Obstacle

We are allowing waste go to waste. We are allowing waste to be a problem rather than an opportunity. We are surrounded with the disused. Skeletons of architecture, bereft of function are left vacant, consuming our daily lives with degradation. Empty shells of buildings litter our cities in states of decay and dereliction. Yet we continue to build? These shells are vacant for a number of reasons; some are uninhabitable, some are only suitable to be occupied by a specific function, some are inaccessible, some in undesired areas, some are just not economically viable. So they sit in wait. Waiting for a use, haunting their sites, like ghosts of a past function since forgotten. We cannot develop, prosper or advance in a world of ghosts. A building detached from its context by vacancy, becomes an obstacle in the progression of its surrounding environment. The disused becomes a statue, functionless, lifeless, and in most cases deteriorating. Pockets of these statues retard and stagnate the growth of our cities; they immobilise urbanisation, they squander land, they handicap networks, and they inhibit the potential for optimal human experience. They are wasted spaces and material, and we ignore them. The same is to be said about the disused sites in our cities. Barren plots, containing nothing but rubble remnants of what once stood there. The public do not want to engage with these disused buildings and sites for because they are uninhabited, they may be dangerous. Because they are dilapidated, they may be unsafe and are ‘eyesores’. Why do we allow these places crumble? We let them slip into ruination and continue to build. This makes no sense.

What makes even less sense is how we deal with these ghosts of buildings and barren plots. We board them up! We fence them off! We erect boundaries, cordoning off these disused areas, turning them into nothing more than pathological wastelands. We let them rot... we let them turn rancid until they create a wasteland, and a hideout for some junkie to use in peace. These spaces are nothing more than pathological wastelands. We let them rot... we let them turn rancid until they create a wasteland, and a hideout for some junkie to use in peace.

Re-seeing Waste as a Resource

Approximately 70 % of our waste comes from the building industry. A fair place to begin to transform the idea of waste as an immobile by-product into a bountiful resource is in the re-making of disused buildings/ disused building material into propelling objects in their environments. This is an example of how the waste of a building can feed back into the system. Instead of allowing a disused building to rot and decay, we should harness its potential to be reborn, and to utilise the resources it already possesses. In the vacant and abandoned buildings of our cities, a trove of dilapidated treasure is available to be reused, regenerated and recycled. Beautiful, historical architecture, inspiring spaces, prime sites, raw materials and ‘bricolage’, offer a vast range of potential; economically, environmentally and socially. The disused buildings and sites in our cities should be prioritised when a new build is being planned. As the saying goes ‘The greenest building is the one already standing’, can we not adapt the disused to fit the desired function of the new build? Or if it is un-adaptable or uninhabitable, why are we letting it sit there? Why are we not salvaging its material before it disintegrates? Our world is lacking in natural resources, but it is abundant in waste material, waste architecture and waste sites, why are we not using it? What am I missing here! What huge issue is holding...
us back from this simple solution!

Money. The problem is always money. Indeed restoration projects can cost more than a new build, indeed the disassembling of a building can cost more than a standard demolition. But as the cost of virgin material gets higher you have to ask yourself, is there not a clever, money-saving method to reuse waste waiting to be discovered? Some designers and architects have begun to touch on possible solutions. An example of the adaption of derelict buildings is the dovecote studio. Haworth Tompkins, a London based design firm, integrated a dovecote ruin into their design for a new artist's studio in Suffolk. The site the ruin occupied had commanding views over the surrounding marshland and instead of demolishing the little dilapidated shell of the dovecote, they built a monocoque Corten steel insertion into it. They utilised the aesthetic value to this dereliction, and the result was an architecturally stimulating, attractive build, costing £155,000, less than half the forecast of the quantity surveyor. An example of architecture built from waste material is the Wat Pa Maha Chedi Kaew Temple in Thailand built by Buddhist monks who collected 1.5 million Heineken and local Chang beer bottles and turned them into a most beautifully spectacular, vernacular piece of Thai Wat architecture. And then there is Rollo’s Ridge in Knoxville Tennessee, where Rollo Sullivan has made an entire community from reclaimed/salvaged materials. Rollo has constructed recycled houses on the ridge, that are available for rent, which are composed of whatever salvaged material he could get his hands on. He has a bio-diesel plant, a low-tech eco farm and movable outhouses onsite. He has created a green, sustainable community. Maybe this is the lifestyle we should all be living now? Maybe soon, we will get used to waste.

Beauty in the Derelict

Although disuse and dereliction are the cancer of a city, there can be glimpses of beauty within their rotted shells. There is a beauty in dereliction that allows one’s mind to wander freely throughout the endless possibilities that this space was, and can be. In both modern day dereliction and in the dereliction of historical ruins, there is a beauty in the lack of control in its form. The observer can engage with a feeling of freedom. The derelict offers a sort of mysticism, and can stimulate the mind of the everyday person into a world of fantasy and make believe. Waste becomes not only a resource physically, but a nutrient spiritually. The ruin, (contemporary or monumental) is no longer completely that of which it originally was, and so it may be perceived individually and uniquely as almost anything. Monumental ruins are our historical ruins. They are the castles, buildings and statues that have been preserved and immortalised as parts of our collective history. These ruins form an especially strong connection with the observer, as they allow one to reminisce and to be drawn back in time. They are a place of spiritual nourishment, and can be a place one wishes to visit alone. Although one might consider a lack of inhabitation to be problematic and lead to the space in question to become categorised as disused, some spaces, (for instance the monument or monumental ruin) can only function at optimum potential when uninhabited. For the visitor to experience a spiritual connection with this mystical place, the real world must not be present. The importance of the disconnection of the monumental ruin from the reality of the present by which it is surrounded, is paradoxical to the view of the uninhabited as a pathological element. It is paradoxical to the opinion that a building detached from its context by vacancy, becomes an obstacle in the progression of its surrounding environment. The vacancy of the monumental ruin is in fact the function of the ruin. The ruin must be disused so that it can be used. Now, there are instances where monumental ruins have been adapted and integrated with other functions, and can still function as a place of revere and recollection of our collective history. But, it is this curious ability of the monumental ruin to function without function that intrigues me. Its disconnection is its attraction. Its disuse is its use. Its beauty is its dereliction.

Can this paradox of the glory of the uninhabited ruin also apply to the dereliction of our contemporary architecture? The contemporary ruin, the buildings which belong to our current past are not yet history, they are too fresh to be honoured as remnants of our memories, but they are still interesting in their lack of form. They may make us uneasy but we are sometimes drawn to their decay. As Robert Harbison points out in The Built, the Un-built, and the Un-buildable, “practically any human thing slipping into dereliction, the forecast of ruin, engages our feelings about where we see ourselves in history, early or late.” From these paradoxes, many questions arise. Do we allow some of our contemporary disused buildings to decay? Do we allow them to sit there and haunt? Do we allow the material they contain to rot for beauty’s sake? When does the derelict become more important as a resource spiritually and visually, rather than physically? What do we allow to decay and admire, and what do we dissemble and reuse? Do we preserve these modern day ruins to become the monuments of our future? When does one integrate these worlds of fantasy with its surrounding context, and when does one decide to isolate/private it? But the most important question of all; can we afford to choose beauty over necessity? We are in crisis! Waste is not acceptable. We need to start thinking about our resources seriously. Beauty and spiritual nourishment are of utmost importance to the quality of our lives, this, I truly and deeply believe. But dereliction is waste. It may have beautiful, mystical and fantastical aspects, but to allow resources to disintegrate for the sake of beauty does not seem just. It is a waste. And do we need monuments for our future? Do we need to immortalise ourselves any further? Have we not done enough? We have made our mark, a monstrous mark, we should now be trying to minimise it.

The Benefits of Preservation versus Demolition

I appreciate the importance of the monument. I appreciate the importance of actualising history. One clings to one’s past in an attempt to feel connected, grounded and part of something, to be a part of the collective memory. To share a past, is to share a bond, to share a place existing in the mind, where one may visit as an individual but more importantly, as a collective. A secret world, that is accessible only to those who have once experienced it. History is a memory. Memory has a power. The power it holds over us can sometimes be stronger than the power of present reality. We all spend time in our minds, we dream, we imagine, we reminisce. Sometimes it is easier to block out present reality and to escape to our private worlds of imagination and memory, than it is to escape from such worlds, and return to the present.

Sometimes memories flood into one’s realities, memories one wishes to relive, others one wishes to forget. This is a notion Nietzsche feels is the affliction of the ‘historian’, he writes in The Use and Abuse of History (1957), of how simple and painless the life of a beast must be without memory. As man cannot always get the wish he wishes to forget, “… that he cannot learn to forget, but hangs on the past; however far or fast he runs, that chain runs with him.” Some memories are heart warming, some heartbreaking, some may not make sense, some may be difficult to decode as a real memory or an imagined one. Memories can be problematic, they can cause pain and bring us back to a time in our history that we would rather not revisit. History contains the good, the bad and the ugly, and some of it may be worth forgetting. As Sanford Levinson writes in Written in Stone, Public Monuments in Changing Societies (1998), there can be conflict about what memories are worth being honoured, and what are worth forgetting, “Just as one person’s ‘terrorist’ is often another’s ‘freedom fighter,’ so might one person’s ‘vandal’ be another’s ‘cultural liberator.’” In the same respect as one culture’s victory being another’s downfall.

History is also somewhere we can find comfort and safety, we can look at it from a safe distance. We can find comfort in its constancy and relief in our inability to change it. The present is more daunting. We feel under pressure to make the right choices/decisions, to choose the right paths to our futures. In history, the paths have a foretime been chosen, they have been taken and the consequences have already (to a certain extent) occurred. One can sometimes become obsessed with history, honouring and sanctifying each and every artefact. I believe the path of our future can only be carved from the knowledge of our past, but at what point does this antiquitarian approach become regressive? Nietzsche writes about the importance of history as a learning tool, but stresses the point that history should not restrict or limit us, “Historical study is only fruitful for the future if it shows a powerful life-giving influence... and does its part in guiding and...
We preserve and preserve and preserve. What are we preserving but a memory? Do we need to continue to preserve? Or do we need to start to conserve. As I have said before ‘the greenest building is the one already standing’, if we can utilise and adapt our contemporary ruins and disused buildings to be occupied by a new function, so be it. But what we cannot continue to do, is immortalise these buildings for the sake of immortality. We cannot continue to preserve the idle. Let it be used. If it cannot be used, let it go. Let it be dissembled and its material resources utilised. We cannot continue to be so precious with our built environment, when we need to be precious with our resources and our impact on this earth. We do not need to build to last. We need to build in a sensitive way, so that our world lasts. We need to be clever with our resources. We need to create a closed cycle in the building industry, where nothing goes to waste.
WE JUST NEED TO SEE DIFFERENTLY.
OPEN YOUR EYES!
Tear down the boards and the fences! Let these dead spaces live!
WHEN YOU PEEL AWAY THE ROTTED SEGMENTS OF THE CITY BLOCK, YOU WOULD BE SURPRISED TO FIND THE MASTERPIECES THAT ARE LYING BENEATH.
SEE THE CRUMBLING SCRAPS OF OUR EARTH TURNING TO DUST AND ASH.
Architecture should now move forward as a tool to combat the rising bile in the throat of our world. The poison, the waste we have consumed and regurgitated. We need to stop treating waste as leftovers; as useless by-products to be left by the wayside, to rot and disintegrate, and infect our lives. We need to begin to treat each particle of waste as a building block; as a resource under-utilised. We need to begin to use the resource of waste in all that we make. There are recycled this and recycled that… but we are not looking at the landfill through the eyes of the scavenger. We do not need to pulverise and remould all of our waste to make it useable. Nor do we have to build in a brick-a-brack, tacky fashion. We just need to SEE differently. Open your eyes! Look at the people of India, living in slums made from whatever scraps they could find. Earning €15 a week to sift through the toxic landfill, from dawn until dusk, for metals and plastics and other recyclable material, only to hand them over to the big ‘green’ corporations. How do you think they see waste? They see it as something that is valuable. Our scraps make their homes. We have so much in the Western world that we think we can afford this disposable lifestyle. We can’t, not when the cost of this lifestyle is the depletion of our natural resources and the consummation of our world with rotting scraps of useless material waste. Let us give this waste a use, let us gather these scraps, cleaning our earth while reducing the need to use natural resources.

If we are to begin to use waste as a building material, we need to begin to think about architecture and
construction as a waste free product and procedure. We need to change how we build, we need to think of architecture differently, not as something built to last, but something that can evolve and be disassembled. This cannot obviously be a one-size-fits-all model, but we can begin to apply this style of building to certain areas of our built environment. The containers of the temporary or impermanent needs we desire, need not be made of our current standard of construction. Markets, retail units, factories, even in some cases homes, do not need to live forever. Instead of building a permanent, function-specific space, that needs to be negotiated once a new function is to be introduced, we can build function-specific, temporary architecture. An architecture that can be adapted, extended or disassembled easily. An architecture of evolution. An architecture that is not static or immortal, but is environmentally friendly, insofar as that, it will no longer require demolition to allow for it to become something new. No more C&D waste will be sent to the landfills. Each element of construction may be removed and re-used. The building is not permanent, the construction material is. If this permanent material is to be manufactured from waste, we would be combating the waste of our present as well as reducing the waste of our future. This makes sense.

**An Architectural Exorcism**

We need to confront the issue of dereliction and disuse in our lives. This waste of space and material cannot go on. We can no longer ignore the rising issue of waste, and we can no longer allow waste to be problematic. We need to perform an architectural exorcism. We need to get rid of the ghosts, the skeletons, the hauntings, and the derelict possession of sites in our cities. How do we exercise these ghosts in our cities? The first thing we should not do is allow them to decay. This waste is damaging environmentally, economically and socially. We are short resources, so we should reuse what we have! Why let good material spoil? Why let this dereliction spoil our experience of the city? Disused and derelict sites are perceived as something they are not, as useless barren wasteland. They are opportunities. They are diseased and afflicted, and need to be cleansed. They are in need of an architectural cure; a sequence of events that exercise dereliction. Think of the architect as a priest, think of designing as performing the rituals of an exorcism. The city is the victim, possessed by the disease of decay and dereliction. We need to inhabit the uninhabited.

To inhabit these disused spaces does not just mean to build something to be occupied, but to allow for this space to be occupied. There should be no idle building or site. We have enough uninhabited monumential ruins. If it exists, let it be used! Tear down the boards and the fences! Let these dead spaces live! Banish these ghosts! Let them be connected and integrated with their surroundings. Improving existing conditions of spaces along with integration results in ease and comfort in the use of these spaces, which allows for successful urbanisation. Integration of context with built environment, integration of functions of different spaces, integration of old and new, and integration of disused w温馨提示 will allow for growth, progress, and optimal human experience. As Kevin Lynch describes in *The Image of the City* (1969), “a distinctive and legible environment not only offers security but also heightens the potential depth and intensity of human experience.” Integration and adaption of networks with previously disused or dead spaces can allow for new beneficial connections and spaces to emerge, that may not have been previously conceptualised.

When you peel away the rotted segments of the city block, you would be surprised to find the masterpieces that are lying beneath. These rotted parts need to be treated. Just as the brown spots of decay on the underside of a leaf in autumn indicate that decay is soon to come, these pockets of disuse in the city are indicators that failure has come and, like a virus, disuse will create more disuse. You can think of the surgeons as a surgeon, amputating gangrenous limbs before the disease spreads. The dilapidated sites and buildings hold an economy of recycling. Material salvage and up-cycling has become a viable prospect in recent years, and the longer we wait to act on this clever notion, the further these resources will degrade. Would it not be a fair assumption that the emptying out of these spaces would be more beneficial to a city than leaving them rot? Instead of being dead spaces, they could become literally living. By the reclamation of nature, these once gloomy pockets could become a formidable place to visit or pass through. City gardens or parks could grow from these inert seeds.

**Thinking Outside of the Box**

In relation to architecture, there cannot be one solution. There is no perfect answer. The utopian method teaches us to strive towards perfection; to collectively desire to make something better. Although perfection is most probably unattainable, the journey towards attaining it brings about progress and advancement. The utopian method teaches us to question why, to think outside of the box and to not allow what is a given to be a given. The goldfish does not know he is in a fishbowl until he leaps out. We need to question everything. Why accept the rules and the guidelines of the past? We change. Our needs change. Our world is changing, it is time to change the rulebook. Technology and construction advances, so should our solutions, so should our equations. Why do we live in a box? We are so obedient... living in our blissful little worlds of tunnel vision. We can see all that is falling apart around us, and we turn away. We consume ourselves with our trivial everyday lives, and ignore the impending chaos that is charging towards us. This needs to stop! We need to open our eyes! Look at what is happening around you and SEE. Do not just see what you want to see. SEE the crumbling scraps of our earth turning to dust and ash.

We need a new method. The ways in which we currently build are outdated. In mathematics, a ‘beautiful’ equation is a simple elegant process that brings you to a, sometimes complex, solution. We need to think of the architect as a mathematician, testing equations on problems, in continuous search of a new ‘beautiful’ equation of building. Vitruvius in the first century B.C had a ‘beautiful’ equation; all buildings “must be built with due reference to durability, convenience, and beauty.” We are still building with this ideal of immortality embedded in our minds. We do not need our structures to outlive us. We do not need to reap the earth of its stone so our memory can live on in pyramids and coliseums. Le Corbusier’s (October 6, 1887 – August 27, 1965) ‘beautiful’ equation: Pilots + Roof Terrace + Ribbon Windows + Free Facade + Free Plan = Architectural Solution. Technology has greatly advanced since Le Corbusier’s time and we have become more aware of our impact as a race on this earth. Although this equation has instigated many iconic architectural masterpieces, where in Le Corbusier’s equation does he mention recycling, environmentally friendly design, renewable energy production, rainwater-collection, or energy efficient buildings? We know that these elements are now becoming an increasingly vital protocol in our builds. We need to evolve our methods and equations for our world as our needs are constantly changing. We need to stop settling for what we have. We need to ask why.

What can we consider to be a ‘beautiful’ architectural equation? Is it the quickest equation? Is it the simplest equation? Looking further back in time, John Ruskin (8 February 1819 – 20 January 1900) claims “that a noble building never has any extraneous or superfluous ornaments; that all of its parts are necessary to its loveliness and that no single atom of them could be removed without harm to its life”.

This is interesting in that, Ruskin agrees that a building need not be wasteful or ‘extraneous’, but at the same time it is static in entity, its very existence under threat if tampered with. Ruskin also wrote that architecture once completed is “a perfect creature capable of nothing less than it has, and needing nothing more”.

Although I admire and appreciate Ruskin’s tone of necessity, and his opinion that architecture should be designed to serve a purpose, and not overly extravagant for the sake of extravagance, I feel his opinion of a building being a static entity, goes against my whole logic of an architecture of evolution. Where the building is not a finished product, and does not have an end. I do not believe the built world needs to be designed to such a specific degree that even the removal of a ‘single atom’ would cause ‘harm to its life’. Why must a ‘beautiful’ equation result in a static solution. Why must it have an end?

**A new ‘Beautiful’ Equation**

There is a mathematical equation for everything. Even for aesthetics, whether or not we find something attractive. Our brains process what we see in a nanosecond; shooting equations back and forth and
delivering to us our initial reactions, without conscious action. In relation to Kant’s aesthetics, we all have
our own subjectivity to beauty, but there are universal variables. Even in the animal kingdom, the toxic
frogs of the amazon are brightly coloured as a defence mechanism which is recognised by their predators
as a portrayal of danger. Yet we find them beautiful. Even the car has constants in its equation; it is a box
sitting on four wheels and two axles. Though its body may be unique its shape and size, relative to the
subjectivity of beauty. Aesthetic subjectivity is the variable in any architectural equation. There is no such
thing as a perfect equation or solution, for your perfect and my perfect are not the same. Three constants
we can all agree on are, 1: Functionality 2: Ease of use 3: Minimal environmental impact.

Can we achieve these factors while being simple, logical and quick? We can try. A new ‘beautiful’
architectural equation is not limited to these constants and variables. We should be in continual search
for the more ‘beautiful’ equation. We need to live like the utopian; in the constant pursuit of something
better. Without this ability to hope, we are damned to the hell of an acceptance of inadequacy. Our world
is so far beyond inadequate that it is terrifying. Without question, we need to deal with our issue of waste,
waste architecture, waste sites, waste product and waste energy. The cost factor in restoration projects
may seem unviable, but the reuse of already existing materials is not only viable economically in the long
term, but also ecologically. Less virgin product means less raw material, which can lead to less consumption
of natural resources. Although recycling and up-cycling may initially cost more than using virgin products,
it is dealing with the looming issue of waste. Like all new technologies, the more people who begin to buy
into it and use it, the cheaper it will become. The only way for the building world to change how it builds
to become environmentally sound, is by its customers demanding it. It is the individuals that are responsible
for collective change.

My attempt at a new ‘beautiful’ architectural equation would sound something like this:
- All architectural interventions must be fit for the specified purpose. Additional functions are encouraged.
- All architectural interventions must provide ease and efficiency in use.
- All architectural interventions must not produce waste in their construction or dissassembly.
- All architectural interventions must be equipped with recycling and composting facilities.
- All architectural interventions must be energy efficient in their design. There must be no wastage of
energy, just transference.
- All architectural interventions must be environmentally sensitive, in context, design and materiality.
- All architectural interventions must collect rainwater.
- All architectural interventions must produce renewable energy.
- All architectural interventions should be considered as something temporary. They should be built, un-
built and re-built. There should never be a ‘finished’ or ‘final’ product in architecture, but a temporary
pause in construction/deconstruction.
- All architectural interventions must be dissembled and recycled when not in use.
- All architectural interventions are encouraged to re-use existing buildings, through the adaption of the
building, or the dissembling and re-use of its material.

These factors may seem drastic and in some cases unrealistic, but I feel they are necessary if we are going
to change our race from the destructive force we now are, into the symbiotic creatures we need to become.
I do not believe this to be the most perfect equation, but I do believe it is more ‘beautiful’ than what we
have now. We need to continually question the way in which we live. For there will never be a perfect
state. “There is no final result, only a continuous succession of phases.”10 People’s needs change, therefore
equations and solutions change, and so architecture should be flexible enough to change. We need to
evolve our equations to attempt to solve the new environmental issues we are beginning to come face-
to-face with. We need to reduce the waste of our present and eliminate the waste of our future. We need
to have zero waste from the beginning of our designs. We must evolve in our ways of thinking, seeing, and
making, if we want to survive; we must adapt.

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3  The Use and Abuse of History, Friedrich Nietzsche, The Liberal Arts Press, INC, USA, (1957) pg 5
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7  The Image of the City, Kevin Lynch, The MIT Press, Cambridge, Massachusetts, USA, (1960) pg 2
Book I, Chapter III, pg 17
10 The Stones of Venice, vol. 2, John Ruskin, Merrill and Baker, New York, (1897), pg 400
11 The Stones of Venice, vol. 2, John Ruskin, Merrill and Baker, New York, (1897), pg 400
Analysis/Research
Preliminary Sketches/Models (Semester 1)
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Empty shells of buildings litter our cities, in states of decay and dereliction.

Pockets of these statues, retard and stagnate the growth of our cities; they immobilize urbanisation, they squander land, they handicap networks, and they inhibit the potential for optimal human experience.
RE-SEEING THE DERELICT
A building detached from its context, by vacancy, becomes an obstacle in the progression of its surrounding environment.
Analysis/Research
Research of Limerick’s Disuse (Semester 1)

Partially Vacant Areas of Limerick

Vacant Areas of Limerick
Partially Vacant + Vacant Areas of Limerick

Priority of areas in Limerick (Red1st-Orange-Yellow-Brown)
1st Priority Areas (City Centre)

1st Priority Areas (Only Vacant)
1st Priority Areas
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Analysis/Research
Preliminary Project Proposals (Semester 1)
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"Oxide" swelling glass - key to cleaning up contaminated groundwater
- Breaks down<br>odor<br>- Releases antioxidant<br>compounds<br>- Can be added to concrete<br>- Increases permeability

"Filter" dry ground glass bound with acrylic binder
- Can be applied in situ<br>- Can be mixed in<br>- Can act as a filter<br>- Can be used for treatment of contaminants

"Bentonite" soil-processed soils<br>- Can cover and reinforce<br>- Can be mixed in<br>- Can be used for structure

"Geo" geotextile composite product created from composite of recycled fibers and underutilized natural materials
- Can replace traditional geotextile<br>- Can be used as reinforcement<br>- Can be used for construction

"Engage" site-specific installation program similar to terraces
- Can be used for art<br>- Can be mixed in<br>- Can be used for treatment of contaminants
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An Urban Recovery Strategy Limerick, Addressing the Issue of Waste
Analysis/Research
Preliminary sketches/Models (Semester 2)
Niamh Lynch
SAUL
An Urban Recovery Strategy Limerick, Addressing the Issue of Waste
Analysis/Research
Site Investigation (Semester 2)
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An Urban Recovery Strategy Limerick, Addressing the Issue of Waste
Analysis/Research
Preliminary Project Proposals (Semester 2)
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An Urban Recovery Strategy Limerick, Addressing the Issue of Waste
Niamh Lynch
SAUL
An Urban Recovery Strategy Limerick, Addressing the Issue of Waste
Analysis/Research
Research of Structure and Materials (Semester 2)
Niamh Lynch
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An Urban Recovery Strategy Limerick, Addressing the Issue of Waste
Site Description/ Outline of Project Brief/Programme-
Site Analysis, Location, Existing Programme
Proposed Brief of Site

**Brief**

- To make the public aware of the rising issue of waste in our world.
- To prototype an architecture of evolution, an architecture that can be built, un-built and re-built. An impermanent architecture that can be disassembled when not in use.
- To create a spectacle to draw the public to the site to bring them face to face with recycling.
- To make a statement (through architecture) to force the public to open their eyes to the possibilities waste holds; waste does not have to look like waste, it can be beautiful and wonderful, it does not have to be limited to furniture and facade, but that it can also be structural.
- To provide the city with a recycling centre while regenerating a disused/vacant area of the city.
- To begin to cure the city of this disease of dereliction; to recover and salvage what can be saved, and to disassemble and recycle the rest.
- To reuse the vacant buildings, remove the buildings unfit for reuse (allowing the block to become more permeable) and adapt/restore the buildings that can be salvaged (the Thomas Street mill).
- To provide a workshop run by a FAS scheme, where furniture can be made from the recycled material and sold onsite.
- To provide the city with open public areas along with a cafe and bicycle dock.
Proposed Programme of Site
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Schedule of Areas-
Final Proposal/ Presentation
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An Urban Recovery Strategy Limerick, Addressing the Issue of Waste
Final Proposal

In relation to Limerick, there is a monstrous amount of waste; vacant buildings, disused sites and waste product. We cannot continue to create new builds while these skeletons of architecture, bereft of function are left to rot. We cannot continue to live in a world that is rotting before our eyes. We cannot advance, develop or prosper in a world of ghosts.

My thesis project is based on a type of urban strategy and through a succession of phases, will combat the pathological issue of waste on an economic and ecological scale.

Phase one:
Occupation of Vacant Sites- By occupy, I don’t mean build. I mean to allow the site to BE occupied. Tear down the boards and fences and let these spaces live. Allow the fences to be reused, twisted and reformed into something that can be inhabited. Allow it to create space rather than cordon it off.

Phase two:
Disassemblance/Salvage of Vacant buildings- What is worth saving? What is economically viable to conserve and what is so delapidated that it is no longer fit for reuse? Nothing should be allowed to sit idle and rot. There needs to be an architectural exorcism, a cleansing of dereliction and a salvaging/recycling of its material. By disassembling the warehouse on this site and recycling its material; the site can become more permeable and allow access into the beauty of the mill buildings within the core of the block.

Phase three:
Adaptation of Vacant Buildings- The greenest building is the one already standing. We need to reuse as much as we can. By adapting the vacant mill building on this site, you can reduce building costs, C&D waste and construction time. The proposal is to manipulate the mill building to allow for a recycling centre by means of extension. A FAS scheme could be set up in the adjacent vacant building, where craft/furniture etc.. could be made from the collected waste material from the recycling centre.

This site could be a system. Waste collection-processing-upcycling- and could be sold onsite.

Phase four:
An Architecture of Evolution A new Typology. A Recyclable Architecture Derived from Recyclable Material- An architecture that combats waste and doesn’t produce waste. I envisioned this typology to be a type of spectacle, changing the aesthetic of waste and shouting out about how we need to see/make differently. The reason for this installation is to draw people to the site; to bring them face to face with the inner workings of a recycling centre, reminding them of the urgency of this rising issue of waste. It is also to show that waste can be beautiful, interesting and spectacular.

After researching, testing and creating structural members from waste; the construction method I arrived at is a type of scaffold grid that can be adapted, altered, built/disassembled by hand and extended if additional space is needed. The standard scaffold would be accompanied by a ‘kinked’ member on which a skin can be placed. Reused rebar’s would brace between these kinked struts, and the skin would be in filled into these triangulations. The idea is that the skin is removable/changeable and can be refreshed as recycled paper/plastic etc.. The idea of the adjustable skin is to allow light into the recycling centre and to allow for ventilation. The standard scaffold created the floor planes, and the ‘kinked’ struts and vertical scaffolds carry the skin.
An Urban Recovery Strategy Limerick, Addressing the Issue of Waste
PHASE FOUR

AN ARCHITECTURE OF EVOLUTION - A NEW TYPOLOGY
A RECYCLABLE ARCHITECTURE DERIVED FROM RECYCLABLE MATERIAL

AN ADAPTABLE ARCHITECTURE.
ASSEMBLED/DISASSEMBLED
BY HAND.
ELIMINATING C&D WASTE.
CREATED FROM WASTE.
RE-SEEING WASTE AS A
RESOURCE.

A SERIES OF PIECES.
A COLLECTION OF PARTS TO BE
BUILT, UN-BUILT, RE-BUILT.

AN EXPERIMENTATION.
TESTING, PUSHING,
EXPLORE THE
LIMITS OF A
MATERIAL.
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