INDUSTRIAL LANDSCAPE

A TERRITORIAL CONSTITUTION FOR ICELAND
LECTURES

Input 1 - 15./16.14
Intro trip Basel
Intro lecture H. Gugger

Input 2 - 29.14
10:15 N. Kuhn
Intro Iceland

input 3 - 7.10.14
10:15 M. Santanicchia
post economic crisis and the urban environment of reykjavik.

input 4 - 14.10.14
10:15 P.H. Armansson
lecture on construction industries

input 5 - 28.10.14
10:15 B. Bjarnason
lecture on energy industries

input 6 - 27.10.14
10:15 M. Stock
lecture on tourism industries

input 7 - to be defined
10:15 B. Costa
lecture on mapping

input 8 - to be defined
10:15 Uni. Basel dep. envir. sciences
lecture on agricultural industries

input 9 - to be defined
10:15 K. Arnason
lecture on maritime industries
INTRODUCTION

During the last decade increasing attention has been drawn to Iceland, an Island, 2.5 times the size of Switzerland, but with a population of only 325,671 inhabitants \(^1\).

The beauty of this inhospitable and deserted paradise triggers much curiosity and fascination. The particular geology of this oceanic island, which emerges from underwater, provides a sublime extra-terrestrial landscape.

These geological conditions also generate substantial energy resources. Consequently the land has been increasingly targeted for industrial development. Furthermore, since the fish stocks showed signs of instability and quotas were reduced, leading to a decline in the catch\(^2\), the Icelandic government reorients its policy partly around new industrial potentials, rather than trying to maintain the sea cluster as the most important part of the economy. \(^3\).

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\(^1\) Statistics Iceland  
\(^2\) Wikipedia, Economy of Iceland  
\(^3\) MIT observatory for economic complexity, Icelandic export
THE ALL-PERVADING NATURE OF THE URBAN

"The city is manifestly a complicated thing. Part of the difficulty we experience in dealing with it can be attributed to this inherent complexity. But our problems can also be attributed to our failure to conceptualize the situation correctly. If our concepts are inadequate or inconsistent, we cannot hope to identify problems and formulate appropriate policy solutions." 1

Cittá diffusa, 2 metapolis, 3 postmetropolis, 4 global city, 5 space of flows, 6 generic city. 7 These are some of the recently invented concepts that try to name and define the new kind of urban phenomena that has asymmetrically emerged throughout the planet during the last few decades. They each have their own particular standpoint but they all address, to a greater or lesser extent, directly or by implication, issues like: formlessness, fragmentation, juxtaposition, hyper-capitalist economics, obsolescence, information and communication technologies, inequality, gentrification, spectacle and placelessness...

All in all, no matter how diverse and dispersed, all contemporary urban theory seems to agree on the manifest erosion of the humanist conception of the word city 8 and that of its analogous dichotomy city/countryside. Engulfed by junkspace, 9 city-as-object and rural-as-background no longer exist—what is now left is an ambiguous and hybrid condition that is impossible to determine in typological terms. The city has merged with the country-side in infinite, site-specific combinations, and given rise to a succession of mutating transgenic landscapes, 10 which we generally refer to as the urban.

What is nature? One somewhat familiar answer to this question goes something along these lines:

"We are surrounded with things which we have not made and which have a life and structure different from our own: trees, flowers, grasses, rivers, hills, clouds. For centuries they have inspired us with curiosity and awe. They have been objects of delight. We have recreated them in our imaginations to reflect our moods. And we have come to think of them as contributing to an idea which we have called nature." 11

Several things have changed along human history on planet Earth, and nature, in the essential sense of something not altered by human activity (non-artificial, non-cultural) hardly exists any more. Even nature reserves, kept in order to preserve...
valuable natural heritage and fragile ecosystems, are paradoxically designed and controlled by humans, because the act of conservation itself can only ever result in something man-made. Human design (bio-tech agriculture, plastic surgery, beach resorts, rural tourism, green-house tomatoes, hypoallergenic cats) makes so-called-nature take on an artificial authenticity. Genetically manipulated tomatoes are redder, rounder, larger, and maybe even a little healthier than the ones from our gardens. They are a sanitized, tamed and overall more human-friendly version of the real thing. They are hyper-natural, ie. prettier, slicker, and safer than real-nature itself, and the truth about them is that they are actually culture in disguise. The uncanny fact is, the more we learn to control nature, the less nature we have.

“What is nature? Our perception of nature has changed immensely throughout the times and it likely will keep on doing so. The answer is that this very idea of Nature (with capital N) as some kind of reified and alienated “over yonder”, where the grass is always greener, is a mystified and unobtainable utopian ideal. “Just like a reflection, we can never actually reach it and touch it and belong to it. Nature [is] an ideal image, a self-contained form suspended afar, shimmering and naked behind glass like an expensive painting.”

URBAN-NATURE

Urban-nature is a paradox that supersedes dichotomy and that highlights the ambiguous coexistence of these two conditions. As Nature becomes increasingly urbanised, so does the Urban become gradually more natural, to the point where concepts once seen as polarities can now begin to be seen as metonyms.

URBAN-NATURE proposes to explore the potentials that could emerge from a relationship between architecture-landscape, city-rural, artificial-natural, human-non human...

The 11th chapter of our research will focus on the most classical binary opposition: Industry-Nature.
**INDUSTRY**

**def. Industry** is the production of a good or service within an economy. The manufacturing industry became a key sector of production and labour in European and North American countries during the Industrial Revolution, upsetting previous mercantile and feudal economies.¹

**def. Industrialization** is a wider modernization process, where social change and economic development are closely related with technological innovation, particularly with the development of large-scale energy and metallurgy production.²

**IDEALS OF AN INDUSTRIAL SOCIETY**

The first transformation from an agricultural to an industrial economy, known as the Industrial Revolution, took place from the mid-18th to early 19th century in certain areas in Europe and North America, starting in Great Britain, followed by Belgium, Germany, and France.

The "Second Industrial Revolution" labels the later changes that came about in the mid-19th century after the refinement of the steam engine, the invention of the internal combustion engine, the harnessing of electricity and the construction of canals, railways and electric-power lines. The invention of the assembly line gave this phase a boost.

Urbanization is closely linked to modernization, industrialization, and the sociological process of rationalization.

From the 1920s onwards, the Modern movement sought to design and plan cities which followed the logic of the new model of industrial mass production; reverting to large-scale solutions, aesthetic standardization and prefabricated design solutions.

The utopian visions articulated by modernists as Le Corbusier, Gropius, or Wright grew out of a progressive, anti-traditional critique of the 19th century industrial society. They embraced technology for its ability to transform society and the physical environment.

Le Corbusier’s work on the “ville radieuse” reflects this thinking. It aimed to establish an efficient salubrious life for residents of a functionally-designed metropolis that would operate as smoothly as a machine.

In parallel, with the advent of cheap automobiles and favourable government policies, attention began to shift away from cities towards ways of growth more focused on the needs of the car. Specifically, after World War II, urban planning largely focuses on the use of zoning ordinances to segregate residential from commercial and industrial development, and on the construction of low-density single-family
housing. Throughout western societies modernist urban planning essentially fragmented territory into separate monofunctional zones. This led to the mobilization of society in its entirety (all classes, all species, all ages) in order to perform basic life functions.

**POST-INDUSTRIAL SOCIETY**

Post-industrial society is a concept in sociology describing a certain stage of society’s development when the service sector generates more wealth than the manufacturing sector of the economy. One can say that we are still in a post-industrial era. The “birth years” were the post World War II years, which saw great technological developments such as the transformation of matter into energy with the atom bomb. Where once the industrialist was dominant, now the technocrat, the planners and the scientists dominate. The consequences of architectural planning during modernism resulted in significant urban decay as zoning regulations and utilitarian city planning resulted in widespread spatial segregation. The demolition of Pruitt Igoe in 1972 was a statement that planning could not be comprehensively applied regardless of context and rational reasoning.

Especially the English members of CIAM criticized this attitude during late modernism. Alison and Peter Smithson, Jacob Bakema, Aldo Van Eyck and several others formed “Team 10” in order to reestablish human needs and activities in space. The key word in their vocabulary was humanism.

They were in favour of large-scale developments and used edge-defining perimeter walls, cluster blocks and the concepts of pedestrian streets in the air in order to create a sense of place (Candilis-Josic and Woods at Toulouse-Le Mirail [1962]).

There are also different reactions to High Modernism in both European and American contexts. While American criticism of Le Corbusier’s urban vision tended to result in individual buildings or suburbia, European criticism directly proceeded to formulate another urban vision. Neo-Rationalism and Neo-Classicism became
the ultimate paradigms in the postmodern period.

This shift in ideology involved an aesthetic and economic re-evaluation of historical elements in older central city buildings that had been previously systematically rejected during modernism. The consequences were increased rates of gentrification and displacement. It triggered the idea of opposing urban cities to suburbia and the countryside.

After the removal or reduction of industrial capacity, especially heavy industry and the manufacturing industry, a slow process of de-industrialization began. Social and economical changes affected many of the OECD countries and more precisely regions like West Germany, Wallonia, Scotland, Eastern Europe and the North of France.

The consequence was the loss of city jobs leaving some towns devoid of economic resources, followed by the shrinkage of the population.

INDUSTRY & URBANISM

The Industrial Revolution was a major turning point in the history of humankind and in the history of the Earth itself. It changed practically every aspect of daily life, radically altering the essential character of labour and basing all its production processes on machines and the automated logic of mass production, standardization, deskillling, specialization and division of labour. It established an organizational system built around values of synchronization, precision, repetition and efficiency, in which humans now have a different active role—production is no longer based on the skill of the craftsman, but rather on the cooperation between several synchronized automated machines, which are activated by human workers or managers. This change in people’s livelihood left its geographical impression—the demographic transition from rural to urban: “For the first time ever, the majority of the world’s population lives in a city and this proportion continues to grow.” 3 By 2050, almost 80% of all humans will be living in cities, most of them in favelas. “Human population has roughly doubled since the 1960s and will increase by another third by 2030” 4 Urbanization and industrialization are, to a large extent, reciprocal phenomena.

1 Wikipedia, Industry
2 Wikipedia, Industrialization
3 Global Health Observatory report, from the World Health Organization in www.who.int/gho/
4 Mace (2011)
Iceland is an oceanic island and the world’s second largest volcanic island.

**def. Island, Unclos art.121**
An island is a naturally formed area of land, surrounded by water, which is above water at high tide.1

"According to geographers, there are two kinds of islands...Continental islands are accidental, derived islands. They are separated from a continent, born of disarticulation, erosion, fracture; they survive the absorption of what once contained them. Oceanic islands are originary, essential islands. Some are formed from coral reefs and display a genuine organism. Others emerge from underwater eruptions, bringing to the light of day a movement from the lowest depths. Some rise slowly; some disappear and then return, leaving us no time to annex them. These two kinds of islands, continental and originary, reveal a profound opposition between ocean and land. Continental islands serve as a reminder that the sea is on top of the earth, taking advantage of the slightest sagging in the highest structures; oceanic islands, that the earth is still there, under the sea, gathering its strength to punch through to the surface".2

Iceland lies 287 kms east of Greenland, 970 kms west of Norway and 798 kms north-west of Scotland. With an area of approximately 103,000 km², it is the second-largest island in Europe and the third largest in the Atlantic Ocean. Its northernmost part is just south of the Arctic Circle. The population of 325,671 is concentrated along the south-west coastline, where the Reykjavík region is located, which leaves vast central highlands almost uninhabited. About half of Iceland’s land area, which is of recent volcanic origin, consists of a mountainous lava desert and eleven percent is covered by three large glaciers that feed smaller and bigger rivers. The Vatnajökull glacier and surrounding region comprise 13% of Iceland’s area and Europe’s largest national park. The world’s oldest parliament, called the Althing is also the site of the Þingvellir national park and a UNESCO World Heritage site. Here, the significance of Iceland’s position on the Mid-Atlantic ridge can be read in the valley’s fissure zone, which is expanding as the tectonic plates move apart.

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1. UNCLLOS Article 121 Regime of islands
2. Gilles Deleuze Desert Islands and Other Texts 1953-1974
Facts

Area: 103,000 km²
Coast line: 6,088 km
Latitude: between 63°-67° N
Population: 325,671 inhab.
Density: 3.1 per km²
Highest point: 2,110 m Hvannadalshnukur
Capital: Reykjavik: 120,000 inh.
Urban population: 94%
Population growth: 0.66%
Religion: Lutheran Church of Iceland 80.7%
Government: Constitutional republic
Climate: temperate; moderated by North Atlantic Current; mild, windy winters; damp, cool summers
Average Winter temperature: 0°
Average Summer temperature: 10-13°
Terrain: mostly plateau interspersed with mountain peaks, icefields; coast deeply indented by bays and fiords
Glaciers: 11,922 km²
Lakes: 2,757 km²
Vegetation: 23,805 km²
Wastelands: 64,538 km²

History

874-930 ac Irish monks & Viking settlement
930 foundation of the Althing, world oldest parliament.
930-1262 Commonwealth
1262-1944 under Norwegian & Danish king
1918-1944 sovereign state
1944 Republic of Iceland
1946 under US military protection
30.05.1979 charter member of Nato
1950-1972 cold war with Britain about fishing limits
1991 liberalisation
1994 member European economic area EEA
2006 USA closed the Keflavik Air Base
2008 Bank system collapsed

1 Statistics Iceland, http://www.statice.is/
2 Wikipedia, Iceland
3 Wikipedia, geography of Iceland
4 Wikipedia, Iceland
5 Wikipedia, Iceland
6 Wikipedia, Iceland
7 Wikipedia, Iceland
8 Wikipedia, Iceland
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21 Wikipedia, Iceland

Byrgisbúð, site of the althing
Althing structure in the landscape
Industry and Nature have always seemed to be antonyms. In Philosophy, painting and literature it is not a coincidence that the development of the philosophy of the sublime as an aesthetic quality in nature, was first brought into prominence in the 18th century during the industrial revolution. The romantic period became the expression of appreciation of the fearful and irregular forms of external nature. The narrator sees nature as a picture to contemplate; the world, this thing-over-there and other-than-himself, has been framed as the "standing-reserve". Man became Nature’s spectator and Nature became romantic.

Culture has since then stood against Nature and man, as a cultural subject stands outside and against the natural object. We hereby understand the origin of the fight against Industry, with the sole aim being to preserve nature. But, is the museumification of a landscape a relevant objective? Wouldn’t the act of conservation itself only ever result in something man-made?

If we agree that nature is always socially mediated and artificially constructed, then we must come to terms with the fact that the dichotomies of nature and culture, human and animal, city and countryside, body and mind, have outlived their usefulness in describing the world we live in.

In this framework, our objective is to investigate the spatial and ecological impact of a hypothetical industrialization of Iceland and to question the relationship between these classical binary oppositions:

Urban, Industry - Nature, Iceland

SUSTAINABLE INDUSTRIAL SYSTEMS

Iceland’s features have been well-promoted in order to triple Iceland’s tourist visits over the last 12 years, probably making tourism Iceland’s number one export earner in 2014 and surpassing fishing for the first time. Traditionally the Icelandic economy has been based on fisheries, which still contribute to between 30-40% of export earnings, but fish stocks are declining and less dependence on this industry is considered important for the future. Hydro- and geothermal-power are plentiful in Iceland, and these industries are earmarked to become the main earners for the economy. Five big geothermal power plants produce 25% of the total energy consumption, one of them being the largest geothermal power station in the world. Due to this economical context, the country is facing increased pressure, where technological innovation, the development of tourism, and large-scale energy and metallurgy production, will inevitably lead to a shift in the perception of this territory, and could influence the deterioration of a unique environment.
We cannot deny that industrial development has a positive impact on any economy. However, it is also responsible for introducing most of the noise, water, and air pollution with the subsequent environmental consequences.

Therefore, a strategy for new industrial development must put the sustainability of Icelandic industry at centre stage. Pollution, waste, environmental health risks and other pressures should be minimised to the level of carrying capacity of ecological systems, natural resources should be used effectively and natural capital and its productivity should be safeguarded.

In addition, any planning of an industrial building should go together with a careful understanding and integration in the surrounding systems: hydrography, topography, geology, climate, and geography. Until now, most of industrial infrastructures are planned as generic objects according to their specific function, based on rational, efficient, serial, and economic principles, regardless of the context. The need for space, and for close proximity to geothermal sources has pushed industrial buildings into remote locations where they completely dominate the landscape.

Laba’s academic objectives will be to answer these questions:

What could industrialization mean when fuelled by such a sublime landscape?

How can industry be designed without scarring the landscape?

What is the most eco-effective (cradle to cradle) strategy for this process?

How can existing ecosystems co-habit with industrial infrastructure?

How can architecture synthesize landscape and industry?

How can site-specific industries be designed?

1 Wikipedia, Sublime (British philosophy)
2 Gestell in Heidegger
3 CIA the world fact book Iceland economy
### LABA METHODOLOGY

#### Teams
- Individual
- Specialist team

#### Phase
- Analysis
- Human geography

#### Learning Outcome
- Perceive
- Describe
- Understand
- Compare

#### Question
- What is Iceland?
- What is your theme in Iceland compared to?
- Where why?
- Where else?
- What constitution for Iceland?

#### Method
- Culture
- History
- Governance
- Economy
- Settlement Types
- Compile
- Compare
- Comment
- Mind maps
- Transfer benchmarks
- Role models
- Geographical
- Location
- Analysis
- Extreme mono-functional map
- Critical overlay multifunctional map

#### Deliverables
- FREE MEDIUM
  - History
  - Data
  - Facts
  - Typologies
- WALL
  - Prezzi
  - A1 wall
- STORY
  - Maps
  - PPT
  - A1 image
  - A1 collage
- PROJECT
  - PPT
  - A1 map
  - A1 image

#### Project Timeline
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ASSIGNMENT 1

Task
[Individual work – 1 week]

Represent your personal conception of Iceland. The goal of this project is to allow each student to interpret the subject matter of his/her investigation in their own highly personal and individual way. The final product and medium of the work is open, but should be in some way dynamic and “presentable”, so as to allow for others to reflect upon the work without explanation. No presenter will be allowed to make any spoken comments on his work during the presentation. The chosen medium, content, and presentation are therefore required to be self-explanatory, while the personal message or story should be precise and clear.

Schedule
Hand in & presentation:
Monday 23.09-09:00am

Deliverables
A personal presentation of an individual interpretation of “My Iceland”.
1. MARITIME INDUSTRIES

COASTAL SHIPPING / Without a railway network or a proper highway system, Iceland relies heavily on a dense system of airports and harbours for the national and international transportation of people and goods. The number of harbours has decreased in recent years, but still a total of 37 harbours define - together with 13 airports and 5130 km of roads - the fundamental transport network of Iceland on a national level.

Rising temperatures in the Arctic prolong the season of open pack ice and open up new shipping possibilities in the Arctic Ocean. Therefore Iceland's harbours occupy a strategic location at the intersection of a number of existing and future Arctic shipping routes and could potentially develop into a hub for shipping between Europe and Asia. Iceland sits near the western terminus of the Northern Sea Route and the Arctic Bridge route from Canada's Hudson Bay to Murmansk passes near the country's shores. A direct Transpolar route would potentially also connect to Iceland.

FISHING / Iceland is surrounded by some of the richest and most prolific fishing grounds in the North Atlantic Ocean and with a total catch of 1.4 Million tons, Iceland is among the 20 - largest fishing nations in the world. The fishing industry is one of the key industries in Iceland, and directly employs around 9000 people. In 2012, the seafood industry contributed 11% to the GDP directly, and 25% if the indirect effects of the whole ocean cluster are taken into account. Fish and fish products from wild stocks and aquaculture have traditionally been the dominant source of export earnings, and they still account for 40% of the total by value (down from around 70% in 1990). But given the state of Iceland's fish stocks, the fishing industry is considered a shrinking industry sector and therefore reducing dependency on it is important. Next to the classical fishing vessels, the number of industrial trawlers has increased rapidly over the last years and marine products are more frequently directly processed at sea. Another controversial part of the Icelandic maritime industry is the traditional processing of whales. Iceland looks back on a long history of agreements with various countries on the fishing grounds around their island. The country even fought three “cod wars” with Great Britain over the issue of fishing limits. Today the exclusive economic zone of 200 nautical miles corresponds to the official fishing protection zone. This zone of 758,000 km² is protected by military airplanes and the Icelandic Coast Guard fleet.
2. ENERGY INDUSTRIES

GEOTHERMAL ENERGY / Iceland has extensive volcanic and geothermal activity, since the island is slowly splitting along the Mid-Atlantic Ridge. As North America moves westward and Eurasia eastward, new crust is created on both sides of the diverging boundary across the country. While the creation of new crust adds mass to Iceland on both sides of the boundary, it also creates a rift.

About half of Iceland’s land area, consists of a mountainous lava desert with its highest peak at 2,119 m above sea level. Eleven percent of the surface is covered by three large glaciers that feed a dense network of rivers.1 Geothermal energy feeds five power plants which produce 25 % of the total energy consumption of Iceland, one of them being the largest geothermal power station in the world. In addition, 90% of Icelandic households are heated with individual hot water pumps.2

HYDROELECTRIC ENERGY / Hydroelectric power provides almost one-fifth of the world’s electricity. Hydropower is the cheapest way to generate electricity today. That’s because once a dam has been built and the equipment installed, the energy source—flowing water—is free. It’s a clean fuel source that is renewable yearly by snow and rainfall.

Iceland’s precipitation combined with extensive highlands and glaciers, has an enormous energy potential. Around 80% of electricity in Iceland is generated in hydroelectric power stations, making hydro Iceland’s main source of clean energy. While geothermal energy is used for heating (and increasingly for electricity generation), the hydroelectric power stations are central to the existence of Iceland as an industrialized country.

ENERGY CONSUMPTION / Iceland is the world’s largest electricity producer per capita, but general consumption represents only one-fifth of the total and the largest share (80%) is taken by energy-intensive industries which produce almost exclusively for export.1 Iceland’s huge hydroelectric and geothermal energy resources make prices very competitive to large-scale international users. The Icelandic Government has therefore encouraged foreign investment in energy-intensive industry to an extent that the export revenue from aluminium smelting surpassed that of fishing in 2008. Still reeling from recent financial crises, Iceland is hoping to use its bountiful sources of geothermal and hydroelectric energy to help boost its economy.

New large-scale infrastructures in most ecologically sensitive areas in the country (e.g. Alcoa aluminium power facilities and Kárahnjúkastífla Dam) are highly discussed and trigger much opposition in the Icelandic population. Increased pressure on the intact landscape s more and more attention from international NGOs.

ENERGY EXPORT / Next to the positioning of energy-intensive industries in Iceland, Europe is also very interested in importing inexpensive electricity from renewable sources: The United Kingdom, for example, is studying the installation of an underwater high-voltage direct-current connector for transmission of electricity between the two countries and to link Iceland to the European energy grid. This installation could potentially cover the average annual consumption of 1.25 million households in Europe.4

Despite all development Iceland expects to be energy-independent and a 100% fossil-fuel-free nation by 2050.

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1 http://de.wikipedia.org/wiki/Geothermale_Energie_in_Island
2 http://de.wikipedia.org/wiki/Geothermale_Energie_in_Island
3 http://askjaenergy.org/iceland-introduction/energy-data/
4 http://www.theguardian.com/environment/2012/apr/11/iceland-volcano-green-power
3_AGRICULTURAL INDUSTRIES

SUBSIDIES / Iceland is geologically young, consisting almost exclusively of volcanic rocks, lava and sediment and has still many active volcanoes. The arable land below 200 m in altitude represents 15% of the total surface and is partly covered in vegetation and partly barren. Conditions for agricultural production are therefore not favourable and farmers’ revenues are strongly dependent on coupled payments and high import tariffs. Iceland has one of the highest Producer Support Estimates (PSE) among the OECD countries. How does agriculture develop in such a climate? Are monocultural farms becoming more common than elsewhere in the world? How sustainable is Icelandic agriculture?

TRADITIONAL AGRICULTURE / is primarily based on grass, in the form of natural pasturage, hay, or silage from cultivated grass fields. Crop production is currently on a small scale, almost exclusively barley for feed, which is not for sale. However, this cultivation has been increasing rapidly in the last years and barley provides now around 10% of all grain used for livestock feed.

HORTICULTURE and FIELD CROPS / The remaining share of the farming income derives from horticulture. This is the production of potatoes, turnips, cabbages, cauliflower and carrots, which are cultivated outside and tomatoes, cucumbers, peppers, nursery plants and flowers, which are cultivated in greenhouses using geothermal energy and artificial lighting. These farms are often placed randomly in the landscape close to geothermal sources. Historically, however, agricultural farms in Reykjavik were intertwined within its urban fabric.

LIVESTOCK / The raising of sheep and cattle represent the main livestock group, but pigs and poultry are also reared. Iceland is self-sufficient in the production of meat, dairy products and eggs. There is also an important export trade in horses. In recent years there has been a move towards increasing specialization in the livestock sector. Livestock production accounts today for 87% of farm incomes. An average dairy farmer has around 30-40 milk cows and a sheep farmer 300-600 sheep.

ORGANIC FARMING and CONSERVATION / Iceland’s terrain is largely untouched and glacial waters are pure. An organic approach to farming and harvesting quickly became the only sensible way of sustaining such an environment. These age-old traditions for conservation are enhanced by tight regulations and policies for sustainable management.

FARMS / Icelandic farmers have relatively large holdings, the total size of farms often being hundreds of hectares. Family farming is the most common arrangement and in some cases two families work the same farm. Most farmers own their land and many farms have been owned by the same families for centuries. Almost all farmers are affiliated to a sectored organization, all together forming one single association called - the Farmers Association.

REFORESTATION / When Iceland was first settled in the 9th century, 25–40% of the country’s land area was covered by forest and woodland. However, the forest was soon almost completely wiped out as a result of sheep grazing and climatic cooling. The original forest consisted of birches, willow trees and shrub land. The new national reforestation program tries to counteract this situation in order to initiate new forestry income and habitats for animals.

www.theglobaleconomy.com/Iceland/Employment_in_agriculture/
www.theglobaleconomy.com/Iceland/value_added_agriculture_dollars/
www.factfish.com/statistic-country/iceland/agriculture+value+added+per+worker
Hunting Reindeer in East Iceland, Stefan Sigurosson, University of Akureyri, 2012
4. CONSTRUCTION INDUSTRIES

HISTORY / The first Viking settlers came to Iceland around AD 870, mainly from Norway. They brought with them a method of building houses out of soil, wood and uncut stone. These turf houses became a local tradition but the oldest remaining buildings are a handful of houses from the eighteenth century. The older architectural heritage exists only in words and the absence of a tangible building heritage is one of the decisive facts about Icelandic architecture. Both the volcanic geology and the harsh climatic conditions for constructing buildings are distinctly different from those of Scandinavia and mainland Europe. Wood-frame buildings with tarred walls and pitched roofs became common in the early nineteenth century. This influence was manifested in the so-called "Schweizerstil" (Swiss-style) that characterized the final phase of timber construction, lasting until about 1915. The introduction of concrete construction around 1900 was a turning point in Icelandic architecture. For the first time, an economical method of constructing long-lasting and fireproof buildings from local materials was found. Is there a contemporary Icelandic architecture style? Does the landscape influence the architecture? How sustainable are building practices?

PLANNING / With the development of Reykjavik’s main harbour, the city also became also very important. A development plan of the whole area, based on a drawing of the town in 1927, was drawn up. This was the first attempt at a general plan for Reykjavik, but it was never formally approved. Later, in 1948, the "Comprehensive Map for Reykjavik Projected Development until 1985" was presented. Finally in 1960 the Town Council approved the preparation of a General Plan for all of the land in Reykjavik and, in cooperation with neighbouring municipalities, a draft of a regional plan for the capital area. This plan, published in 1962, covered the period until 1984 and was finally confirmed in 1967. Reykjavik officially changed from a town to a city.

QUALITY / The construction industry is criticised for its lack of efficiency, poor quality, unreliable budgets and excessive prices. Despite strong publicity over the last years, quality management has not improved. In January 2011 new laws for structures came into effect. However, the main problem that the construction industry is having with raising standards is that the quality culture seems to be underdeveloped.

BUILDING PROCESS / Anyone with the intention of building a house can apply for land from the local government for a building. In areas where there is a lack of land for buildings, some local governments distribute the land through bidding and the highest bidder buys the land. In the past few years it has been more common that larger entrepreneurs buy land from landowners other than the local government. This often gives the entrepreneur more freedom to plan the area according to his need. The local government has however to accept such planning, which also has to be in accordance with the regional planning requirements.

A governmental fund supplies a loan to a buyer or a builder of a dwelling. The maximum loan be as high as 90% of the total cost. Special rules apply to people with a lower income; they usually receive a large loan and a lower interest rate. All loans from the governmental fund are annuity loans and inflation-regulated. In addition, banks and other financial institutions also offer loans to a house-buyer or a builder.
5_TOURISM INDUSTRIES

TENDENCIES / The number of tourists in Iceland has tripled over the past 12 years, passing the threshold of 1 million tourists in 2013, compared to a local population of 325,671 people. The new government aims to attract 3 million tourists per year within the next few years. Already today the effects of this rapidly expanding industry are evident all around the island: Massive tourism is damaging fragile ecosystems, and Icelandic cities are turning into tourist attractions with less space for the local population. But how should Iceland react to tourism development in such a sensitive environment? Should it aim for volume or value? Should it aim for maximization of the total impact on the economy, for an effective distribution across regions, or for the long-term preservation of its natural environment? What kind of visitors should it seek to attract?

ECONOMY / Tourism is a very vital part of the Icelandic economy. This year, it is likely to become the country's largest export sector, overtaking fishing for the first time ever. The next ten years could see Iceland move to a new phase of development, with visitors generating substantial new revenues to fund products, environmental conservation programs, and infrastructure while also creating more and better jobs, tax income, and economic growth as a result. But achieving this will require a concerted effort from a host of individuals and organizations across Iceland's tourism sector.

ACTIVITIES and NETWORKS / Iceland is an adventure, a cultural, a relaxation, a health- and medical destination. Many activities have been newly installed in recent years. Some are more eco-friendly but some can have a detrimental effect on the environment. Governance of tourism in Iceland is complex. It involves many entities with overlapping responsibilities, networks and a lack of central accountability. Experience from other countries, such as Finland and Australia, shows that simplicity is essential, along with a central driving force with public and private sector participation, to ensure a coordinated effort across the tourism sector.

ACCOMMODATION and QUALITY / There are around 170 registered campsites in Iceland. While Icelandic Farm Holidays is a chain of farms around Iceland offering travellers accommodation and a variety of services, most Icelandic guesthouses are family-owned and operated. For travellers arriving by private yacht, Iceland offers a network of harbours that are connected all the way up to Greenland and Spitzbergen. VAKINN is the official quality assurance organization for Icelandic tourism. Only companies that maintain the highest standards and assessment criteria have earned the right to carry VAKINN.

SUSTAINABLE TOURISM, CHALLENGES and RISKS / As tourism takes off, there is a growing sense that Iceland could do more to both manage this growth and ensure it is as sustainable, efficient and beneficial as possible. Iceland will need to take action across some key areas: conserving natural attractions and preserving the visitor experience of them; development of tourism products enabling higher visitor spending; improvement of tourism infrastructure while reducing seasonality and its peak times and refinement of over-concentration of visitors in a few key areas.

The Boston Consulting Group - The future of tourism in Iceland
Report PKF + Islandsstofa - Long-term strategy for the Icelandic tourism industry
en.vakinn.is/EnvironmentalSystem/Sustainability/
www.visiticeland.com/plan-your-trip/accommodation.
ASSIGNMENT 2

The first part of the territorial strategy will be an investigation of Iceland facts and figures in comparison with any other relevant reference that the student proposes. Each group of 5 will become a specialist in one of the five types of industries chosen:

- Construction industries
- Energy industries
- Maritime industries
- Agricultural industries
- Tourism industries

The group will have to describe their theme, explain how the program operates in comparison with any relevant prototypes. By comparing facts, figures, types, benchmarks (scale, functions, infrastructures...) the group will be able to compare their acquired knowledge.

The students are expected to decompose their analysis into five sub-topics of human geography:

- Culture
- History
- Governance
- Economy
- Settlement

and gather different types or important precedents in relation to their specialist industrial theme. These references will be used in the territorial strategy part II.

Task

(Specialist team: group work – 3 weeks)

For this phase the specialists will work together as a Specialist Group to conduct research on industrial Iceland.

The group will start by gathering information, and then select the most relevant to build a reference wall. This wall will be the synthesis of their theme.

Schedule

Hand in: Sunday 19.10.14 - 18:00
Presentation: Monday 20.10.14- 10:00

Deliverables

WALL

Each specialized theme group is responsible for a digital prezzi presentation and an A1 print out of their wall.

The presentation should document the basic data for each theme including statistics, history, reports, images, diagrams, and prototypes.
Assignment 3

The second part of the territorial strategy shifts the studio focus onto the main investigation: the strategy itself.

The groups will try to locate all the functions related to their theme on a map to answer the question WHERE. Then they will try to understand WHY these functions are located where they are—by overlapping systems, or looking into economic or governance fields. Finally, they will propose an urban strategy driven mainly by the creation of optimal conditions for the development of their theme. These urban strategies will be extreme to the point of being almost narrow-minded in focusing on one theme. However, it is in this extremity that useful approaches and concepts are developed, which can later be modified in coexistence with the network of the other 4 themes.

A territorial strategy is composed of many constituent components, each addressing a specialized interest, yet also requiring proper integration with the others to create an “intelligent tool” for a geographical understanding in correlation with the physical morphology of the appointed region. In this phase, participants will maintain their role as “specialist” and develop territorial strategies by maps for the project area.

Task
(Specialist team: group work – 2 weeks)

Now the base data for the area of investigation has been compiled. The specialists will develop a Territorial Strategy for their topic. This assignment creates a multi-faceted foundation for the development of a radical strategy for industrial Iceland, resulting in extreme mono-functional maps and concepts.

Schedule
Hand in: Sunday 2.11.14 - 18:00
Presentation: Monday 3.11.14 - 10:00

Deliverables
STORY

Each Design Group is responsible for a digital presentation (ppt). The presentation should explain the Territorial Strategy. Each group should also deliver an A3 print out based on the presentation.

Furthermore each specialized theme group is responsible for a synthesized drawn-up monofunctional map presenting the strategy. The printed map is the floor plan of the territorial strategy and therefore explains all details (A1 plot). In addition to that, the group is responsible for delivering a utopian photomontage (A1 plot) visualizing the strategy as its best.

The individual strategies will form the basis for the next assignment: the Territorial Constitution.

O.M. Ungers, Green Archipelago, Berlin
The goal of this phase is to produce a "Territorial Constitution for Iceland": a plan that provides a logical set of guiding rules which allow for an appropriate and consistent response to the changing demands on the use of the island’s terrain. laba’s goal is to provide different visions for the future development of Iceland through the territorial constitutions. The basis for this work is the amalgamation of the work of the different specialists within the new design group.

The resulting Territorial Constitutions will be a designed synthesis of the individual theme strategies, combined to be flexible and responsive to future influences. The goal for this project is not to provide a typical fixed "master plan" for future building, but to come up with a coherent framework and guideline for future development.

Task
(Design team: group work – 6 weeks)

Each group has to combine their individual theme studies and create a Territorial Constitution. The Territorial Constitution should be a series of procedural rules that correlate to the stated goals and thesis of the group. The constitution should address the perceived needs of the country in the short, medium, and long term, and should be represented as a schematic strategy that integrates the multiple overlaying aspects of planning with a flexible methodology.

The Territorial Constitutions should demonstrate that the groups understand the significant issues facing Iceland, the different methodological processes which could be used to resolve such issues, and then state how their proposals will develop a coherent and consistent development framework.

Schedule
(1) Hand in: Sunday 23.11.2014 - 18:00
Presentation: Monday 24.11.2014 - 10:00
(2) Hand in: Sunday 14.12.2014 - 18:00
Final presentation: Monday 15.12.2014

Deliverables

Each Design Group is responsible for a digital presentation (ppt). The presentation should explain the Territorial Constitution, through the use of maps, diagrams, models, images, graphics and supporting reference data.

All the data should also be presented through a territorial constitution map of the project (A1 plot), a project photomontage (A1 plot), and an A3 book based on the presentation. These book should compile all graphical materials to support the constitution.
To satisfy the criteria the evaluation of student work will be based on the following criteria:

- Understanding of the task
- Pertinence of analysis
- Quality of decisions in the evolution of analysis to proposal
- Development of logical process which relates to planning strategies and syntheses.
- Coherence of the proposal to the given assignment and defined scenario
- Quality of the potential social and physical design
- Quality of representation, graphics and content
- Individual contribution to the process of group work
- Individual contributions to presentations and discourse

There are two specific reasons for this:

The first reason is the Bologna Declaration on the European space for Higher Education, which guides the academic programs at the Bachelors and Masters Level. This convention states: Each student work should be discernable as independent and evaluated individually.

The second reason is that architecture is a profession which relies on the cumulative work of many different disciplines to develop and support the process of architectural design and production. To work successfully as an architect there must be respect and an understanding of the other collaborative disciplines as well as other designers within the team. The mandate for the Laboratoire Bâle, is to study, evaluate, and develop the different architectural issues that combine to create projects of the highest quality.

Each assignment will be assessed based on a balance between the individual contribution and the logical and methodological resolution of integrating the individual work into a unified project.
1 ACADEMIC YEAR

SEMMESTER 01

ASSIGNMENTS

MY ICELAND

TERRITORIAL STRATEGIES I

TERRITORIAL STRATEGIES II

TERRITORIAL CONSTITUTION

TIME

2 weeks

3 weeks

2 weeks

6 weeks

SCALE

TERRITORIAL

AMBITION

INTERDISCIPLINARITY

SEMMESTER 02

ASSIGNMENTS

FEASIBILITY STUDY

SCHEMATIC DESIGN

DESIGN DEVELOPMENT

PRESENTATION DOCUMENTS

TIME

3 weeks

4 weeks

5 weeks

3 weeks

SCALE

ARCHITECTURAL

AMBITION

EXPANDING THE FIELD OF INFLUENCE
GLASSARY

This glossary is included so as to facilitate the understanding of words within the lapa project context. It is not intended to be a comprehensive dictionary of complete definitions.

Constituent
Serving as part of a whole; component: a constituent element. A resident of a district or member of a group that authorizes another to act as a representative

Constitution
The physical make up of the body, including its functions metabolic processes, reactions to stimuli, and resistance to the attack of pathogenic organisms: A written instrument containing the fundamental rules of a political or social organization

Infrastructure
An underlying base or foundation especially for an organization or system: The basic facilities, services, and installations needed for the functioning of a community or society, ex: transportation, communication, water, power, & public institutions.

Masterplan
A long-term plan for all interacting aspects of a project or defined area giving a concrete plan for development, or comprehensive guidance & instruction

Issues to consider include: Buildings, sizes, functions, local urbanity, program, style, history

Methodology
A body of practices, procedures, and rules used by those who work in a specific discipline or project; a set of working methods:

Pervasive
Spread throughout, having the quality or tendency to pervade or permeate

Synthesis
The combining of separate elements or substances to form a coherent whole

Strategy
An adaptation or complex of adaptations of behaviour, metabolism, or structure that serves as an important function in achieving evolutionary success: An elaborate and systematic plan of action

Script
(v.) To orchestrate behaviour or an event, example as if writing a theatrical script.

[n.] An interpreted written set of instructions which interact with a given program.

Ref: www.dictionary.com
www.nea.is/
www.theglobeandtravel.com/Iceland/Employment_in_agriculture/
www.theglobeandtravel.com/Iceland/value_added_agriculture_dollars/
www.factfish.com/statistic-country/iceland/agriculture+value+added+per+worker

Economy / Industry

Asgeir Jonsson, Wy Iceland? How one of the world’s smallest countries became the meltdown’s biggest casualty. McGraw Hill, 2009.

Atmosphere


Culture / History


Selected books

Iceland and architecture, Peter Cachola Schmal (chief editor), 2011
Planning in Iceland, Trausti Valsson, 2003
City and Nature, Trausti Valsson, 2000
Architectural guide to Iceland, Birgit Abrecht, 2000
A guide to Iceland’s architecture, Various authors, 2000
Kvosin, Hjörleifur Stefánsson (chief editor), 1987
Reykjavík vaxtarbroddur, Trausti Valsson, 1986

Visual arts

www.icelandicartcenter.is

Architecture, planning and design


www.icelanddesign.is
www.reykjavik.is/desktopdefault.aspx/tabid-1952
notendur.hi.is/tv
www.sparkdesignspace.com
www.honnunarsafn.is/pages/1806
borghildur.info
en.wikipedia.org/wiki/Architecture_of_Iceland
www.vegagerdin.is/media/um-vegagerdina/Iceland_Snow-and-Ice-Databook-2013-v01.pdf

tourism industries

http://en.vakinn.is/EnvironmentalSystem/Sustainability/
http://www.visiticeland.com/plan-your-trip/accommodation
Literature

Kristín Marja Baldursdóttir (*1949)
Karitas án titils (Karitas untitled) 2004 ; Die Eismalerin (d 2006) ; Karitas, sans titre
La vie d’une femme artiste du début du 20e siècle qui vit dans des conditions très difficiles à plusieurs endroits de l’Islande rurale (une biographie de la grand-mère de l’auteure).

Hallgrímur Helgason (*1949)
101 Reykjavík
The Woman at 1000° ; Eine Frau bei 1000° ; La femme à 1000° (2012)
Deux romans urbains sur la ville de Reykjavík débridée

Jon Kalman Stefánsson (*1963)
Harmur Englana (2009) ; Der Schmerz der Engel ; La Tristesse des anges (Gallimard) 2011
Vie dans un fjord de pêcheurs au début du 20e siècle ; voyage du postier et d’un jeune garçon

Arnaldur Indriðason (*1961)
Une douzaine de romans policiers, p.ex. Grafarþögð (2001) ; Todeshauch ; La femme au vert (Métailié 2006)

Solveig Jonsdóttir (*1982)
Korter (2012) ; Ganze Tage im Café (Insel, 2014) ; Le destin croisé de quatre jeunes femmes de Reykjavík

Music

www.icelandmusic.is
www.mic.is
www.youtube.com/watch?v=nvSByg6Mjqk
en.wikipedia.org/wiki/Category:Icelandic_musicians

Film and theater

www.icelandicfilmcentre.is
www.icelandcINemanow.com
www.icelandiccinema.com
www.vesturport.com
www.borgarleikhus.is/english
www.leikhusid.is/leikhusid/english
www.id.is/english

Selected movies

Nói albinói by Dagur Kári Pétursson, 2003
Hafíó (The Sea) by Baltasar Kormáku, 2002
101 Reykjavík by Baltasar Kormákur, 2000
Djöflæyjan (Devil’s Island) by Friðrik þ Bjarnarson, 1996
Á Kóldum klaka (Cold fever) by Friðrik þ Bjarnarson, 1995
Blöðagar (Movie days) by Friðrik þ Bjarnarson, 1994
Börn náttúrunar (Children of Nature) by Friðrik þ Bjarnarson, 1991
Hrafninn Flýgur (The Raven Flies) by Hrafn Gunnlaugsson, 1984
WAYFINDING
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