Shopping centres are cathedrals of the 21st century housing our faith as a society; reformation on the cities edge for ecological and social prosperity.

Reformation - improvement (or an intended improvement) in the existing form or condition of institutions or practices, etc., intended to make a striking change for the better in social or political or religious affairs.

Reformation - a religious movement of the 16th century that began as an attempt to reform the Roman Catholic Church and resulted in the creation of Protestant churches.

Reformation - rescuing from error and returning to a rightful course.
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Thank you all !!!
Introduction.

I started with questioning the shopping centre and the importance of its role in society. Through this questioning which I explored in reading, writing and reacting I began to explore an alternative for the conditions created by the evolution of the Shopping Centre. My thesis intent was to find an alternative civic space between suburbia and the cities edge to work towards a more ecological and socially sustainable future. This searching brought me to, a once important site in Limerick cities history. The Greenpark horse racecourse could once again play an important role, facilitating a Hemp Research Institute on its land accumulating materials, ideas, production and memories for the future.
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Introduction.
Before instigating a witch hunt or trial of the Shopping Centre as we recognise it today. We need to think and imagine how and why it can be described similarly to a Cathedral. The first thoughts that come to mind when thinking of the relationship between the Shopping Centre and the Cathedral are the different positions in time. Especially one is full of stuff and the other is empty. Structurally Cathedrals are heavy and enduring while the shopping centre is light and temporary. It might be beginning to feel like this is an attempt to call fire water? Cathedrals were the the dominant structures on the land central to all human settlements for hundreds of years representing a seat of power controlling our beliefs and ways we would act in the world. Faith is a collective belief in the supposed power of a common good or goal when we place our hopes and dreams into a way of life and act of living. As we will see the Shopping Centre is part of a global capitalist system dependent on our desires and dreams to place ourselves in this world of consumption, to have faith in the global market and to perform our civic duty to consume.

The Shopping Centre is a fairly new phenomenon ignited side by side with suburbia as the post-industrial city expanded outwards. Shopping and our glorious history together as a society and an act of living integral to the existence of everyday life on this planet evolved from a civic activity from the agora to medieval markets, the first covered street in Europe to the first specialised shopping centres downtown transforming to the mall on the periphery of the city. Indeed the mall is now central to our lives as a human endeavour but not central to our urban fabric. The mall is part of a utopian dream or second chance at attempting to cleanse the social life of the city, finding a common denominator of social integration to build community through consumption. The core of consumerism promotes individualism of an ideological driven economic force directed at the needs of the individual through appealing to their desires and fantasies which is contradictory to any sense of the word community. How has this once mundane activity become the focal point for our society? that has infiltrated our psyche as we place our hopes and wishes in these new cathedrals of the 21st century . What are the consequences and potentials from the paths we have taken in shaping our land for the social pursuit of happiness or the search for the good life that we find by default in our society.
Humanity has always placed faith in some idea or place that could ease the suffering of existence bringing hope of a better life, sometimes attainable from a journey overseas to a new world of possibilities or the journey of death which begins leaving the body and the physical world into the spirit world where all suffering ceases. Searching for the new and better world today will take us to the outskirts of our cities extending city civic life where all the roads are shaped around and lead too suburbia. Utopia is the name given to this endless searching to escape the here and the now and religion is our first known organised belief in utopia or something better. Religion promises followers a life of unlimited prosperity for the good deeds done and acceptance of the misery in the here and now. People of the time went to extreme lengths to build houses for God on the land, pushing higher and higher towards the heavens. Going to such extreme lengths to harness God's greatness in structure and form, reminds us of the greatness that awaits the faithful. Thomas Moore (1516) first coined the word utopia writing of a place in a far off land called Eutopia where people lived in ways that seemed so idealistic in comparison to the reader of that time. Utopia acted as a provocation against the ruling class by highlighting the good life attainable in everyday living free of elite power structures imagined on a faraway island not yet discovered. Bloch writes of two distinct types of utopias, that which is abstract or concrete and the difference between the two. Abstract utopia is the imaging of a better place and time, a type of mental escapism from the mundane offered by religion. Concrete utopia is the realisation and bringing about into the now the necessary change to reach the ideal way of life. Consideration that the shopping mall might be a utopian or dystopian type vision brings to mind the questions. Who are the visionaries that brought it into being, how did this development happen with and what was the outcome?
Humans have always required consumption to live because it is a necessity required by eating, sheltering and heating our bodies which are all every day rituals that are a must for surviving, which Smart calls a mundane consumption. Acquiring commodities for consumption has always been a civic activity which first took place in the Greek Agora continuing into the medieval market place where commodities from overseas alongside local products were acquired for consumption. Firstly we see the development of shopping arcades and malls (covered streets) and the first department store being considered Le Bon Marché in Paris 1838. While in the mid-19th century we begin to see the introduction of middle class haberdasheries with plate glass windows and gas lighting displaying their wares enticing the consumer in. Consumerism is pushed forward with innovation of the department store. Macy’s established in 1858 a dry goods store by 1880 was occupying 11 adjacent buildings, then expanded and moved to its current location Herald’s square in 1924. By that time it had become the world’s largest store selling 3650 times more product than in 1880. Bigger is better a motto worthy of the USA as innovations of production increased output with the development of the assembly line by Henry Ford. Henry Ford searched to standardise the approach how products are assembled, this resulted in the division of labour and simplified tasks. Separation brought with it the loss of worker control, with an increase of production through labour with reduction in cost. Increases in production of standardised goods coupled with mass production and consumer demand. We begin to see for the first time in human history that production outweighed men’s needs and the new need was to make men want what machines could toss out. Kavanagh writes on Marx’s position on the importance of labour which is central to the identity of man, which is extorted by capitalism to put man to work at alienating labour. Man was separated from the fruits of his labour which should be an enjoyable rewarding pursuit.

Shopping as a civic occupation originated in the city streets with specialised department stores and shopping centres housing the new products of industry for the consumer to fulfil their desires and fantasies. Production is not necessarily an attempt to fulfil the needs of the consumers but instead it pulls the consumer into a circle of manipulation through marketing, branding, advertisement and retailing strategies. Citizen’s true needs are not the primary objective as they are seen only as an object to consume the products of the desires and fantasies projected to them, acquiring them to consume more for the better good of an ideological system. Strategies of this nature are neo liberal economics of the late 20th century adhering to the free market with little interference from government.

Alongside consumer society we see the idea of consumer choice, consumer freedom to participate in consumption as identity, status and a form of social inclusion. Commodities of cultural consumption are the products of capitalist enterprise that supply the demand for goods and services providing sources of entertainment, communication and ornamentation which all help to define social status. Fashion, music and film are specialised cultural commodities laboured in distinct geographical locations such as Milan and Hollywood. Cultural production succeeds mass production as a means to economic gain in the 1970s. Collapse of the Fordist boom in the 1970s and 1980s devastated the cities of northern America and Western Europe forcing regional government to reconsider their source of finance, resulting in the development of a partnership between Public and Private sectors, pumping public money into speculative development. The mass production of goods and the breakdown of the Fordism boom coupled with the integration of government and speculative development. These global economic events eventually ignite mass building and development in suburbia, following the design and ideologies of a global system.
Outlined above are parts of the methods and means which have changed the world around us. Stretching and transforming the city from a predominantly industrialised work horse to a post industrialised city. Cities produced and consumed cultural commodities where sales were no longer confined to the centre of our urban fabric. Civic life has escaped to the periphery which Gareau calls edge cities. These edge Cities contain all the primary functions of a city. Gareau finds these spaces sterile lacking community, public space, street life and culture. Edge Cities rose from the suburbanisation of America after World War 2 by moving homes, marketplaces and jobs out to their place of residence which was previously green field sites.

Ireland is not central to the story of the evolution of shopping centres and suburbia. It finds itself a small player in a global market of the big boys whose patronage might display some Irish roots. We as a nation are proud of our Irishness and this has been exported around the world as a quaint rural land with mystical individual qualities with strong religious beliefs that was once upon a time. This image shifted when we were no longer satisfied with being the small boys in town. Ireland’s search to be taken seriously as a player within economic spheres would transform our cities structure and aesthetic. Presently we are recovering from an economic crisis hangover and we are beginning to question our identity again searching to redefine our image of ourselves. Beginning to move forward and keeping this narrative of Ireland in mind, I describe the evolution of Dooradoyle from a green field site to an edge city.
Dooradoyle or Tuar an Dail originally, meaning blind man’s bleach green and debated also to mean the tribes ploughed land. It found its place once as a prehistoric settlement marked on the landscape recognisable today as a ring fort. Looking towards the not so distance past when Limerick had evolved past a medieval fortress walled city. Maps from the 1800 show the order of the newly imported colonial Georgian grid nestled closely to the medieval old city. Located in noman’s land Dooradoyle is south of the city with three noticeable markings on the map, three scars from a prehistoric past. Along comes the industrialisation of the city pulling the masses in pursuing work forcing them to live in squalor conditions typical of many cities of pre modern industrialisation. Many things remain the same in the city until after World War 2. Much of the early 20th century was consumed by wars and the great depression a customising attitudes to believe that more misery was ahead. Instead new possibilities emerge and once hands of the war machine turned their hands to building Suburbia. Great optimism was placed in the possibilities of the edge of the cities because land was required to house the expanding city populations. Till Hazel a southern from the United States was born in 1930 who remembered the land when suburbanisation begun. Hazel once found himself on pasture land as a child when he witnessed the building of Pimitt. Excited by conceived prosperity that America was recovering represented in the springing up of hundreds of houses on once farm land.

Ireland had its quaint rural magical landscape and time arrived for Ireland to join modernization. Suburbanisation happened due to the need for housing for the new influx of population and in Limericks case to fill the need of employment in the food sector. Employment could be found within factories of the Fordism boom present within and around the city of the 1950s. Utopian refuges are located in these edge cities for people with financial prosperity looking for security and better amenities such as education and leisure. These edge cities are self-contained decontamination tanks of urban life. Dooradoyle once a blank site was going to become detrimental to the city centre as it grew from nowhere to somewhere. Initially we see the development of suburban houses emerge to house the workers for a new city. A regional hospital was built to serve the surrounding areas of Clare, Limerick and North Tipperary. As the population of these suburbs expanded there was development plans put in place to build the necessary road networks and shopping facilities to service this new suburban village. Crawford sees the suburbanisation of America as a phenomenon that happened from the building of low density housing alongside regional shopping malls. The Dooradoyle shopping centre was born in 1973 named the Crescent.

The Crescent simulated the design and ideologies of Victor Gruen the pioneer of Shopping Centre design. Victor designed and built the first covered mall in 1956. Ireland had begun to import the modernist ideological world and say good bye to its past. The suburbs of Ireland would never be the same again pursuing this new approach to dealing with the development of cities and its perceived problems. Shopping malls have become part of a utopian endeavour to recreate an ideological escape from the dystopia of the city centre. Consumers consider the shopping mall as an attainable utopian space where the problems of society and the inner city are kept from the internal world sprouting on the periphery of these new edge cities.
Looking at the shopping centre’s roots, its environment of incubation along with its conditions, the time has come to immerse myself with in its world. Here I will call on the experiences and observations within this internal world where the outside world ceases to exist. To be successful in my observations I call on the actions of Flanerie. Calling myself a Flaneur I will look for an image and memory of this alien world. The flanuer in its origins is French for idle stroller. Benjamin was inspired by the poetry of Charles Baudelaire and saw the flaneur as a detective observing the city. Sometimes the flaneur would carry out his observations in a dreamlike state layering the present over memory recording the actions of people in space. Benjamin believed Baudelaire was created by the city carrying out his actions in the Boulevards and department stores of Paris after 1830. My past experiences of visiting a shopping centre as a flaneur in the terms of an idle stroller waiting to be incised in to this world of distraction. I will put these memories alongside my observations and recordings that were sussed out like a Flaneur in the detective sense together with the knowledge from my research to begin to tell this story.
Christmas 2012 I visited the Crescent shopping centre as an engaged consumer just after my break from my studies. I was looking for some gifts for family and thought it would be a good idea to experience this place of interest at this particular time of year. Fortunately for the environment and unfortunate for me I don’t own a car so I rely on public transport for my excursion out to suburbia. Living in the city centre and bearing the hardship of the crisp December air I board the warm busy bus packed with people like me who are not car owners. People that find themselves unable to answer the call to consume, find themselves excluded from consumer activity creating a barrier for social inclusion. Desires and fantasies that are ignited in citizens with no capital to consume that might have narcissistic tendencies, might find that they need to resort to criminal activity to participate. Smith sees the development of the shopping centre in Northern Ireland as an adopted model from the United States of America built for a leisure activity. The mall is supported by urban sprawl which lacks distinctive culture taking from the life of the town centre and replacing it with a privatised culture that isolates the have not’s, unable to partake in this consumer culture. Thinking back I wonder how many people actually lived in the city centre or who had already commuted from a different suburb to the city centre just to hop on another bus to make the journey out to the Crescent. This thought might seem absurd that someone might have to enter the city and leave it again because of the lure of the Crescent and the wares it offers. This just happens to be one of the side effects of edge cities when all the popular outlets follow the people’s choice of destination.

Attracting the right consumers to the shopping centre is achieved by having a complementarity mix of stores. This varied mix of tenants offers the consumer a feeling that there is something for everyone in this eternal world of externalities attracting the targeted consumers. Suburbia is predominantly suited to the car owner. The main artery with the city is essential in maximising the catchment area for the centre while also providing link with the city for residents who are non-car owners. Maximising foot traffic within the mall is one of its guiles in taking retail tenants from the city centre offering a non-interrupted shopping experience for the focused shopper. Shopping centres have none of the distractions found in the city. The sole purpose of this mutated Venus consumer trap is to try and sustain the appetite of the consumer to stay as long as possible spending as much as possible.

A lot of the people on the bus are teenagers who happen to be naturally drawn to the mall for social aspects meeting friends while shopping and eating together. These shop goers are obviously too young to drive. Leaving the city centre we drive through the older suburbs of the city reaching the green belt signalling that we are leaving the city ascending a newly built intersection affirming the importance of this link with the city. Descending the intersection the Crescent is now visible with its acres of shining metallic parked cars sparkling in the dimming winter light with the fading silhouette of suburbia on the horizon. Arriving at our destination the throngs leave the bus except some older people who are returning home from the city to a place they have lived from its conception. After leaving the warmth of the bus and faced with the cold air I anticipate entering the portal in to this eternal world offering respite from the climate. Undoubtedly this artificial environment adds to the success of this Homogenous building protruding from a sea of tarmac. Arriving at the entrance and the only break in the building’s brick wall façade with no inclination or glimpse of what lays ahead inside.

Beside the modern steel and glass entrance is a chapel built in brick and long slender rectangular windows with an architectural language of the 70s while conceptually representing a time when religion was just as important as shopping. Entering this world I notice that I am following a path tread by many as the place is packed with consumers so much so it is organised chaos. Festivity is in the air and as I travel further from the portal from the outside world the inside unfolds. I notice the ceilings get higher and the materiality changes the further I go and as I reach a big intersection point with a vast open space with Christmas decorations and giant Santa’s and Christmas balls hanging from the ceiling. While observing the festivity I remember attending the switching on of the city lights when it was emphasised by the announcer to encourage spending in the city. I realised to myself that the mission here is to browse quickly and get out as quick as possible and return to the city not to act on the advice of city council. I was responding to feelings of claustrophobia and anxiety wanting escape from the amplified chatter of the masses. My ears picked up on certain murmurs “my budget is twenty euro but I spent forty and I still have to buy for so and so”. I realised to myself that we are all driven by the same ideological incentive to show our love for loved ones by spending, performing our civic duty to consume. Compulsive shopping disorder affects 8% of Americans or 23.6 million people, increasing serious debt resulting in relationship and family problems. Addictiveness to consumer culture is a success for the marketing industry but detrimental to society. Pursuit of acquiring more has not resulted in long term happiness even though people get to travel more are wealthier, healthier and live longer. Depression and stress are by products of our consumer society. Trying to observe and analyse in this environment was too distracting let alone trying to get in to the shopping mode as the stress and tension in the air forced by the season of good will was electric. Escaping the centre and retreating home deflated and drained I knew I would have to attempt the Christmas shopping madness again. The next time I decided I would do it in the cold city where at least you could escape the main thorough fares for a break.
Above - A sea of cars comes in tidal swells to consume the surrounding landscape.

Right - No views to the outside world, only glimpses of daylight.

Below - The outside world is locked out.
On my first visit of getting to experience the Crescent at its fever pitch of spectacle, I decided to revisit the Crescent on a mid-week to experience it on a calmer occasion. Before conducting a second visit I researched the Crescent in its virtual domain. Typing in the search word the Crescent Shopping Centre Limerick I access the web page. “Putting the Customer first” is the motto for the shopping centre. These are words that begin to stir emotions of trust placing my confidence within the possibilities of this place being a place for me and my enjoyment. Shopping centres are marketed in such a way to make people feel that there is possibility to belong and have your cares evaporated through retail therapy. The people and designers who build the shopping centres take advantage of our nostalgia for authentic community while promoting the shopping centre as alternative for modern community life. This is evident when we look at the shopping Centre floor plan with separate bright colours and names for the circulation routes named after place names of limerick. Garryowen mall, Shannon mall, Dooradoyle mall and city mall all notify the stroller that they are some place significant with a community and not anywhere. Garryowen is a place name for a city suburb which once was on the periphery of the city located close to the city centre 3.5km north east of the Crescent Shopping Centre. On my last visit to the Crescent acting as flaneur I went with the intent to observe the workings and behaviours within this place which simulates itself off the city. Returning the same way and path travelled at Christmas I now know to be the original Dooradoyle mall. Inside the Dooradoyle mall strip I notice some activates that represent some authentic city life. School has finished and teenagers are hanging around talking and eating while some are getting their hair cut. Older people are in the family butchers buying meat for a meal. I come to the end of the Dooradoyle strip of the mall and enter into an intersection point taking on the properties of a small town square. Senior citizens are occupying some of the loosely dispersed seats reading their newspapers seemingly not occupied with consumerism.

At this time in the journey from entering the Dooradoyle side of the mall I have passed a chapel, barbers, a café, family butchers with some bigger international stores in between. On arriving at this enclosed square where people are sitting in what seems to be a civic space surrounded by stores I notice the information and security boot in its centre. What strikes me in the overlapping of the feelings and observations witnessed alongside the information I have read is that this is not all constructed for the betterment of a community but clever retail management. These are the practical amenities we need to have spatial and social experiences that will become memories and associate it with a place. Along with pertaining to be a place for community to develop this experience it is about control hence the information and security booth.

My last visit to the Crescent Shopping Centre as flaneur nearly landed me in trouble for taking pictures inside this secretive world. I had only entered the Shopping centre and begun taking some pictures when a security guard approached, telling me I was not permitted to take pictures. Afterwards I continued my journey through the shopping centre feeling like a flaneur in the sense of idle stroller. Anxious to take pictures but afraid of interruption from the shopping centre security, who might confiscate my camera which I could not afford. Feelings of separation and not belonging came over me because I was not participating in the events of consumerism which is the purpose and nature of this place. Buck Morris comments that the act of flanerie in a totalitarian society rises suspicions of possible threatening behaviour.21 Ironically Walter Benjamin saw the death of flanerie with the development of the department store in Paris, when streets became introverted.21

Interestingly the Shopping Centre functions as a focal point for our society, acting as a civic place for community to gather for recreation and interaction. While in reality this is a highly privatised world. People do not have the same freedom as they can find in a city centre with public parks and amenities for people of the city to use for free. One cannot find a drinking fountain in the Crescent shopping centre and the only space that is free to use is the parking lot, toilets and seating with no desired views. One cannot help but think of a cult mentality when all operations and strategies of control are subverted. People attending the Shopping Centre are blissfully unaware of the control being placed over them. The Shopping Centre is an internal world with no connection to the outside world. Windows open to the sky for lighting which alienates people from their environment outside to focus on consumerism. People are cut off from the outside world where all operations inside must remain covert. Bauman sees the shopping centre having phagic qualities that alienate otherness in people and place.22 Scarborough sees a lack in third spaces outside the home which offers social outlet for community with propinquity.23 Diane Negra points out that the Dundrum Town centre in Dublin alienates community events which threatening’s consumerism.24 Dundrum Town Centre is Ireland’s largest Shopping Centre for people from the community of Dundrum and beyond to occupy. As long as the community are spending rewarding the developers and speculators their returns. Activists from the Get up and Stand up campaign were kicked out of the town centre for asking people to join them in occupying their town centre without spending. Shopping Centre security said they were putting shoppers at risk.25 When I told a friend and she told a friend about my incident in the shopping centre of not been let to take pictures. People tend to see the shopping centre as a public space for them to enjoy equivalent to the city centre. Citizens are shocked to learn that there is no democracy within these spaces where they place their hopes and dreams as a society.
We have come to recognise the Shopping Centre as an important part of contemporary life. The Shopping Centre is a place where money is spent in satisfying a social need. Shopping Centres portray to be a civic space which in reality is privatised and controlled, whose patrons cash in on our desires. Before in the agora people talked to the artisans and producers of their wares. Mass production of commodities has lead to a highly efficient money maker which is extremely lucrative to developers while separating man from creative labour. Developers desire to make money while gentrifying rundown urban areas on the shopping centre model whose beginnings flourished in suburbia. Today the city is competing with the shopping centres on the fringes of our urban fabric. Societies only answer is to build more Shopping Centres in the hearth of the city to counteract the mass exodus of shoppers to suburbia. All the time the city expands outwards following the suburban model, using up valuable land for a system that to me is confused on what its ultimate goal is. It is becoming unclear what role the city and suburbia can offer apart from each other. The edge of cities traditionally serviced the city centre, when produce from the hinterland was sold in the city in specialised market places. Looking at the Georgian map of Limerick city from the 1800s we see a milk market,
potato market and hay market. Importing a modern ideology has encouraged us to turn our backs on the productive land on the edge of our cities. We now find a private world where civic life has settled getting produce from a global hinterland which is unsustainable. Communities have no civic space to develop and are being manipulated into an economically driven world where their interests are not the priority of the global economic force. Since the amalgamation of the public and private sectors speculative development has gone unplanned and unchecked resulting in the urban sprawl placing the cathedral of the 21st century at its hearth. Here are the words of a clergy man for the opening of the new Dundrum Town Centre, if it should be called that.

'God of Beauty, may we see in the magnificence of this centre, a reflection of your beauty, variety, brightness and colour, may it fill us with wonder and may it raise our hearts and spirits to you.' Negra sees this as the grafting of the conventional Irishness with the new. I see this as an attempt of one power overthrown, latching on to very thing that has brought its downfall. The city is under threat of being stretched and distorted beyond recognition. Reformation is needed on the cities edge to work towards a sustainable city. The city centre should be distinctively urban while the edges can provide a distinctive experience, while being productive. People of the city can have both urban and rural experiences, which was the natural model of the city.
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Introduction.
Limerick city has been affected badly from the importation of the modern ideology of the shopping centre. People have left the city centre in favour of the suburbs creating a doughnut city. Developments of this nature can be taken advantage of while looking towards the hinterland as a place of production in to the future. Dooradoyle and Castletroy are located south of the river Shannon where there is a green belt of land separating the city from these new suburbs. South of the city within 5 kilometre radius there is approximately 1,450 Hectares. There is enough land here to feed the entire population of the city. This land is just within the reach of the city which is surrounded on all sides by fertile land which Ireland is known for. I think there is great potential in having a hinterland that can produce a source of sustainable materials for the city, the hinterland can be a site for production, study and innovation.

I am very interested and excited by the possibility of industrial Hemp. Hemp has been used by man for thousands of years and is acknowledged for its wide range of applications. The plant is an annual crop and one acre of hemp can produce four times as much paper as an acre of trees over a twenty year cycle. The whole plant can be used. The plant produces bast fibres, hurd and seed. All these materials can be used in different applications to make construction materials, papers, wools, bio plastics, bio fuel, and much more. Ireland is a perfect candidate for hemp production but is lacking the facilities to process hemp and advance the research in the potential uses of this material. I propose the design of a Hemp Research institute with the facilities to process the plants parts. Providing the city with this facility will offer farmers incentive to turn their lands in to sources of resource for the city. Any surplus materials or innovative products can be sold on the global market as a source of income to the city. This facility needs to bring community together through the program allowing moments of interaction between production and civic inhabitation.

Thesis Project.
While searching for a possible site to test my architectural thesis I looked for land that was not built on and occupying the space between the city and suburbs. This searching started with browsing maps and then physical journeys to potential sites. All potential sites occupied the lower contours on maps and physically these places were partial wetlands. The site I discovered while walking these amazingly tranquil and scenic places is the old Limerick city horse racecourse situated south west of the city. The Greenpark racecourse as it was known was facilitating racing for over 130 years before closing in 1999. It was host to Pope John Paul’s visit to Limerick in 1979 when 300,000 people attended. It is a place with a rich history, but on the day I visited, the site was abandoned where all history had being overgrown by time and nature. The site is sitting between two suburbs, one to the south called Dooradoyle and the other to the south east called Ballinacurra.

On the southwest and directly sharing the perimeter of the site is the industrial area of the city with the docks to the northeast and industrial buildings directly to the north. To the western edge of the site is the Ballymacogh river with neighbouring pasture lands. To the north east boundary of the site is the new greyhound stadium. Most boundaries of the site consist of hedgerows and trees, except the greyhound stadium to the northwest which has none. The site area is 45 hectares.

On site amongst the berms that have being created by building waste dumping there is structures that lay beneath the surface, road ways that cut through the centre of the course on a north east and north west axis. These were put in place to service the construction of the Limerick tunnel. Also hidden and partially sunken in to the topography of the terrain is the old parade ring where horses were displayed before races to check form, while the winners were paraded.
and displayed in this mini amphitheatre. The concrete terrace of the stand is still in good condition with some moss and grass covering in the adjoining corners of the vertical and horizontal steps. Residential development to the south east has resulted in the construction of an attenuation pond to take surface water before been released into the Ballynaclogh river. Water ditches surround the perimeter of the track and water ditches are crossing diagonally across the centre field inside the track. These Water ditches are in place to drain the land. The natural topography of the site is naturally flat to the north with the land inclining to the south with a height difference between the highest and lowest site level of 2750mm. To the southwest of the site alongside the Ballynaclogh river are 3 metres high earthen embankments for flood defence. Given the land is low lying and has been prone to floods, the soil is alluvium from mineral deposits off the river Shannon offering a very fertile soil ideal for farming.
The program should facilitate the processing of harvested industrial hemp from farmland of the occupying hinterland of the city and surrounding regional areas of Limerick and Munster. The Hemp research Institute will research the best ways to grow and process hemp in an Irish context while also researching the potential uses for this plant and its parts. Processing techniques of Hemp vary for the desired application of the plants parts. This answer can be determined on the technique of harvesting, whether the harvest will be retted, dried and stored on farmers land or should it be baled wet and transported directly to the decortication plant.
Decortication is the term used for the separating of bast and hurd fibres. What are the best methods of decortication for a particular species of industrial hemp for a better or finer fibre, mechanical, chemical or steam explosion decortication? These answers vary the degree of separation of the bast from the hurd fibres, resulting in the fibres potential application and technicality. French Hemp is retted in the fields, dried and stored. In this instance hemp that has no foliage can be chipped with no separation of the fibres to be mixed with lime to create a breathable lightweight construction material that can be tamped into or sprayed on to a formwork.

The problem here is with no separation of the fibres there is waste of potentially strong finer fibre, with a more technical application. The auto motive industry use long fine bast fibres with bio plastics and acrylics extracted from bio oil to form panels for the interiors of cars. The Hemp Research Institute should facilitate research into decortication methods in laboratories on a small scale before trial on a larger scale within the large decortication shed. At this point in the process Separated fibres can be sold on the global market or passed on to the Applications Research Department.

L-R  Site Plan: The shaded contours emphasize the change in ground heights which is a theme carried out in the project to arrange the program. The program in lower levels of the plan are more intense requiring heavier machinery and equipment. The main body of the project is the slender central form which is built on existing made ground cutting through the the existing race coarse. Building on this land reduces the amount of infill that is needed on site and strategically it links the north east and the south east. This links the suburbs of Ballinacurra and Dooradoyle separated by the doughnut effect. People can walk across the site and offered oppurtunities to look in or use the facilities offered to the public. The green areas are landscaped parks giving the community of both suburbs and beyond a external meeting place incorparating the new greyhound stadium.

Diagrams: Showing the trasnportation networks for the delivery of hemp and exportation of produce. Circuitasion on site of pedestrians in green and the flow of hemp through the production and research stages.

Site model: Looking north.
Left - Test pieces exploring the applications of formed paper.

Right - Ground floor plan of the decortication plant, integrated paper and pulp mill and applications department seen as 3 blocks running from left to right.
Hempcrete is light and a high grade insulation which is fire resistant. Hempcrete is lacking tensile strength which could be replaced with the strength of the preformed laminated paper panels. This led me to think with this type of construction method we could reduce the amount of secondary structure required in a building. This creates an interesting dialogue for the architect in the search for structure and form in the design of a building. Hemp is used in the paper industry to a small degree, even though it is a superior fibre for making paper. Hemp has a higher cellulose and lignin percentage and is the longest fibre in the natural world. But the technology to make paper from hemp is lagging behind the timber paper industry. Hemp paper is four times stronger than regular paper and there is a potential for paper to have another use for humanity. Research should take place into hemp paper and its application as a product that can be formed into any shape and mixed with other materials to create a composite. The potential uses could be scaled for a furnishing or a building. Even with the advancements of digital technologies the paper requirements of humanity is increasing. The Hemp Research Institute will research hemp paper production with a small scale integrated pulp and paper mill. From this part of the process the specialised paper can be sold on the market or passed on to the Applications Research Department.

In my early questions into the materiality of the Shopping Centre been a mass accumulation of none renewable products extracted and worked in the poorer nations of the world. In its construction the shopping centre is made by light materials imported from the global market place. The cathedral is made from heavy stone quarried from the locality it is built on. I began working with paper to represent ideas in models to show the contrast in the materiality and form of the two buildings. While I performed this exercise I discovered the potential in the strength paper had when it is was put into and held in form. Starting with a pulp paper mache evolving to laminated strips I found that paper could be forced into form with certain techniques. This produced pieces that showed strength, spring and elasticity. I scaled up pieces that showed particular strength, and was excited to see 18 layers of regular printing paper held in form with pva glue hold my weight. This led me to hypothesise that paper can be formed into a particular form, shape and size to become a permanent formwork for Hempcrete (hemp hurd and lime mortar mix).
Hemp Research Institute Schedule of areas = 45 hectares.

Decortication Plant = 2100m²
Decortication shed = 1000m²
Laboratories = 270m²
Offices = 270m²
Communal canteen = 270m²
Public Landscaped garden = 300m².

Integrated Paper and Pulp mill = 2275m²
Pulp Mill = 1200m².
Paper mill = 1100m².
Laboratories = 135m².
Offices = 90m².
Toilets = 50m².
Shower Rooms = 50m².
Public Walkway = 100m².
Public observation platforms = 100m².
Hemp Fibre Applications = 1240m².
Laboratories = 270m².
Tech Studios = 700m².
Communal living room = 270m².
Public Landscaped garden = 300m².

Hemp Breeding Research. = 2270m²
Green house = 1225m².
Winter Breeding shed =1225m².
Laboratories = 120m².
Observation platforms =100m².
Public Landscaped garden = 300m².
Hemp test fields = 40 hectares.

Above - Cross section through the integrated paper and pulp mill.
Above - Elevation of the decortication plant, integrated paper and pulp mill and applications department.

Below left - Model exploring the relationship of open and enclosed space representing public and private space.

Below right - Model showing primary structure supporting pre formed laminated paper panels.
After research has taking place into Decortication methods and paper production research will need to be carried out on composite material applications for potential industries and as a potential material for shaping our physical world. In the future could we see buildings, fittings and furnishings manufactured from a sustainable crop off the hinterland of the city? The Applications Research Department will facilitate building with this new material while also having a large open space which is adaptable to test and produce products for sale to various industries. People can come and share knowledge, craft and appreciation for this new happening with a new civic experience on the cities edge. I propose community hemp fields to provide materials for tech studios were the citizens can begin to test applications building their own products of desire and function from a sustainable crop on the cities edge. People can share expertise, skill and space on once neglected land which in return can have a positive effect in the city. Commerce will commence, with the sales of these new skilled commodities in the city centre in artisan markets.
What species of Hemp are more suitable for a limerick context? Testing into variety types needs to be researched by the Hemp Research Institute on site along with farmer participation with feedback of different varieties success in the field. In the decortication process seed is separated and stored. Research can take place into variety stability by growing certain varieties on a small scale under controlled conditions isolating plants with desired characteristics along with cross breeding to create a potential variety for particular fibre content and success to grow in a particular growing environment. After certain varieties have being identified with desirable qualities they can be then tested in the Hemp Research Institute fields so this hybrid seed can be passed on to the farmers to maximise their profit per acre.