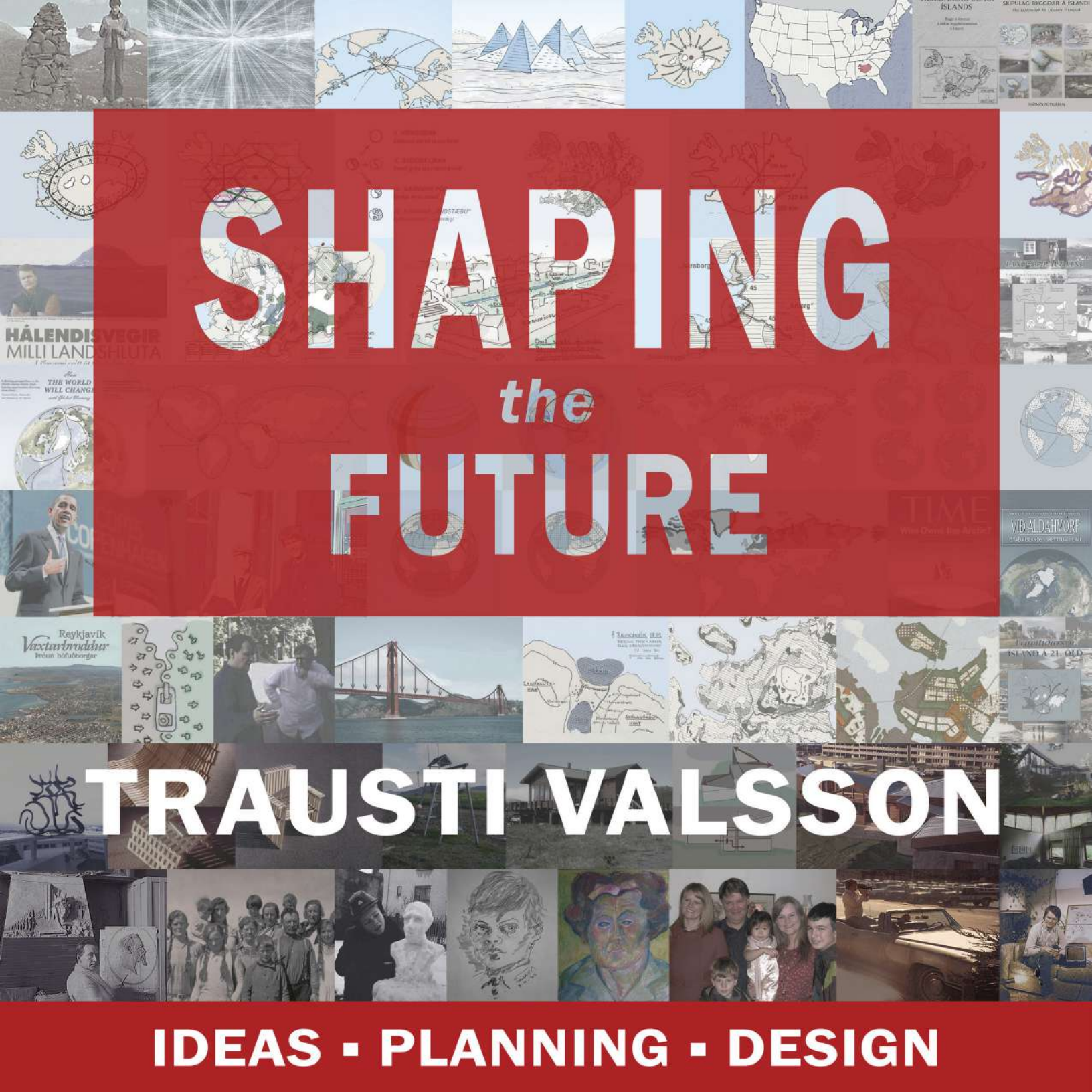
SHAPING
the
FUTURE
TRAUSTI VALSSON
IDEAS • PLANNING • DESIGN

TRAUSTI VALSSON

Studied architecture and planning at TU West-Berlin 1967 to´72. Worked in the Reykjavik Development and Planning Office 1972 to´79, e.g. on the first Green Plan and a Master Plan for new settlement areas for Reykjavik.

In 1987 Valsson finished his PhD in Environmental Planning at UC Berkeley. This was followed by 27 years of teaching as a Professor of Planning at the University of Iceland where he is now Emeritus. The book tells about how ideas on design and planning have evolved in the last 50 years, and about Valsson´s many ingenious ideas on the future.

Valsson has published fourteen books, e.g. Planning in Iceland and How the World will Change - with Global Warming. They can be read for free on his home page https://hi.is/~tv/ The Facebook-page for SHAPING THE FUTURE is called Shaping the Future. Many videos on TV´s work are on YouTube under his name.

Valsson has won several prizes for design and planning. In 2017 Valsson was the first to be awarded Honorary Prize of the Icelandic Planners´ Association, for contribution to Planning in Iceland.

FJÖLVI

... "Shaping the Future should be required reading in introductory courses in architecture, landscape architecture, and urban planning for its insights into the field of planning in the 20th century and its ability to inspire students to be courageous, creative-thinkers."
Joe McBride PhD, Professor, LAEP Department, University of California, Berkeley

... "In this book the foremost future thinker of the nation, Trausti Valsson, looks back" „... it should be an essential reading for students and anyone interested in the history of ideas, planning and the shaping of the built environment."
Petur H. Armannsson, architect

SHAPING THE FUTURE ▪ IDEAS - PLANNING - DESIGN

This book is an auto-biography of Trausti Valsson, an Icelandic architect, planner, theoretician and a professor of planning at the University of Iceland. It gives a personal account of what shaped planning and design in the world and in Iceland as he experienced it in his lifetime. Valsson e.g. tells about his personal encounter with Ian McHarg, Buckminster Fuller and Christopher Alexander.

Early TV started working on a future plan for Iceland, consisting, for example, of roads connecting Iceland´s settlements, across the Central Highlands. He also started an overlay mapping project, mapping both the hazard- and resource areas of the country, which created a basis for his Iceland-Plan proposals. Work on this he continued at Berkeley and at the University of Iceland as he started teaching there in 1988. Many of his articles and books deal with this subject.

In 1980 Valsson started his PhD studies in Environmental Planning at UC Berkeley, California. In the philosophical section of his dissertation he presented his argument that the Western, mechanistic worldview was the underlying cause for today´s alienation, and that more holistic and integrative schemes were inherent in Eastern worldviews.

TV´s dissertation is called A Theory of Integration for Design and Planning – Based on the Concept of Complementarity (1987). In 1988 – a year after Valsson returned to Iceland – he got an associate professor position in planning at the Engineering Faculty of the University of Iceland, and later a tenured professor position. The last part of this book describes Valsson's 27 years at the University.

The title of this present book: Shaping the Future – Ideas – Planning – Design, reflects how wide Valsson´s field of his operation has been.

From an address by PM Gunnlaugsson, at an exhibition on Valsson´s work in the National Library of Iceland in 2015:
"... I wish to congratulate Valsson on his tremendous work: Great feats in various fields of planning."

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Shaping
the Future

Earlier books of the author

Reykjavik – Vaxtarbroddur. Throun höfudborgar 1986
(Planning History of Reykjavík)
Hugmynd ad fyrsta heildarskipulagi Islands 1987
(An Idea on the First Iceland Plan)
Framtidarsyn: Island a 21. öld 1991
(A Vision for Iceland in the 21st Century)
Land sem audlind – Um motun byggdamynsturs á Sudvesturlandi
í fortid, nutid, framtid 1993
(Land as Resource – On the Development of Settlement Patterns of SW Iceland
in the Past, Present and Future)
Vid aldahvörf – Stada Islands í breyttum heimi 1995 with Albert Jonsson
(At the Turn of the Century – Iceland's Position in a Changing World)
Island hid nyja 1997 with Birgir Jonsson
(Iceland the New)
Borg og nattura ...ekki andstaedur, heldur samverkandi eining 1999
City and Nature – An Integrated Whole 2000 (The book above in English)
Vegakerfid og ferdamalin 2000
(Roads and Tourism)
Skipulag byggdar á Islandi – Fra landnami til lidandi stundar 2002
Planning in Iceland – From the Settlement to Present Times 2003 (The book above in English)
How the World will Change – with Global Warming 2006
Motun framtidar 2015 (This book in Icelandic) Can be read for free on www.hi.is/~tv Videos are there too

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A DVD with ten videos on the subject, are on You Tube under TV´s name (See p. 216). Producer, writer and commentator Trausti Valsson. Jakob T. Arnars was co-producer and did the editing and the soundtracks. Book/videos are on Facebook page *Shaping the Future* and *http://www.hi.is/~tv*

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Trausti Valsson

Shaping the Future
Ideas – Planning – Design

Fjölvi

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Excerpts from Comments on the Book *(Published on p. 193)*

Joe McBride PhD, Professor at the LAEP Department, University of California, Berkeley: … "*Shaping the Future* should be required reading in introductory courses in architecture, landscape architecture, and urban planning for its insights into the field of planning in the 20th century and its ability to inspire students to be courageous, creative-thinkers."

Galen Cranz PhD, professor at Department of Architecture UC, Berkeley: "I see... that you have served Iceland wholeheartedly and devotedly. "

Gudmundur Freyr Ulfarsson PhD, Professor of Transsportation Engineering at Department of CE Engineering at the University of Iceland: … "The book does therefore not only present historical knowledge but is also a guide forward, which shows us the importance of thinking far ahead…"

Birgir Jonsson, Associate Professor of Geological Engineering at the CE Department at the University of Iceland: "…where he heavily criticizes modernism in architecture (characterized by boxes), but instead embraces classical and traditional architecture..."

Hrafn Gunnlaugsson, film director: "… In my mind Valsson is the most original thinker in Iceland as it comes to planning. He has created large scale ideas that seem to see into the future, not just around the next corner, but also the next corner after that too..."

Harpa Thorsdottir, Director of the Icelandic Museum of Design: "… Valsson has created systems and processes of thought for his multifaceted design... There he brings his fertile creativity under control with a rational approach, which is always the base for excellent design."

Sigurdur Örlygsson, painter: "… Here his sensitivity to personalities, and a tremendous visual talent, is revealed."

Petur H. Armannsson, architect: "… In this book the foremost future thinker of the nation, Trausti Valsson, looks back" „… it should be an essential reading for students and anyone interested in the history of ideas, planning and the shaping of the built environment."

Goddur – Gudmundur Oddur Magnusson, Professor at the Icelandic Academy of Art: "… The book is valuable because it is sincere, revealing and candid..." "… The book is a messenger, based on information, knowledge and wisdom!".

Environment and Growing Years

Biography of a Planner – Why?

Biographies are most often about artist and politicians. Such biographies are popular because it is informative to learn what have shaped the arts and political ideologies and has also shaped work of the individuals in question. About 80 such biographies that were published in the first decade of this century in Iceland, apparently only one was about a university professor. In contrast, very few biographies were written about professionals like architects and planners, even though it is certainly of interest what ideas have shaped our built environment.

Corbusier´s influence on modern city planning is suspect

Walter Gropius became the Head of the Bauhaus Design School in 1919

As we start to study the history of planning we soon recognize that the shaping of towns and cities has frequently been driven by the ideologies of individuals and groups on how to create a better environment and a better society. The author feels that it is very important to open the world of ideas that concern the shaping of the environment. In this way people can better understand their environment and also, in this way, if they wish, take part in public discussion about shaping the environment.

In many countries books about architects and planners are popular. Some of the designers, like Le Corbusier and Gropius who lived in the first part of the 20th century, were flaming ideologists and laid out the foundations, nothing less, for ideas on the recreation of the architecture and planning of cities... and even the structure of whole societies! They became hugely influential, even more influential than most politicians.

As with politicians, Corbusier and Gropius also veered widely off the track, and many of their ideas about planning resulted in horrible designs. Here we are mostly talking about ideas that are linked to modernism in city planning and in particular the ones that laid out the foundations for the suburb-designs of modern times that are often terrible. This planning policy has meant that billions of people live in inefficient, mechanistic and ugly suburbs. And, as a matter of fact, the suburban scheme is in many places a de facto apartheid policy. About this – and how my eyes opened up to the horrors of modernism – I will discuss, among other things, in this book.

In Iceland there exist only a few books about those who have shaped our buildings and urban areas. Some of the pioneers are almost unknown, like the physician Gudmundur Hannesson, who brought the ideology of the health-improving garden cities to Iceland. A large fire in the centre of Reykjavik 100 years ago, in 1915, pushed him and politicians to make a great effort in planning matters. Already a year after the fire, in 1916, Hannesson published the first book in Icelandic on planning: *The Planning of Towns.* This was not Hannesson's only effort, because he wrote a bill for the parliament for the first law on planning, even though he was not a member of parliament. This bill was approved in

Hannesson, a physician, introduced the garden city ideas to Iceland

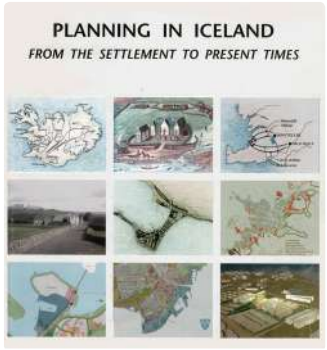
The Centre of Isafjördur is an example of pleasant town planning

1917 and in 1920 the *State Planning Commission* was established. It was given the task of designing for all the main towns in the country, something that took about 15 years. Together with Hannesson the members of the committee were Geir Zoega, Director of Roads, and Gudjon Samuelsson, State Architect. The very important work of these individuals meant that the beautiful old town centres of Reykjavik, Akureyri and Isafjördur were created. These fine men are therefore, because of this spirited design and planning work, amongst the most important individuals in Icelandic history. In spite of this, almost nothing is written about them in history books – and also almost nothing about the ideas or visions that powered them.

In this autobiography of mine, I certainly would have liked to talk more about these pioneers, but space does not allow it. Instead I refer to my book *Planning in Iceland* (2002). The book is 480 pages long and has 1250 illustrations. In the back of the book I have published *Registry of Planners* with short CVs and photos of the 113 professionals that have had the most influence on shaping the built environment in Iceland.

It is a telling fact that most of these people, and the ideas that directed their contributions in the shaping of the environment, are almost unknown – which results from the fact that only very few books about these people or their visions have been published – and specialized radio and TV programs are very rare. In the University of Iceland also little has been done on these issues until lately.

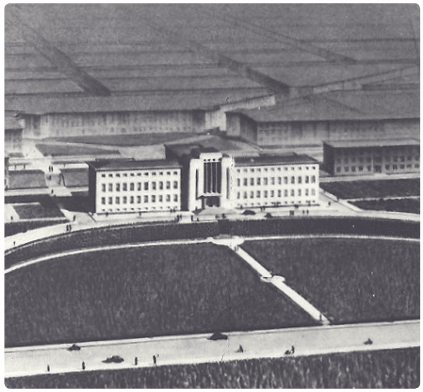
I was very lucky to start my studies in West Berlin in the revolutionizing hippie years. As I finished in Berlin in 1972, I got a job in the planning of Reykjavik in the newly established Development Office. After having worked there for six years I was admitted to the Mecca of environmental planning, the University of California in Berkeley. I became the first Icelander to finish a PhD in pure planning in 1987.



Again I was lucky, as I was offered a position to teach planning at the Engineering Faculty of the University of Iceland, only one year after I came back from the USA. Soon my position developed into a fulltime position at the university. Somewhat later I became the first professor of that discipline and as I retired (in 2016) I was still the only person who had been a professor of planning at an Icelandic university.

The advantage of getting a fulltime position at a university is that it affords, a lot of time for conducting research and writing. I have published 14 books, if this present digital edition in English, is counted, and I have written about 150 articles. Also I have taken a big part in public debate on planning in newspapers, conferences, radio and on tv. It is probably considered boastful to publish one's own biography, but I can say, in my defence, that I have been very active and also that I have been widely involved in public discussion of the shaping of the environment in the 50 years I have been employed within the field. In this book I will tell about ideas that were most influential in shaping the

students of planning of my generation in Berlin, and later at Berkeley. I am certain that many people will enjoy being introduced to theoretical ideas in architecture and planning.



Samuelsson designed the first plan and buildings for the University of Iceland

Before I finish this introduction to this book, I want to explain its title *Shaping the Future*. This title comes from the fact that I have always placed great emphasis on the necessity to be very active in all aspcts of shaping the future. In addition to this I want to advocate the principle, always to start a project by *looking at the larger picture*, in fact this always has been the main principle of planning. According to this rule one should, for instance, one always first start by working on the highest level of plans, where the largest lines are laid out, and then proceed to further detailing in master plans and finally in detail plans.

In spite of the fact that this rule: to always look first to the overall picture, is firmly established in the planning laws of most countries, it remains a constant battle in every project to try to get people to think big, and for the long term. This is especially difficult in Iceland because Icelanders have, for 1150 years, had agriculture and fishing as their main livelihood. These trades are very hard to plan because of the uncertainty of the weather, for fishing as well as the raising and harvesting of livestock and plants.

In countries of more benign climate, and countries practicing more organized trades, like growing field crops – this is totally different. Most field-crop nations have been trained – even for thousands of years – to plan aspects of their work, like irrigation, ploughing and seed collection with a long term view. It is not unlikely that the knowledge of how to plan is already in the genes of the peoples of these countries.

Sheepdogs are often presented as examples of how knowledge can be woven into the genes, something that takes about 20 dog generations. It can be demonstrated that the sheepdog's skills are inbred by putting a puppy in isolation at birth and, lo and behold! The first thing he does when he is allowed into the field and sees sheep for the first time, is to collect them into a flock.

A parallel example of inbred knowledge I experienced when I became the grandfather of a little Chinese girl Harpa Hua Zi. When only two years old she started to follow her mother – who was a hippie child and therefore little unorganized – around the apartment, picking up after her, closing cupboards and putting things in the right place.

Knowledge gets stored in genes. The planning-gene is poor in Icelanders

I rather early recognized this lack of planning skills in us Icelanders. This primarily becomes obvious as a lack of long-term vision and the difficulty we have in working in an organized way – even in the making of plans. I therefore decided early in my career in planning, to try to contribute to long-term vision and the creation of overviews and large wholes, in order to combat the lack of planning ability and the lack of willingness to plan, throughout the nation.

Dadaism shocked people, e.g. by revealing beauty in a bottle rack

I have also tried to present ideas that we Icelanders are especially disadvantaged, confronting ideas on an unusually large scale. I think that this handicap of us Icelanders; not to be able to think on a large-scale, is related to our lacking ability to think schematicly. I have always wanted to try to help the nation to improve itself in this field.

In order to try to understand what causes this lack in large-scale thinking, it is again good to look to history. The fundamental reasons are simple: We Icelanders have lived on this remote area of the world for centuries and are therefore not accustomed to large-scale activity and we, small-scale people, are most often greatly surprised when a new, large -scale idea is presented to us.

Developed nations have also often proven themselves to not be very receptive of new ideas, especially after a long period of peace. This happened at the beginning of the 20th century in Europe. The rigidity of social systems became apparent during the First World War, which brought change in so many things in politics, technology and cultural habits, that people and politicians had no choice but to adapt. Artists at that time, recognized that people needed to be shaken up to become more receptive to new ideas. They therefore started to throw old habits and viewpoints over in order to open people´s minds to new ideas. It was the revolutionaries of Dadaism that were at the forefront of the ideas that made the people of Europe more reseptive to the changes that came up on them.

As I learned about the importance of this revolutionary and provoking art movement, I decided, early, to present large and provoking ideas in planning to try to shake up the pedantic entrenched aspects of Icelandic society. One example of this is my proposal to make a long-term Iceland Plan that was characterized by highland roads and a new *Capital City* in the centre of the country.

I will tell about this, and other provoking ideas of mine, and the reader can, at the end, judge if I was successful in improving somewhat the lack of long-term vision of the nation and make it more open to unusual ideas. But, here we are in for a tough task, as we need to fight inbred genes and attitudes.

It needs to be mentioned in this context, that it does not really matter if a shake-up idea is realistic, it primarily needs to serve the purpose of opening minds and provoking a discussion. Utopian ideas are often very good for stirring people up. As I had become employed at the Engineering Faculty of the University of Iceland I was, on the other hand, under some pressure to demonstrate that these ideas were not only “cities in the clouds”. In connection with this Icelandic saying, I was amused as a friend of mine pointed out, that in the highlands the clouds are very often close to the surface, so this is a place where my head can be in the clouds and, at the same time, my feet can be on a firm ground.

How I became a Visionary

In the spring of 2013 I wrote an introduction to this biography of mine. It was rather traditional, mostly about my folks and origin, etc. I sent this introduction to my friend, Einar Thorsteinn, a designer, and asked for his comments. What Einar wrote back is that I should describe myself as a ”Visionary”.

Einar Thorsteinn, a designer of geodesic structures; a friend of mine

This put me into a dilemma, because although I know that my work has been inspired by visions, I was taught in my youth that people should not brag. I saw, however, after long thinking, that I could not escape ascribing to myself some of the positive features of my abilities and work, in a way that could be seen as bragging.

But, let us look at what Einar recommended: “Don’t be scared to look at yourself as a Visionary, as people generally see you. And let the first twenty years deal more with how you got shaped to becoming a Visionary.” And Einar continues: “I am not able to tell you what made you the Visionary of the nation, but the fact of the matter is that ´Trausti Valsson’ equals a visionary.” It should be mentioned here that I think Einar is somewhat special in terms of a positive attitude towards my work and approaches. “Visionary” is a huge title to live up to, but the reader can judge for himself to what extent this title fits me, for example in comparison with other theoreticians or politicians.

Often the word visionary is used in a negative sense, that is, as people consider the vision to be unrealistic. Then the author is often said to have his “head in the clouds”. I have often been labelled that way. Of late it has become apparent that some of my work what people earlier thought to be totally unrealistic, now several decades later, makes much more sense than people originally thought.

After I had read what Einar had written, I started trying to understand better what it had been in my youth that made me develop, in small steps, into the direction of becoming a visionary. The first step was that I had an appetite for grand ideas. That, I became a visionary, for example about planning for society, came later. The first step in analysing myself, was trying to understand the characteristics of my parents, as parents and their relatives, as well as the prevailing social spirit, have an overarching influence in shaping a child, at least in the first ten years.

My parents had very different backgrounds in terms of origin and ideologies, and it is amusing that they were two wildly different types. Therefore they introduced two different worlds of ideas to me, as I will tell about.

My mother’s name was Groa Gudjonsdottir from the farm Unnarholt in Hreppar. In the countryside pure religious values were best preserved and my mother, in addition, was inspired by the Youth Movement. She was by far the youngest of ten siblings, born in

My grandfather, his brother Bjarni and their mother Gudfinna, sister of Jon the father of sculptor Einar Jonsson

1913, so she had older parents Gudjon and Elinborg, and was therefore formed by the ideologies, and of the fighting spirit, of the 19th century. My mother was very beautiful and energetic and spurred everybody around her. Talents in the field of arts and crafts dominated my mother´s side of my family, and I started early to drift towards these fields. This later turned out to be a good foundation as a designer and planner.

The family of my grandfather Gudjon, called Jata family, is probably the most prominent art family in the country. His mother was Gudfinna and from her and her relatives emerged many artists and designers. For example; Einar Jonsson, the famous sculptor, was the son of her brother Jon, who was a farmer at Galtafell. Other relatives that are renovned artists, is the world-renowned Nina Tryggva, Alfred Floki, Megas and Eirikur Smith.

My father Valur Larusson, was more of a dreamer and he was brought up in poor circumstances at the seaside, in Hafnarfjördur, and later in Reykjavik. His father Larus was a fisherman and his mother, Elisabet, was from Hlid in Alftanes. In both their families there is a strong poetic trend: Granddad was the son of Sigridur Hjalmarsdottir who was a granddaughter of the famed poet Bolu Hjalmar. Three siblings of my granddad published books of poetry. As for my grandmother´s family, Stefan Hordur Grimsson, one of the best modern Icelandic poets, was the son of her brother Grimur.

This background from my father´s family meant that I learned to cherish poems and the visions they convey. I myself have often written poems, most often for the purpose of trying to capture a specific feeling or a thought, and to form it concisely. I will put some of these poems on the margins of this book.

The people of the farm Unnarholt. Front row: Asmundur, Finna, my mother Groa, grandmother Elinborg, Jonni, grandfather Gudjon, Palla. Back row: Nina with Gudjon, Gunna with Ella, Ella with Baldur and Bjarni, the brother

Some people may not realize that a good planning concept has to be inspired – not only by a vision – but also from a feeling and poetic flavour. In short: A person who wants to create a strong and beautiful planning concept has, in his creation, to be able to achieve qualities that are characteristic of a good poem.

I was born at Freyjugata 45 on the 7th of January, 1946. A few buildings to the north on Freyjugata there was the splendid Art Gallery of my uncle Einar Jonsson. About 200 meters to the west there lived another uncle of ours, Asgrimur Jonsson, and his home later became the first museum of a painter in Iceland. Bjarni, director of a cinema and a brother of Einar, lived about 200 meters to the north, in his marvellous villa Galtafell. He had a remarkable collection of art. My mother had much contact with these her uncles, so I, while young, was very close to these centres of Icelandic art.

Paternal grandparents Elisabet and Larus. She wears a traditional costume and has a cigarette in her mouth

The Second World War helped Icelanders to escape the doldrums of the depression because of the overflow of work opportunities for the occupational forces of the British and later the Americans. This made it possible for Dad to buy a truck after the war that secured for us a good financial standing. Dad and Mum married at the start of the war, but I was not born until four years later, because of my mother's heart sickness. Dad was by then 28 years old and Mum was 32, so I was a long desired child. They could not have a second child because of her illness, which constantly became worse. She had adhesions in her heart valves that were a death sentence until a professor in Stockholm started to operate on such hearts, but in order to do that ribs had to be removed and the heart stopped. My mother went to Stockholm for this risky operation in 1951 and Dad had to

Evening Song
Now comes evening
And darkens fast the sky.
Hills and peaks are growing cold.
Years of life pass far too fast,
Like clouds drifting across the sky

Valur and Groa, my parents. They are obviously very happy with their boy

In the flock that follows the pioneer are also some with a clerical collar and officials with shoulder tassels

Sculptor Jonsson in his studio, creating a relief. His sculpture The Pioneer is in the background

Einar Jonsson's Gallery on the Skolavarda Hill. His and his wife Anna's flat is on the top floor

accompany her on ships and trains, as she was very sick. I was then five years old and was sent to my mother's family in Hreppar for the winter. This was probably very difficult for me, because I sensed that people doubted that Mum would survive the operation.

This, together with the wish of my parents that I would get the education they had missed, meant that all they focused on was their only child, and it can be said that they idolized me. This elevated my self-confidence and I took it from them that I should become something remarkable and sublime. This was the foundation that formed me in my youth. As is common with children, generally, ambition first appears in the wish to become famous, but later that tendency gets "purified", as they say in psychology, and becomes the wish to achieve good things for others, as was prevalent in the spirit of the generation of the Youth Societies. I was very intrigued by stories of people who made vows in meetings to work for the country and the nation. I almost did the same officially.

Many of the sculptures of my uncle Einar Jonsson influenced me strongly. Here I can mention the relief "Pioneer" that is on the pedestal of President Jon Sigurdsson's statue in Austurvöllur, the Parliament Square. It shows the pioneer suffering in his going ahead and clearing the path for the people, and also a priest and people with shoulder tassels ... driven by a divine spirit. – The face of the pioneer is the same as on Einar's sculpture of Crist that is in Hallgrim's Church.

In short; my story of what I wanted to achieve was that at first I had wishes and visions on a small scale; I wanted to become a great and famous architect, but in my university years in Berlin my interest shifted to the planning of cities because of the hippie influence that wanted to revolutionize everything in society.

After I returned to Iceland from my studies in Berlin in 1972, I started to work in the Reykjavik Development and Planning Office. In my first year two serious things oc-

The studio of painter Asgrimur Jonsson in the attic of his home. It is now a museum of his works

Jonsson made folk tales tactile with his pictures. Here Troll Gillitrutt comes to fetch her prize

Self-portrait of Asgrimur Jonsson from ca 1900 when he was 24

curred; an eruption in the Westman Islands and later a global oil crisis. Then I realized that it is very important not to build settlements in the hazardous areas of the country and later – because of the expense of oil, we would need to direct, by means of planning, settlements into areas where geothermal heat could be harnessed and the use of oil obviated. In order to make this possible I decided to draft a plan for Iceland as a whole.

As I later, in 1980, started my PhD studies at Berkeley, California, the Mecca of environmental planning, I decided that the Iceland Plan – that I had begun in Iceland – would be the main emphasis of my studies and my doctoral thesis. But that was to change, as I will describe later.

As I returned to Iceland in 1987, it had slowly become more apparent that global warming would change most things on Earth. This subject later became the last aspect of my life's work. Around 1992 I realized that mankind would need to deal with the emerging situation in planning. In 2006 I published a book about this: *How the World will Change – with Global Warming*. This was probably the first book in the world on how we can react to this in terms of physical planning. How I developed this knowledge I will tell later in this book.

TV´s self-portrait from 1978. Dark hair and high cheekbones are common in the Jata family

Most cloths were sewn at home. Festive cloths were often matrose style, white or black

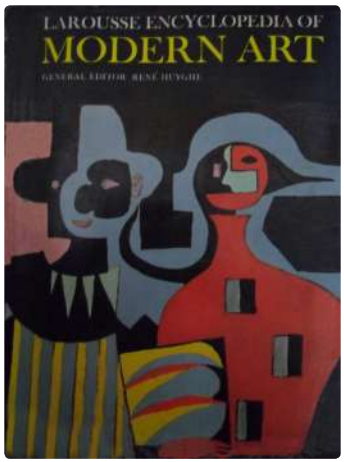
Conservative Values – Interest in the Visual Arts

I grew up in a bourgeois home, even though Mum and Dad had a commoner's background and we lived in workers' housing. Dad was a member of the Conservative Party and the national newspaper *Morgunbladid* was the main reading material, though he read much in Danish as well. My mother worked at home and maintained all the old customs from the countryside. Much processing of food took place at home. For instance, coffee beans were roasted in the backoven, and I had the fine job of sitting and grinding the beans. In large households this may have been a burden, as it says in the verse: Poor Magnus / Has to grind the beans / He has wounds in his palms / But rewards he gets.

My mother was very energetic and made good use of everything. For instance, she sewed most of my clothes, fashioning them from older garments, using jackets and old coats that she took apart, but on the inside this cloth was like new. To make good use of and reuse materials are values people need to cherish in a world of dwindling resources.

I was taught psalms and prayers, which we recited at my bed every night. This creates a deep calm and trust that today's youth are in great need of. Often, in hard times, I have been able to go back to these fine words from my youth. They have been like the "Movable Feast" described by Hemingway in his book on Paris.

One advantage of living in a town, rather than the countryside, was the great volume of printed material that came into our home. My Dad bought, like many others, the Danish weeklies *Hjemmet*, *Family Journalen* and *Söndags BT,* in addition to *The Readers Digest*. He started to learn Danish by reading the comics, and he was constantly reading. As I did not understand a word in Danish, even after studying it for six years, he did, and it hardly ever happened that he did not know what the word meant. I also buried myself, without end, in the Danish magazines, but it was mostly the pictures I studied; after all: A picture says more than a thousand words.



I learned about the history of art by watching the pictures but I read very little

In upper secondary school an English book came into my position about the history of modern art. I buried myself in it for many years and learned art history thoroughly. Many years later I discovered that I had hardly read a word in the book, only studied the pictures, which in fact, turned out to be enough.

My mother had a great interest in the arts and had taken courses with Asmundur Sveinsson. She had reprints of works by Einar, Asgrimur, Van Gough and more, framed. Few things, I think, had more influence on me in my upbringing than these pictures.

It early became apparent that arts and crafts fitted me as well as my kinfolk. My mother took me to Ludvik Gudmundsson, the Director of the Crafts and Art School, when I was

ten to have me enter drawing classes. He said I was too young, perhaps because of the stark naked models. This was very unfortunate because children have to start very young in the arts to be able to get far. Hobby hours, like art classes are today, are not enough; there needs to be serious study of art.

I was allowed into evening classes when I was 13 and started to draw the classical plaster sculptures. There I got to know the teachers and the political arguments of the time, they were the first socialists I got to know – because if you were not a socialist it was very hard to get ahead in the arts. I deeply remember how badly they talked about my uncle Einar Jonsson and Gudjon Samuelsson, the State Architect. I was very surprised by this because I had been brought up to admire these men.

At 13 I started evening courses at the Arts and Crafts College. The task: to draw from classical sculptures

In all of Europe these were actually the times of modernism and internationalism. The root of modernism lies in socialism and these two developed in protest to the nationalism and fascism that were sprouting in Germany, Italy and Spain. In this protest movement these social ideologies in politics and the arts did much good, but unfortunately also damaged much, for example in Iceland. Religious symbolism and the sublime were denounced and squares and splashes style praised without an end. My uncle Einar Jonsson has described the attacks he suffered because of this in his memoirs.

As an impressionable youth, I was pulled into the adulation of modernism but I always had a "bad taste in my mouth" because of it. Confrontations in society occurred in the arts, for example, as the socialists attacked the fine writers Gunnar Gunnarsson and Kristmann Gudmundsson violently. Thor Vilhjalmsson was in the front of this and since then I have always despised him.

In architecture modernism appeared in boxlike buildings like that of the Harbour Office and the Telephone Company that gives you a shivery feeling. Fortunately there exist in the City Centre a few concrete buildings in the classical style: The Apotek, Post Office, Hotel Borg, the National Bank, and the Steamship Company building. The age of concrete classicism spanned the era from about 1916 to 1930, as the dead hand of modernism took over. This for instance, meant that it was planned to have all the old buildings in the City Centre by the Lake Tjörnin removed. If this had happened the faceless expression of the international style would have dominated and the buildings would have been built taller. This would have made the streets shadowy canyons, as in the western part of Austurstraeti and in the central part of Hafnarstraeti.

If more modernistic buildings had been built in the Centre of Reykjavik it would have become monstrous

Even when I was young I liked the ornamental buildings the most. Of these I would like to mention the Health Directorate by Einar Sveinsson, with towers and all kinds of windows. Towers are also prominent in the Maritime Academy building by Sigurdur Gudmundsson. The modernists attacked these buildings heavily and said that all decoration and refinement were a sign of "bourgeois" degeneration.

Another thing that the modernists hated was attempts to create nationalistic art and architecture. Sculptor Einar Jonsson's use of basalt formations and high-spirited forms was said to remind of Nazism and they told Gudjon Samuelsson that concrete was not to be enjoyed in its most naked forms in the basalt formations of his Landakot Church. This church is probably the only gothic church in the world that's made out of concrete. The church is splendid as it stands on Landakot Hill and we were very lucky that no faceless modernistic box was built there.

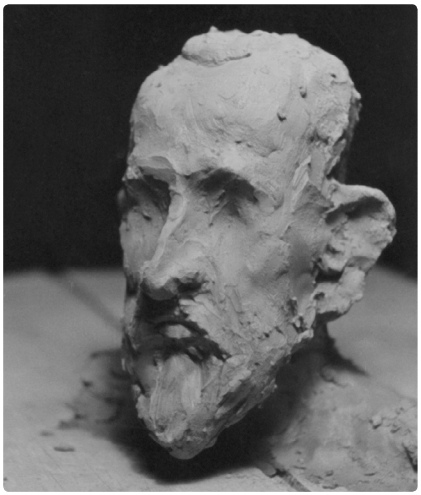
Forming a snow bust at eight. However, I most often used clay

As I mentioned earlier, my parents both came from commoners background and finished only a primary school education. On the other hand, they were ambitious and wanted to get close to the upper layers of society and I was meant to be the path leading there. They therefore strongly urged me to take the road to higher education.

For some reason more people had the idea that my life should be rather sublime. For instance, both my grandmothers said that I should become a theologian. In contrast, among commoners there is usually a lack of ambition to move upwards in society. My grandmother at Sandlaekur, who took the opposing view, took me aside once and said: "Trausti, you are not meant to shovel cow dung, you are should become a learned man!"

I was – even if I say it myself – promising and good looking. I was most often in the forefront of my comrades in plays that were of the old type, inspired by heroes from the sagas. We made shields, swords and flags and fought throughout the day. I was a little worried because I was not big, but remedied it with limpidness and agility.

Pictures and the visual arts early became my field of interest. I was always building or designing something, but I especially had fun making sculptures. Early I came into the possession of oil clay that could be used again and again and had much pleasure in modelling heads from that clay. Such heads I also formed with snow in the garden, at the same time as the other kids made snowmen with coal for eyes and a carrot for its nose. My talent was tested and verified as I started my architecture studies in Berlin, because three dimensional designing suited me especially well.



A sketch of Björn who studied with me in Berlin. Formed in three minutes

One of the characteristics of the Christian worldview that I was shaped by in my youth, was to make opposites out of everything: The good ones would go to heaven, and the others to hell. And basically, there existed only two groups of people; remarkable people and unremarkable people; the upper class and the bastards. I was certainly meant to get into the first group, the group of remarkable people.

Upper Secondary School: Society in Miniature

After finishing the Secondary School Examination, I had arrived at the long desired place, The Reykjavik Upper Secondary School. I had become accustomed in middle school to slack off in my studies, but I brought my grades up by speed reading before the final examinations. What I did not realize was that knowledge acquired by speed reading does not stick.

Another thing I did not fully realize that now I had entered an elite school where, at that time, only the top 10 percent of the age cohort got in. This fact should have meant that I would become more serious about my studies than earlier, but the fact I did not bother, meant that I ran into great troubles during my studies. My interest simply was not in the subjects the school offered but rather what was offered in the school's social life. A measure of my activity level is that I sat on nine committees and was undoubtedly the "committee king". Of these I can mention the boards of the school paper, the Play Association, the Art Club, the Jazz Club, the Christmas Feast Committee and such.

Later I realized that this was the right decision, because in the social life I got to know things that I needed for my work later in life. One of the things I learned was to make sets

TV and Karolina Lar with their pictures in a school spring show

A coal study by TV from an evening class with Sverrir Haraldsson, while in school

TV´s self-portrait at 17. It expresses a question and a quiet determination

From left: Siggi, Björn G, Thora, Gunni, Petur Ludvigs, Gunnilla, Jon Örn, Petur Gunn, Fridur, Siggi Pals and Anna. In front: Kata Fjell, Ingileif and Halla

The student theatre going to Akureyri Town in 1966 with Bunberry. The sets went by truck

Comedy of Errors *on the stage of the National Theatre: Thorarinn, Petur, Lara Margret and Steinunn*

for plays, which was good preparation for my architectural studies as it meant practicing the visual arts in general. We in the Art Club had an evening drawing class and held a spring show every year. We also learned a great deal as we organized large art exhibitions in the cellar of the new Casa Nova: exhibition of Kjarval's seascapes, landscapes by Sverrir Haraldsson, and village scenes by Snorri Arinbjarnar. The Art Club also established the first film club in Reykjavik, where the masterworks of cinema were shown. This enticed some of the students to study film making, and I got roles in the first mini-films of Thorsteinn Jonsson and Agust Gudmundsson. The presidents of the Art Club Thorsteinn Helgason and Fridrik Pall Jonsson were very active in this.

As an example of how much work I put into social life, I drew 130 caricatures for the yearbook *Fauna*. I also always participated in the spring show of the Art Club. Kristin Hannesdottir, later an architect in Scotland, said in her review of the spring show of 1966 in the school paper: "Trausti Valsson has for a long time been known for his drawings both in *Fauna* and in the school paper. He had many fine drawings in this show and a great number of oil, coal and watercolours and also a few iron sculptures. Trausti probably had a quarter of the pictures, i.e. about 40 pictures, which is, nevertheless, only a fraction of Trausti's works. Trausti is endowed with audacity, unchained imagination and indescribable agility, in addition to his artistic talent. I felt the iron sculptures were the best, but also many of his coal pictures are very good. Trausti's drawings do not need comment…"

A measure of the volume of the school's social life, is evidenced in the fact that the school play was staged in the National Theatre, and our sets were therefore designed and built for its large stage. They were up to six meters high. The first time I was the assistant to Björn G. Björnsson from the Savannah Trio, who was in the sixth grade, but the next year I designed the sets and directed their building. The play was Shakespeare's *Comedy of Errors*. Among the actors were the poets Petur Gunnarsson, Steinunn Sigurdardottir, Thorarinn Eldjarn and Sigurdur Palsson, who also worked on the sets. In his book about these years Palsson uses an interesting word to describe me; "form thinker".

The play bill cover,1967. The errors derived from confusing monozygotic twins

Petur played one set of twins, a master and a servant, this gave rise to the errors

I also could not let go by the chance to do a little in the field of writing, so I wrote a short story, a poem and articles for the school paper. With me on the board were people who later became nationally known: Vilmundur Gylfasson, Ottar Gudmundsson, Baldur Gudlaugsson and the siblings Thorarinn and Olöf Eldjarn.

As I had published the poem "I am a Drop" and jokers had added "that was meant to go into the sheets", three comrades of mine came to me and offered to let me be included in the volume High School Poems, which I accepted gratefully. The problem, however, was that I only had this one poem. So I sat down during the night and wrote four other poems that were published in the book. The media made quite a fuss about this book probably because the guys got Halldor Laxness, an Icelandic Nobel Prize winner of literature, to write the preface and because of their interview in the book with the famous poet Hannes Petursson.

In many ways the social life at school was like the society of the future in miniature, because there individuals entered the scene that later were at the forefront of some of the most important areas of society later in life. There were clubs for many of the most important areas of society; literature, music, natural sciences, photography and sports. In these clubs people could take the first steps in these fields and get their first training.

The best known offices in the school clubs were Inspector Scholae and the President of the debate club Framtidin. There the outside politics reached into the school so there were often hard battles and agitations in the elections about these positions. For example, Hrafn Gunnlaugsson played a big role in making David Oddsson and Geir Haarde Inspector Scholae. They later both became prime ministers. Another example is a plot that Svavar Gestsson tells about in his autobiography, as it was decided in a cell meeting of the Young Communists´ Association to overtake Framtidin and make him its President. The Young Communists were supported by a growing leftist spirit among the students.

I am a drop
On an Icelandic straw,
Blown gently by the wind.

I am a drop
Passing through life,
Moulded as it goes.

I am a drop
Falling on pavement,
Gone in a moment

Three butterflies came fluttering
From across the field
Weaving through unknown byways.
Soft wind played,
Rustling through the grass.

... They have passed on,
But their song is still in the air

Önni, Hrafn filmmaker and Vimmi at Olafsvaka. Ingo took the photo

Basic Training for Life's Work

At first in secondary school one is a little naive, but after getting elected to a committee, a teenager is already in a group of people who know most about certain areas. At board meetings for the school paper, for instance, we discussed cultural movements and politics.

Some of those on the board came from the culturally best established homes in the country. They talked as if they had a lot of wisdom and told about interesting things that I was very intrigued by. For example, Vilmundur (Vimmi) the son of Gylfi, the Minister of Culture, once told about a man who had been born blind and later got his sight. "What was the most interesting thing he saw? Answer: "The colour and the delicateness of the flowers". For this story Vilmundur got a plus from me and the others.

Later I heard both the father of Vimmi and his brother tell the same story. Then I realized that it was not he who had been so clever to pick the story up, but rather this was quite natural to discuss at the dinner table in these families of culture. At the dinner table of a truck driver in a workers' unit, understandably, not as highflying things were flowing around, and it was not as impressive to quote a truck driver as to quote the Minister of Culture or the Director of the National Museum. Then I decided not to flaunt my family.

After some time in secondary school, I discovered that some people tried to figure out who were most likely to be influential in future society and form groups or cliques with them. In this way, for instance, the children of cabinet ministers kept together. In this way Vimmi became the sweetheart and later husband to Vala, the daughter of PM Bjarni Ben, and his brother Thorvaldur became the husband of Anna, Bjarni´s second daughter.

Our secondary school was very snobbish. The teachers had university degrees but had not achieved much more. They admired the upper class and they sometimes had been in class with the parents of the students. Some of the older teachers were now teaching the third generation and thought of the students as their family but, on the other hand, they did not ask much about what was happening in the workers' units. I was therefore, obviously a second rate person in this environment.

This meant that I started to understand that my origin was an Achilles heel, and I started to hate it, and maybe partly myself, as a "lower class bastard". It took much pondering many years later to unwind from this. Finally I understood that people should not be judged according to class, and made peace with my origins. As I started to look at my relatives in this light, I saw that my parents, granddads and grandmoms were fine people.

I got a sweetheart in the second year, Fridur Olafsdottir, which was quite an experience. We connected well on our common interest in the arts and crafts. In these years the sex-

ual revolution had started, but the pill had not entered the scene. This meant that a child could be conceived, and that was what happened with us. This was a great shock, even though it was quite common by then, that teenage girls in secondary school were carrying a belly around. In my class in the last years, six of us boys had become dads.

Well, what could be done? A meeting of our parents was held at my home, and Fridur and I were rather ashamed. The meeting reached the conclusion that there was not much that could be done, that Fridur's parents Olafur and Hrefna would take care of the matter. This was possible because Hrefna worked at home. All went well and Hrönn, our daughter, got to be a pretty and clever baby, providing joy.

Fridur and Trausti with Hrönn a couple of months old at Xmas in 1966

The fact that during my secondary school years I did not receive proper recognition because of the prevailing snobbishness, made me very angry. I vowed to show the bastards that I was not inferior to them and was even more gifted – even though the proof would come later in life. The other power engine within me was the steadfast belief that I was gifted with a great deal of unusual talent and was a hard worker. This high self-esteem, however, was battered, because those who got the highest grades were considered to be the best. This is a very old fashioned attitude, which has caused much damage in society. The main reason for this is that examinations in such schools only measure the amount of information that a student absorbs, often by parrot learning.

The other basic quality of a person, to be able to produce and create, was not valued in that school. The ruling class in Iceland is therefore today rather empty and perplexed. As one looks at the more than 170 years history of the school, the students in the first 100 age cohorts were much more fertile, even though then there were usually only 10 to 20 in each age cohort. It was, however, primarily those who went to the University of Copenhagen that became top figures in literature, the sciences and politics.

The University of Iceland was established in 1911. Now (2016) there are about 14,000 students and over 1500 instructors and employees. The University has graduated tens of thousands of students in the last 100 years. In spite of that it is difficult to point to anyone who is equal to the princes of the spirit from the University of Copenhagen, poets like Jonas Hallgrimsson, Grimur Thomsen and Sveinbjorn Egilsson and the scientists Björn Gunnlaugsson and Thorvaldur Thoroddssen.

As the University of Iceland became 100 years old in 2011 it published a calendar with photos and short CVs of 365 theoreticians and scientists in order to demonstrate how important science and intellectual matters are. From this group there are 313 foreigners but only 42 Icelanders. What is most surprising is that of these only two are alive, living abroad. None of them seem to have taken their final exams from the University of Iceland. This is quite a remarkable testament of the University, as it presents its achievements during 100 years of operation.

TV and his parents – and three other pictures from TV´s upper secondary school years

The best preparation for my studies in Berlin was working on pictures from a tender age

The Berlin Years

Selection of Subject to Study – and My Second Fatherland

Because Iceland is small, the strength of the University is limited and it cannot offer as wide a selection of courses as many universities abroad do. This has meant that a considerable number of secondary school graduates go abroad for their university studies. Because Icelandic youth graduate one year later from secondary school than in most other countries, they have been well prepared and have often been accepted at very good universities abroad, even at the best ones. Unfortuanatly there are proposals to change this now. It also helps that Iceland is considered to be a little special and many universities consider it to be positive to add Icelanders to their spectrum of foreign students and add a flag to a spot on the world map that otherwise would be empty.

This fact, that many Icelandic academics have been educated throughout the world has been a strength for Iceland and helped to prevent an "inbreeding" of ideas and outlook. On the other hand, it is particularly noteworthy that Iceland's students and practitioners of law and commerce have used their study years at home to place themselves firmly in the youth movements of the political parties. From there they have since risen, according to Peter's law, to the highest positions in government, whereas those who hold such positions should possess the farsightedness and maturity reached by studying abroad.

It was not a big problem for me after the secondary school graduation to select a subject to study, because I had wanted, since I was young, to become an architect. To what country I should go was, however, a bigger question. The main points I emphasized in my selection were: I wanted to study in a cultural city, to learn a new world language in addition to English (which I thought I was good at) and I wanted to study in a country that was in the forefront of science and technology. The outcome of this formula was West Berlin. It also had an influence on my selection that I always had liked the Germans, their language and their culture.

I see now, looking back, that probably I also was drawn to Berlin because there the tension was most between the East and West, but in a field of tension between opposite poles there is an energy situation, like the negative and positive poles that light a lamp. In this field of tension between East and West Berlin, the tension led to both enlightening and conflicts.

Maybe not everybody realizes that a decision made after graduation from school has such a huge influence on what kind of person the youth becomes. People can be very similar at the start of university, but the one who goes into architecture comes out of university as quite a different person than the one who has studied, for example, engineering.

TV and Björn in 2013 visiting their architectural school 46 years after they started

It should be mentioned that in the group of architects there are two different types; those who have studied architecture in an art school and those who have studied at a technological university. The latter was this path I chose as I entered the University of Technology, Berlin. The impact of the city and the country where the student studies, in terms of the shaping of character, is also hugely important, and it can be said that as a student is selecting a country to study in he is in fact selecting his second fatherland.

My excitement at arriving in Berlin in August 1967 was great. I arrived at night with a train from Copenhagen, travelling through East Germany. The train was not allowed to stop anywhere en route, and East German guards strolled the corridors. The destination of the train was the Friedrichstrasse Station in East Berlin. There nobody was allowed out to the city but rather had to go down into the West Berlin underground train, which had passed under the eastern part of the city since olden times.

In the Friedrichstrasse East German soldiers with machine guns stood guard

It was important for the East German government that no one slipped into the station and down into the underground train and to freedom. Therefore fully armed soldiers were all over the place. Most memorable for me was that I sensed some unclear shadowy figures up in the roof of the train station. These were soldiers with machine guns, ready for everything.

I had gotten a room in the student home Eichkamp, where there were already a few Icelanders, among them Reynir Cortes and Thordur Vigfusson. At this time two new students came there, in addition to me; Björn Kristleifsson, whose studies in architecture paralleled mine, and Jon Jonasson, who went into dentistry. I soon bought a scooter: a K. Kreidler, and we Jon rode it as we went on great tours of exploration of the city.

TV full throttle on his scooter in the student home of Eichkamp

Berlin lies on the River Spree. The name Berlin is Slavic in origin, meaning “ford”, as towns often grew up at the fords of rivers, as can be seen in the place names Frank-furt in German and Ox-ford in English. Berlin was originally one of many small settlements that developed on the Spree. Others were, for example, Neu-Kölln and Potsdam. These little settlements gradually grew together and finally formed a city. In the beginning, the settlement was not dense so that Friedrich the Great, King of Prussia, could plan his Capital City with big clean strokes. Most prominent is an axis or boulevard from west to east that bisects the whole city and continues on into the nearest regions.

Brandenburg Gate is the only Berlin city gate that still exists

To start with the town was not big and was surrounded with a wall for protection and to delimit the area of upper class who lived inside the walls. On this wall there were a few city gates that were toll gates. All of them have now been demolished except for one, the Brandenburg Gate that was the city gate to the Brandenburg district in the west.

Today the Brandenburg Gate stands almost in the centre of the city because it has grown equally in all directions. The east-west axis has many names. Its central part is called

Unter den Linden, but the section west of the Brandenburg Gate is called Street of June the 17th. This part got this new name to remind the communists in the East of the revolution of the students and workers in East Berlin on this day in 1953.

The next section is the Adenauerdamm, but my school, the University of Technology, Berlin, stands at the junction. In this university a great part of the famous German technology and science was created. At Adenauerdamm a new main theatre and a new national opera had been built, because most of the German cultural institutions were east of the Brandenburg Gate in the old city centre that happened to become a part of East Berlin. I lived in the Audenauer Area all my study years but this part of the city is officially named for the summer palace Charlottenburg which is located there.

Soon after I came to Berlin I started to go down to the university to start to study it, but it is located in very many buildings, new and old. One day as I was passing the new Deutsche Oper I saw a black cross painted on the pavement. This gave me the strange feeling that this could be a sign of some unrest that could be lurking in the city, and this came to be true. As I asked about the cross I was told that it had been painted on the spot a student, Benno Ohnesorg, was shot and killed while protesting the visit of Reza Pahlavi, then Shah of Iran. This had happened two months before I came to Berlin. The students said that Pahlavi was a puppet for the USA and kept his subjects in a strait jacket. I had never heard about this before, not any more than that the operations of the USA in many countries were designed to secure its position in these regions and in the world, and that this often meant that they supported governments of terror. The newest of these was the war in Vietnam, which had started about five years earlier.

It is said that a person that is not a leftist at twenty is without feelings and that the one who has not become right wing at forty is a fool. There is probably something to this. Anyways, the students in Berlin were very leftist. This meant that they were very much against the USA and their friends and shared their opinions with their political brothers and friends, the communists in the East. Therefore they staged a protest against the Shah's visit, but never against communist leaders who came to visit.

The student protests against the Shah's visit were the first large student protests in the times of revolutionary hippies. They often caused a great tumult and the police drove them back with weapons. The killing of the student Ohnesorg, led to still more violence in the confrontation between the students and the authorities. Therefore the student revolution was nowhere as violent as in Berlin. It is ironic to ponder that the name of the fallen student, Ohnesorg, means, "You need not worry!"

Students fighting police and a water thrower in Berlin in 1967

Benno Ohnesorg lifted onto a stretcher after being shot at the Berlin Opera

The Main Building was blown apart in the War. An ugly one was built instead



1. Old Iceland: *Vikings, the flag, national culture, dignitaries, men of strength*



2. The post-war years: *Cowboys and Indians, airplanes and fairy tales, American cars, American music*




3. The hippie years in Berlin: *Revolutionaries, nudity freedom, rock music, the VW, a hippie car*

Three periods that shaped TV

In the Footsteps of the First Planner

Tomas Saemundsson, a member of Fjölnir, has sometimes been called the first Icelandic planner because he was the first person to put forward ideas – in the magazine *Fjölnir* in 1835 – on the planning of the hamlet Reykjavik. There he presented his vision on how this tiny village could be planned in an ambitious way. Tomas suggested, for example, that around Austurvöllur – that was at that time only a patch for hay making – beautiful official buildings could be built. Also, he proposed building a promenade along the Lake Tjörnin.

Saemundsson, often named the first Icelandic planner

Tomas's interest in planning and architecture were formed during his study years in Copenhagen. After he finished his studies in the spring of 1832, he got a grant for a two year journey to the south. During this journey he wrote a journal that, however, was not published till 1947. The first city Tomas visited was Berlin, in the summer of 1832, to study how one of the first world cities in northern Europe was forming. When I came to Berlin in 1967 my mission was somewhat similar. What surprises me most is that Tomas's description of Berlin, deals mostly with the same aspects that caught my eye 135 years later.

When Tomas arrived in Berlin, 26 years had passed since Prussia – that was the most powerful German state of the time – had eased Napoleon out of the city, as he had resided in the palace of the King of Prussia together with his generals. He had retreated to Berlin as he had failed to subdue Russia. In Russia it was the Russian winter that meant his downfall, as with Hitler 140 years later. Napoleon´s Empire finally collapsed at Waterloo in 1812, and Hitler's 1000 year Reich in the battle of Berlin in April 1945.

It was 22 years after the fall of the Third Reich that I arrived in Berlin in 1967, and the war and the politics of the times were much on my mind, as they had been for Tomas when a new Europe was forming in the wake of the Napoleonic wars.

The Berlin Boulevard axis runs east-west and passes through the gate towards Brandenburg

A model of the Berlin Palace, which is now being reconstructed. Building parts can be sponsored

In Prussia straight-line planning and a mechanistic spirit governs

The Berlin Wall separated the city into eastern and western parts. It also ran around the whole of West Berlin

The candidness of Tomas's description of Berlin is surprising: „Berlin is, more than most other places, boring for travellers, because the streets are long and straight so there is little variation." (p. 40). This was also my experience much later because, in Prussia, straight-line planning and a mechanical spirit dominate. This spirit also appears in churches, but on them Tomas, the priest to be, says; "In Berlin there are many churches and in no other city are they less decorated than here." (p. 47). Tomas was, in spite of this, very impressed by Berlin, because it was a powerful city on which he says, "Few places are more suited to become a Capital than Berlin... There, nothing is missing that can serve to strengthen the culture of everybody." (p. 50). It should be noted, however, that Berlin did not become the Capital of united Germany until 1871.

I also became – just like Tomas – impressed by this city and realized early that there was hardly a city in Europe that was better suited for studying technology, culture and history.

Six years before I arrived in Berlin the East Germans had built a 156 km long wall around West Berlin, which led to its being called "The Island in the Red Sea". Already, by then, Berlin had become the single place where tension between East and West was the greatest.

This peculiar position of the city and the tension between the ideologies of free market and communism meant that the student revolution and new currents in arts and planning were in few places as vibrant as there. It was strange to come to Icelandic colleges in small towns in West Germany, such as Braunschweig, because there was little of this spirit.

I had been brought up with rather conservative ideas about architecture and I had envisioned that I would design large and expensive official buildings, and for the upper class. However, when I got to TU Berlin in the autumn of 1967 a political revolution had started within the leaders of the students and they had become very critical of what they called "small-minded servitude to a capitalistic elite" and wanted us the students in archi-

There still were military parades. Here in the square at the Architectural Building

The foyer of the Architectural Building that was opened in the spring of 1968

Banners protesting the German Emergency Laws on the facade of the Architectural Building

tecture and planning, to start to rethink and revolutionize the institutions of society. On the walls of the university there was this message: "Arkitekten hört auf zeichnen, denkt!" (Architects, stop drawing, think!).

It was most logical that we start by rethinking out nearest environment, the university and its departments, and various action plans were set in motion. Sometimes the students stopped the lectures of professors that they thought were too conservative and started to pressure them about the material they were offering.

Sometimes it was rather the imperialists of the USA and their war in Vietnam that were considered to be more pressing to discuss then the professor's subject. The classes then often started by the students draping the blackboard with a huge Vietnam flag and the leaders of the students sat up on the professor's desk. Then they started the discussion of the situation of the world and the softness of German authorities and that of the University, in the fight for a more socialistic society.

Sometimes as the professor – who maybe wanted to teach about statics – left the room, even though this was rather unpopular because it was, among other things, the purpose of the meeting to bring him, as well as other instructors at the University, on to the path to "right" political thinking.

This was probably not unlike what had happened in Germany 35 years earlier, as Naziism was gaining ground, and what was now happening with the communists on the other side of the Wall. This the communists needed to do because, even though they had the power; they needed to work on a constant indoctrination in schools, so people would not let up and get soft on the theory. It would be interesting to see how I and the others were entered in the secret documents, which Germans are so good at keeping, and nobody was forgotten in the secret files about people and their opinions, as we know from both the Gestapo Reich and Stasi in the communist East.

The professors that objected to having themselves re-educated politically were put under special pressure. The method included, for instance, that the students sat the floor in the professor's office so the staff could not get around and the operation stopped. I once took part in such a sit-in but I was not quite clear about what I was protesting.

Students in Iceland also used this method, as did students in the US protesting the Vietnam War; in Iceland they sat down in all the corridors of the Ministry of Education to protest low student loans. A little later they did the same at the University of Iceland as William Rogers, the US Secretary of State wanted to visit the University. It was quite interesting to see that the gentle-man, Rector Armann Snaevarr, simply sat down on the floor with the students, instead of arguing with them.

Students take a class session over at a university in West-Berlin

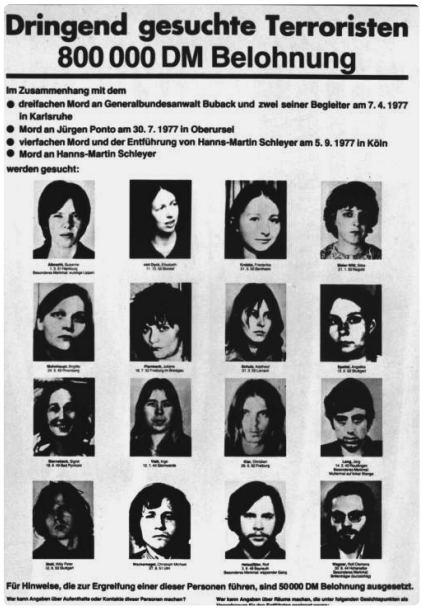
Students protest the visit of US Secretary of State at the Arnamagnean Institute in Reykjavik

A Studio on a Kindergarten

My first year of study was mainly about basic subjects in architecture, but in the second year studio work started. Studio work is where the whole class works together in a big hall, a studio, designing a common project. For our class, including Björn Kriss and me, the subject was a kindergarten. In normal times the studio work would have meant that the instructors would have provided a description of what rooms were meant to be in the kindergarten and our purpose would have been to arrange those rooms in a ground floor layout. After that, everybody would have been sitting at their desks drafting various details such as, for example, letting the sizes of the bathrooms fit to the measurements of tiles so they did not have to be cut.

But now there were new times and new approaches to architecture that the students and the leftist instructors, were in rather fine agreement about. In these times the first step should be to study the phenomenon "kindergarten" politically. Various Marxist specialists in politics and pedagogy came to the studio and gave talks. This was the beginning of a series of lectures and meetings that lasted for weeks and we students were put into workgroups to discuss the message about what a socialist kindergarten should be. On the other hand, we did not draw much.

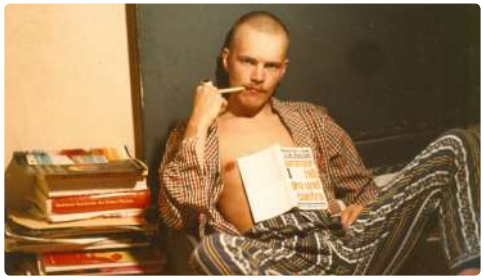
In general there was a good feeling among us about the services the kindergartens provide. In addition, we thought it was positive that the liberation of women from being tied to children was possible through this, something that the women's revolution called for. I participated in this – with some conviction – and actually I had no other choice. On the other hand, I am by nature rather old fashioned and conservative, so deep down I was only cautiously excited about this.



An ad announcing a high reward for clues on Red Army Fraction terrorists

At this time kindergartens were still very conservative institutions in Germany and they had, as a main principle, to teach children obedience and fearful respect for authority. It was not uncommon that the children were caned to get them to obey. Those of us from Scandinavia were surprised by this and wanted to help change this. But some of our fellow students wanted to go further. They wanted the children to be brought up in a spirit of being against the so called "authoritarian society". A model for such a kindergarten had been created at Summerhill in Scotland and it became a part of the material in the studio.

In the summer, before the studio started, I went to Iceland, but Fridur had been at home with our daughter in her last year in handicraft studies. In the summer we got married and the two of them came with me to Berlin in the autumn. Hrönn, who was two years old, had then arrived at kindergarten age, which increased my interest in kindergartens. As I looked for a kindergarten place for her I got into contact with a group that wanted



TV reading about the Summerhill anti-authoritarian school – A haircut opposing the hippie look

Hrönn in kindergarten in Berlin. She wasn't pleased with her experience there

TV, Hrönn and grandpa Valur with a lion cub at the Berlin Zoo

to establish a kindergarten on campus in an "anti-authoritarian" spirit. As Fridur and I were admitted into this group, the place for Hrönn was secured.

One of the rules of socialism was that the children were the property of society but not of the parents. Therefore the children were not allowed to say mom or dad but rather use the first names of their parents. Fridur and I acted as if we did not notice this rule.

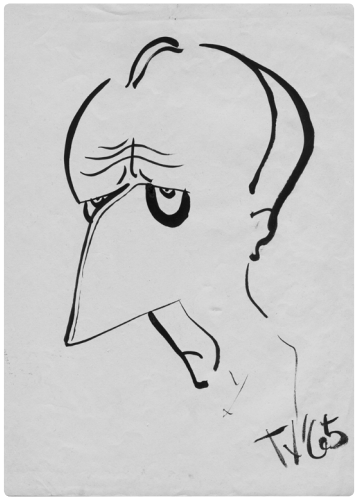
As we were planning the kindergarten, heavy meetings about the new ideology were held. Then I discovered I had entered a far more revolutionary group than that of the studio. Gradually the meetings developed into some kind of communistic cell meetings where some of the parents were among the most radical persons I had ever met. I started to suspect that this could develop into a highly political operation because many wanted to revolutionize society with force if other means did not work.

At this time the Red Army Fraction was forming, that later carried out criminal activities and gathered weapons. The core of that group were only about 60-70 people. Some of them had been trained with Islamists in Jordan and another model for them was the Tupamaros in South America. *The Red Army Fraction* used the method of taking hostages, a process that killed 34 people. Some of the members of this army fraction became notorious in the world press: Andreas Baader, Gudrun Ensslin, Ulrike Meinhof and Horst Mahler. Because the operation of this and other groups created so much danger and terror in the society the West-German government enacted an emergency law in the spring of 1968.

Priest's daughter Gudrun Ensslin and Andreas Baader in a sex film

I thought it was strange that some of the parents in the group seemed to be friends of these people and passed on news of them. One morning as I brought Hrönn to the kindergarten somebody said: "Do you know that Gudrun was arrested to night?" as if she was a close friend.

Let us now have a look at how the running of this leftist kindergarten took place. Here the first rule was: The children are allowed to do everything and it was forbidden to



Arnlaugsson introduced New Math in my upper secondary school

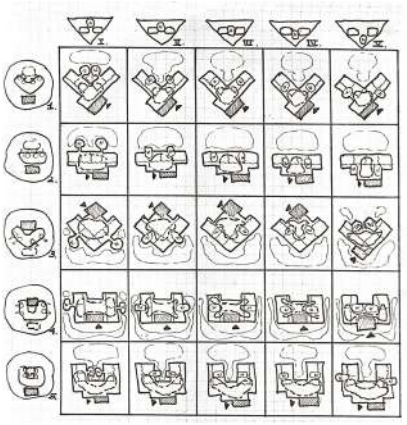
deny them anything ... rather we should try to entice a revolutionary spirit among them. Therefore it was considered fine if they stood in open windows and pissed on the people passing by. It was also considered important that children were naked most of the time and they were educated thoroughly about sex. This was because sexual repression was considered one of the main weapons of chauvinism of the male dominated ruling class.

My daughter Hrönn has no good memories from the kindergarten and I have heard stories that some of the children have gotten into trouble in their lives. In Reykjavik the kindergarten Os was for some time operated by socialists under a similar ideology.

The ban against all rules without doubt originated as a reaction against what the parents of the children had suffered from their own parents, who were of the Nazi generation, people who beat their child into obedience. In Berlin at this time, it was still a common sight to see parents beat their children out in the open.

Only a few of the parents in the kindergarten had contact with their parents and instead of naming their children for them, as was the custom earlier, they gave their children all kinds of strange names. In this way, for instance, two little girls were named for the idols Mao Tse Tung and Che Guevara – and Mao and Che are actually not that bad girl's names. In the kindergarten there were also twins, one blond and one dark haired. They were given the German names for Knold and Tott; Max and Moritz.

Let's now return to the work in the kindergarten studio in the architectural department. In the spring, finally, there was time to try to draw some design options on paper. In this I happened upon on a systematic approach where I created a typology of options in a layout. By doing this it was easy to compare options. This the Germans liked very much because they like systems, and I became, because of this, some kind of a star in the studio. The foundation for this method I got from the new math in my secondary school, as I had been in the first class it was taught in Iceland. The pioneer in this was Gudmundur Arnlaugsson.



A systematic overview on variants in shaping the lay-out of a kindergarten

Because of how well my experiments in making systems for design went in the studio I continued along this line. Because of this I took part in the first seminar at the university where a computer was used to calculate and draw a layout for a building – which in this case was a hospital. The main data for this was a factor analysis table, a table that weighted the relation of all rooms in the hospital, over a 100 of them. These weights were put into an optimization programme and the computer calculated and printed the best arrangements of the rooms.

At the end of my studies in 1972 I did not choose a building or a plan as a final project, but rather I was allowed to write a thesis about the application of morphology in design and planning.

Cities: A Source of Knowledge

Before I continue, I would like to explain how the city, Berlin, and its buildings had an impact on me.

As I arrived in Berlin in the fall of 1967, it was the first time I had lived abroad. Only through this; to have a permanent home in a metropolis, I had entered a "gigantic course" that my studies in architecture deepened as concerns buildings, planning and technology.

Obviously, right at the beginning of my studies, buildings in Berlin were much talked about because they could be visited. To look at and experience them in location is totally different than studying them in books or magazines, which up to now, had been my only possibility.

In Berlin there are many buildings that are a part of the architectural history of the world and we students sometimes went with our professors in buses to have a look at them. The professors were great admirers of modernism and actually at this time there were very few that had started to understand its faults.

The most famous example of modernism in Berlin is *Unité d´Habitation* by Corbusier. It is especially memorable to me as we went on a "pilgrimage" to admire this "remarkable" building. I was very excited because I had been brought up in great admiration of Corbusier, as for the modernists in general. As we stood in front of the building there was a kind of sigh of admiration that rose from the group. Within me, on the other hand, there was some strange shiver that became a voice of inner doubt about the value of modernistic architecture. We stood there in front of the "splendour": A building on pillars, so free nature could be enjoyed there but, this space was actually an asphalt parking area! The building is a high, long and massive block of flats where all services were meant to be as on an ocean liner, which was Corbusier's model. The problem, however, was that there was almost no service offered there, not any more than in the harbour neighbourhood in Grafarvogur, the work of architect Björn Olafs.

We, the students, had been given the assignment to make a proposal for the design of the roof garden but Corbu had described it as a ship's deck where the passengers enjoyed life in their deck chairs. As we came up there with the lift, in a Berlin breeze, everything was totally locked up and obvious that on this "remarkable roof" there had never been anything. It still follows architects today to admire Corbusier and create fantasies that sound well, but are totally unrealistic when it comes to execution.

My doubts about modernism made me more open to the beauty of the old and national type of architecture. Attempts at making nationalistic architecture had, on the other

Unité d´Habitation by Le Corbusier, Berlin. Built as a part of the Hansa Expo in 1957

The house stands on small walls to allow nature to flow – Now a parking area

I had admired Van der Rohe´s chair – but the back curves in the wrong direction!

The plan of the Gropius Suburb in West Berlin is looked down on

"The Children from the Zoo" tells about the terrible consequences of the plan

Pruitt Ingo, a prospect of 20,000, in the USA, was demolished on July 20, 1977

hand, gotten into ill repute because of Naziism. Hitler's opposition to modernism, for instance, appeared in a famous exhibition of his; *Degenerate Art*. In Iceland, Hrifla-Jonas organized a parallel expedition to mock modern art. The critic of these nationalistic politicians helped modernism and strengthened its relation to socialism in both countries. The roots of modernism are, however, older than this because right after the First World War the international style of modernism acquired wings as the value system of the nationalistic elite societies of the pre-war times crumbled.

As I was starting my studies in Berlin, it was very sensitive to talk about Naziism and communism. The definition of our professors of modernism therefore did not trace its roots back to socialism, but rather they were of a technical nature. They emphasized that modernism had come to be because of new building materials – concrete, steel and glass, and also because of a new building method – column buildings that allow much freedom in the design of facades and layouts. I think that this had a great deal of influence on the shaping of the international style, but the condemnation of human values, ornament and national characteristics that are linked to it, come to a high degree from internationalism and socialism.

In the liberal arts such flaky theories are rather harmless, because few people read, for instance, modernistic literature (Joyce, Kafka...), but in architecture modernism led to cold, inhuman buildings and cities. The impact of this architecture has in many places been very bad and has led to alienation and crimes. The book *The Children of the Zoo* explains, in a shivering way, how the inhuman Gropius neighbourhood in Berlin made Christina F. a nervous wreck and later a heroin addict who, together with other children, sold herself at the Zoo train station in Berlin.

The Gropius neighbourhood was designed in the spirit of Gropius, the head of the Bauhaus School in the second and third decade of the 20th century. In this school the modernistic monster in architecture was created to a considerable degree. It is not surprising that it has German roots as Naziism and communism.

It is quite remarkable that it should be architecture that rid the nations of the world from some of the plague of modernism. The one who spearheaded this movement was

The Maerkisches Viertel suburb is also looked down on. It has no connection to the web of Berlin, surrounded by fields nobody can enter in summer.
The lie that suburbs enjoy closer contact with nature is revealed with this photo. In many places the only way to relieve the social problems of such suburbs is to demolish them

Robert Venturi, an architect, with his book *Learning from Las Vegas* (1972). Venturi says that the gambling city of Las Vegas – with all kinds of old building styles – shows us that people love "historical references" in buildings and also the wealth of colour and ornament, whereas, on the other hand, they consider the greyness and lack of variation in modernism as terrible. This book pushed out much of the austere values of modernism and so-called post-modernism was created. Somewhat later this movement also pushed modernism from its pedestal in the fields of art, literature and philosophy. The key sentence was: "everything is permissible... because all truth is relative".

Buildings in Breidholt III: The socialist dream that the individual is faceless

Another clue on that everything was not OK with modernism I got in my trips into East Berlin. There modernism appeared in its starkest form in the high-rise residential neighbourhoods. Breidholt III (Hola and Fell neighbourhoods) are an Icelandic form of this and not surprisingly its main author was Geirhardur Thorsteinsson, a stubborn man and a socialist.

From an airplane we can enjoy the flower lay-out of the Breidholt II plan

At Christmas 1967 I was invited to stay with the family of my aunt Gigja in Paris. Her husband, Henrik Sv. Björnsson, was then the Icelandic ambassador in Paris. Paris is one of the most beautiful cities in the world, and warm, in spite of its broad lines, at the same time as the Prussian Berlin is cold and militaristic. I was still, at this time, was full up with German haughtiness and thought the French, with their scarves and caps, were always filled with some light-heartedness, as if life was only meant for amusement. The Germans (the Prussians) behaved, on the other hand – I thought – as real men that took everything very seriously, and took great care not to smile. In spite of these two opposite examples of planning, i.e. Paris and Berlin, it was not until after many trips to Paris that I understood its importance as a school in how to design a beautiful and human environment.

One realizes from the experience with Naziism what a hard time beauty and humour have to get the upper hand with the Germans. As they do make jokes, one has to add apologetically, "We have to tolerate a little humour" (Spass muss sein). As Björssi Kriss reinvented the saying: "We need not necessarily tolerate humour" (Spass muss nicht sein), the Germans became like a question mark, and only a few of them understood the irony of the humourless German national character that appears in this sentence.

Now there is good services, and many trees that hides some of its faults. Blocks of apartments 10-15 stories high, make people look like midgets and allow little direct contact between the flats and the ground. Because of this people of little means often get accumulated, which creates big social problems. Breidholt III is similar to this neighbourhood

Study of Art – and to Find a Core through Abstraction

Even in a Prussian technical school, art is a considerable part of architecture, because buildings and cities need to be – together with being a technological phenomenon – a work of art that gives pleasure to eye and soul.

The art courses were very methodological. An example of this was the course on colour: We got three colours in jars; white, black and one primary colour, which we were allowed to choose ourselves. Then we were told to divide the sheet of paper into a 1 cm raster. Within that raster we were allowed to make quadrates of different sizes, which we then coloured. This actually was a way of teaching modernism, where it is common that facades, and selective interior walls, are designed according to such mechanistic patterns, often with strong spots of colour here and there to make it livelier.

In the course on "space formation" we were given rectangular boards on which where we were to arrange pieces of wood according to spatial concepts; density/distribution, calm/flow etc. ..., which all came from the Bauhaus people, who were some kind of gods in our school. The problem with this is that such a play with blocks of wood has, with many architects, became a method for designing neighbourhoods from the air. This type of plan-making is a form play of self-absorbed architects, whereas the people that are meant to live in the neighbourhood have become of no concern. The plan of Breidholt II is, in this way, conceived of as a bouquet of flowers seen from the air. But this beautiful flower picture of Gudrun Jonsdottir et al. one only can enjoy from an airplane or a balloon, but in no way if one lives in the neighbourhood. This is only one example of the alienation and elitism of modernism.

We students were assigned an exercise to push boards around as a way to plan from the air!

The plan of Breidholt II has a flower lay-out as its motif

In spatial forming we were also taught to use a lesson from cubism that says that deadly cleansed primary forms (cubes, cylinders, cones) are very strong and that they can be played against each other in a powerful way, if variation in form is not allowed to disturb the play. Such exercises we made with blocks of wood, and then we made drawings from the arrangement.

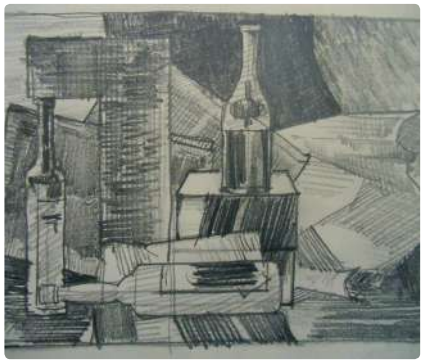
I had already gotten much training to find a visual core, by making 130 caricatures in *Fauna*, the Year Book in my secondary school. This word "caricature" comes from the word *character,* and the task of the artist is to find the essence of a person with few simple strokes. This psychoanalysis can be reached by making an abstraction of the forms of the face until the inner most core of the soul of the sitter has been detected and has been made visible as a simple form. Often some characteristic of the sitter – for instance, a big nose – is emphasized and made bigger, and then the picture becomes humorous. To find and to see a humorous feature – is not in itself – the true content of an abstraction.

I quite early got the feeling I could use this method "to move towards a core" for a theoretical purpose. In elective courses in sculpture and model-drawing, I continued to exercise the simplification of forms and made a series of pictures where each new picture becomes more simple, and more abstract.... and thus stronger! Here I had some fine models like Mondrian´s simplification of a tree and Matisse´s back of a woman that succeed in finding the core as a pure form.

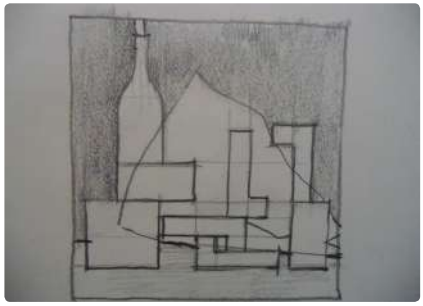
Many years later I learned about a German theoretician, Wilhelm Worringer, who had written a book in 1907 on what happens in this process. The book is called *Abstraktion und Einfuehlung* (Abstraction and Empathy). He explains that if the abstraction is successful, the picture becomes more powerful, both in terms of form and empathy. Worringer created a word for the style of art that makes use of this, "expressionism", which tries to produce a powerful visual expression of one's own soul or deep submerging into something else. The Norwegian Edward Munch is most famous of all expressionists.

A good word in Icelandic for expressionism is *tjastill* but it is in the pure unblemished language policy of Icelandic theoreticians – which they try to impose on everyone, but are exempted from using themselves, and use therefore only foreign words about styles of art in their writings. Examples of such words and their Icelandic translations are: impressionism/*blaestill*; cubism/*kubbastill*; jugendstyle/*ungstill* and naturalism/*natturuherma*.

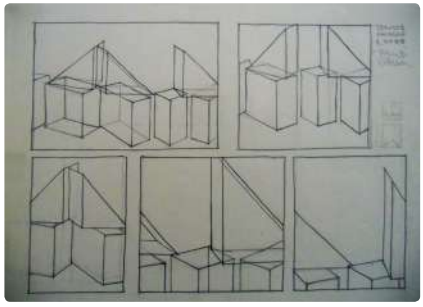
We shall now take on a somewhat theoretical posture: In methods employed in research, people aim for two things: 1) to gain an overview of the subject and 2) to search for the core of the subject. In math the product of the search is quite clear: There, for instance, people search for maximums and axioms, and make deductions from them.



In drawing classes we started to draw in a naturalistic way



In the next step the forms are made much simpler; a play with forms



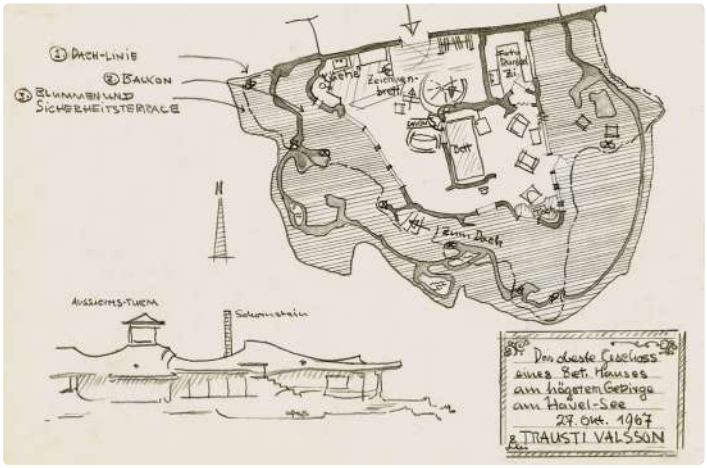
Cubism form-plays can be strong, but they require elimination of detail





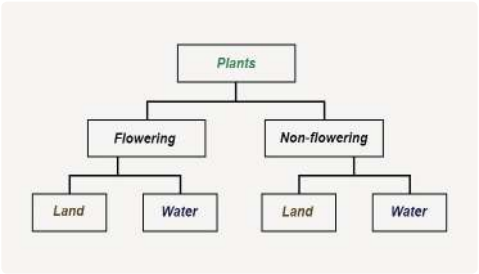




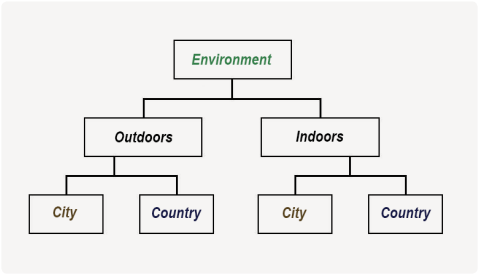



The study of architecture has both artistic and scientific aspects as can be seen on this page and the other page

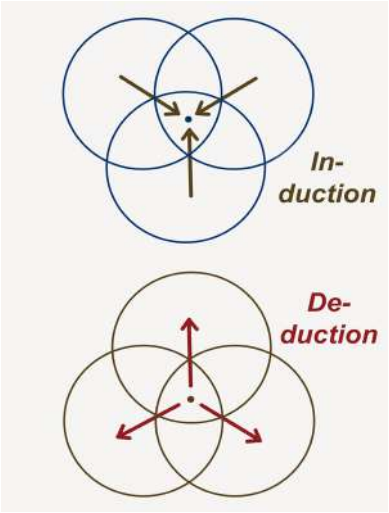
Björn Kristleifsson and I studied in tandem so there were many opportunities to make drawings of him. The bottom row shows sculptures and my first design



The method of induction starts with wholes and deepens from there – Here: botany structure



The same method of induction can be applied to other fields: Classification of the environment



A comparison of the methods of induction and deduction in science

In older times scientists were more preoccupied by making overviews and systems of classification than today. One of the most famous of these is the classification system of the Swede Linné of the botanic world. It works, for example, with plant characteristics like the number of crown blades and the form of the leaves. The origin of most organisms can, following this system, be traced back, with help of a genealogical tree, to old forefathers, as Darwin demonstrated.

A simple form of such an analytical tree can be used to dissect an environmental matter into sub-groups. From such a tree, (see example abouve), we can observe that we spend more time inside buildings then outside them, and inside we are exposed to more pollution. Ergo: indoor pollution is the main problem, contrary to what many suspect. The international word for this older basic method of science is "induction" which means "to lead from" a whole, or a large overview.

The other basic method of science cuts its subject out of the whole – for example, a heart out of a body – and searches for the scientific core of this body part. And from this detached part, people make conclusions. This way of concluding is called "deduction", which means "to lead from" a chiselled core to a "logical" conclusion.

The findings from "induction" are not as undisputable as the findings of "deduction". Therefore the research of wholes and inductive reasoning has been ridiculed by the positivists. This is very unfortunate because induction is "a tool" that can help us with many urgent holistic and cross-disciplinary tasks.

Because of the prevalent lack of respect for wholes, as well as the creation of overviews, I decided to work in this neglected area. I started to make overviews for my projects. In our studio, devoted to kindergartens, I for example, did overviews on alternatives in their layout. In my diploma thesis, in my last year, I created inductive overviews of the make-up of societies and formed typologies for environmental design. The other basic method in science, deduction, I also used, for example, to find a visual core with abstraction. To write concise poems has also helped me finding cores.

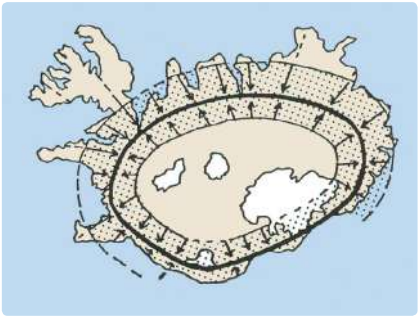
Positivism

Reality is one,
But science
Has divided it
Into compartments.

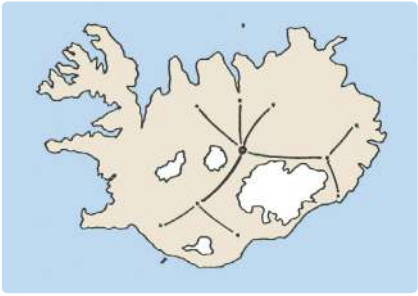
Each compartment
Is like a mouse hole.
Each subject has its place,
Isolated from the others.

Within this system
A holistic approach
To multi-faceted reality
Is difficult.

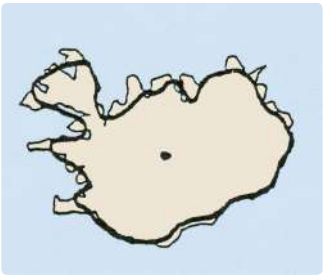
This system of thought
Which governs
Our universities
Is called positivism



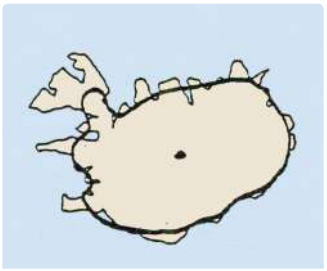
The Ribbon of Habitation. The Ring Road is its linear centre



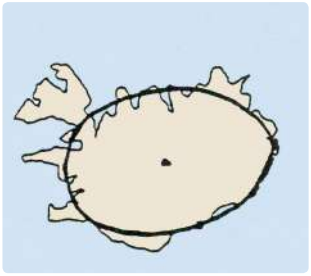
Highland tracks intersect at the centre of Iceland: A logical site for a future centre



1. Abstraction: Simplified line at the edge of the country



2. Abstraction: The line of the edge simplified still further



3. Abstraction: A clean form is produced: A circle

The simplification of form that produced the most practical result for me later was, as I discovered, that Iceland, in fact, is a circle... a little oval. Somewhat later I discovered that the settlements of Iceland are, to put it simply, a ribbon running around the edge of the ring. Running in the middle of this ribbon of habitation is the Ring Road that became the circular, linear centre of the country as the road had been connected with bridges on Skeidararsandur in 1974. But an urban point centre, in the centre of the country, does not exist. To read in the new math about topology – which deals with those basic qualities of form, that remain unchanged although the position and the shape of the form is altered – helped me understand this better.

In cities the centre is always the most important place – we talk here about the law of centrality – but the edge is mostly of not much interest. Because of this logical basic model for settlements, I suddenly realised how the settlement structure of Iceland, with settlement out on the edge – but not in the void, highly valuable central areas – is uneconomical, and actually completely wrong! This understanding came so suddenly to me that it was like I a blow to my stomach. That I had discovered that the settlement structure of Iceland is wrong, led me, many years later, to the large project of creating a proposal for a future plan for Iceland. With this plan, I intended, gradually, to rectify somewhat this very basic wrong of the country's settlement structure.

My first proposal to help open the development towards the centre was to propose roads, the shortest distance across the centre of the country and in this way to connect today's separated parts of the country. These roads I planned to go from the south, north and east and that they should come together in the centre, Sprengisandur. To this proposal I added... somewhat jokingly... that it would be logical that there, on the crossroads in the highly valuable centre of the country, to build a new Capital, Haborg (High City). From this city every part of the country would be about equidistant from the Capital.

Some readers may know that many capital cities have sometimes been planned and built on the basis of the law of centrality to fulfil the demand that a Capital is to have a central location. Examples: Madrid in Spain, Mexico City in Mexico, and Brasilia; Capital of Brazil.

Restructuring the World after the Second World War

After two years at the university – where the main concern among the students was that everything in society, including architecture and planning – was totally wrong, I had changed from a rather conservative youngster to a revolutionary. I realized that it would be difficult to instrument a revolt as an architect, so I moved over to planning, as in planning people are in a position to shape and reshape cities and societies. This emphasis of mine on planning led to my applying for a job in the Reykjavik Planning Office, before I started to work there when I came home from my studies in Berlin in November 1972.

The GDR suburbs of East Berlin: Examples of soul-killing planning

I do not know how much I understood of the problems of cities and societies, but we hippies probably understood them somewhat better than the authorities and the professors. The way cities were planned after the war was terrible. In Berlin, for instance, people had started to build gruesome high rise suburbs that were almost only for sleeping; bedroom neighbourhoods. This also meant that vast highways had to be built in and out of the suburbs, in addition to expensive and long train tracks. In addition to this the Germans were still "imprisoned" in an inflexible authoritarian way of thinking, in spite of the collapse of Naziism after the war. Actually, other European nations like the French and the Russians were not much better.

The city highways of Berlin give an insight into the mechanistic modern

Softening of the thinking modes came from the USA and I am going to tell here briefly how, and why, this softening happened... otherwise the reader will not be able to understand the nature of the revolutionary times that I am going to describe. The start of this was that the Americans were the great conquerors and the liberators in the war, and many people thought they could help the Europeans to get out of the hierarchical society where the selfish values of the ruling classes were in control of everything, and the general public was considered to be nothing but punks that were best kept outside the city in residential silos.

Before the hippie revolution came to Europe in about 1965, a similar revolution had been proceeding within the USA since about 1950. Jazzists, poets and others were at the forefront, and then came Presley and rock and roll. In Europe this wave burst upon Britain at first, and came to fruition with the Beatles and the Rolling Stones. In the US the origin of the revolution came more as a reaction against rigid societal forms that applied to women, jobs and family. Young women were a great force in this movement of change and the opening of society to begin to allow the realization of the potential of women. In many bungalow suburbs women and children were kept almost as prisoners.

In this same period of time consumerism in America had surpassed all boundaries and had become dangerous to both life and the environment. Drugs were pumped into livestock to increase production and press for more gain, and poison was spread over the

Rachel Carson described the impact of chemicals in nature

Kennedy giving his "Ich bin ein Berliner" speech. The USA had a great impact on Berlin

environment to keep weeds and rodents at bay. The drugs and the poisons went into the food chain which led both to damage in health, and deformity. For a long time America was blind to this, or until a little known writer, Rachel Carson, published the book *Silent Spring* in 1962, where she describes how the sounds of spring, birdsong, had become silent. This little and sentimental book led to an awakening about the environment that became one of the greatest revolutions in history, changing the way humans think.

Unlike the US, the Germans, like most European nations, except for Icelanders, were almost immobile in the first ten to fifteen years after the war because of the trauma, and lack of money. The space for critical thinking, as well as the rethinking of societal institutions, was therefore very limited. It can be said that the election of Kennedy as US president in 1962 had induced a wave of rethinking of old values, not only in the USA and Europe but in the whole world.

Kennedy and the Americans had more to do with the history of West Berlin than anybody else. This started in 1948 as the Russians had closed all transportation routes to West Berlin, a threat which the USA bypassed by creating an "air bridge" to transport goods, including food. If the Americans had not mobilized the huge airplane fleet to feed the city, the city would have been forced to become integrated into East Germany, which was the goal of the government there and the bearish rulers in the Kremlin.

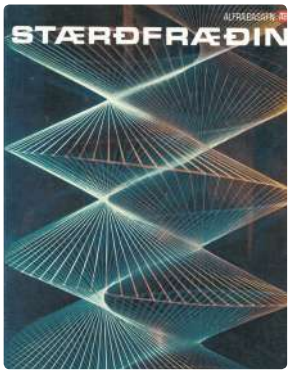
The seriousness of their situation the West Berliners saw clearly as the Berlin Wall was erected on April 13, 1961. Two years later Kennedy came on a visit to West Berlin, which was, in fact, a declaration that the USA would not give up on the city, no more than in 1948 – if the transport routes were to be closed again.

Kennedy was cheered enormously as he came to Berlin. So he, against the advice of his military staff, said in a speech he gave at the Schöneberg City Hall "Ich bin ein Berliner" (I am a Berliner). This sentence meant: "I vow on my honour that the USA will not let Berlin down in a moment of despair." It is ironic that it was Kennedy who started the war in Vietnam that demolished the strong cultural position the USA had had in the post-war period.

The opposition to the Vietnam War came first in the USA itself, among students and hippies. At this time there was still a national military draft and able young men could expect to be sent to Vietnam to die for a cause they did not much believe in. A total of 56,000 Americans died there. The opposition was greatest in university towns, and Berkeley was there at the forefront. Reagan, then Governor of California (later President), sent the National Guard to quell the revolution. This news brought my attention to Berkeley, where, ten years later, I went to start my doctoral studies.

The New Math; New Understanding of Planning

It was not only wealth and political influence that made the USA so powerful, but also the highly powered universities, entertainment industry and corporations. In addition to this there was a third factor to the advantage of the USA; the brain drain from Europe. This exodus started as the Jews began to escape from Naziism. Later a still heavier flow of scientists and artists started in the war, and continued after the war. This meant that the greatest scientific and technological innovations came from the USA for a long period of time. The innovation that had the most influence on how people think about the world was the nuclear bomb. And within the field of academia it was the science of management, which includes operation research and cybernetics. These two have their roots in the new math which was introduced into general education in the USA in 1953.



This book introduced the New Math to Iceland

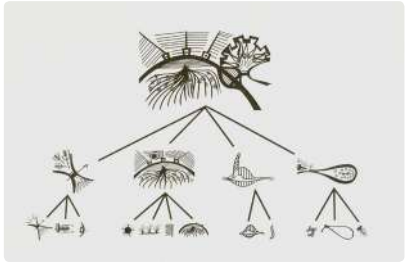
As the news came in 1957 that the Russians had sent the first satellite, Sputnik, into orbit, the Americans were shocked and realized that they were on the way to lose the military- and space race. This was because they were lagging behind the Soviets in natural science and computer technology. The progress in these fields was mainly based on the new math that laid out the foundations of computer logics.

In order to get down to the primary level of the computer, much ability in analysis and in operation research was needed. As people have mastered this, all types of problems can be programmed into computers, that work on them at a tremendous speed. In this way solutions were reached that otherwise would not have been possible. The computer also helped in navigation, for instance in the navigation of rockets and to direct satellites into orbit which man, without the computer, would not have been able to master.

The Americans became very afraid and this pressed the US authorities into a huge effort to strengthen the sciences, as well as to introduce the new math. In addition to this American publishers started to publish books that communicated the new sciences to the public. Most famous of these are the Life Books, where the book on math was the most important. It was published in the USA in 1963 and only three years later in Icelandic. My secondary school started to teach the new math at this time, and I was lucky to be in the first class. An example on the advantages the new math led to was, that within the environmental sciences there was suddenly a math that allows creating much more "organic" mathematical models then the old math could do.

The foremost pioneer to make use of this in architecture and planning was the Brit *Christopher Alexander*. Alexander started his academic career by completing his BS and MS degrees in math at Cambridge, but after that he went to Harvard where he did his doctorate in architecture. His thesis is called *Notes on the Synthesis of Form*. It was published in 1964 and has since then been a basic book in design science. The main idea of

Alexander writing his famous doctoral thesis at Harvard



Alexander defines here the basic elements of an environment to work with in a computer

the book is to define basic factors in architecture and planning (to sleep, to work, to rest, etc.). The interaction of these factors was then researched through *factor analysis*.

The Icelandic psychologist Sigurjon Björnsson visited Berlin, and he introduced us students, to remarkable research findings reached through *factor analysis*. His data collection contained all factors that possibly could influence the learning results of Icelandic children. Björnsson had gathered an enormous amount of data and put it into a *relationship matrix*. The factors were everything that could influence the aptitude of students, including quality of housing, education and income level of the parents. A computer then calculated the relationship among the factors. This remarkable methodology has its foundation in the new math, and it was totally impossible to conduct these relationship calculations before the speed of computer analysis became possible.

Shortly after Alexander finished his doctorate at Harvard, he was offered a professorship at Berkeley. He then started to teach and write there about his subjects. Most famous is his article "The City is not a Tree" (1965). Already in 1967 designer Einar Thorsteinn translated this article in to Icelandic and it was published in the journal *Birtingur*. As Alexander is talking about a "tree" it is not an ordinary tree, but rather this is a term from math about a hierarchical structure. As a fine mathematician, Alexander could demonstrate that this mathematical model for analysis, could have a great influence on city planning. It had almost become a rule that functions had been divided into "boxes" for sleeping, working, shopping, etc. – factors that, in fact, should be mixed together.

This socalled *zoning of city functions* has, however, older roots, i.e. in the industrial revolution where separation of functions (zoning) in planning had to be employed so that, for instance, coal plants were not too close to residential areas. Alexander's point was that this crude thinking scheme of separation into functions had meant more compartmentalization in societies and cities. The new math, he said, offers a tool that goes a long way to be able to create the complicated intermixing structures that all old and good cities have. Architects and planners would have to learn to make use of the new math to be able to create plans that are more organic than today´s "artificial cities". Alexander got enormous acclaim for this article and it is considered to be one of the most remarkable articles ever written on design. It is one of the reasons why he was the first person to be awarded, in 1972, the gold medal of the American Institute of Architects for research.

We, in architecture in Berlin, buried ourselves in the writings of Alexander and this was one of the reasons I went to Berkeley in 1980 to start my doctoral studies. As it turned out I did not write my thesis with him because I discovered that he was stubborn and opinionated, as most good theoreticians are. In later chapters on my stay at Berkeley, I will tell more about my interaction with Alexander and how his theories developed and impacted design science, and also how they impacted the formation of my own theories.

Student life: Tension and Joy of Creating

Life in society can be compared to an electrical system. Where there is much tension the wheels turn faster, which appears among people as excitement and the joy of creating. Some people cannot survive the tension and "burn out", as happened with many of the hippies in these years. The tension in Berlin had two origins: the rebellious spirit of us students, and because in West Berlin, the opposite poles of East and West collided. This tension increased enormously with the building of the Berlin Wall in 1961.

West Berlin was located in the centre of East Germany, and was equally a problem for the Eastern and Western powers. For East Germany, West Berlin was like a sour thorn in flesh, because for there came a constant stream of propaganda, and in addition to this, West Berlin, before it was fenced in, was like a display window where the East Germans could see, by comparison, how much worse off they were.

Seen from the Western side, West Berlin also was a big problem because the Russians had a chokehold. If, for instance, the Americans were creating threats somewhere else in the world, then the Russians had the East Germans slow down all transportation to the city. A crisis like this happened approximately every half year, and everything was shivering and shaking in the world... especially in West Berlin.

Even common people, on their way to West Berlin in their cars, were terrorised, for example, by interrogating them at the border control stations. We students sometimes were delayed because of this, for hours. Often the cars were searched thoroughly. If people were boisterous in some way, then the inspection of the car became extensive and all hollow spaces were opened, be it behind the door panels, under the seats or in other places. This happened to a friend of ours who was a little naive and carefree in his talking with the guards. The border guards then put him and his car into a shed. They gave him a set of tools and told him to take out all the door panels, the roof panel, the seats and everything off. This took about 4-5 hours. Then the guards came back, looked over the car in 2 minutes, and after that our friend was allowed to assemble the car again.

Checkpoint Charlie, the best known transfer point between East and West-Berlin

The East Germans used delays at the borders for political purposes

In the Beer Cellar at the Student Home Eichkamp, people often arrived as they had escaped over the borders in some way, but about 4000 were caught and put in jail, and about 600 had been shot, or had perished at the border. It is especially memorable as an American friend of ours in Eichkamp, Bill, had fallen in love with Birgitta, a young girl from East Berlin. One evening he and Birgitta stood on the floor of the Beer Cellar beaming with joy.

In order to smuggle Birgitta over Bill had made a clay mould of the car key of his friend, who was in the American military in Berlin. He gave Birgitta a key made from the

Kristleifsson and I were the main people in the production of two films in Berlin

mould. One time as his friend was visiting in East Berlin, Birgitta opened the car with the key and hid in it. As the car belonged to a person from the American military, the East German guards were not allowed to search the car, unless they saw something suspicious. If this had happened, Birgitta and the friend would have been imprisoned for months or even years!

The political tensions of these years appeared in many towns with Icelandic students. Students in Copenhagen organised a parade against Halldor Laxness as he had been given the Sonning prize for his book *An Author´s Account.* There he disavows socalism and thus had become viewed as a traitor to the socialist cause. In Stockholm the students were quite radical and occupied the Icelandic Embassy. I remember that we in Berlin sent a declaration of support from a newspaper discussion evening that we had regularly in a pub. Our society FIBER got the newspapers sent rolled up.

When Gylfi Th. Gislason, a former cabinet minister, was a visiting professor in Berkeley many years later, he told us students that this actually had been an invasion into the core of NATO, because sensitive military documents are kept in embassies of countries that belong to NATO. As I was in Berlin I had no idea of how serious a matter the occupation of the radical students was.

In the film "Adventurous Stroll" Emmi and his men hurry to the scene of crime

Curious passersby directed away. The assistants make some measurements

There was a strong solidarity among us students in Berlin, as we were stationed as if on an island, and trips back home were rare. For example, I only went home in the first year to get my wife and daughter, and then not again for four years. We also did not have a telephone but used a telephone booth at the Zoo once or twice a year. In November each year, Christmas greetings were taped in cities where Icelandic students lived and then played on the State Radio and the whole nation listened. It was mostly children who were made to speak the greetings: "Dear grandpa and grandma in Iceland…".

December the first is Celebration Day for Icelandic students, at home and abroad, and we always celebrated it with a magnificent feast and drunkenness! The hall we borrowed we decorated with the Icelandic flag and a portrait of President Jon Sigurdsson. Also we composed and performed operas and short acts. Icelandic students in East Germany often came to these celebrations, and used the trip to buy washing machines, refrigerator, whatever they could manage, as properly functioning stuff of this kind was not to be had in East Germany. We, the anti-materialistic students of the West, were a little surprised by these large purchases of the proletariat of the East. Once after a feast like this, twelve people stayed overnight in the two-room flat that Fridur and I had.

We students made two films with ourselves as actors. The first was a crime movie with the name *Adventure on an Urban Stroll*. At the film's centre was a crime inspector who used the subways to traverse the city in his attempts to resolve crimes. We were quite lucky to have a person that fitted the role perfectly: Indridi H. Thorlaksson, later the Chief State

The den of the outlaws Skuggi, Ketill, Ögmund and Harald, whom they robbed when he was young

The actors Sammi, Stebbi, Siggi, Doddi, Dora, Thoi and the lovebirds Gunnilla and Jon

The scene "Skuggi, with Ketill on his back, jumps into a waterfall", was recreated

Tax Investigator. Obviously he was dressed up in a trench coat and hat and had a pipe in his mouth. In one of the sessions, Indridi was made to walk into a train station to take the train. The film roll that shows where he comes out of the train station again got lost by the film development company. This was perhaps because it was still forbidden to film in train stations because trains were defined as military installations. Therefore we had to re-film the session where Indridi came out, again. But now we had a problem on our hands, because in the meantime Indridi had finished his studies and was back in Iceland. We therefore had to dress Elmar Geirsson, a football hero, up in the coat and the hat, which was quite fine, except he was half a meter shorter than Indridi. Therefore many noticed the change in the film even if the brim of the hat was made to hide his face.

The other film we made was *Skugga Sveinn* (*Sveinn of Shadows*). Here we had to adjust the story to our conditions because we could not let Sveinn and Ketill the Screech hide in a waste wilderness, but rather we let him hide in a forest in the outskirts of Berlin. Outlaws were actually called "forest hiders" in Icelandic. Kjartan Gudjons, a dentistry student of great stature, played Sveinn and Emmi poor little Ketill. He wore an apron and cooked for his master and had twisted doughnuts with the coffee.

The dentist couple Jon and Gunnilla (Jonilla) played Asta and Harald. Asta had drifted away from her people and happened upon Harald the outlaw, who guided her back to her people. Harald had, as a young boy, been caught by the gangsters. Hrönn played the young Harald and she cried violently as Sveinn of Shadows came and grasped her. There was quite a scene at the herb pickers' base, as people discovered that Asta had fallen in love with an outlaw and was meeting him secretly. But as it had come to light that he had been stolen when young – and that he therefore was innocent – everybody became very happy and the couple was allowed to marry. In this way this semi-crime film ended happily like every film should end.

Prize in a Competition – and a Diploma Thesis

I worked with a professor who was Hans Scharoun´s local architect at the Philharmonic

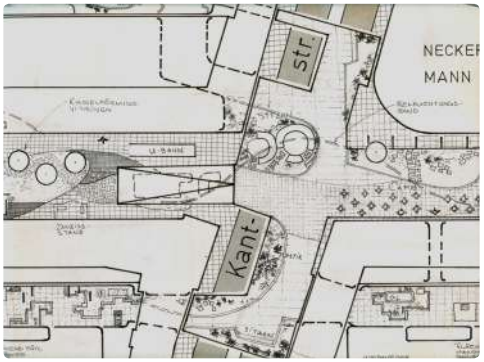
As I did not go home during study breaks for four summers, I could use the breaks for professional training and study tours. One summer I was on a construction site (which was obligatory), the next in the office of a hospital architect – where we were all dressed in white robes. The last summer I was with Werner Weber, a professor at the Art Academy. He had been the local representative of architect Hans Scharoun as he built the Philharmony. It was fun to page through the drawings.

In the summers we had a lot of time for travel and it was a relatively short distance from Berlin to the countries in north, west, central and south Europe. But the east was rather hard to enter. We went with our little Volkswagen all over and stayed in a tent. Buildings and cities are the primary source of knowledge for architects and planners and it is important for them to go on journeys to view the best examples. Experiencing the village atmosphere in a new residential area in Odense in Denmark, stands out in my memory. There were, for instance, the milkman and ice cream seller rang their bells as they entered the central area and a market atmosphere was created.

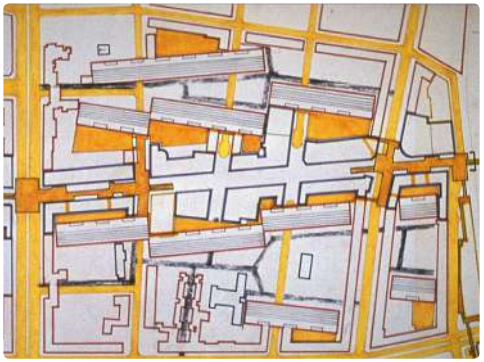
My last summer in Berlin I had much time because Fridur and I had divorced. I then caught sight of an ad announcing that Berlin was holding a competition to change the Wilmersdorfer Street into the first pedestrian street in Berlin. I had lived in the next street for three years and therefore my interest was awakened. As I collected the competition material I discovered that this was a very big project because the adjacent areas were also to be planned. In spite of this I decided to take part and had two months free for it.

TV won a 3rd prize for his proposal for the first pedestrian street in Berlin

Then main characteristics of my proposal were that I proposed levels over the main intersections. From there ramps led down to the pedestrian area. These levels I let continue in back of the buildings and put parking places under them. The beautiful old frontal



I designed levels over the intersection. Ramps link them to the pedestrian street



Terraced houses with much light inside the blocks of flats. The front rows acted as noise shields

houses I kept, but proposed to clean out all the backyards. There I planned modern terrace housing with enough lighting and green spaces. The continuous row of the frontal houses sheltered the inner areas from the street noise. It was quite a race to finish this big project and I ate at the drawing desk as I was working. In the last two weeks I slept only two to three hours a night and worked about 20 hours each day.

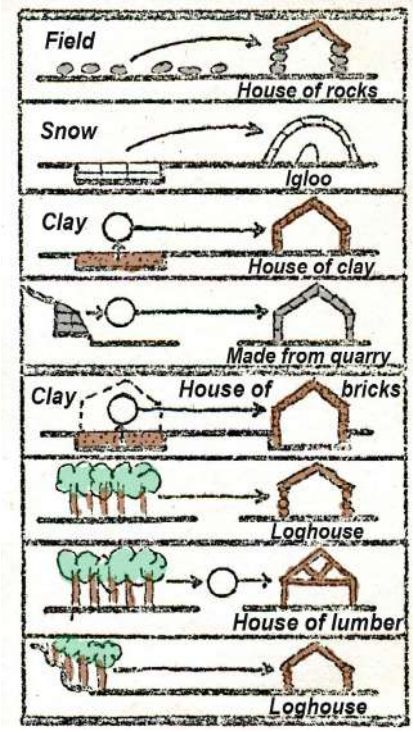
As I went to the city to deliver my proposal, I had hardly spoken a word for two weeks, so I almost lost my voice and was totally exhausted. It was a great relief to be able to bring in my proposal on time. Time continued to pass and school started. One day when I came home I saw a napkin in the mailbox with a message that read: "You have won a third prize in the Wilmersdorfer competition, 8000 German marks". Here I lost my voice for the second time. 8000 marks was quite a lot of money; about one year´s cost of studying. For rent I paid 100 marks so the 8000 could have paid the rent for seven years.

The size of the competition can be seen from the fact that the first prize was 30,000 marks and the second prize 20,000 marks. There were large groups working on these winning proposals, among others two professors at the university. I, as a single author – and a foreign student – was one of the three that got a third prize; 8000 marks. This great achievement of mine was mentioned in the *Berliner Morgenpost* and also in newspapers at home. The result gave me a burst of energy in the winter to prepare for my diploma thesis, because if interest is quickened things go well.

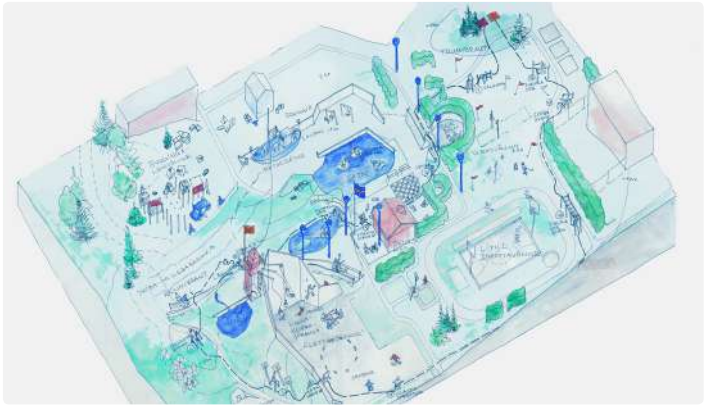
In rummaging in old books I had happened upon an old research method "morpho-logy" (form-logy) that, for instance, Linné used to create a graphic overview of the world of plants. A fine book by chemist Fritz Zwicky demonstrated how it was possible to create an overview over most solution sets, with the help of morphological methods and then select from this *set of solutions*. The solution set of Zwicky were all the primary elements, as he was searching for possible new fuels for rockets. In this way he discovered that aluminium dust is a good jet fuel. The new math helped create such solution sets and newly developed computer methods could sort them out.

For my diploma thesis I created overview tables for solution sets for environmental design. First I made an overview of the whole subject, and then schemes for several sub-categories. In this way I was able to create "field covering overviews" that could be used as checklists. There I also found unusual interpretations and unexpected solutions... as had happened with the aluminium in Zwicky's case. An example of this is a table built on the utmost wishes – maxims – to build economically. The maxims are: 1) To use local material for building; 2) that the material only needs minimum processing; and 3) that both taking the material and putting it away have a purpose, which leads to double economy. (See the table to the right). Now, more than 40 years later, this has become one of the primary principles in sustainable design.

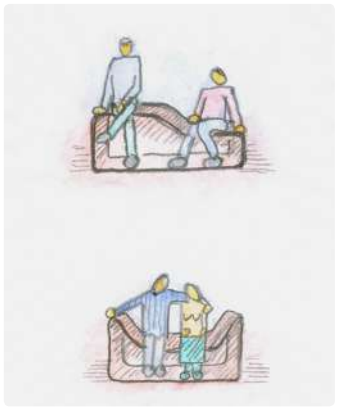
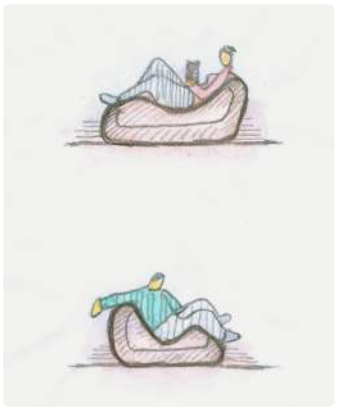
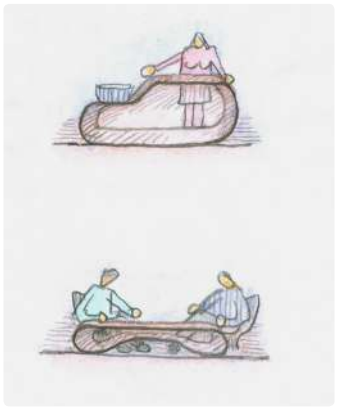
At the drawing table in a studio we students had at Eichkamp



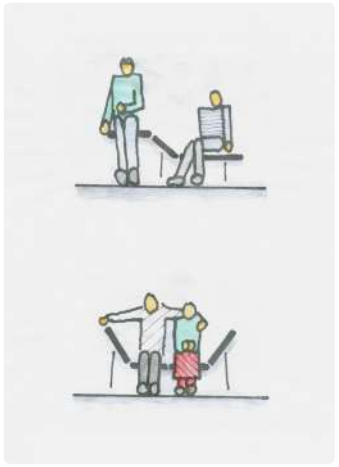
This table shows examples where basic rules of ecological methods are used

Design of a playground... *Main aspects of life and environs are basic to the concept (1st prize in a competition)*

Belts that can be shaped... *in any way, like Barba daddy, and then made rigid*



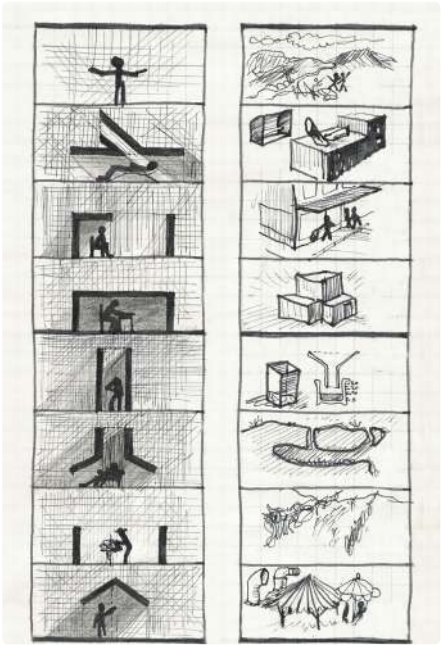

Four connected boards... *that rest on hydro lifts that can shape them in a multitude of ways (girl shows how position can be changed while resting)*

Alexander´s critique of hierarchical systems – that create boxes where, for instance, young and old people are placed – led me to create a table where I mixed together all kinds of people and activities. This created, for instance, a house that adjoined an old people's home and a kindergarten. An example of a successful solution was to combine a coffee shop and a book store: a book-coffee. I also tried to find ways to make use of the new cybernetics in design. The main characteristic of *cybernetics* is that everything that goes in circular processes is monitored and corrected by the computer's operating system. In my thesis I say: "Science makes use of these circular processes by creating prototypes that then are tested in a circular computer process." Then I added "These circular processes we should also use as we are developing design ideas or solutions: A great number of possible alternatives should be created and the computer then used to bring the design towards better solutions through a great number of repeated tests."

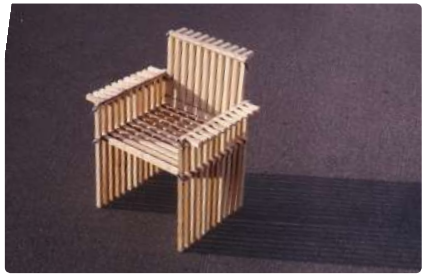
In my overview tables I not only created an overview on methods for the design itself, but I also created methods and processes and methods to strengthen the designer himself. One of the things I saw as I was making such an overview table was that in architectural schools the psychology of the designer was little dealt with. I pointed out that there were already "chess-psychologists" that instructed chess players how to maintain a psychological balance, to develop fighting spirit, and so on. I said that such advice also needed to be introduced into architectural teaching. Today most schools of sports and commerce teach this science, but I don´t know whether, now 40 years later, it has entered architectural teaching.

In the spring of 1972, half a year before I finished my studies, I applied for a job at the *Reykjavik Planning and Development Office* that was about to start the review of the 1965 Reykjavik Master Plan. In my letters to the director Hilmar Olafsson (the father of Hilmar Örn, the Head Priest of Asatru), I indicated how one can use methods from math in the Office, and also what I thought should be emphasised in the planning. On this I said: "Also a cultural position towards the Old Town and the traffic, should be formed and also towards the isolation characteristic of the new neighbourhoods" (p. 3).

As I was about to finish my thesis, something peculiar happened to me. I met a 19 year old girl, Ingrid, who was on a visit in Berlin from West Germany. Right away we fell deeply in love and exchanged letters long afterwards. But, I was about to finish my studies and she was starting at university. Many years later I found her again. She has three very beautiful daughters and I have two. Maybe this would have been the great love of our lives, and actually she says in a letter "I fell immortally in love you" and something similar happened to me. But my time in Germany was coming to an end and Mum and Dad had arrived to come with me on the graduation journey, first to the Olympics in Munich and later to Italy and Greece. I learned many things on that journey.



Basic shapes for creating shelter against light, rain and wind (examples to right)

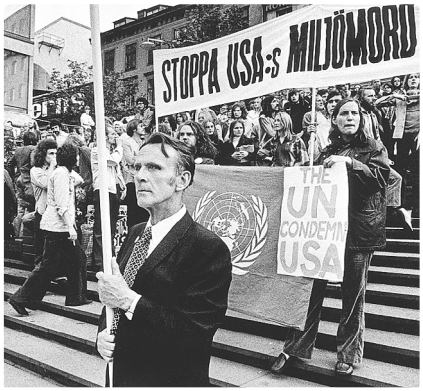


A chair in a strips-style I designed and built. (Only kept together with clips)

My parents on the Spanish Steps in Rome in a trip at the end of my studies in 1972

The Years at the Development Office

Environmental Awakening – The Development Office Established



The first international UN conference on the environment took place in Stockholm in June 1972

The year 1970 can be seen as the starting year when environmental issues became large and important issues in the world. This year the *first International Environmental Year* of the United Nations was held and they also, in this year, prepared for the *first International Environmental Conference* that took place *in Stockholm in 1972*. What primarily pushed nations to think about environmental matters globally was that people had started to realize that the nuclear race of the superpowers was a threat to life on earth. Information appeared on how much radiation there would be and also that a nuclear winter would come because of dust that would prevent the sun's heat to warm the earth. This could lead to extermination of most life on earth.

At this time people had also started to realise that other environmental problems were already covering such large areas that it would take the cooperation of many nations to come to grips with them. Here one can mention sea pollution and overfishing of the oceans of the world. Icelanders got a stark reminder, to what overfishing could lead to, when the heering stock collapsed in 1968, as earlier it had accounted for a considerable part of the national income. Scientific data also showed that the cod stocks could also collapse if we did not act in time. The awakening awareness about the environmental matters in the world helped us to explain our necessity to extend the fishing limit zone out to 50 miles in 1972 in order to protect the cod stocks.

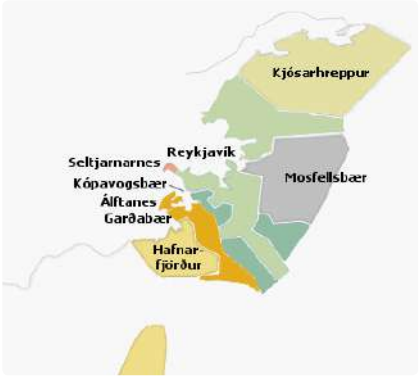
The British and other European nations that were fishing off Iceland, were very much against this, not least because the Danes had given them permission to fish here as they still governed the country before WW II. Now the British, that had the biggest fishing fleet in Icelandic waters, sent warships to protect their trawlers, and then the first *Cod War* started. We Icelanders are often very lucky, and now our luck was the awakening *environmental awareness* in the world that helped us to save the cod stocks... and thus the nation's principal livelihood.

It also helped us a lot that there was still much *Cold War tension* between the USA and the Soviet Union and we Icelanders were clever enough to flirt somewhat with the Soviets to make the USA insecure about its base in Keflavik. Now there was also a leftist trend in the politics, and a new centre-leftist government was established in 1971, a government which possibly might cancel the navy base agreement. Therefore the USA put pressure on the British not to employ their warships with full power. Right after the extension out to 50 miles, the government initiated the purchase of 50 stern trawlers that doubled the fish catch in this decade. So we thus gobbled up all the catch of the foreigners and more, so that because of our overfishing the cod stocks were in continued danger.

As I returned home from my five years in Berlin, in the fall of 1972, a period of great prosperity had started and also Reykjavik and the Capital Area had changed quite a bit.

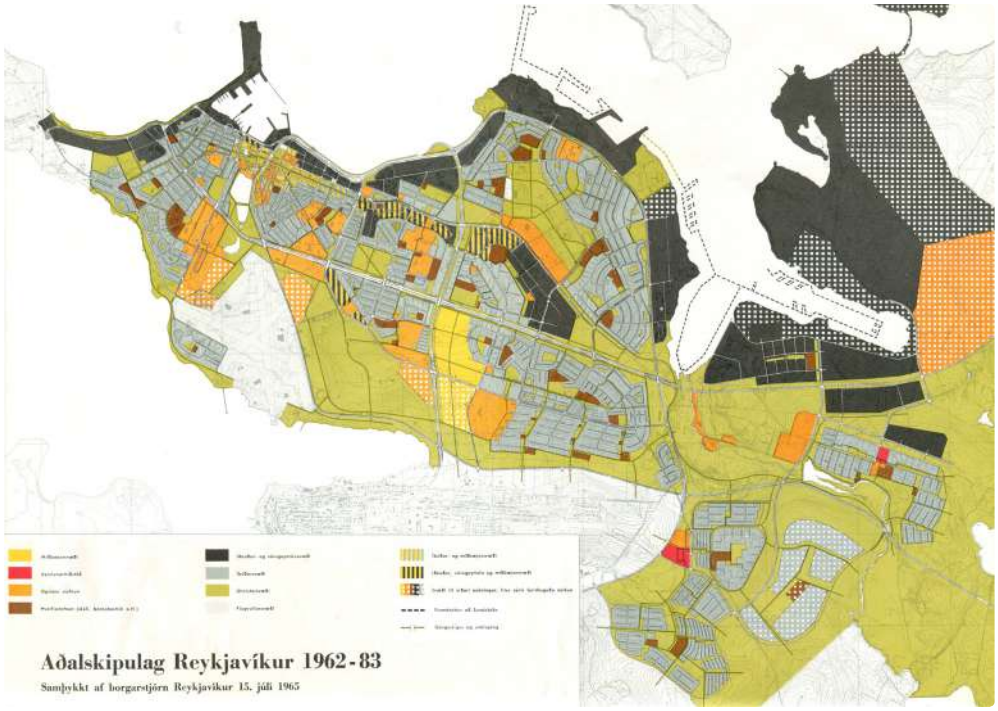
In 1965 a new Master Plan for Reykjavik had been accepted, a plan that was mainly made by Danish advisors. They had pointed out that we would need to look at the Capital Area as a whole, and preferably an overarching government should be established. This government would be in charge of all-encompassing issues. This did not happen, but a Cooperation Committee for the Planning of the Capital Area was established.

The Danish also helped in making primary sketches for a *Regional Plan*, parallel to making the plan for Reykjavik. This committee continued its work after 1965 and tried to have its proposal accepted in 1973, which did not happen. The reason was that the eight communities in the Capital Area had already developed some new ideas, because from 1965-1972 there had been great change in ideas about planning and growing active awareness of environmental concerns. Strong voices had emerged demanding the protection of old buildings and there was increased criticism of the priority given to the private car and a very much increased critical attitude about the bedroom communities.



The seven municipalities of the Captal Area make a comprehensive plan difficult

All these issues had become prominent in Europe about five years earlier and it was terrible that we were realising a plan in this modernistic spirit after other nations had learned, from bad experience, how terrible such planning was. The Danish specialists carry the



The Master Plan of 1965 was characterized by the same wrong ideas as in most countries up to 1960. The task of the new Reykjavik Planning and Development Office became to try to rectify some of the worst faults

Hördur, Hilmar, Thorgeir Astvalds and TV. Toggi tests a new method in planning

Grey: residential areas meant to last till 1983. Checkered: areas to be built after 1983

We had to direct development north-east, but in the existing plan this was an industrial area!

A big problem in the Breidholt was the high percentage of flats for low-income people

biggest responsibility, and also the love for the car in Reykjavik was so extensive that the City Council of Reykjavik agreed on the following goal with all fifteen votes: "This interest of the public to own a car and get everywhere on their own, should be seen as a primary objective."

Even though I had not been to Iceland for four years, I had been able to follow the planning matters of Reykjavik in newspapers and reports. Nevertheless I was flabbergasted to see the high rise suburb of Breidholt III that had the exactly same characteristics as the suburbs in Berlin that had been most highly criticised. But now the plan was to renew the planning work by establishing the *Development Office of Reykjavik*. As the name indicates, it was originally meant to lead the new urban development. As it turned out the plan from 1965 was greatly flawed. It was, for example, necessary to study where new settlements could be built, as it now became apparent that after the Breidholt areas were completed at the end of the decade new areas were needed.

The building up of the Breidholt areas had gone much faster than planned. This, not least, was because of increased prosperity that allowed the young people to move out of flats in cellars and attics to the new suburbs. This movement meant much thinning of the older parts of Reykjavik that amounted to about 15,000 people at the same time as the Breidholt areas increased to 20,000 people. Thus the increase of people in Reykjavik was only about 5,000 in the same period as the Breidholt areas were built. This sprawling was very expensive for the city and, in addition came the necessity that the inhabitants own a car to commute between the bedroom communities and the work places in Reykjavik west of the River Ellidaar.

I was very lucky to get a job at the Development Office as it started operation on November 1, 1972. There were four of us first employees: Hilmar Olafsson, the Director, Baldvin E. Baldvinsson, an engineer, Jona Gudmundsdottir, a clerk, and I. The office was placed in a 300 sq. m. industrial space at Thverholt 15. At the beginning we all sat together at an old dining table acquired from the Swedish Embassy.

The Hippies Come Home and Start to Become Active

I was very excited about moving home to Iceland. I had been successful in my studies and the winning of a prize in a competition, and a good thesis, filled me with confidence and power. I think this was also the case with most other people of the hippie generation, because we were convinced we had the right views and solutions. In any case, our views were quite different from those of the older generation and now, we hippies, started to fight for them. As I have already partly described, the sentiments towards many issues had changed quite a bit, for example, as concerns the private car, architecture, planning and old buildings.

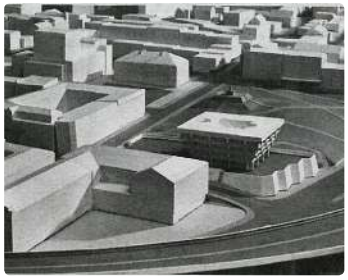
An example of this were the protests that erupted as the Central Bank had a concrete bunker planned on the lot of the marvellous villa of Thor Jensen at Frikirkjuvegur 11, which was planned to be demolished. Immense protests made the bank move its project to the foot of Arnarholl Hill, where it had another monster designed; a reverse pyramid! Again, there were enormous protests, and the bank was forced to move with its project to the far corner of the hill, to the lot of the Swedish Freezing Plant. There the bank stands today with a foul look. This building is designed as an unapproachable fort with long narrow windows that look like slots for shooting. The Valhalla of the Conservative Party and the National Library are designed in a similar closed and massive style of a fortress, which also describes the attitude of those who are governing there, i.e. to reside cut off from the environment, at a good and safe distance from the foul public.

The new view on architecture and old buildings is most clearly expressed in the attitude to building on Bakarabrekka Slope. There the state had planned to have the old buildings demolished and to build a very ugly six story building to house ministries. The opponents to this did several things as counteraction. For instance, there was a competition about the future of this area, commonly called Torfan, but all the proposals wanted to have the old buildings preserved.

In December 1972, as I had just arrived in Iceland, there was a flare walk to the place, and then there were speeches and group singing. There I met Steinka Sigurdar who had been with me in the school play in secondary school. There we sang together from a sheet. After New Year's we started being together and in the summer there was a baby on its way, quite unplanned. Tinna was born on April 3rd, 1974. We lived on Gunnarsbraut until there came conflicts and we separated. Steinunn had already published two books of poetry and was a reporter for the State radio and tv. At the same time I had started to speak in meetings and write articles about planning, so both of us were quite active.

In issues that I was not working on at the Development Office, I thought I had the full right to express views that were not in accordance with the official policies. This made my

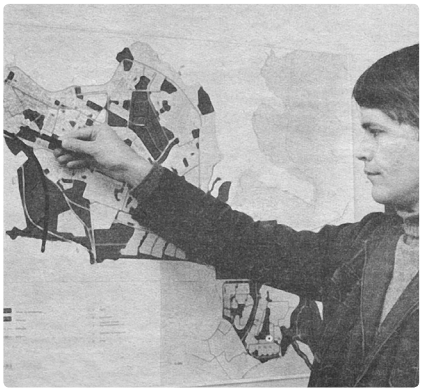
The Central Bank was planned on the site of Thor Jensen´s beautiful house



The next design-attempt was placed at the foot of the Arnarholl Hill

Because of protests, the Central Bank was pushed to the corner of the hill

A wave of protests arose because of plans to demolish Bernhöftstorfa



TV shows how large the airport area is. From a centrefold interview in 1975

superiors somewhat unhappy. An occasion, especially memorable, happened as I started to fight the airport. This was a visit to the Director of the Airport, Gunnar Sigurdsson. He was very unhappy with me and did not hide it. He pointed out of the window in the Air Control Tower to private jets that stood outside of Hotel Loftleidir and said: "Don´t you think it is fine to be able to land here and walk straight into the hotel?"

Shortly thereafter I had a talk with Brynjolfur Ingolfsson, the Secretary of the Ministry of Transportation. I told him about my talk with Gunnar and attacks by some other people. Brynjolfur, who was quite free from office pride, said: "One should not step on the toes of young people." Ever since I have held Brynjolfur in great respect. In general, the airport people I got to know, held quite egotistic attitudes airport issue in Reykjavik not taking into account the interests of Reykjavik itself. This is the most egotistic bunch of people I ever encountered in my whole carreer.

One of the things that was the most fun when I returned home in the autumn of 1972, was that now I started after five years away, to meet my old comrades again, who I studied with in school. They had in the meantime, received their education all over the world. Many of them started to become active, especially within the area of writing and movie making.

First about the writing: Here it happened, for the first time, in the books and poems of these young people, that Reykjavik became the main subject, but the class cohorts of 1965-1968 where the first big Reykjavik classes of the post-war years at the secondary school. Most of us were brought up in Reykjavik and our heart was with the city, and we wanted to improve it.

TV and Steinunn in the Westman Islands after the eruption in 1973. Long hair and army jacket; symbol of protest

Hrönn and Tinna, daughter of TV and Steinunn, at Haaleitisbraut at their grandparents home in 1975

Best known of the new Reykjavik books was the one by Petur Gunn, *Point, Point, Comma, Slash*. Thorsteinn Jonsson made a fine film based on it. Another fine movie maker from our group was Agust Gudmundsson, who, for example, made the film "On Top". It is a pleasant memory that I played in both of the first movies of Thorsteinn and Agust during our secondary school years.

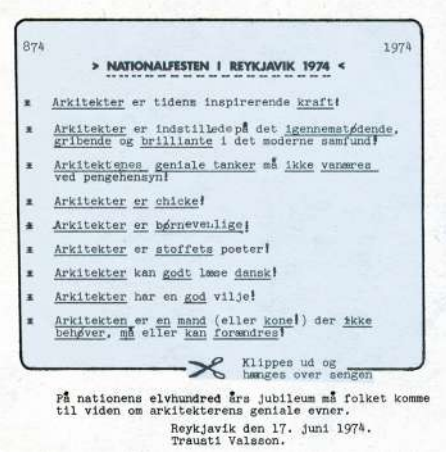
"Point, point...", a book and film on our generation, became a huge success

Sometimes the generation of writers that appeared at this point in time, were called "The Funny Generation"… in a rather derogatory way. I think it is wrong to talk badly about light heartedness, especially because up to then, there had been a quite dark sprit in Icelandic literature, in addition to being haughty and arrogant, where Thor Vilhjalmsson is the clearest example. The young generation obviously took itself not too seriously and liked drawing strange and funny pictures from life.

The older generation of poets had almost killed poetry... but called itself, nevertheless, "Poets of fine art". Now the young poets got the good idea to call themselves "Poets of bad art" and to advertise a reading in the large hall of the University Cinema, which was unheard off. In the group there were six comrades of mine from secondary school; Petur Gunn, Toti Eldjarn, Siggi Pals, Hrafn Gunnlaugs, Steinunn Sig and Megas... and then there were two others who had not been in school with us; Birgir Svan and Gudbergur Bergsson, who was the nestor of the young poets. To everybody´s surprise the University Cinema was stuffed full, and the young poets were received fabulously.

We young architects also became very active in the public debate, but there was a problem; the magazine of the Architectural Association was not published anymore. On the other hand, they published a newsletter *Arkitidindi*. We were allowed to enlarge it to the size of a magazine and publish an issue on the standing of architecture and planning. This all became very critical material such as "The Breidholt Wonders" and "Existential Rights of Architects". This, the older people in the Association, did not like and we were forbidden to continue editing the newsletter.

The year before this special issue, there was *the National Celebration of 1974*. As was customary at this time, people were always publishing addresses to the nation in a very high flying and exaggerated style. I therefore decided to publish in our issue, an address about the role of architects in society – in Danish! I, the hippie, thought architects in general, were haughty and reactionary and therefore I said in the last commandment: "The architect is a man (or a woman!) that does not need, or want, or can, change." It goes without saying that this "address" did not bring me much popularity among the older architects.



874 1974

> NATIONALFESTEN I REYKJAVIK 1974 <

* Arkitekter er tidens inspirerende kraft!

* Arkitekter er indstillede på det igennemstødende, gribende og brilliante i det moderne samfund!

* Arkitekternes geniale tanker må ikke vanæres ved pengehensyn!

* Arkitekter er chicke!

* Arkitekter er børneveulige!

* Arkitekter er stoffets poeter!

* Arkitekter kan godt læse dansk!

* Arkitekter har en god vilje!

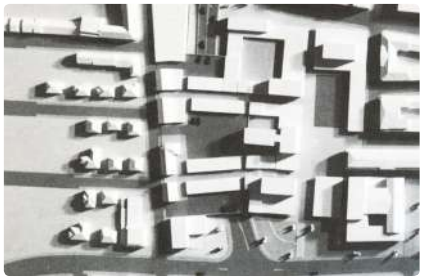
* Arkitekten er en mand (eller kone!) der ikke behøver, må eller kan forandres!

Klippes ud og hænges over sengen

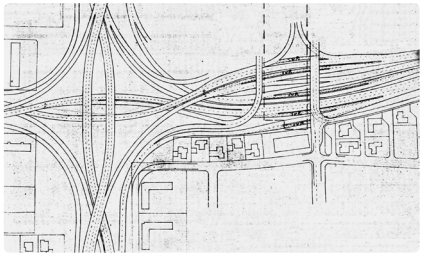
På nationens elvhundred års jubileum må folket komme til viden om arkiteterens geniale evner.

Reykjavik den 17. juni 1974.
Trausti Valsson.

I wrote a parody on the self-centred architect, which didn't make me any more popular (It is in Danish)



Gardastraeti Street was to go under Grjotathorp in a tunnel



Proposal for a spaghetti intersection where the Kringlumyri- and Miklubraut roads meet

Geirsgata was to become a fly-over. A part of it is now the roof of Kolaport

Olafur Ragnar Grímsson in a conference: Breidholt will become a poor area because of poor planning

New Settlement Areas North – East of Grafarvogur Bay

The *Danish Master Plan of 1965* had been unanimously accepted by the City Council on July 1, 1968. The plan was published in a large book in 1966. The whole affair was technically fine, and Mayor Geir Hallgrimsson earned a thank-you for it. The sad fact, however, is that the Danish advisors had not yet realised the serious faults of modernistic planning as it was carried out in most places in the post-war period. The modernistic planning scheme was characterised by high-rise suburbs that often became ghettos for the lower class, and also the separation of places where people sleep and work demanded large highways for commuting. This ideology also carried with it much insensitivity for the value of old settlements that led to tearing down of buildings in order to push large traffic lanes through old town centres.

As the *Master Plan Book* had been published in 1966, people could start to study what the plan actually proposed, for instance in the Old Town Centre. As an example, Tungata Street was widened to a broad road and at Austurvollur it was to be extended out into the square, then to bypass Hotel Borg, go over Laekjargata Road and up Amtmannsstigur Street. From there this road was to cross Skolavordustigur to be connected with Grettisgata Street. Grettisgata was to be made twice as wide, which meant that all the buildings on one side of the street were to be demolished. In this way the drivers could get east to Snorrabraut "on their own". Some other streets in the Town Centre were to be widened also. In preparation 50 houses had already been demolished as the strong protests against this aspect of the plan started.

Let us now look at the suburbs. The building of the Breidholt areas started in the 1960's, and at a conference held because of the 50 year anniversary of the Planning Law in 1971, great doubts about the plan surfaced. Among others, Olafur Ragnar Grimsson, then professor of political science, said that it was likely that the Breidholt areas would become a poor people's neighbourhood in the future because of the plan (Visir 23/10, 71). This prediction has come true, as concerns some of the areas there.

In the Master Plan (MP) from 1965 it had been calculated that one of the three Breidholt areas would still be unbuilt at the end of the planning term, in 1983. In 1972 it had already become clear that this prediction would not hold up, and right away people had started to think about the next areas for settlements.

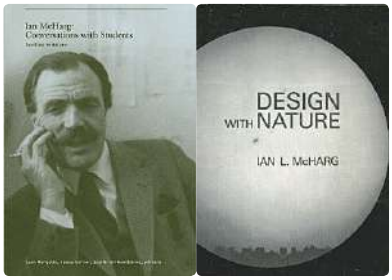
This task; to review the ideas of the Master Plan about the road system and the Old Town Centre, as well as to review the Plan in general, were the most important tasks that we at the Development Office were going to start working on. As we bought the work of outside advisors, as for the re-planning of the Town Centre and some special areas there, we had the supervision.

I was asked to lead the project to prepare for the planning of the areas north-east of Grafarvogur Bay. As always in planning, we decided to make the frame of the study area much wider than the planning area itself. We called this area the Ulfarsfell Area, named for Mt Ulfarsfell.

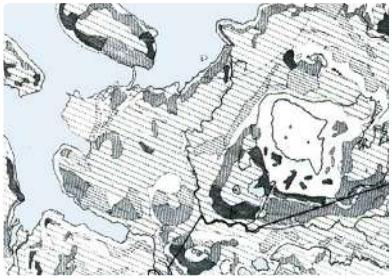
In 1968 there appeared a book in the USA by Ian McHarg, *Design with Nature*. This book introduced a revolution on how new building areas were to be planned. The method starts by inspecting and mapping all types of natural and environmental conditions, and then the planning is adjusted to this information. One characteristic of McHarg's method is to divide the assessment factors into positive and negative groups.

We now started to prepare the evaluation and the mapping of the area in accordance with this method. The most important positive features were: Good views, depth of soil, exposure to sun, and nearness to outdoor areas. The negative or constraining factors we mapped included: noise areas at the highways, danger zones and protection areas.

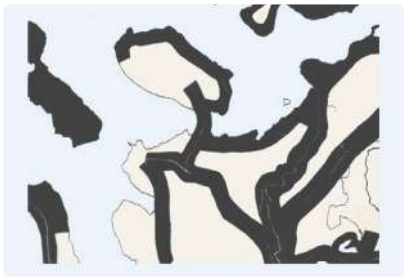
Each aspect of the evaluation was interpreted with different shades on the maps that were drawn on transparencies. Laying the transparencies over each other, gave a visual addition of positive features. The same happened with the overlay of the negative features.



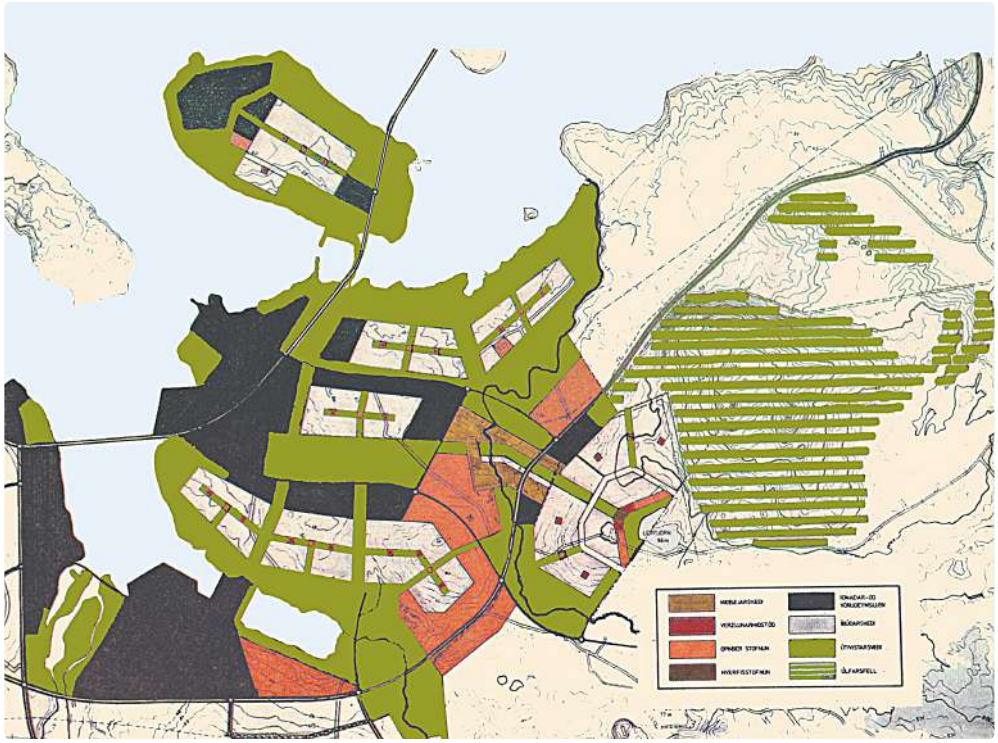
Ian McHarg and his book Design with Nature



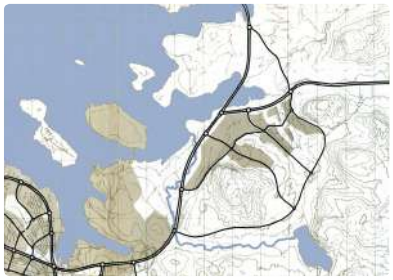
Areas providing the best view. An evaluation map made for the plan



Evaluation of noise and protection. A map made for the planning



TV led the making of evaluation maps and a proposal for a Master Plan for the area north-east of Grafarvogur. *Colour key: Light grey, residences; dark grey, industries; orange, public institutions; ochre, a centre; green, outdoor and protection areas. We made them large be cause they tend to be encroached on. This didn't happen here so today they are far too big. In this proposal the inner part of Grafarvogur Bay is a lake, a plan that, unfortunately, was abandoned*



The Regional Plan Proposal´72: To let the Vesturandsvegur follow the River Ulfarsa

The area where The New Centre was to be built to "bridge" both road and river

The New Centre at Ulfarsa River was meant to serve a settlement of 45,000 people. Such a large settlement needs to have a centre. It would also remedy the separation of the areas east and west of the River Ulfarsa and the Westland Highway

The findings from this overlay process became a foundation for making the plan proposal. Into this we also added information that Bjarni Reynarsson collected as he worked with us on his BS thesis in geography. These factors included wind directions, types of soil, temperature variation and sun radiation.

One of the biggest problems in planning the area was that the Westland Highway runs straight through the middle of it. In order to reduce the amount of traffic, and thus the dividing impact of the highway, I proposed an idea about a new road at the western edge of the area, on bridges, connecting peninsulas. This I considered to be one of my best planning ideas. The part of this proposed road over Ellidaar Bay should have been built right away to afford easy access to the new areas. If this had been done, widening of the Westland Highway would not have been necessary. This necessary connection over, or under, Ellidaar Bay, has not yet been built. Because of this delay, people had to move the highway out of the centre of Mosfellsbaer and also to construct roundabouts to slow down the traffic and thus also to reduce the divisive impact of the road.

As a matter of fact, in the then existing proposal for a Regional Plan for Capital Area of 1972, that we were considering, there was another proposal for the route for the Westland Highway. This route almost followed the channel of the River Ulfarsa. I think I had never been as surprised as I was when I discovered this on the proposal map, and we at the Development Office would never have approved this route for the road.

To be given the leadership in the planning of this huge area, was a great opportunity for me as a young planner. One of the things that we proposed was a settlement east of the Westland Highway in the Hamrahlid area under Mt Ulfarsfell. We knew that this settlement, in the future, would stretch further east at the foot of the mountain, as actually is planned today. Therefore we proposed a New Town Centre for this settlement of 45,000 people. This centre was to be located on both sides of the Westland Highway, and was to be connected both under and over it, to reduce the divisive impact of the highway. In this way the Town Centre was designed to become a powerful link between the settlement areas on both sides of the highway. A special positive feature in this Town Centre plan is that the Ulfara River would go through it and make it more beautiful, as is shown on the map to the left.

Very regrettably this Town Centre and the link, were not been included in later plan proposals and today no centrally located centre is planned for this large settlement area, which in fact, is today totally cut off from the Reykjavik Area south of the River Ellidaar because of the Grafarvogur- and Ellidaar Bays, as well as by the industrial areas located there.

Open Areas for Activities and Beautification

Reykjavik was a very young town in 1900, with a population of only 5800 and few modern amenities. It was not until 1902 that the first sewer was built. In 1909 the water supply system was installed, followed in 1910 by the gas supply system. In the First World War the huge undertaking of building a closed harbour was finished, and in 1921 the hydropower station in Ellidaardalur Valley started operation.

The largest step towards clean environment was geothermal heating: No smoke!

During the Depression and the Second World War there was a delay in construction and housing space was tight so that 40,000 people lived inside the confines of the Hringbraut (the Ring Road). After the war there was a great expansion in building, and gravel roads were built in new areas and the construction of the district heating system was started. This was an enormous undertaking that had started earlier in the old part of town but the suburbs had not been served. This meant that in the Holt area, where I was brought up, houses were heated with coal and oil so in cold weather there was a cloud of soot lying over everything. After the district heating system was installed, the next great effort was paving the roads with asphalt, but the paving did not catch up with the need until around 1970. These two big efforts of Reykjavik were called *the Hot-* and *Black Revolutions*.

Another revolution has been the growing of trees for shelter and beauty

The third issue that had been neglected, was the finalising the open areas and the creation of facilities for sports and outdoor activities. When *Birgir Isleifur Gunnarsson* became the new Mayor in December 1972, a month after the Development Office started, he decided that a great effort within this area, would be his main emphasis as mayor. We, at the Development Office, and the Director of Parks, were asked to start this project by carrying out a review of the present conditions. The project resulted in a *Plan on Environment and Outdoor Life* – often called "The Green Revolution" – that became the main issues in the spring elections of 1974.

Girls with rakes in Hljomskolagardur. This was seen as a way to connect the young with nature. But, at the same time, it built on the old understanding that jobs in agriculture are ennobling

I had already done some work in this field in Berlin. In my diploma thesis I say for instance: "Our environment is constantly becoming more artificial... The main characteristic is that there is ever less nature and variation in cities". (p. 8). In a letter to Hilmar Olafsson in the summer of 1972, I put forward ideas on projects for the new Office: "Of late I have been thinking about two issues... the division of the ocean areas at Reykjavik according to cleanliness... (and the division) of coastal areas or coastal life... and also (division into) areas for quiet and motorized boats" (20/7 ´72) (p. 5). All of these issues went into the Environmental Plan, but the realisation has not yet been fully completed.

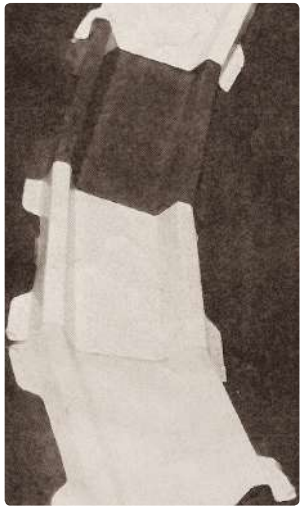
Together with work on the new settlement areas, this work on the plan for Environmental and Outdoor Life became my main work for the next two years. In a draft to the report on present conditions, I did not hold back on my comments, but in the final

report I was not as candid as it was meant to be an official document. A few samples from my report: "Almost the whole north coast is not approachable and it can be said that Aegisssida is the only place where a residential area has a contact with the coast" (p. 17). Another example: "Everybody knows that the open areas in the city are of little use for the citizens and have a poor connection to the residential areas and are also poorly interconnected" (p. 17).

As for where the emphasis should be placed for facilities in the open areas, I say… "that a great emphasis should be placed on making the areas self-sustainable – and to create facilities that can help to initiate social activities" (p. 21). In my thesis I had recommended this, to keep running and maintenance costs low... and not less, to avoid designing in a way that only fits narrow purposes, but rather that facilities are created that give the users the opportunity to shape their uses and actions themselves. This is related to the sustainability concept of today.

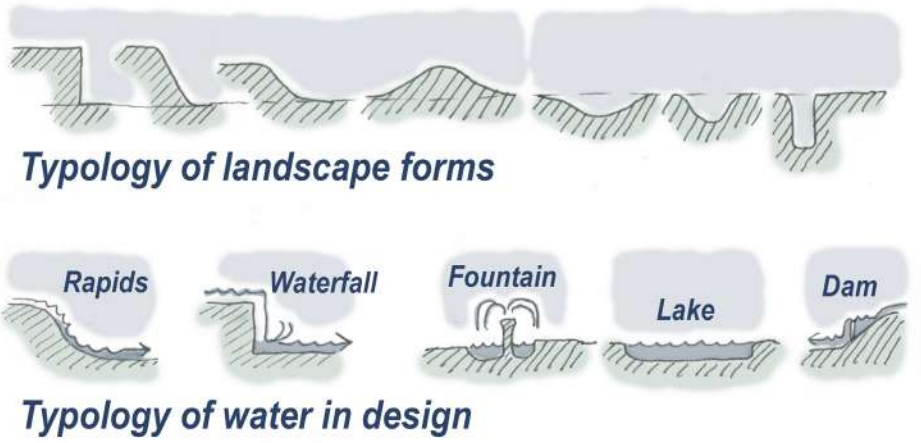
In the spring of 1974, the communities in the Capital Area announced a competition on playgrounds and play equipment. In my proposal in this competition, I used the before-mentioned principles by designing a spectrum of landscape forms; hills, fields, trenches and walls. In addition, all the primary elements of nature were present, such as still and running water and many types of soils. My plan also provided for scrap materials so the kids could create their own playground and could build houses and dams. In this way they were not tied to the narrow types of activities of standardised play equipment I got the 1st prize for a playground (see the picture on the top of p. 34) and a 3rd prize for play equipment (see the pictures to the left).

The status report of Haflidi, the Director of Parks, is called "Reykjavik in a Microscope" (1973). It describes the conditions of the open areas and presents ideas on improvements.



Slide units that can be placed in hills of even slope

Idea on a slide on Arnarholl. Figures from the competition are on page 34



In the thesis I wrote in Berlin I made schemes on the basic types of landscapes. Design of playgrounds and green areas should work with these, because every basic form, facilitates many actions. Maintenance and expensive playthings are therefore not as necessary

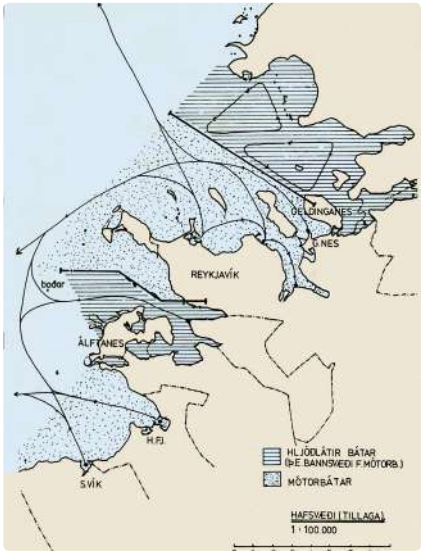
Tough debate erupted in the newspapers (left).
***The map above** is a part of an overview map describing plans for recreation areas, green areas, and systems for bike and walking paths of the "The Green Plan". This plan became the major issue of the Conservatives´ programme in the elections in 1974.*
I made many trips with materials to the designers of the "Blue Book" in this election year

An example from the report: "The whole area at the Traffic Centre is in such dismal condition that it is necessary to do something"… "(The shipyard areas) are without a doubt, the dirtiest areas in the harbour..." (p. 5). Haflidi also presented ideas on activities: "The area of woods (in Fossvogur) should be made a public park…" (p. 46). Like many other good suggestions, this has not happened yet.

On the foundations of the status and the proposal reports, that Haflidi and I submitted, many proposals were made concerning activities in open areas, and these were published before the 1974 elections. There was, for instance, a proposal to try to get Videy Island under the jurisdiction of Reykjavik, and to restore the buildings there and make this island an outdoor area. Also there was a proposal to build a skiing area in the Blafjöll Mountains. In addition, a great plan was made about a path system of walking and biking for all Reykjavik. It takes, of course, a long time to construct this vast system, and it has not yet been finalised 40 years later. Many people thought this plan pretty unrealistic in 1974 and Mayor Birgir was therefore called the green (naive) Mayor.

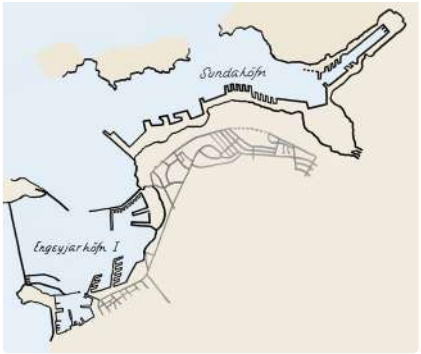
Mayor Birgir was thus confronting a headwind in the elections and people suggested many projects for Breidholt and wished they should be given priority. Because of political vibrations, a plan on projects for Breidholt was constructed, a plan that was good to have at hand if the criticism of the Green Revolution got fiercer. This did not happen so the Breidholt plan was never published and I am possibly, in possession of the only copy.

Looking back about 40 years, it is clear that with the Green Plan came in fact a Green Revolution in Reykjavik. Several uses of its proposals, like constructing a path system, are now, many decades later, coming to light. Now the politicians in Reykjavik are boasting about their efforts to improve the opportunities to bike and walk, but such an effort would not have been possible if Mayor Birgir and we his employees, had not shaped the vision and started the construction of such a system almost half a century ago.

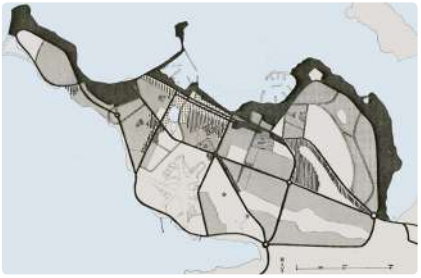


A division of the ocean at the Region, into separate areas for quiet and noisy boats

Spoiled Coast – Harbours and Boating Harbours



Overblown harbour ideas from 1962. The Old Harbour is in the low left corner



The Plan of ´48 introduced zoning, highways, too large green areas, etc.

The Plan of ´65 kept industry along the north coast, preventing ocean access

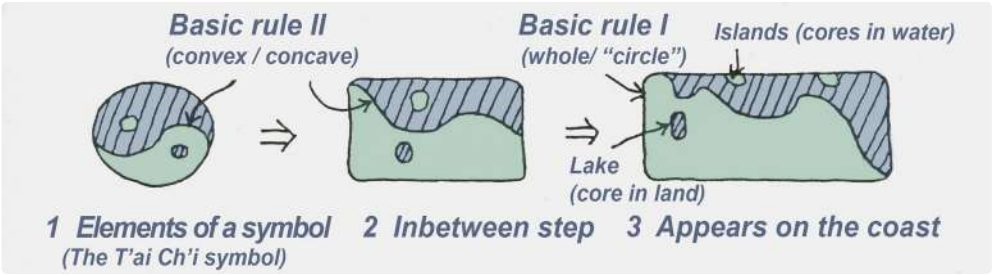
Before we at the *Development Office* started our work on the new plan, the condition of sewers along the coast had become terrible. A Danish institution, *Isotope Centralen*, was commissioned to investigate the pollution of the sea and map its distribution. Then it was discovered that the concentration of the intestinal bacteria e. coli was high in most places, and therefore the health authorities closed down sea bathing at Nautholsvik. Because of the pollution along the coast and in the coastal waters, a huge sewage pipe was laid down along Fossvogur Valley which then ran on the bottom of Skerjafjördur Bay, passing Aegissida and on out to Seltjarnarnes. This drainage pipe collected sewage from Breidholt and Fossvogur and also, after some delay, from areas in Kopavogur. The effluent from several smaller sewer pipes that had been discharged into ditches in the valley and along the coast now ran into this large sewer and was discharged out to sea.

Much later a comparable large drainage sewer was constructed for Reykjavik's north coast and pumping and cleaning stations were built. There the solid materials were filtered out and the sewage was pumped farther out into the sea. In a direct continuation of this, large sewage pipes were laid on the seabed out to Akurey Island and Geldinganes to where deep ocean currents could catch the sewage and carry it out still farther.

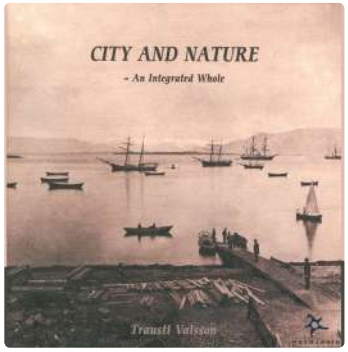
In 1948 a new plan was made for the coastline of Reykjavik (the earlier plans were from 1927 and ´38). This was a terrible plan because it proposed policies that later led to all the worst planning problems in Reykjavik: an overblown highway system, zoning of functions, too large open areas, and finally the whole North Coast was planned for industry. It has been very hard and expensive to undo all these wrongs – and it is actually, in many cases, not possible.

The history of the destruction of the north coast is terrible. Quite early the inhabitants made the North Coast a dump site; sewage was discharged to there, as well as materials from building foundations. Some of that material actually was of some use for landfills, for example in the Old Harbour and at Skulagata. The dark side of this landfill process, on the other hand, was that many natural treasures were submerged; lagoons, skerries, beaches and rocks. As Sund Harbour was built the beautiful Köllunarklettur Rock was dynamited and the material used for landfill for the harbour. The industrial zone along the coast, and later a highway placed there, meant that nowhere in the northern part of Reykjavik is there direct access from residential areas to the coast.

The policy of the industrial zone and the highway along the coast was continued in the 1957 plan, and also in the Danish plan of 1965. Then the industrial zone was even lengthened eastward towards Grafarvogur, Gufunes and Geldingarnes, where an oil refinery was being discussed, even as we, the Development Office people, started working



TV was astonished by the compulsion for separation. Later, at Berkeley, he revealed that this is a characteristic of modern western thinking, and demonstrated how old eastern thinking modes open a road to design schemes that can help reconnect city and nature



The book explains the roots of separation and how to reconnect

on the Reykjavik Plan. This terrible story of the North Coast, and the lack of connections from the city to the treasures that the coast had – and could become again, with targeted measures – became the incentive for the main theme of my doctoral thesis at Berkeley: how to create connections between a city, coast and coastal waters. It is called *A Theory of Integration* (1987). The North Coast is the case study of the thesis, and I divided the coast into seven research areas.

The theoretical part of the thesis dealt with what had happened historically, and the cultural mode of thinking, that had made such a disaster possible. Firstly, there was an unbelievable insensitivity to the beauty of coasts, and secondly there was the tendency to think about everything in compartments or as polar opposites. This I argued is a characteristic of Western thinking that can be traced back to the Bible that presents everything as opposites; heaven and hell, city and nature. There the main conclusions of my thesis I made available in my book: *City and Nature – An Integrated Whole* (2000).

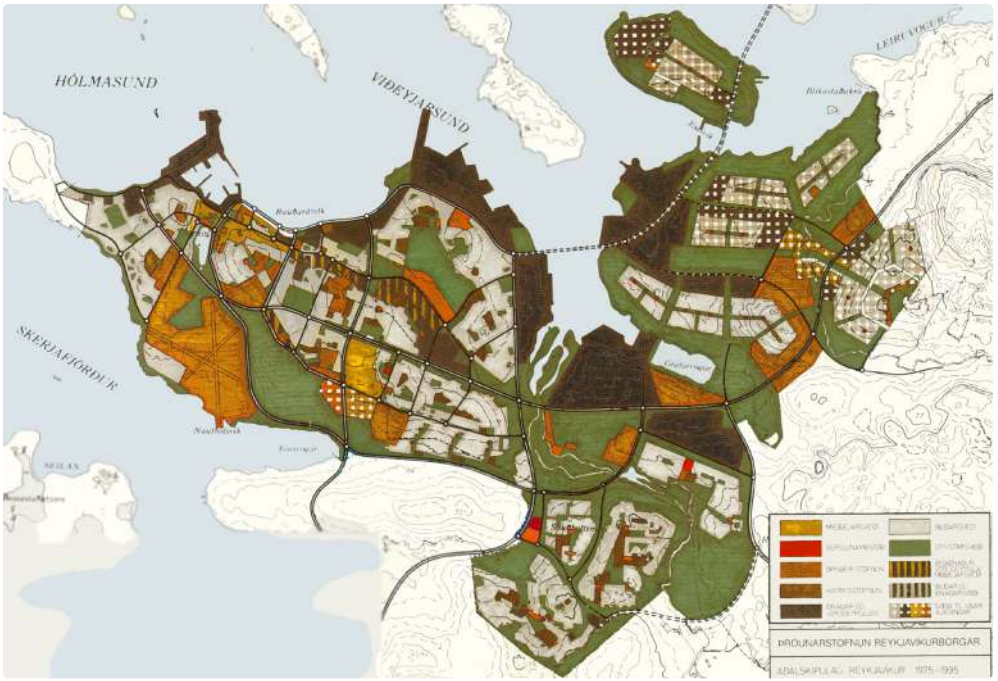
In the Plan of ´65 the Eidsgrandi area was planned for industry (black on the map)

Let us now turn back to the beginning of my work at the Development Office. The first project Director Hilmar gave me was to study the *Eidsgrandi Area* and to write a report on it. Like other areas on the North Coast, this area too was planned for industry and warehousing and two sheds for the shipping firms of Hafskip and SIF had already been built. Even though it was very expensive to have the sheds removed and the area changed from industry to a residential area, we made it our proposal. In the report I described what needed to be considered in planning for a residential area here, for example as concerns the connection to western Reykjavik. Hilmar was so pleased with my work that he called me "a golden foot". It is still strongly in my mind how terrible I thought it was that this well placed area at the KR sports ground was planned for dirty industries.

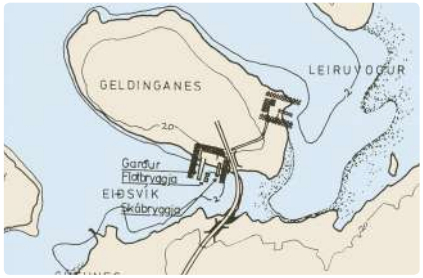
Eidisgrandi is an area of beautiful buildings because industry was abandoned

Our alteration of this North Coast area from industry to residential area, was the first step in a decade long process. Next we changed the Skulagata area in a similar way, then the Borgartun area and the Kirkjusandur area. The Danish Plan had already changed the Laugarnes headland from industry to a green area, but beyond that this process stopped,

The Plan of 1977 was not approved in 1978. Therefore it was easy for the first leftist government in Reykjavik that won the election then, to make fundamental changes to this plan. By comparing the ´77 Plan and the ´65 Plan (on page 55) it can be seen how much progress was made with the ´77 Plan



TV and Hannes Vald studying boat harbour locations from a pilot boat



Boat harbour ideas on the coast: noisy boats on west side, quite ones on east side

because large harbours had been built in Sund. We at our Office reduced the size of the planned harbours, among other, by taking the Grafarvogur harbour out of the plan.

One of the things we did not like in the plan was that there were four oil harbours along the coast; at Laugarnes, in Skerjarfjördur, at Klöpp and on Örfirisey. We then, in cooperation with the Harbour Authorities, created a plan to remove three of these harbours and to move their operation out to Örfirisey Island. Hannes Valdimarsson, later the Harbour Director, and I had developed an idea that a unified oil harbour should be placed in the quarry on the western tip of Geldinganes. The quarry would emerge as stone was taken out for the construction of a large ship harbour in Eidsvik that was placed on the southern side of this peninsula. Because this oil harbour would be placed in the depths of the quarry, it would not be visible from settlement areas.

Another project Hannes and I worked on was the search for a location for a boating harbour. We made a plan for a harbour for motorised boats in the Eidsvik Inlet and a harbour for sailing boats on the other side of the causeway in Leiruvogur Bay. At the same time we proposed the division of the ocean areas north of Reykjavik between these two boat types. A location for a boating harbour on the tip of Geirsnef in Ellidavogur Bay was later decided on. The division of the ocean areas by Reykjavik has, unfortunately, not yet been realised, even though it is not much fun to be in sailboats in areas used by motorised boats.

The Capital Area – and an Airport on Löngusker

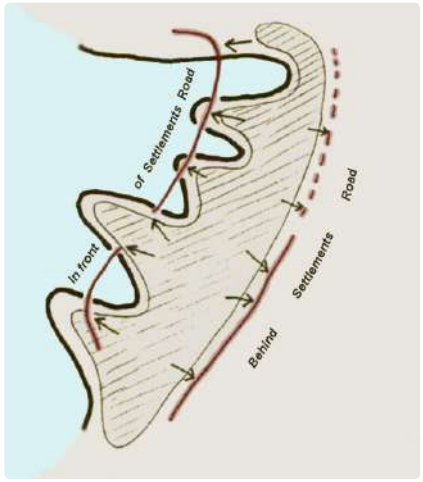
The main problem in the Capital Area is that the seven communities that make up the area, have no central government and in fact, almost have the right of veto on the *Regional Planning Committee*. The proposals of that committee regarding planning for the whole area, that matter most, have therefore been rather vain. This problem has appeared, for example, in the airport issue which is still not resolved. Not even a site for the airport has been agreed on. The same problem applies to a much needed new vision on highways as well as the lack of a common policy on harbour matters such that harbour operations are currently divided between several harbours.

As described earlier the *Regional Plan of 1972* was very bad because it had grown out of the same faulty thinking as the *Danish Plan of 1965*, since the advisors were the same in both cases! It was actually luck that none of the communities was willing to confirm the proposal in 1973. In recompense, and to let people believe there was an interest in cooperation, an *Association of the Capital Area Governments* was established in 1976 and later their *Planning Office* in 1980, with Gestur Olafsson as Director. The Planning Office put forward a *Regional Plan Proposal in 1986*, but the Association did not actually have any real power, so this was more or less a dead end. David Oddsson, the then Mayor of Reykjavik, even declined a presentation of the plan in Reykjavik.

We in the *Development Office* had no possibility to connect to some real regional planning work in 1973. We actually were in over our heads in trying to rectify the many faults in the *Danish Plan*. However, since we thought we could not skip totally, to look at the overall picture, we produced a set of evaluation transparencies for the Capital Area in the same manner as we had for the Ulfarsfell Area.

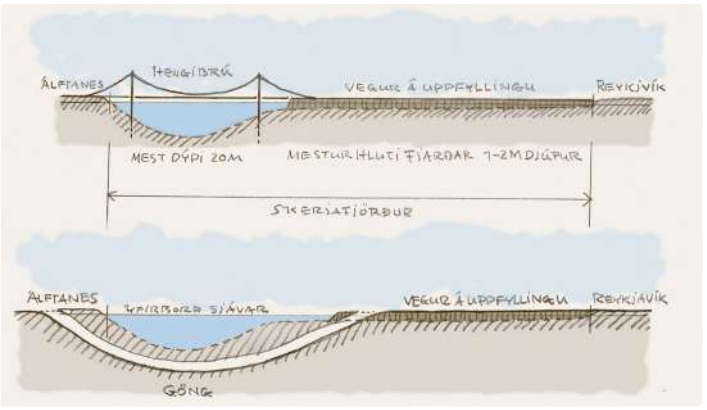
As the planning of Reykjavik is greatly dependent on planning developed for the Capital Area. I therefore decided to write on the subject. The first article, I published in *Lesbok* in August 1973. Here follow segments from the article on what I thought were the biggest issues: "The main problems of the road transportation system stem... primarily from the fact that the Capital Area is placed on peninsulas." I then introduced an idea to connect the peninsulas of Alftanes and Seltjarnarnes: "I want to start by presenting an idea for a road on a landfill and a bridge from Alftanes to the western part of Reykjavik... as with this road we can escape the main traffic jam on Hafnarfjördur Road and within Reykjavik." And I continue with: "Another main issue should be... to direct through-traffic... onto roads behind the settlement." "The Highway Plan includes a road behind Gardahreppur and Kopavogur... and as this Behind-the-Settlements-Road is not there, all cars... need to go through the intersection on Kringlumyrarbraut and Miklabraut... I actually think it would be advisable to extend this "Behind-the-Settlement-Road" also to pass behind Breidholt and Arbaer." (p. 11).

The cover of Lesbok Mbl 1973 with TV´s main planning concerns

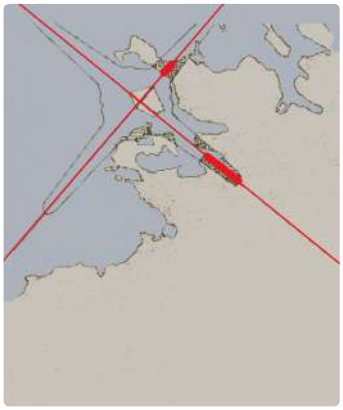


It is important to connect the peninsulas and take traffic out of residential areas

Step 1: *Flat sea and skerrie; blue; less than 2m = inexpensive landfills*

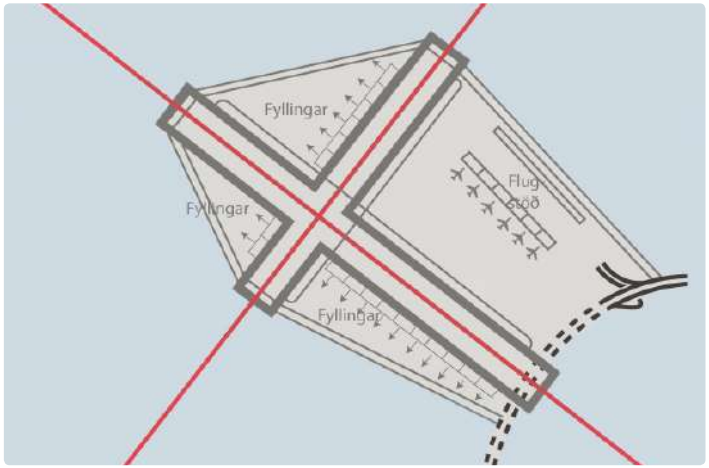


Step 2: *A road on landfill and bridge is inexpensive (tunnel is not)*

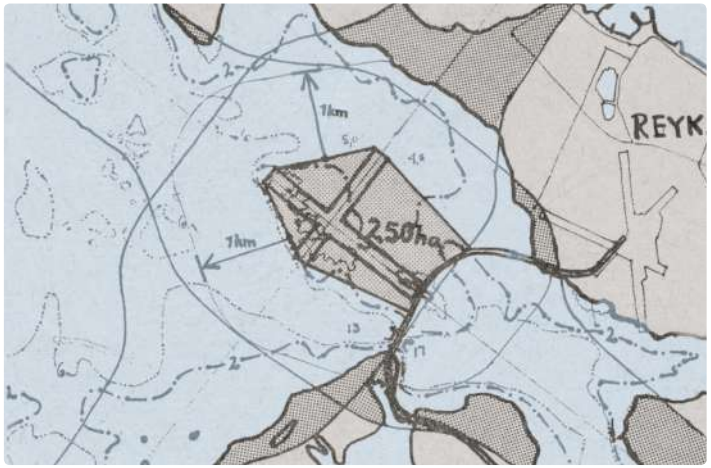


Step 3: *Planes fly less over settled areas on their way to the Löngusker*

Step 4: *More noise over settled areas in Reykjavik than at Löngusker*



Step 5: *Short distance with waste material = inexpensive landfill*

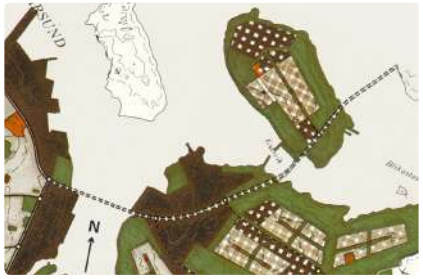


The result: *Löngusker Airport and a road across the fjord*

Steps in the Creation of an Airport on the Löngusker Skerries

This last idea we put in the Master Plan Proposal for Reykjavik in 1977, and a part of this road has been built. Gardabaer, on the other hand, has blocked the continuation of this road at the edge of Heidmörk in the direction towards Hafnarfjördur, which means that all the traffic, now has to pass along the Reykjanesbraut Highway, that sits within the settlements, which cuts apart all the communities there.

A behind-settlement-road was introduced in the 1977 Plan



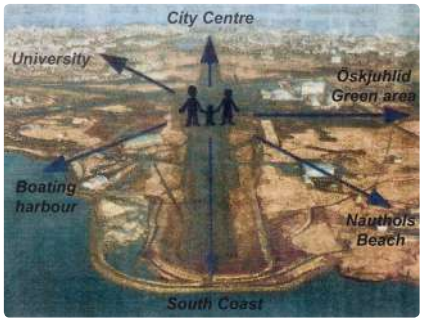
An in-front-of-settlements road was introduced in the 1977 Plan

In a report of the Airport Committee in 1967 there was no solution given for the future location of the airport but rather the committee vaguely discussed options and had area for an airport reserved in three places: in Alftanes, Gardahraun and Kapelluhraun. Nothing more happened in terms of finding a solution for the airport issue – and to reserve these three areas became a problem for the communities. In the *Lesbok* article I discuss – as a continuation of the idea of connecting the peninsulas – the possibility of creating a high density circle around the Skerjafjord. Within this circle the airport area would have a very prominent position: "The Airport Area has fantastic qualities... and the Reykjavik Centre and the Lake Tjörnin Area could be expanded to there." (p. 11).

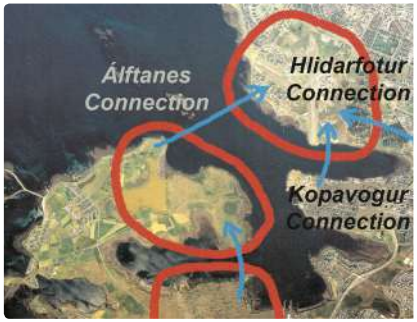
I saw that everything that the Airport Committee was proposing, in terms of choosing a location for an airport. It was very clear that a solution of this problem was the main thing in getting effective planning of the Capital Area into shape. I therefore made a great effort to find a solution and... I have a pleasant story to tell about that. This story happens in four steps and finally led to the idea of building an airport on the Löngusker Skerries in Skerjafjördur Fjord.

The first step was that I discovered, on a navigation map for Skerjafjord, that this fjord is very shallow and also that two kilometre long skerries are in the middle of it. Then I saw that to build a road on landfill there – to connect the peninsulas – would be inexpensive. Step two was therefore very important because road because a road across the fjord is a necessary precondition for connecting the settlements on both sides of the fjord to the airport landfill. The third step had a link to the problem of the present airport, which was the flight approach lines are mostly over settlements. The best solution would be that the approach lines are over the ocean as would be the case with an airport placed on the skerries. The fourth step connects to the noise pollution and links to the fact that today's approach lines are over settlements. Therefore also it would be positive to have them over the ocean as would be the case with an airport on the skerries.

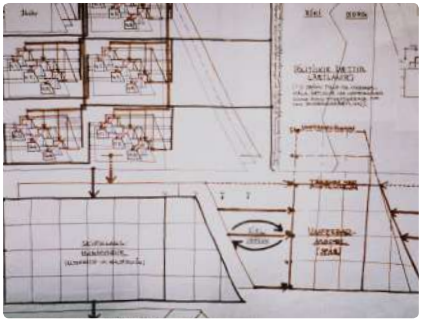
On planning maps the noise area of runways is long, and narrows towards the ends, and it is best if there is no settlement inside it. Suddenly I saw that the Skerjafjord had the shape of the noise area of a runway: Bingo!... In this the four steps were combined; 1) inexpensive landfills, 2) the roadbuilding would be inexpensive, 3) approaching flightlines would be over the ocean from three directions, and 4) the noise areas would mostly be placed over ocean areas. Ergo: this was the right place for an airport. This realization came so suddenly that I felt like a blow to the stomach and could hardly gasp for air.



The airport area has a prime location: short distances to important facilities



Two areas of the same seize are in unbuilt on Alftanes to the south-west



A scheme for data collecting and processing in the planning of Reykjavik

The photo shows how huge the airport area is. It offers closeness to the shore,to two universities, to out-door activities in Öskjuhlid and in Hljomskalagardur. Also the City Centre is within a walking distance

As concerns the costs for this project, it soon became obvious that the area that would become free in today´s airport area in the Vatnsmyri would do more than pay for the landfill. It would be inexpensive to include waste material in the landfill, making it still less expensive. A special positive feature is that various investments in the present airport, like the Air Control Tower and the offices, could be used. The final picture: We could remove the runways and most of the problems that are connected to them and, at the same time, get a new airport almost in the heart of the Capital Area without too much costs. My publishing of the idea was a huge sensation and Gudmundur G. Thorarinsson, an engineer, came to me and asked for permission to present a bill about the idea to the parliament. I helped Gudmundur to write the bill and I drew the maps that were included. The co-sponsor of the bill was Steingrimur Hermannsson, later a PM.

What people mostly use as counter argument to the Löngusker idea is first: the argument of the airport-people that there is too much salt there and that wind measurements are lacking; and secondly, the uncertainty about which communities own the skerries, though they are probably divided among three of them, Gardabaer, Seltjarnarnes and Reykjavik. This point about the jurisdiction over the skerries is a key matter because planning rights follow jurisdictions as does apportionment of income from airports. A joint government for the Capital Area would solve matters like this.

These troubles, as concerns the planning and the executing the best solution regarding the placement, and operation of an airport, shows how necessary it is to form a *Capital Area Government* that has overarching planning rights, as well as finances managed in common, to deal with outlay and revenue an airport and harbours.

The First Steps towards an Iceland Plan

The greatest advantage of having got a job at the Development Office was that we were free from the usual processing matters in planning. This made it possible for us to follow unusual thoughts – and what was most important; we had time to think big and out of the box. It helped very much that Hilmar Olafsson, the Director, was broadminded and urged us to think freely.

It is quite remarkable that Hilmar selected people from many different professions. I was the only one who had a planning education and that gave me a good position. A few years later the next planner was hired, Bjarni Reynarsson, who had done his graduate work after studying geography.

Only once has the Head of Planning in Reykjavik has been a trained planner; Salvör Jonsdottir, and that was not until after 2000. Only architects and landscape architects have held this position. An education in architecture is quite useful for detailed planning but on the master plan level the overview is lacking.

Among the first employees I have already mentioned is Baldvin, an engineer, and Bjarni, a student of geography. More employees were gradually added: Gudny Adalsteinsdottir, a librarian; Thorgeir Astvaldsson, a geographer (later a radio personality and a crooner); Hördur Gislason (later financial manager of the municipal bus company); Kristinn Ragnarsson an architect; Thorarinn Hjaltason (later the Chief Engineer of Kopavogur); Yngvi Thor Loftsson, a landscape architect; and Baldur Kristjansson, who worked on his BA thesis about the sociology of the Fossvogur neighbourhood with us. Baldur is now a priest in Thorlakshöfn. Students were also hired for the summer months.

Very early a powerful atmosphere was created in the group and as a new idea was presented it was always well received and even eagerly discussed. I have never since worked in as pleasant and dynamic company. It helped in the creation of this special atmosphere that we knew it was our purpose to relieve the city of its burden of dated planning.

After the Office had been in operation for only three months a terrible event occurred; an eruption started on the island of Heimaey, south of the mainland, on January 23, 1973. The eastern part of the town was submerged by ash and lava but, fortunately, the flow could be stopped by pumping sea water onto the edge of the red hot, advancing lava, so that the lava solidified and formed a protective wall, actually improving the harbour. Though we had of course known of past major lava flows and the damage caused, the immediacy of the eruption caused us to ponder what lesson could be taken from this, and where it would be advisable – or inadvisable – to plan and build settlements in our country.

The Group later: Bjarni, Toti, Kiddi, Baddi, Gudny, Hördur, Yngvi, TV and Thorgeir

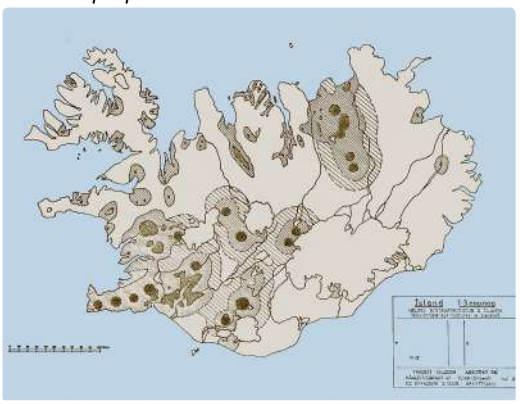
TV designed the interior. All on wheels: walls, shelves and platforms for models

Spirits were high as we created an exhibition on the 1977 Plan

Fight in the Water
Son of the White Christ
Was attacked
By a descendant
Of Ynglingar.
They wrestled
And played hard.
Fell into the water
Getting many a wound.
(Kristinn and Yngvi fought)

The eruption on Heimaey in 1993 demonstrated that Icelanders need to map all the main hazard areas in the country to be able to avoid them. In 1979 TV started such hazard- as well as resource mapping. This became the basis of his Iceland Plan proposal in 1987

OPEC´s oil restrictions in the fall of 1973 showed how important it is to direct settlements into areas with geothermal water. This and the risk of natural disasters was TV´s incentive



Darkest: Best areas for geothermal water. There large users of geothermal heat should be located

REYKJAVÍK

MIÐSTÖÐ SAMGANGNA Í LANDINU

Eftir Trausta Valsson arkitekt

TV analysed historical reasons why Reykjavik became a centre for transportation, and a future Capital. Many countries have built new capitals in their geographic centres

Tíminn

Nýstárleg og stórbrotin framtíðarhugmynd:

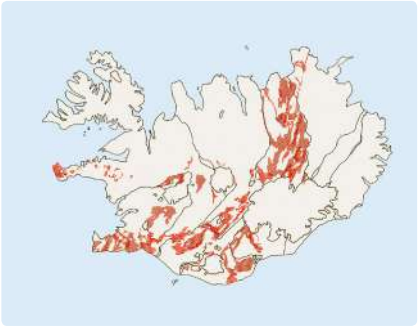
Háborg á hálendinu

með vegum til allra átta

Á bls. 4-5 í dag er sögulegt yfirlit um Reykjavík sem miðstöð samgangna á Íslandi í hundrað ár.

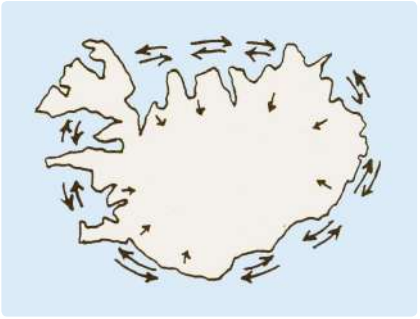
This newspaper put the idea about Haborg on its cover on May 1, 1977

At this time we were forming a project on the evaluation of natural factors for the new settlement area north-east of Grafarvogur Bay. Here we used McHarg's mapping technique, beginning with making a list of all the issues that are either positive or negative for a settlement. The list included danger zones, such as very steep cliffs and a great depth of the ocean at the coast. Because of this project, it was quite natural that the Heimaey eruption urged me to start to make a list of what kind of areas in the country as a whole should be avoided – especially as concerns volcanism. Because of the eruption, it was quite clear that it was highly advisable to try to avoid areas of lava flow and ash fall.



Red: Newest lavas, i.e. the most active areas. Therefore: Minimum construction

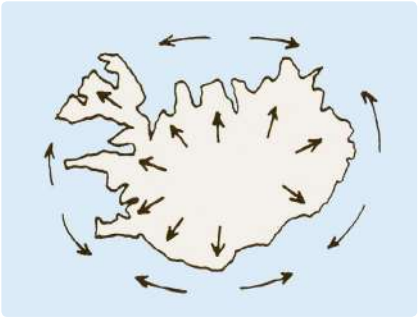
It was not until two years later after I had collected maps that showed danger – and resources areas in the whole country, that I got the idea of making a proposal for a plan for Iceland in the future; an Iceland Plan, built on such data. In addition, only seven months after the Heimaey eruption had started, I was also pushed into think about the meaning of resources for settlements in Iceland, for example geothermal hot water for heating. This happened as the oil producing countries of OPEC reduced the production of oil and gasoline, which led to a considerable shortage and therefore a concomitant hike in oil and gas prices. The crisis revealed very strongly just how well off those settlements in Iceland were that had geothermal heating because in areas where people needed to heat with oil the heating costs went through the roof. From this it was rather simple to conclude that it would be very sensible to map those areas in Iceland where there was readily available geothermal heat and – in planning – try to direct settlements into such areas.



The settlers first settled the coast. They moved inland as their livestock grew

Even this idea; making a holistic study and mapping of all types of hazards and resource as a foundation for a country plan, did not occur to me until 1975. My first step in preparing for making an Iceland Plan was to carry out a historical study on how the settlements in Iceland had developed up till then, and try to visualize how the settlements would possibly develop in the future. I started by trying to understand why Reykjavik had been become such an overarching settlement core in the country. Two fields of interest of mine, historical development and a great interest to see and understand "the big picture", helped me to understand what are the city's characteristics.

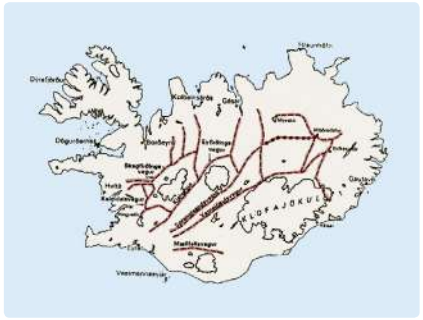
I started by defining and mapping the most important phases in the development of the settlement of Iceland, all the way back to the first settlement. The first settlements were along the coast. Then people moved inland to establish their farms where there was enough grasland. When the climate turned colder, the highland areas were mostly abandoned and settlements existed almost wholly along the coasts. The change in the economy to the emphasis on fishing, meant that coastal fishing villages were formed.



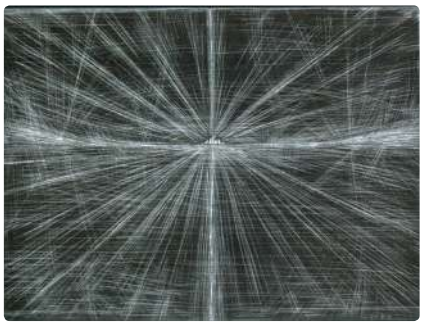
As fisheries started, people got pulled by them to the coasts again

The history of why Reykjavik became an overarching settlement core is a long one, beginning with the original settlement in saga-times in the late ninth century. Its more southern exposure and its excellent and generally ice-free harbour made it continue to be

Reykjavik became a centre because of sea transportation. Could this change?



Routes went over the highlands earlier. Could happen again! – A centre there?



A Highland City would be impressive. Here like a shining palace in the dark

a desirable location as fishing and trade gained in economic importance. A major impact strengthened the city's position when the authorities decided to move official institutions to Reykjavik in the 18th and the 19th centuries. These were the Parliament, the Skalholt School, the Episcopal Seat and the Cathedral.

Because of these increased activities on the Reykjavik peninsula, the village now started to be strengthened as a centre of transportation on sea and land. Sea transportation was overarching in Iceland because the rivers are almost impossible to traverse in boats. All the centres were therefore, unfortunately, placed along the coasts, and some of them even at the farthest corners of their service areas.

Based on this historical study on the position and the development of Reykjavik, I started to ponder if these patterns that are accepted today, i.e. that the settlement cores were almost wholly along the coast, could possibly change in the future. I was soon convinced that in the future the importance of land transportation would increase and that coastal transportation would decline. By studying similar developments in other countries I saw, for instance, that the advent of train systems in Mexico, was a precondition for why a new capital city; Mexico City could be built in the central highlands.

As I started to study how the Brazilians could build a new Capital City in the unbuilt, central areas of this huge country – which is 80 times larger than Iceland – I read that this had only become possible with the advent of air transportation, so the growth of the city was not dependent on road or rail but rather on planes!

As I understood that settlements in Iceland were as if glued to the coast, it became clear that it was because the only roads were there. So I suddenly got this idea: why not build roads the shortest distance between settlements across the highlands, just as in earlier times highly frequented routes, used by men on horseback, were situated? As I started to draw these highland roads on a map I saw that at the centre of Sprengisandur – at the very centre of the country – the routes from north, south and east would meet.

One of the things that we can be quite certain about, is that at the crossroads of highly frequented routes, a settlement will start to grow. I then started to ask myself: is it possible that the highland road system could make it possible to build a service centre in the middle of the country, which even might possibly develop to become the only right place for a new Capital? This could be comparable to what happened when it had been decided to build new capital cities in the central highlands of Spain, Mexico and Brazil. As I published my ideas about a system of highland roads in 1977, I decided to be as bold, to predict that a city – even a Capital City – would come to be in the middle of Sprengisandur, maybe as early as in 100 years, because of the law of centrality and the crossroads meeting there. This aroused enormous public attention.

Prelude to the Writing of the Planning History of Reykjavik

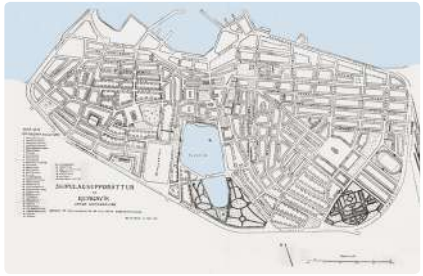
To prepare for the revision of a master plan for a city means partly historical research. The first and most obvious step in this historical study is to study the present plan thoroughly. We were quite well suited for this at our Office because the *Master Plan of 1965* had been published in a large book in 1966. By studying this book we could see what ideas and preconditions were behind the plan. I went further into this and photocopied and read everything that had been written about the plan in the seven years that had passed before it was approved in 1967. I sat many an hour in the Reykjavik Archives, paging through newspapers in order to bring all this material together.

I soon started to study the history of the planning further back in time in order to understand better the historical background of the 1965 Plan. I soon found the Plans of 1927 and 1937, together with reports. In addition I moved still further back in time by photocopying elaborations on planning concerns in old newspapers and magazines.

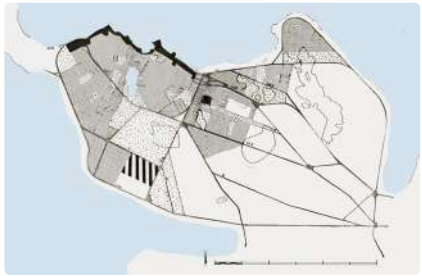
I bought all the books that had been published on the history of Reykjavik and created a collection of all regulations and other printed material. By studying all this I understood much better how the planning and the city had developed. What was most surprising was how little had been written about the present history and the technological story of the city. The interest of historians was mostly tied to the first settlement by Ingolfur Arnarson in 874, the establishment of the Industries in 1752, and the history of official institutions till about 1900.

It is great fault that there is only history department as part of the School of Humanities at the University of Iceland, because a technical education is needed if a person is to be able to write intellectually about such technical phenomena as harbour construction, water mains, gas mains, electrical systems and district heating. I now started to try to get an overview on how these technological developments occurred. It was not until 25-35 years later, prompted by its centenary in 2011, that the Engineering Associations started to publish books on the engineering and technological development in Iceland.

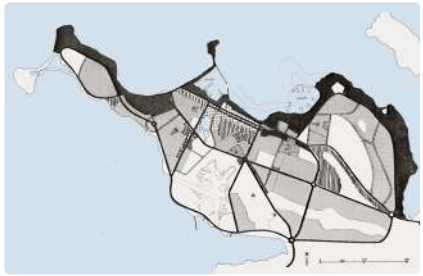
And what was not less surprising was that no general history of Reykjavik had been published since 1929; and that an ancient type of book which told almost nothing about how technologies and planning had developed. One book was, however, of great importance; the biography of *Knud Zimsen*, a former Mayor of Reykjavik, and before that the first City Engineer. The book is called *From a Village to a Town* (1952). Also, very important publications for helping me to understand the shaping of the future of the city, were the election booklets of the political parties, especially the booklets of the ruling Conservative Party called *The Blue Book*. The Conservatives constituted the majority in Reykjavik from 1928-1978, a half century of political domination.



The plan of ´27 for Reykjavik shows both blocks and detached buildings



The plan of 1937 shows the whole peninsula with a new, wider Ring Road



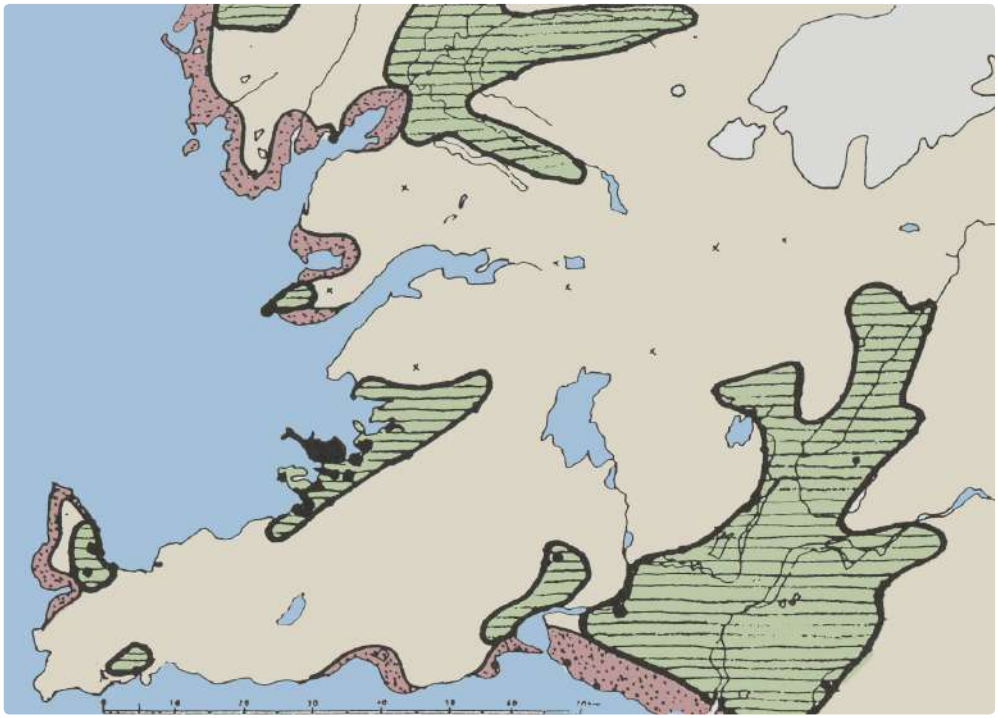
The plan of ´48 has all the worst faults of modern planning – Hard to rectify!

The plan of 1957. Industries on the North Coast. A rather detailed plan

This map shows likely planning lines in south-west Iceland, assuming the climate becomes warmer:

Agriculture is strengthened because of climate warming: Green shows the main areas and how they expand to higher ground.

The red areas along coasts show areas that are likely to be lost if the sea level rises significantly. Coastal erosion would be a principal force in engulfing the land. Sea walls are too expansive for sparely populated areas



Well, as the big book on the development of the city did not exist! And I concluded that without knowing how the city had developed, I thought it was not possible to form well-founded ideas on how the city could best be developed into the future. I started therefore to make a plan for writing *The History of Reykjavik*. One of my primary characteristics is that I am not intimidated by large projects; I always think they are a piece of cake! This goes for my idea of writing the history of Reykjavik, of making a future plan for Iceland and of drafting a picture of how the settlements in Iceland and on the globe would develope because of global warming on which I started by publishing a book in 1991: *Vision for Iceland in the 21st Century.*

I wrote the Planning History of Reykjavik in 1976-´78. It was published in 1986

The next book was *Land as Resource – On the Development of Settlement Structures in SW-Iceland, in Past, Present, Future* (1993). There I created scenarios with maps and texts on six possible development paths to the future. The third scenario was: *The Path of a Warming Climate* (See the map above). This was more than 30 years ago, and still today not many others have started to explore how warming is going to impact our planning. Important issues here are; higher sea levels and vegetation moving to higher elevations.

The History of Reykjavik I wrote in two years; 1976-1978. It was to be two big volumes and most of the illustrations had been collected and the layout had been started. Then something happened and the publisher gave up on the project. Then I turned to Thor-

steinn Thorarensen at Fjölvi, who somewhat later published that aspect of my History of Reykjavik that deals especially with planning, a book called *Reykjavik – Its Potential for Development – And the Development of the Capital Area* (1986).

Thorsteinn, the publisher, knew well what powers were at work in trying to prevent the publication of an important book and he comments on this in the preface to the book: "What is most remarkable about this book is that it is the project of an individual and bears witness to tireless activity and the fight of an individual driven by interest and vision, contrary to a system of official institutions that try to monopolize the field" and Thorsteinn continues: "Trausti´s request for small financial grants was denied for, as it seems, the directors of planning did not tolerate allowing an independent person to have his own views and wanted in this way to prevent fresh winds to blow through their dusty bureaucracy" (p. 5). I do not know who worked on blocking this book of mine about the history of Reykjavik... but maybe Johann Pall at Idunn could inform about this.

In the back of my book on Reykjavik planning I published a table on the development of the various aspects of the history of the city and made good use of the fact that I had before, written an unpublished general history of the city. This table is divided into 21 lines with key words about the development within the 13 periods. One of these is *types of housing* and *traffic systems*. In the last column of the table; *Prediction of the Future* – that refers to the last chapter of the book – I make good use of the development trends that I had discovered with the help of the table. This made it possible for me to make predictions on some of the characteristics of the future (see the column to the right).

Here's an example of my predictions: *Houses will allow variations; there will be a withdrawal from high-rises; electric car, bicycling and walking paths will be built; car traffic will be reduced because of the communication revolution; everything will be available in supermarkets and shops will be only for fun in older neighbourhoods* (p. 143). From this description it becomes obvious that as a new master plan is to be made, it is important to have performed historical research on trends, and also that people need to form ideas on the likelihood of how various aspects of city life will develop in the future.

Many of the predictions I made (see the column), have stood the test of time well in the 30 years that have passed. Many people will think that many of these predictions are obvious, but it was not so then, as I put forward these predictions on what seemed to be important in the future. About ten years after I wrote my history of Reykjavik the City became 200 years old, i.e. in 1986. Then people were put on salary to write the history and Idunn was given grants to publish the book. Now the City could give hundreds of millions of crowns to the project! But it seems people took good care the authors would not tell about too uncomfortable things. There were six volumes, published in 1997-2002, decades later than I had written my book about the history of Reykjavik.

TV´s Predictions
of the Future in 1986

Bold: Prediction proven right

Houses offer flexibility, fewer high rises for residences

Electric cars, bicycle- and walking paths, less traffic, revolution in communications

Fewer traffic negatives, cheaper road systems

Night lighting with mirrors on satellites

Less noise because of electric cars and engines, the sounds of nature can be heard again

Less gas engine smell, smell of electric motors instead

Reuse of wastes. Technology to neutralize dangerous chemicals

A system of paths in all the Capital Region. Tree belts for shelter

Less time needed for ships in harbours because of container technology

Fishing vessels that use an energy source other than oil

Trawler voyages with unprocessed fish disappear

Media people gain more influence, a declining interest in trade unions

Commerce in the hands of large conglomerates at low prices

Shopping moves into large-roofed shopping malls

Fewer industries. Those with special advantage survive

Everything in shopping centres. Shops for fun in old neighourhoods

Re-education increases. More mobility between jobs

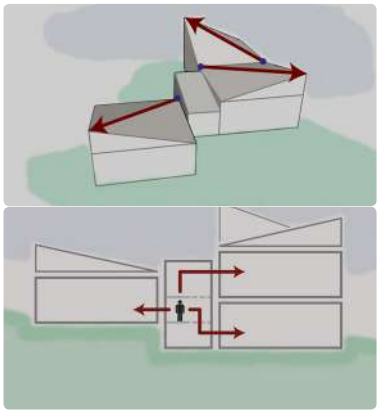
Jobs selected because of interest, rather than fiscal necessity

Brains more important than earlier. Muscle-power less important

Separation into interest groups: e.g. in the arts, horses, boats, golf, etc.

Long stays abroad. Cable television from the whole world

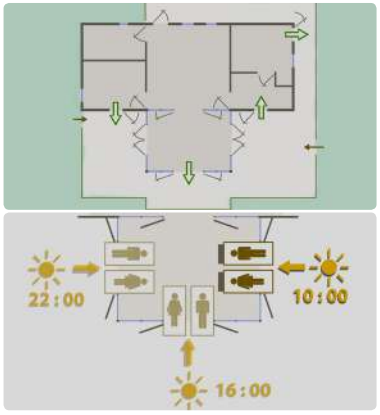
Stadarsel 5, Breidholt II – *Home of Reynir Ragnars and Dora Gisla*



Roof top directions – Split level

Growth today – Roof separated by glass

My own summerhouse – *Langas 11 in Kjos*



Doors to deck – Double doors to sun

Windows under roof in hut and house

The father's side of my family *at a party at my summerhouse*

Railing on hinges – View out of my bed

A castle, swings and a glide track

Where I was at in 1977... and What was Driving Me?

Well, now it is fitting to take a little break and have a look where I stood professionally and theoretically five years after I finished my studies in Berlin. The basic point – and my greatest piece of luck – was that Reykjavik was in the process of establishing the *Development Office* in 1972, the year I finished my studies... and there I got a job from day one! In the Office I was made the leader of making a Master Plan for a new 45,000 people settlement area north-east of Grafarvogur Bay. Also I became one of the main shapers of the *Green Revolution,* as I have already described.

I had, in addition, formed two other projects, partly parallel to my work; i.e. to become a specialist in the history of Reykjavik and also to start a study on the premises for Iceland in the future. The Reykjavik history I thought was necessary to write, in order to understand better what had shaped the City and its planning earlier, so as to be able to present logical proposals on its future development in the plan making.

My ideas about the Iceland Plan had roots in the stark warning of the Heimaey eruption. Additionally, the OPEC oil crisis in the fall of 1973, was a strong reminder of how valuable geothermal heating is. In 1975 I added something else to this, which was that I wanted to understand what in the development of settlement structure in Iceland made Reykjavik so successful – and I wanted to understand what would happen to these structures in the future. Outside my working hours I was also preoccupied with other projects, like designing houses, doing art and writing poetry, which always has been a part of me.

But what was the status of these projects in respect of my main interests in Berlin; design- and planning methods, and morphological study of ideas, in the present time? Well, yes the methodology I had learned and developed in Berlin, I could apply to some of my projects, and they helped to put my historical writings into a wider context.

I now also, want to review what I described in the Berlin chapters earlier, i.e. what issues we hippies were very critical of in governing schemes, western worldviews, and the fact that we hippies were also very receptive to new cultural currents, which, for instance, meant that we respected old and simple ways of living, and thus old buildings.

This fitted quite well into the new trend that environmental theories had pointed to, namely, to proceed carefully as concerns nature and try to adjust actions and projects to local conditions, both as concerns society and the environment. Ian McHarg became a key person for this type of planning with his book *Design with Nature* (1969) that was especially interesting for me because McHarg put his theories into the context of how the philosophy on the connection of man and nature was developing in the world.

Charecteristics Groups	
Physical Enviorment	***Housing Types***
	Transport System
	Character of Transport
	Light Technology
	Sound Enviorment
	Smell Enviorment
	Health Issues
	Open Areas
Traits and Their Social Charecteristics	***Harbour Facilities***
	Fishing Technology
	Position of Employees
	Rulers and Classes
	Keepers of Shops
	Form of Commerce
	Industry: Types, Facilities
	Food Gathering and Process
Cultural Enviorment	***Level of Education***
	Culural Charecteristics
	Social Constraints
	Flow in Society
	Pasttime – Cultural Events

This table was my tool in studying historical developments. It embraced all factors.
(See prediction on these factors on p. 79)

Fuller designed the USA pavilion for the Expo in Montreal in 1967

Einar Thorsteinn and TV built the first geodesic dome in Iceland in 1976

Fuller came three times to Iceland. Here he and TV are arriving from a trip

Another key person in this same development was Buckminster Fuller, who designed the exhibition hall of the USA – a geodesic dome – for the 1967 Expo in Montreal. My friend, designer Einar Thorsteinn, got into contact with Fuller because he, too, was working on geodesic domes. Because of this contact Fuller came to Iceland three times so that I, as a friend of Einar, got to know Fuller and his theories quite well. I then realized that the central criterion for eco-friendly architecture is to build at minimum cost and with the minimum use of material.

After Einar's architectural studies in Hannover he worked with the greatest pioneer of light-weight buildings in Germany, Frei Otto. I learned a lot in visiting their studio. The pioneering work of Otto was primarily within the field of pneumatics and the design of tents. Otto´s studio, for instance, developed many of the solutions that were used in building a plastic tent over the Olympic Station in Munich in 1972.

Later Einar built many domes and tents in Iceland and made an enormous number of models for studying the mathematical characteristics of geodesic domes. These models caught the eye of artist Olafur Eliasson. Olafur established collaboration with Einar and many works of Eliasson are based on Einar´s ideas. One of the best known is the glass facade of the Harpa Concert Hall, which is based on Einar´s quasi-crystals.

The aspect of Fuller's theories that had the most impact on me, was how he wanted to make all his designs connect with the nature of the earth and existence in general! For instance, he established an office that is called *The World Resources Inventory* and designed, for example, an energy transmission system for the whole globe, because, as he said, if superconductivity could be developed, excess energy from the nightly part of the globe, could be transported to the day part of the globe without too much loss of energy.

In these years I often thought about if and when I could start to work again on these earlier interests of mine from Berlin. Now, as earlier, Berkeley was always in my dreams as a place for continued studies, but it was not until 1980 that I started my doctoral work there. I often wondered – if this multifaceted interest of mine was pulling me into too many directions: Where will all this lead me? … what title can I give myself? … and what is the core, and basic motivation, of my efforts?

I had long time ago discovered that there was a rebel within me that took great pleasure in attacking accepted ideas. Also I had realised that I was quite a bit an idealist, ready to sacrifice myself for principles and projects that I felt were urgent. In spite of this, I was caught unawares as I asked Einar Thorsteinn to read the draft of the first chapters of this book, that he wanted me to make the vision aspect of my work more prominent. This I discussed on page 6.

Worldview of Toughness – I Get to Know a Worldview of Softness

As I was studying in Berlin, Prussia, I adopted a style that was prevalent there; a style of toughness, exactness, critical mindedness and always to think that I knew better; *Besserwisser!* The ideology of the hippies in Berlin skipped the toughness and the exactness, but was characterised by critical mindedness, and the hippies thought – I included – that almost all present planning of society and institutions was totally wrong and we should enter an almost holy war to expose this and we then, if we could, should try to instrument something positive.

I had been quite successful in my studies in Berlin, which boosted my self-confidence. Now, after returning to Iceland I stridently expressed my views about the city system and in newspapers, condemning and proclaiming the right views. Because of this the people of the Road Division in Reykjavik gave me the nickname *SelfTrusty FirstChoice,* which can be derived from my name. In Berlin I had mostly lost the ability to laugh at myself and, I am not sure that I had properly understood the ridicule.

My boastfulness meant that the Road Division gave me the name SelfTrusty FirstChoice

As I started to bang more and more against walls – and my nose had become quite flat – I understood that in Iceland people were not as impressed by toughness as in Germany. I also understood that the provincial hippies in Iceland had not softened old habits as much as in Berlin. Icelanders, at this time, were still somewhat like stubborn and square country lads: "This is the way it has been, and I am not going to change anything in my habits or methods". This typical Icelander Laxness has described with Bjartur in the Summer Houses in *Interdependent People*.

The remarkable thing about the fights I had now started in Iceland, was that only a part of me is a warrior, whereas the other part is a man of reconciliation. The overarching characteristic of me personally, all the way back to my youth, was that I was against accepted rules and wanted to attack them. The word for this personality is iconoclast (destructor of icons, which comes from theological history). I had, for instance, in Berlin been so disgusted by *crowd culture* and anti-Americanism that I did not adapt to the prescribed dress code of the hippies; a beard, long hair and clothes in tatters, that one could buy from army stag shops.

In opposition to this code, I had my hair cut in crew cut, I bought violet short leg trousers and a baseball cap. I also grew a moustache, and finally walked around with a camera on my belly. In this outfit I looked like the hated Americans in the centre of the hippie herd.When I got to Reykjavik I had sworn at how bourgeois the young people were and petit bourgeois they dressed, so one of the first things I did was to go to the Army Compound to buy used infantry and marine outfits and let my beard and hair grow long. In this look I went to work as one of the main planners of Reykjavik.

I felt some Bible sentenes told deep truths

The main thing with me was therefore, actually, to provoke and break down boundaries! This performance of mine had a positive meaning. I thought my performances would provoke people, in the bondage of their mind-sets, to loosen up and that they would afterwards be pleased that they had been provoked to think more freely. *Dadaism* has shown me the value of such a shaking up, as it shocked people by showing unusual ideas at the beginning of the 20th century. This had helped soften up the rigid thinking modes of the western world.

All these intense actions of mine led to me suffering from stress-caused pain and colon cramp. From this I understood that I somehow needed to reduce the toughness and the collisions in my life. Now I started to look around for books on soft lifestyles, as such books had been a part of hippie literature. I had also noticed that it got better result approaching people cautiously and politely and that people had the tendency to stop lads like me, who were always trying to elevate themselves. A sentence from the *Bible* came frequently to my mind: "Pride cometh before a fall".

This sentence obviously meant that it was sensible, practically speaking, to be modest, so I started to try that style out. I started to suspect that I had, in due time, to convert to a lifestyle of softness and reconciliation, both in order not to be thwarted as frequently and also to maintain my health.

I also started to sense that this alteration from toughness to softness could become a foundation for an new approach to design and planning. The characteristic of the meth-

Old eastern architecture has softness that treats people well

Modern, western architecture is characterized by mechanistic and inhuman design

od would be to work more with processes in time, but in order to be able to do this one had to practice patience!

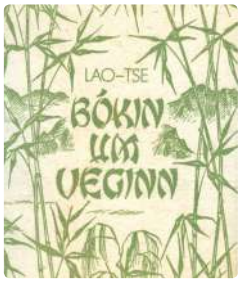
I learned a lot from studying old Icelandic sayings like: "One can wait to his advantage" and: "A fair wind will come to the one who waits". In the second saying there is a reference to the characteristics of processes in nature: A fair wind will be given... it is not a question of if the wind will come, but rather when – i.e. the right point in time will eventually come. Both sayings give roughly the same advice: be patient, because to wait for the right point in time takes patience and wisdom. And if people are successful in this, the execution of tasks becomes much easier. The English term *timing* is now recognized as being a key feature in all endeavours.

Some time passed and I sometimes pondered about this. Once, as I was paging through books in the Eymundsson bookstore, I came across a little book with a delicate cover, its name *The Book on the Way.* It resembled a book of poetry, and was written by the Chinese scholar Lao-Tse 500 years ago. As I stood there, glancing at the names of the poems, they aroused my interest: "Virtue is Like Water", "Work with Gentleness" and "Duties are more Important than Demands".

I now started to sense that something very important was now happening in my life, and after I had paged through the book for some time, I was suddenly as if hit by a lightning! I stood there quite stiffly, staring at the book. After a while I put it back on the shelf and went outside into the city life, in order to try to recover and try to start to understand what had happened. A short time later I bought the book and began to study the worldview of softness and adaptation that it taught – but, however, in a rather mystical way.

When I got to Berkeley California for my doctoral studies I soon discovered that here more softness was prevalent than in Europe and books like *The Book on the Way* were held in high esteem.

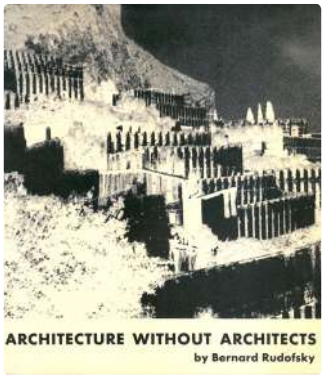
Gradually the main subject of my PhD thesis developed into describing the problems that had been caused by the tougher western worldview and to demonstrate how the softer eastern worldview could be used to find ways to adaptations and interweaving in design and planning.



The book on the method of Tao, that of softness

The soft yield of water cleaves obstinate stone. So to yield in life solves the insoluble. To yield, I have learned, is to come back again.

(A text from the book above retold by TV)



This book points out how old architecture is often more humane

Mayor Birgir Isleifur had a green policy but was on the defensive on conservation

Article by TV on the need to dig deep, to understand values of conservation

As the Conservatives (Birgir) lost Reykjavik in 1979, the main newspaper Mbl, used a war headline

Systems of Thought and Systems of Value

Although we at the Development Office were quite aware of the changes towards environmental values, and even though Mayor Birgir was sensitive to this and had decided to let the green issues be the main emphases in his term, the City and our Office was pushed on the defensive in many cases. It had, for example, twice to retreat with proposals for the location of a new *Central Bank,* and also with proposal on *Grjotathorp,* which many thought was not preservationist enough.

I think that in an article I wrote: *Environmental Preservation and Development of Values,* in *Lesbok* in February 1977, it is obvious that I wanted to go farther. About the uphill struggle I said: "The main reason why environmental preservation viewpoints in this country have an uphill battle is a vain sense of historical values. This appears, for instance, in the constant talk about notable men and notable institutions. Buildings and other artefacts, depicting the struggle from destitution to city life are not highly respected… The exhibition halls of the *National Museum* bear witness to this view of history" (p. 2).

In the latter part of the article I point out that we probably will have to start to taking environmental matters much more seriously; "…now it is becoming clear that present generations are on their way to gobble up the resources of earth… Therefore people probably have to… return to old ways, start making crafts, for instance, and works of art and creating, shaping and selling their products themselves" (p. 3). This sentence has a little hippie flavour, but many things have been moving in this direction in the 40 years that have passed. In any case, this sentence says that I thought (and still think) that we need to be very much aware of possible changes in *value-systems* in the world.

We at the Development Office had proceeded in our planning work and we had a revision proposal for a master plan ready in 1977, a plan that introduced great progress compared to the Danish Plan of 1965. I want to point out, however, that my views on this need to be taken with some caution because I was one of the authors. I have already explained some of the changes we made in the Master Plan, but for further elaboration I point to my planning history of Reykjavik (1986), and to the book I published sixteen years later, where I also cover more recent developments and also where I describe the planning development in Reykjavik in a larger geographical and historical context. The name of the book is *Planning in Iceland – From the Settlement to Present Times* (2002).

Things went so badly for the ruling Conservatives that they could not get the confirmation from the Minister of Planning ahead of the elections in 1978. This was especially bad for the party because they lost the elections and now it became quite easy for the new left-wing government – the first in the history of Reykjavik – to stop and change projects that had been in the works for years.

From the projects that the leftist government stopped, one could mention the high-rises plan for Skulagata Road, where they replaced that plan with another plan, where most of the old buildings were maintained. Another project they stopped, was the New Town Centre in Kringlumyri, because the Leftists were against supermarkets and nurtured the dream of keeping small neighbourhood shops alive, which, however, all over the world, has proven to be very difficult.

Only in few places has supermarket development reached further in killing neighbourhood shopping than here in the Capital Area. Supermarket development means increased traffic on the city highways and social injustice comes with it, because people of small means, that do not have a car, have to buy necessities at extreme prices in little shops in their neighbourhoods. The third issue where the Leftists introduced a different policy was to propose that the next residential area should be built at Raudavatn Lake but not at Grafarvogur Bay. Also the Leftists put much emphasis on densification in the planning, for instance, by building neighbourhoods on open spaces, as at Laugaras, at the Graveyard and in an area that was planned to be part of the New Town Centre in the Kringlumyri. Because of protests, they had to abandon their proposals for new settlements in the eastern Laugardalur and in the Skeifan area.The Conservatives had instigated the protests, more for political than professional reasons.

Usually a policy of densification is an issue pushed by right wing parties whereas green policies are favoured by Leftists. In Reykjavik this had been turned around because of political warfare and also the Leftists had not mentioned densification ahead of the elections, even though densification became one of their most prominent issues when they took over. I think I was the first person to elaborate on the advantage of densification in the sprawling Reykjavik. This was in an article in the leftist paper *Thjodviljinn* in the autumn of 1978. The People's Alliance party had been given the lead in the Planning Commission so I published the article in their newspaper. I think this was one of the best articles I have written, because densification leads to a more economical city and makes the operation of buses cheaper. Ever since then, in more than 35 years, densification has been a substantial part in the planning policy of all parties, but especially in the heavily revolted *Master Plan for Reykjavik*, that was confirmed in the spring of 2014.

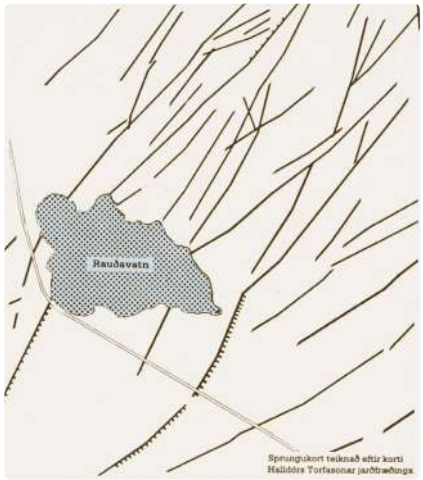
In 1982, after only four years, the Leftists lost the city and by then only a few of their projects had proceeded substantially. Ahead of these elections in 1982 David Oddsson, the new leader of the Conservatives, became forceful in planning matters. For instance, he published a map of the geological fault lines in the Raudavatn Area that Leftist planners had failed to take into consideration. This was the issue that most determined why the Leftists lost the elections so badly. One of Oddsson's first decisions after the elections, was to revive earlier plans on high-rises on Skulagata, a renewed Kringla plan, and a residential area at the Sund bay area instead of Raudavatn Lake.

A proposal of the Leftists on low buildings on Skulagata instead of high-rises

Íbúðamál Reykjavíkur

Dróg að stefnumótun

First theoretical article Nov 17, ´78 on gains from dense settlement schemes



The Leftists' settlement area at Raudavatn in ´82. Faults were discovered, which brought their government down

The over-lay method. One had to draw on the transparencies with acid ink

The transparencies. Today they are drawn and added on a computer screen

Work on an Iceland Plan – A New Phase in My Life

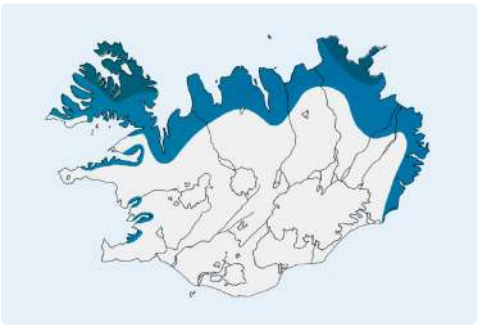
I had little interest continuing at the Development Office after the Leftists took over, because then I would have had to start working on overthrowing the projects I had worked on and shaped earlier. Therefore, in the spring of 1978 I started to try get financing for another big interest of mine, an Iceland Plan. I applied for the large environmental grant of CCMS in Brussels and got it, which was very fortunate. The grant was 8000 dollars and sufficed for one year's work.

The aspect of the project that I applied the grant for was a *Study of Natural Features in Iceland.* The project consisted of making evaluation transparencies, using McHarg´s method. This method of overlaying transparencies shows visually where the most positive and negative features for settlements are within the country.

In many cases there was rather good scientific data on nature- and weather conditions available. These I interpreted on the transparencies. In some cases conceiving the maps, took a great deal of work. I can mention as an example that I wanted to map those areas in the country that have been most badly impacted in sea ice years, because of the closing of harbours and fishing grounds, and also reduced growth of grass and vegetables because of the lowering of temperatures.

In order to get data on this I went to the *Sea Ice Department* of the *Meteorological Office of Iceland*. There I met Thor Jakobsson, who showed me a series of maps made by Laue Koch, maps that reached far back in time. Here it was visible how far the sea ice had reached and where it had come to shore. Thor said that it was a big project to divide the coastline of Iceland into risk groups – and that this also carried great responsibility with it. Once, when I went to the Sea Ice Department to push them to start the project, Thor said that a Hamlet-ian situation had existed in the Department; the question of to be or

Sea ice and icebergs are dangerous to shipping. Land temperatures become lower (Map to left)



Sea ice hazard map. Most danger in the West Fjords and NE Iceland as the ice strands on land

not to be... a Sea Ice Department, and he added: This is a huge project. I then went to the Director, Hlynur Sigtryggsson, and described my request to him. After that he directed the Sea Ice Department to start to work on the risk assessment.

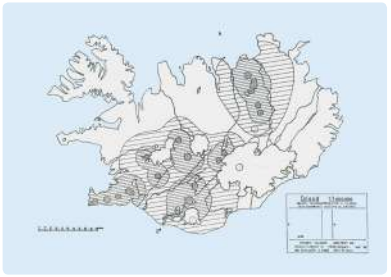
An example of another map that I thought was absolutely necessary to have made, was the division of the country into *risk areas of ash fall*, in the case of an eruption. Here the main experts were Sigurdur Thorarinsson and Gudrun Larsen, geologists at the University of Iceland. They gave me a lot of documents to read, but Sigurdur said that there was still so much wanting in the study of pumice eruptions, and it would take a long time to ascertain all the needed date; he added cynically: Come back in 30-40 years. I said I could not wait that long and that we planners often have to make do with preliminary studies.

Sigurdur then said that he could not risk his reputation as a geologist by doing a risk assessment map based on insufficient data. Then I suddenly had an idea: "What if I would do a draft for the risk assessment map, based on the data that you gave me, and that you would then indicate to me – unofficially – where this assessment could be improved". This became our agreement.

It is quite memorable to me as I gave Sigurdur my draft for the map, because it was as if Sigurdur thought the map was dangerous, and only touched it with a long stick: "Here you can enlarge the danger zone to the east because the volcanism is moving east in the Veidivötn Area…". This was the way this map on the danger of pumice fall came to be, and a similar method was used for many of the other hazard maps I drew.

The resource maps were easier to do. There the helpfulness of Kristjan Saemundsson, at the *Energy Institute*, is memorable, in terms of the information needed to map areas in

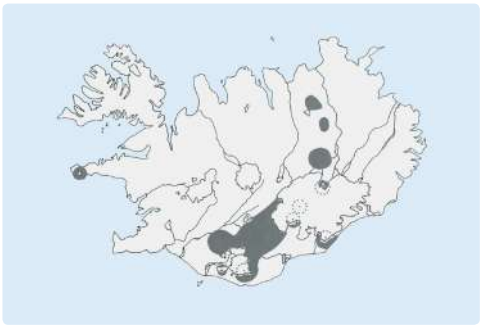
The tanks on Öskjuhlid held hot water as the flow to Reykjavik was gravity fed



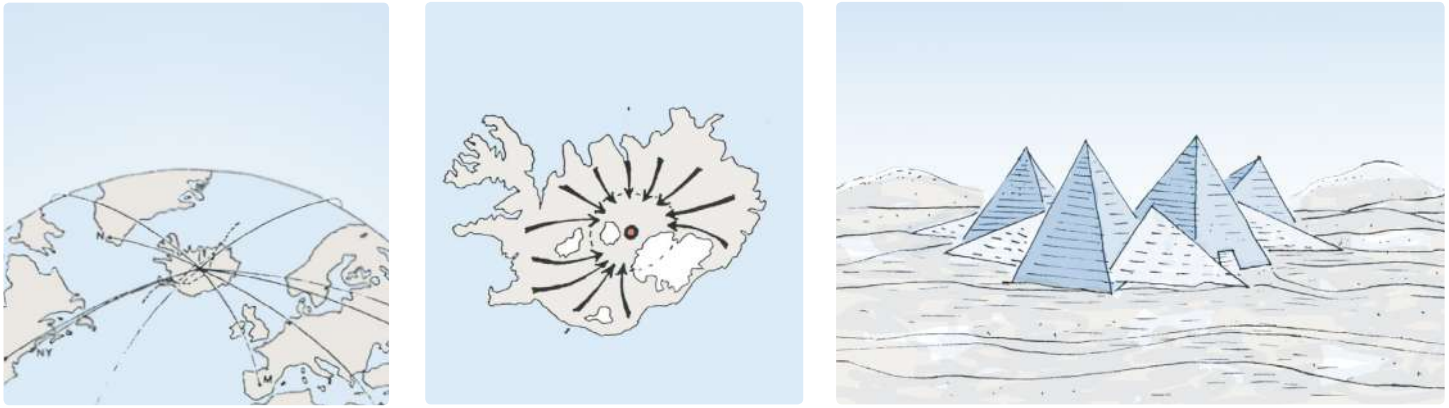
The 25 high-heat areas. Some become more accessible with global warming

Steam can be transported long distances, but hot water even further

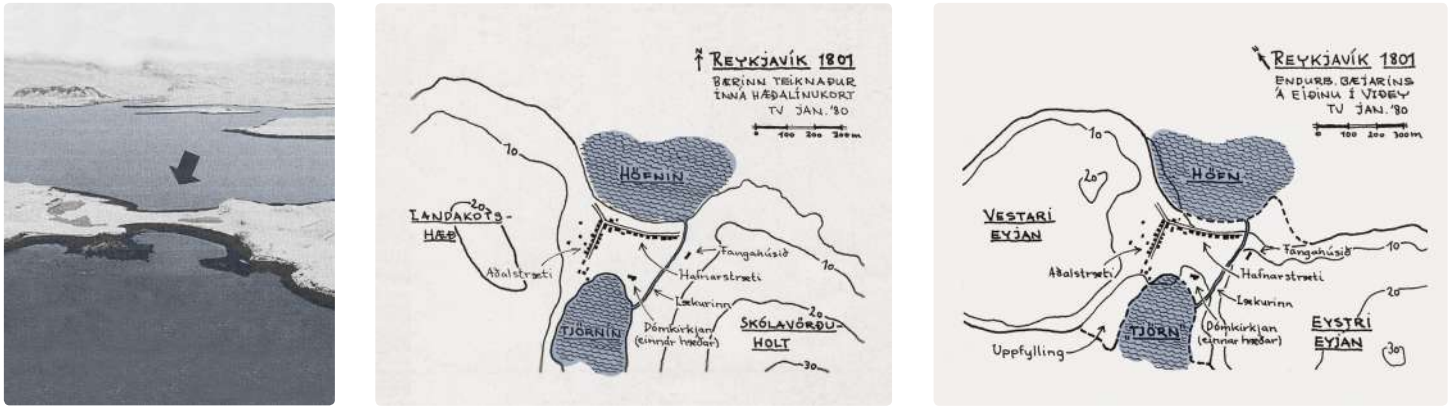
The Heimaey eruption showed that a pumice fall is dangerous. It ignites houses and breaks roofs



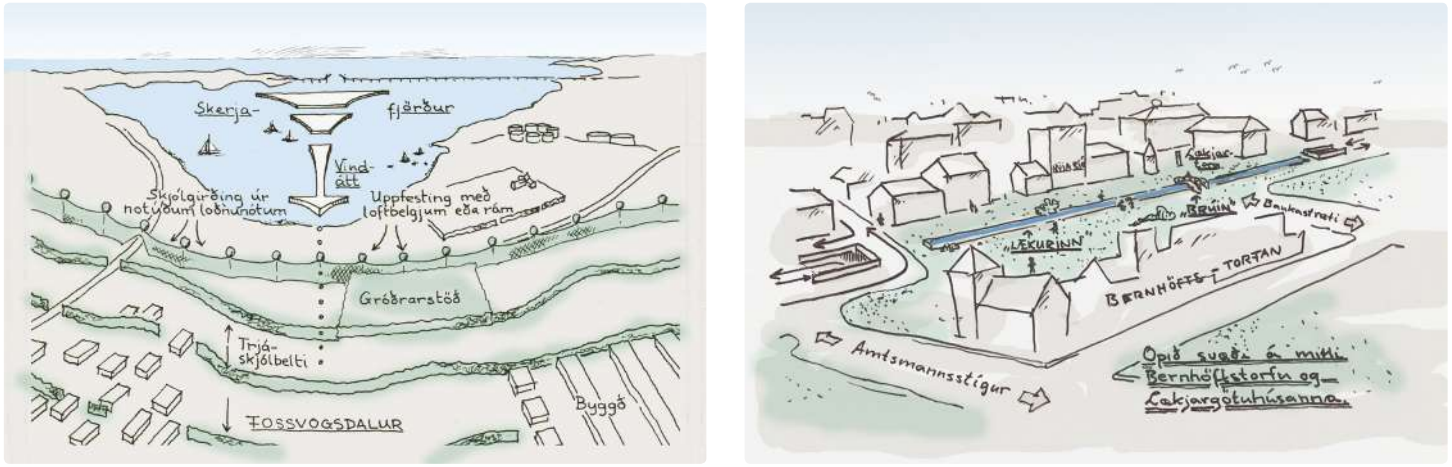
Most pumice fall danger is in the mid-south area. The map: Based on size and frequency of eruptions



Haborg as an international centre: Strong position on a world map, in the centre of Iceland – Design 1990: Mountains, glaciers, like the Oslo Opera



To rebuild Old Reykjavik on Videy: TV sees on a photo the Videy causeway is as in Kvos, and similar topography; Good place to rebuild the Kvos



To change climate and environment: Fences to dampen the wind from the ocean – and to reopen the Brook in Laekjargata (Ideas from 1985)

the country that had *high and low geothermal energy areas*. It is also memorable to me that Kristjan said that it was good to get a fellow like me to visit, because this clarified the goals that the Institute needed follow in questions related to planning.

In the beginning I made a list of the 33 maps that were most necessary to do, showing positive settlement features, but I put an emphasis on finishing the ten most necessary. On my list of negative features I listed 11 aspects that I thought were most necessary to map, but only gathered data and drew the seven most necessary ones.

The third group contained maps with reserved areas and I drew two such maps; *Nature Protection Areas* and *Sites of Hydropower Reservoirs*. The people of the Energy Institute and National Power Company (NPC) were reluctant to give me their ideas about possible reservoirs. This was because, still at this time, people were trying to hide such projects from the preservationists because they had the tendency to criticize all published ideas. The new law on Environmental Assessment in 1994 and the making of a Master Plan about alternatives in energy production sites in the beginning of the 21th century freed us from this trench warfare for the most part.

In my doctoral studies in Berkeley that I started in 1980, it was first my idea to let the Iceland Plan become my thesis project, but I gradually got more interested in studying the value of the soft nature-friendly worldview and I made the utilization of it in design and planning the subject of my thesis. As I was preparing my return to Iceland six years later in 1987, I published my findings on the settlement criteria as well as my proposal for an Iceland Plan in a report called Ideas on the First Iceland Plan.

Both the State Planning Agency and the Settlement Institute gave me a small grant to publish the report. In the preface I say: "As I have presented my ideas on these matters (for example on the highland roads) in the past, I have been heavily criticized and even attacked.... I hope that politicians and directors do not show these issues the distain to put this away." (p. 7).

My attempts to get grants for this project from institutions in Iceland are a sorry affair. For example I did not get a single penny from the State Planning Agency, and also not from the National Research Fund. This fund is governed by Positivism that excludes design and planning projects based on subjective criteria. The Committee of the Selection of Industrial Sites, on the other hand, bought the right to use my findings. If there had existed an Atlas of Iceland – as in other countries – the work on an Iceland Plan would be much easier. An Atlas of Iceland has never been published even though committees have spent millions on preparing its publication.

Iceland transparencies – Groups

Estimation of positives and resources:

Warm areas in July
Little precipitation

Much sun radiation in June
Closeness to lower-cost geothermal heat
Closeness to district heating areas
Closeness to high geothermal heat areas
Little earthquake danger
Little danger of falling pumice, I
Little danger of falling pumice II
Little sea ice danger

Estimation of negatives/constraints:

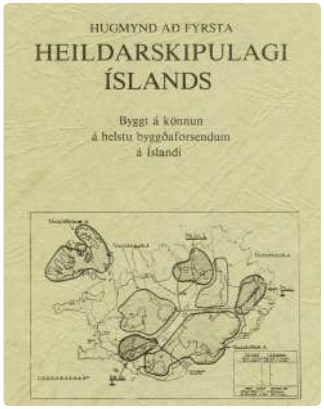
Not suitable for usual habitation (< 300m)
No cultivation possible (< 600m)
Much earthquake danger
Much prunish fall danger
Much lavaflow danger I
Much lavaflow danger II
Much lavaflow danger III

Info-transparencies and reserved areas:

Topological map
Nature protection areas
Sites of hydro power reservoirs

Planning ideas and a study of them:

Highland road system and Haborg
Actual distances
Areas close to Haborg



TV´s book: Ideas on The First Iceland Plan *from 1987*

The Forming of Theories in Berkeley

My First Journey to the USA – and to Berkeley

Set production for Paradise Reclaimed. *Laxness and director Haedrich on visit*

Paradise Reclaimed *is on the search for Paradise. It may be closer than expected*

The set builders: Siggi, Ingolfur, Einar, Gummi, Hallgrimur (who drove the Ring Road backwards), TeeVee and Kjartan

In February 1979 I stopped working at the *Development Office*. About that time I happened upon an interview with Björn G. Björnsson – whom I had cooperated with for designing sets at our secondary school. It revealed that a three part German tv series based on the book *Paradise Reclaimed* by Laxness, was in preparation. I contacted Björn and was hired as an assistant set designer. We established a workshop and built there, among other things, the frames and the gables of the farm of Steinar that the story tells about. I supervised later the building of this farm with eleven people in Lon in SE Iceland. We covered the farm with turf and built walls of stones. The filming took place in seven other locations and this is one of the most pleasant jobs I ever had.

The story of farmer Steinar is based on the life of Eirikur on Brunir, who became a Mormon and went to Utah in his search for paradise on earth. In fact, the last scenes were filmed in Utah. Parallel to the set design, I continued working on the map transparencies for the Iceland Plan. After I was well under way with the mapping, I got ever more interested in meeting Ian McHarg, the author of this overlay method. He was a professor in Philadelphia in the US.

My journey to the site of filming in Utah was my first to the USA. As I discovered I could get an inexpensive fare to ten American cities, I saw that I could do many things at the same time; go to Utah, visit *McHarg*, visit various other universities – and last not least – visit *Christopher Alexander* in Berkeley. It was highly interesting to arrive in Utah where Eirikur had lived and were a colony of Icelanders had been established there in the late 19th century.

After the filming had ended I went to Philadelphia and knocked unannounced on *McHarg's* door at the university. I was quite lucky that he gave me ample time, probably because his father-in-law had been the agent for the Icelandic steamship Gullfoss in Scotland, and he liked reminiscing about those old times. I explained my maps to him that I had taken with me, and asked for his interest in cooperation.

He now took out a yellow pad and started drawing: "You have to start with the bedrock then comes the surface rock, the hydrology, types of soil, vegetated areas, and so on. With these studies you have arrived up to the surface". I, on the other hand, had started my map work by making the evaluation transparencies, which McHarg said was superficial. Then he asked: "How much money is there?" I said 8000 dollars, but as he calculated how much money there was for each square kilometre, McHarg said: "This is so little money that it is hardly enough for starting!"

Now, 35 years later, I can tell that McHarg was not quite right on, that I had to start with the bedrock, because – for example in maps on the hazard- and geothermal areas – data that I had gotten at the Energy Institute, I was using findings of specialists who already had studied every aspect of what happens down in the earth, as well on the surface. McHarg was probably mostly wondering if there was some money in this for him.

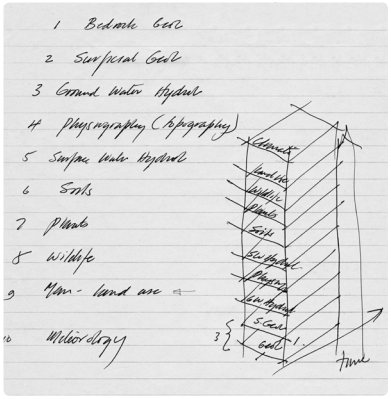
After this rough treatment by the Master, I was totally wasted. I fortunately had an interview booked in the afternoon with another world master of design theory in the 20th century, *Buckminster Fuller.* He had an institute there, working on long term thinking in design, and on the future of the earth. I had got to know Fuller in Iceland because I was a friend of Einar Thorsteinn. I started by describing to him my stressful encounter with McHarg in the morning, and I was like gasping for air. I had hoped that Fuller would say that this or that in my project was fine. After my description Fuller sat silent for quite a while and looked me calmly in the eye. Finally he said only these two words: "Be strong!" This is the best advice I ever received!

After my visit in Philadelphia I went to Los Angeles to visit the University of California, Los Angeles, which did not mean much to me. Finally, I went to *University of California, Berkeley* and there I, right away, could feel that the atmosphere was much more fitting for my ideas. My intention had been to meet Alexander but he was on holiday. On the other hand, I had a fine conversation with a German co-worker of his, *Hajo Neis*, and showed him the maps. Neis pointed me to Professor *Donald Appleyard,* who took good time to page through the maps. He told me that a professor, *Thomas Dickert,* was working on a study of the California coastline, and applying this same over-lay method.

After searching I found Dickert where he was at work in a rickety shed somewhat south of campus. Dickert was of Swedish-German descent, which might have been the reason why he gave himself ample time to listen to me describing the map project. Dickert then said that he had been a student of McHarg's and that I did not have to worry too much about his comments, because it was his style to give young lads with big plans, rough treatment.

Dickert now told me that recently a new course in *Environmental Planning* had been established in the *Landscape Architecture Department*. This would be the right place for me. I then said I was not so much thinking about a MS degree, I already had a five year diploma from Berlin, and I said I was more looking for advice. I gradually started to realize that Dickert had considerable interest in getting me to Berkeley. Then I suddenly got the idea to say: "If I come to Berkeley, it would only be to enter a PhD programme". Dickert became thoughtful and said that this was a far larger subject. Berkeley only accepted people for PhD programmes that would definitely do very well, and most preferably, they needed to have a personal acquaintance with prospective PhD students.

Ian McHarg was the greatest theoretician on nature evaluation mapping



A sketch McHarg made for TV on layers that needed to be mapped

Professors Dickert and Laurie in the commuter lab around 1980

TV in an exhibition on ideas to improve Reykjavik in the summer of 1980

From a trip by Einar and TV, to lay the cornerstone for a New Capital City

TV and Einar built the cairn. TV gives a speech at the laying of the cornerstone

Much later: The cairn has collapsed but the cornerstone is still in place

After a short silence Dickert had a plan: "Apply for the MS programme, and if you do well in the first year I will recommend that you be admitted to the PhD programme, and that you can take all the units with you". And this was exactly how it happened. I started in the MS programme in the fall of 1980 and was admitted to the PhD programme the next spring. This was one of the greatest steps in my life. In September I returned to Iceland, quite happy with the result of my journey and continued working on the maps.

In the beginning of 1980 I became part of a pleasant group that wanted to start street life in Reykjavik. We called our group *Environment 80.* Among well-known people in the group were the writers Olafur Haukur and Petur Gunnars, and the artists Magnus Tomasson, Johanna Boga and Gylfi Gisla. We got into contact with the leaders of the *Reykjavik Arts Festival,* and were allowed to close the lower part of Skolavördustigur Street for an experiment in making this area a space full of life.

We set up some benches and trees in barrels, and initiated various activities. An art show, and a show of stuffed animals, were held in Breidfirdingabud that stood in a courtyard at the street. A Pfaff sewing workshop was moving out of the house at the bottom of the street. I was giving this space and organised a show on proposals for how open areas in Reykjavik could me made livelier. This was quite innovative at that time because the closing of streets had not happened before and pavement coffee shops did not exist yet.

In the summer *Einar Thorsteinn* and I went on a pleasant journey that had a connection to my Iceland Plan. I had a metal plate engraved: *A Cornerstone for Haborg placed on July 30th, 1980.* The date was my father's birthday. I fastened the plate on a rock and put it into the trunk of my car.

In the centre of the country, in *Sprengisandur*, we found a place that we considered fine for a *New Capital City*. We built a cairn and placed the cornerstone at the bottom of it. Einar knew the theories of Einar Palsson about how the settlement of Iceland had followed a system of circles and he concluded that chosen location fit the system.

Even though this performance was more for the fun of it, we were caught in a peculiar emotion because this could possibly be the beginning of remarkable event in the history of the country. The place is on a bulge west of Tungafell Glacier. The top of the cairn has collapsed but the cornerstone is still there at the bottom of the pile of rocks.

The Development of Concepts – California, Fatherland no. 3

I liked the hippie-feel of Berkeley. Here I am wearing hippie glasses

In August 1980 the big moment arrived as I started my studies at UC Berkeley, California. I had sensed that this place would suit well for studying my subjects of interest. Because the culture and the environment of an area where one studies, has considerable impact on how good the place is as a study environment, I am going to tell about this, my new environment. I can right away say that the impact of this place in shaping me and my worldview was so great, that I talk about California as my fatherland no. 3, after Iceland and Berlin.

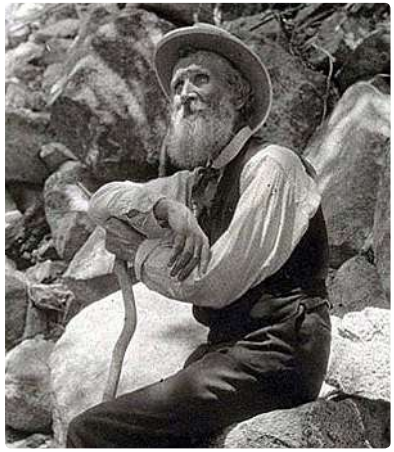
Let us start with the large scale, the USA, that had so much influence on the development of ideas in the world as a whole, and in Berlin in particular, when I was there, in terms of opening up thinking modes. Berlin later became a European centre for criticism of the Vietnam War in 1962-1974. The students in Berlin and Berkeley had in common being at the forefront of those who criticized the war, but after it ended in 1974 this wave subsided.

Berkeley and California have a long history in the re-visioning of worldviews. *John Muir,* for example, became a pioneer in preserving the remains of the redwood forests of California in the second half of the 19th century. The British *Arts and Crafts Movement* also got a strong base there, and many timber houses in Berkeley are in this style and also in other places along the San Francisco Bay. This organic building style has always supported organic lifestyles, and this has drawn people of the soft type. Additionally, the perennial good weather, means that the people here are much more relaxed then in the cold areas of the globe.

As it happens, the soft type of people are most often leftist, at the same time as the hard type leans rather to the right, and Berkeley thus has the highest percentage of Demo-

Governor Reagan called in the National Guard to quell the revolt on the Berkeley campus

Most of the redwood forest went into building towns and cities in northern California



John Muir saved the remains of the red-wood forests – and other places

California is an area of strong earthquakes. Here: a house strengthened

crats in the USA. The leftist, or soft type of people, often are interested in arts, crafts, nature and social matters... and in general, are more interested in new developments than conservative people are. Because of this soft environment, the university in Berkeley is among the most leftist in the country, though the hippie revolution made the leftist characteristics still more outstanding.

As I had chosen to study *Environmental Planning*, this environment suited me exceptionally well. Because the mapping of natural hazards was one of the largest aspects of the Iceland project, the extensive studies of natural hazards in California were a good model for my studies. In California the potential hazards include earthquakes, avalanches, coastal erosion and forest fires. The third feature that made California an especially good area for me, was that there all the newest in technology and culture was to be found. The primary reason for this is the great wealth of this state of the USA that has the largest population.

Wealthy universities and wealthy people can afford to test new things, so California, for a long time, has been a trend-setter in many areas. This was especially interesting for me because I had developed an interest in studying in what direction thinking concepts in the world were developing, including within the area of environmental matters.

As an example of the pioneering role California played in environmental matters, California was one of the first US states to adopt environmental legislation, as early as around 1975. Comparable law did not become common in Europe until 10-15 years later and a directive from Brussels on carrying out an *Environmental Impact Assessment* did not go into effect in Iceland until 1994.

When I was studying in Berlin I had followed somewhat the developments in California and in Berkeley, but when I had started working at the Development Office I did not have too much time for it. What maintained my contact with developments there, was a

A highway on two levels, that collapsed in the Northern California earthquake of 1989

An official building in Sacramento, the Capital of California. Designed by Ryn to be sustainable

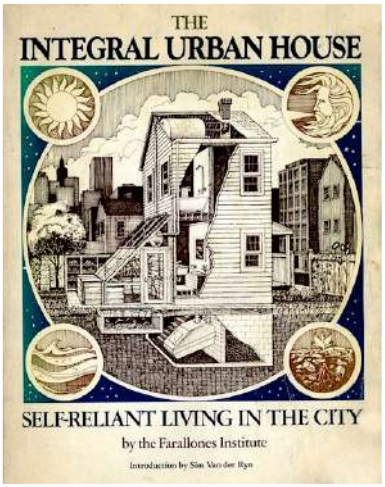
catalogue in a newspaper format, published in 1968-1972 called *The Whole Earth Catalogue.* Basically this was a shopping catalogue for books, goods and tools for those young people who had an interest in soft nature-connected lifestyles.

In the catalogue there were also reports on the newest innovative concepts. Bucky Fuller was one of their favourites, because of his whole systems. Later Christopher Alexander became one of the prophets. His theories had come under the influence of Asian concepts, which were well placed in Berkeley. He encouraged having buildings rise out of local conditions, with the participation of the users, an approach that people liked and that was certainly a future trend.

Another professor of architecture at Berkeley became a pioneer within the area of ecological design. This was *Sim Van der Ryn*. Governor *Jerry Brown* made him the *California State Architect* in the second half of the seventies. Under their leadership California enacted legislation on energy efficiency, energy standards and accessibilities for the handicapped. In addition, Ryn also designed several buildings for the Government of California in Sacramento that were among the first in the world to be ecologically sound. Jon Steingrimsson, an architect and engineer – a son of Steingrimur Hermannsson, Iceland's former prime minister – worked there on improving energy efficiency and it was interesting to get to know him.

In this place in my book, it fits well to mention that one of the pioneers in eco-building in Europe is an Icelander, *Jon Kristinsson,* who was a professor in Delft in Holland. In 1998 he won the highly acclaimed Shell Royal Environmental Prize. Of course this new direction; to adjust buildings to aspects like sun exposure, energy efficiency and the creation of shelter from the wind, certainly makes buildings look different than if some vain aesthetical idea is governing the design. Because of the low energy prices in Iceland this eco type of housing is not well known, but obviously the waste of energy in Iceland is viewed with suspicion by many foreigners

In the town of Berkeley, groups soon formed that embraced ecological lifestyles. This meant that people started to eat vegetables that they grew in their own gardens, and also started to make changes to their houses to improve energy efficiency and to produce at home most of the things that they needed. In short: to live a sustainable life, similar to the way it had been in the countryside in Iceland earlier. Already by around 1970 Ryn and some others had made changes in this direction to a house and a garden in Berkeley, which has since been used for teaching. In Iceland the village *Solheimar in Grimsnes* is designed in this ecological spirit of sustainability.



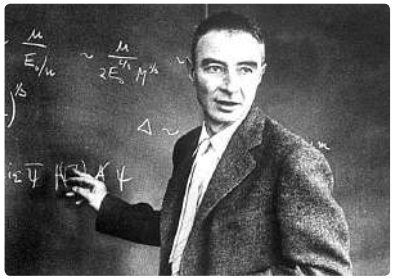
The first modern building that tried to be self-sufficient in most respects


Sim Van der Ryn, a professor, became the State Architect of California

Berkeley. In the distance: The Golden Gate bridge over the opening of the Bay

In the San Francisco quake of 1906. Broken gas pipes ignited fires

Steve Jobs and Steve Wozniak with an Apple computer in 1976



Robert Oppenheimer, physics professor, directed building of the hydrogen bomb

The University in Berkeley... And my Studies There

The university I had now started to attend, turned out to be much more powerful than I had realized earlier. It is the oldest and the most highly regarded of those constituting the University of California system. The names of the cities, where each of the ten university campuses are located, are added to the name, i.e. Berkeley, Davis, Los Angeles and so on. Some of these universities are known from their acronyms: UCB, UCD and UCLA.

After the big San Francisco earthquake in 1906 many fled to the coast opposite along the bay, called by the Spanish *Contra Costa*, since the Spanish and the Mexicans owned both Upper and Lower California, i.e. until the War of 1848. Actually, most place names in California are still in Spanish. Because of increased population on this coast, where the town Berkeley is located, the University soon became a strong backer for innovation, including in agriculture and engineering. Universities are always crucibles for future development, and when I was at Berkeley, the University, together with Stanford University, were the cradles for the computer industry that mostly developed in *Silicon Valley l*eading to *the the second industrial revolution* that changed the whole world.

In the years between the two world wars, work in physics at Berkeley became of international significance, and has been so ever since. Eight professors at the university have been awarded a Nobel Prize in physics, and about 70 people with a link to Berkeley, have received the Noble Prize. The main tool in nuclear science research before the War, was a large accelerator that made it possible to discover and create new elements, that were accordingly named for the place or the Berkeley professors, including berkelium, seaborgium, lawrencium.. As the Second World War started, one of the professors, *Robert Oppenheimer,* was asked to lead the project to build a hydrogen bomb. Within the social sciences, also many departments at Berkeley are among the most highly regarded in the world, and the leftist attitudes at Berkeley have drawn leftist students and instructors.

In 1959 the most important design departments of the University were brought together in a new unit: *College of Environmental Design.* For the unified departments, a nine story building was erected, though in the clumsy style that was popular then. Soon the value of bringing related departments together under one roof became apparent. The departments of architecture, planning and landscape architecture started to work together more, although, still today, too little cooperation among these professions takes place in the design of buildings, parks, cities and green areas.

When I came to Berkeley a new course had been created, *Environmental Planning,* which connected the design of man-made structures and the various natural science disciplines. It would have been best, if it had been possible, to bring all these disciplines together in one building, as happened in *Wurster Hall.* However, the fact how densely built the

campus is, solves this for the most part because there is a comfortable walking distance between all buildings.

This interdisciplinary cluster *Environmental Planning* was placed as a study route within *Landscape Architecture*. This was a good arrangement because the teaching of landscape architecture requires inputs from natural science disciplines, such as hydrology, ecology and geology. Therefore specialists in these disciplines have teaching contracts with this department.

All these disciplines were vital for my work on the *Iceland Plan*. I was therefore very well placed there and took courses in these disciplines, together with the planning courses. I had planned to make the Iceland Plan the subject of my PhD thesis, but as I started to get to know the vast theoretical work that was taking place at Berkeley, I saw that some things in these studies were similar to what had interested me so intensely in Berlin.

TV in front of the Environmental College at the centennial of LAEP in 2013

People may not realize that universities in the USA are divided into two types. The great majority teach *professional disciplines* such as engineering, architecture, dentistry and business management. The second type of university work is to *develop theories* and *look into the future*. Only very few universities are at the forefront in this area, and the best are probably only about 10-20, at the same time as the number of big professional universities, that give professional master's degrees, number about 750. Berkeley is in the exclusive group of the famous theory- and research universities.

When I had understood this, I started to realize that it was not very clever to spend my time at this top university making an Iceland Plan that could also be made in an office in Reykjavik. I was in a PhD programme where it is expected that the students develop theories, and contribute to scientific knowledge. The first two years in a PhD study are taken up with the study of a certain number of obligatory, as well as elective, courses. The elective courses the student selects himself, as background that contributes to the knowledge required for writing the PhD thesis.

Because of my growing interest in understanding the roots of the faulty, though western worldview, I took three philosophy courses with *Paul Feyerabend,* who was known to be very critical of the mechanistic worldview that was created in western sciences about 300 years ago. I will describe my studies with Feyerabend later and then, at the same time, describe how I succeeded in shaping those chapters of my thesis that deal with the difference between the western and eastern worldviews.

The campus has few parking spaces, but Nobel Prize winners get awarded space

Cutting apart and lack of connections are characteristic

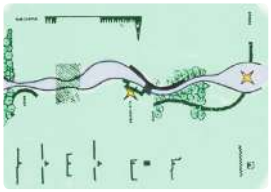
Problem 1: The Specialization

Schemes and methods that create connections and wholes, are needed

Solution 1: To create Connections and Wholes

Straight mechanistic lines and box-like forms

Problem 2: The Mechanistic



An organic worldview – Within it curved, dynamic forms are logical

Solution 2: Employ more Organic Methods and Forms

Unifying rules in form giving, as in the old building styles – are missing

Problem 3: A Visual Chaos

Create a style that has roots in the surrounding environment

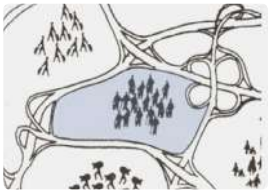
Solution 3: Aim for a Harmony with Deep Roots

Today buildings and plans lack symbolic content

Problem 4: Lack of Symbolic Content

Design buildings and plans in a way that is pregnant with symbolic content

Solution 4: Aim for Much Symbolic Content in Form Giving



Mechanistic planning that confines the elements of cities in isolated areas

Problem 5: Crude, Mechanistic Schemes

Let functions in buildings and planning intertwine in an organic way

Solution 5: Schemes based on Human Needs

To let functions guide design makes the design cold and mechanistic

Problem 6: The Tough Worldview

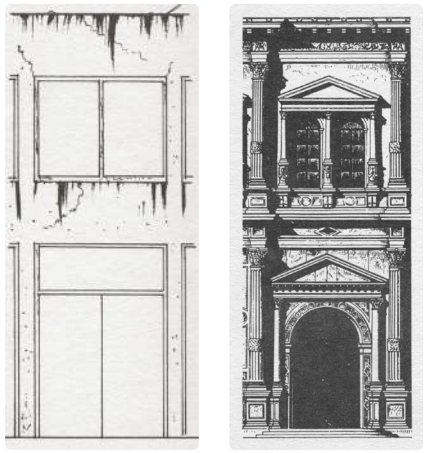
Let soft, warm content of beautiful forms dominate; they are important to humans

Solution 6: Form Characteristics of the Soft Worldview

Six problematic aspects of Modernism...

... and six Aspects that can be a part of the Solution

The Modern Problem... and a Draft for Solutions



Modern design is cold and inhuman. Look for guidance in old architecture!

Like many young people, I was dissatisfied with many aspects of our worldview and environmental design and aesthetical beliefs of our present times. I had written about this in Iceland and in my diploma thesis in Berlin. This was such an urgent issue to me that I decided to let my PhD thesis start by defining the roots of these problems and then try to develop ideas on how we could escape some of these serious problems.

I will now present the first steps in this work, and the creation of a visual language that I thought could become helpful in defining the problem and, at the same time, helped me to create form principles of form that could guide design into better directions. The first step was to define six aspects of the problem, which I considered to be: 1) Specialisation, 2) The mechanistic, 3) Visual chaos, 4) Lack of symbolic content, 5) Crude schemes, and 6) The tough worldview (See the schemes on the left page).

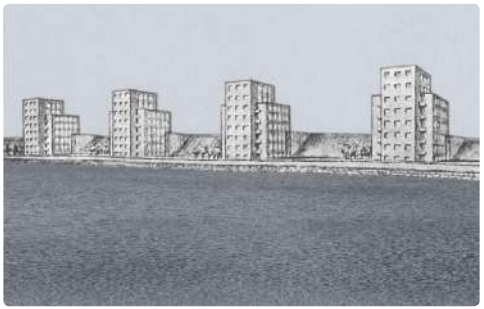
I will now explain these six aspects of the problems of our modern times and how they appear in design. I will also briefly describe what kind of schemes have to be aimed for in order to become freer from these problems. First about the problem aspects: 1) Specialisation: specialisation in society and in design leads to the breaking up of wholes and thus leads to lack of connections.

A direct consequence is that we need to introduce schemes and methods that create connections and wholes. A practical example is not to view the design of a house and a garden as two separate projects, but rather that house and garden, in the design, are made to connect and create a whole.

Problem 2) is the mechanistic, which appears in design, for example, in straight mechanistic lines and box-like forms. These are very characteristic forms of *modernism* and are cold and hostile to humans. The way to get away from this is to employ more organic methods and worldviews and to incorporate the logic of soft and curved forms. The next concern 3) visual chaos, is characterized by the lack of connecting rules in design and in the worldview in general. Rules like these we know from old styles of art that often have grown directly out of the worldview that was dominant in each particular period. For example, a Gothic church is a harmonized symphony of sublime forms and has thus a strong impact, as a prayer.

Aspect 4) the lack of symbolic content, is related to aspect 3) that dealt with the lack of an underlying theme – but here it is especially pointed out that buildings and plans were earlier pregnant with symbolic meaning, something that has almost disappeared in

The Vellir neighourhood shows that the tough, mechanistic is in fashion again



Modernism destroyed the feeling for organic beauty. Proposal for beautification of Tjörnin in 1951

Today we consider the urban area by Tjörnin as one of the most beautiful spots in Reykjavik

modern design. Aspect 5) is crude schemes. An example of a crude scheme is a plan that divides the elements of city life into isolated boxes. The solution here, is to use schemes that have a basis in human needs, letting functions weave together in an organic way.

The last aspect of the problems of modernism is 6) the tough worldview. In architecture the tough worldview appears in letting only functions guide the design, which in turn makes the design cold. This approach is little interested in the soft values of beautiful forms, and the warmth, that is so necessary to people. The way to solve this, in my opinion, is not to adopt formalism instead of functionalism, because formalism can be equally cold. What is needed, on the contrary, is that the design is governed by human values and, preferably, that there is also a beautiful harmony between form and content.

I think that today we understand that this is a rather good description what aspects the terrible conditions of modern design consist of, because we have started to become free from the claims of the modernistic worldview. This we realize, for instance, as we look at the winning proposals in 1951 on the beautification of *Lake Tjörnin* in Reykjavik.

At this time, this design was considered to be beautiful, but the warm timber houses that we admire today were considered, by the modernists, to be ugly. I think we still have a long road to travel to understand how cold box-architecture is, and actually so inhumane that it leads to alienation and social problems. Now – in the second decade of the 21st century – once again, a fashion has appeared on the scene that blinds us towards the horror, among others, in many new suburbs in the Capital Area.

The theoretical part of my PhD thesis described how these problems of modern societies and design, have deep roots in the governing tough western worldview. I succeeded – after much grumbling – to create a soft, holistic design theory by studying principles from old Eastern worldviews. I will explain the results of this work in chapter nine; *An Eastern Vision Applied in Design.*

The Impact of the Ideas of Christopher Alexander

Many have tried to understand what could possibly be the causes for the disintegration and alienation of our modern times. In philosophy this is often connected to the so-called *split of mind and body* that can be traced back to the Greeks.

For practical reasons it is better to talk about separation of the forming of ideas (i.e. aspects connected to the mind) from reality (which is referred to as body). This means, for instance, in architecture, that people often develop ideas so that they sound good, or look good on schematic drawings. This was very common in modernism in the first part of the 20th century and very often settlements and cities were built based on such flaky ideas.

The worst of all architects was *Corbusier* who, for instance, wrote about how fine a model an ocean liner is for residential units in cities (Unité d´habitation). In such a ship all services were provided, as well as a sun deck where people could enjoy life. When such a building designed by him, was built in Berlin, few service companies wanted to be there and on the roof, there was a chilly breeze so nobody ever went there.

In the Berlin chapters, earlier in the book, I described the great impact of *Christopher Alexander´s* (CA) writing on design methodology, which led to his being given a professorship in Berkeley. In the preface to the sixth printing of his doctoral thesis *Notes on the Synthesis of Form* (1971), he denies the common perception and says: "... since the book was published there has been created a whole new academic field around the idea methodology of design... and I want to declare publicly that I disown this... because I think it is absurd to separate research of design from practising design" (p. ii).

At this time Alexander had started work on a book series in which he created theories on how to build well. Here he searches in collections of good, old design solutions. Best known of these books is *A Pattern Language* (1977) which is a catalogue of 253 patterns

Mexico University a la Corbu. Sun kept out with paper and column area closed

TV and CA, who is one of the most prominent theoreticians of our times

From the book Pattern Language *by CA. One of the patterns: To let buildings embrace an area in order to create a positive outdoor space. Another pattern: To let a neighbourhood have a clear edge*

Prayer rug. Weaving technique creates form-rules – Here an Islamic worldview

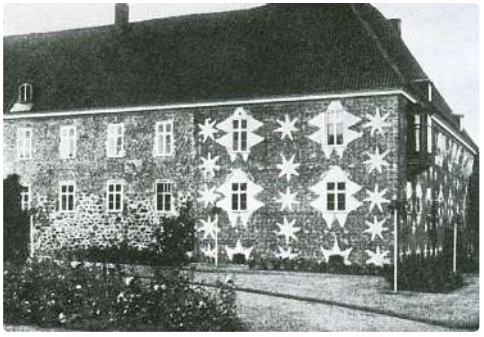
The Chinese worldview appears in the lay-out of The Forbidden City (Like a rug!)

in design, from the large scale of design of cities to the small scale of designing homes. Most of those who study architecture know the patterns, but I, however, found solutions in the book that were a pleasant surprise to me – and certainly Alexander reaches far back in history. This catalogue of patterns fitted perfectly with the sentiments of young people that wanted to be free of the guidance imposed by the elite, and with the help of such a catalogue, could design their own lives and environment. What also fitted well was the rising current of belief in participatory politics.

An experiment in such a participatory design was conducted when Alexander was in charge of the planning of an area for the University of Oregon. His book on this is called *The Oregon Experiment* (1975). In 1979 Alexander published a book that describes the core of this design theory, *The Timeless Way of Building*. At the beginning of the index it says: "It is a process which brings order out of nothing but ourselves; it cannot be attained, but it will happen of its own accord, if we will only let it" (p. ix).

As one can see here, eastern ideas had arrived. Alexander often cites a book about archery training in Japan, *Zen in the Art of Archery* (1953). There it is the main goal not to try to direct the shot of the arrow, but rather to try to forget oneself and try to let *The It* shoot. The thinking is that our inner core (The It) has supreme capabilities... and if we only let it – as happens, for instance, with children and primitive people as they draw – a much better and truer result is achieved.

After I had arrived at Berkeley in the autumn of 1980 I soon went to meet Alexander, even though I had come to study *Environmental Planning*. He received me well. After the New Year's and in the following autumn, he allowed me to audit his class on his new book series *Nature of Order*. This series was published about 25 years later in four books, i.e. 2003-2006. The manuscript – 1200 pages – was in a locked storage in the library where we, the students of the class, had access. It is of course, a unique opportunity to be able to follow the developments of books by one of the greatest theoreticians of de-



Ornament is a part of most old designs. It adorns, underlines and defines

In this house in Japan CA uses old rules of design and ornament, to define spaces and columns

sign, almost three decades before the books were published and became the newest thing in design theory. Here Alexander (CA) searches for primary geometric rules. These he found not least in Turkish prayer rugs.

Here the mathematician CA defines 15 axioms of visual constructs; something that makes design whole and strong. It is his claim that in this way one can create design that works against dissolution and the lack of rule in modernistic design. CA goes as far as saying that with this he is creating a holistic nature-connected worldview.

Alexander and I started cooperating on an idea of mine about my doctoral thesis that I might write under his guidance. I put forth a theme that he liked; *Form comes First,* which means one should start a design process with form ideas. This theme was directed against the main thesis of functionalism: *Form follows Function,* which claims that it is enough to think and design from the functional aspects, and the form qualities and the form structures will follow naturally.

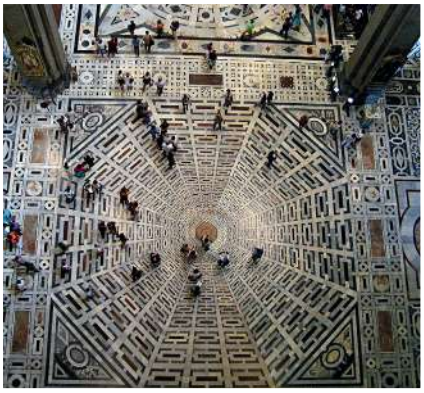
This process certainly happens, for example as a fiddle or a ship propeller develops over a long period of time – resulting in both beautiful forms and high utility. But the luxury of a long development is today rarely possible. In architecture the form aspects therefore need to have a special priority in the whole design process.

Unfortunately, the terrible sentence above about the priority of functions, has had the result that many think that it is unnecessary to consider the form aspects in a serious way. As I was working in the *Development Office* I cannot remember that a feature of a plan should be decided on because it was beautiful, except about the green areas. There was almost only talk about the functionalistic aspects.

After some time I began to have doubt about the idea of *Form comes First* be the basis of my dissertation, because I realized that one should neither start only with form or functional accepts alone, but rather one should try to let the two melt together in the design process, and in addition, let these grow out of the local conditions. Therefore I stopped working on a thesis with Alexander.

Letting the form be in the foreground is the main characteristic of the theories of Alexander. By digging down into this thinking of letting the form have an overriding influence, I discovered the weakness in Alexander's theories, and started to think less of them.

The worldview of Catholicism in the cupola of the church in Florence, Italy



The floor seen from the cupola. Here drab colours of earthly life appear

Mandala means a circle. The circle characterizes many Eastern worldviews

Fuller designed the USA Expo pavilion in Montreal in´67: Space age influence

Fuller patents. Patents are not given for the math involved, rather for the construction

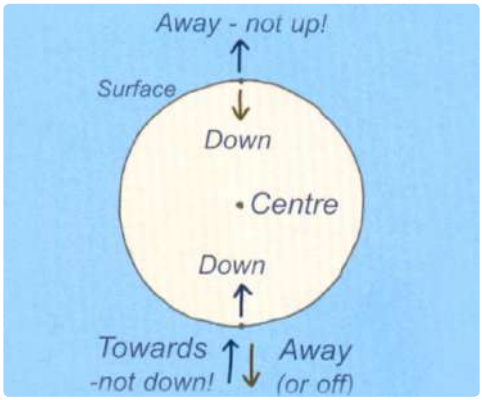
The fact that I did not consider it right to let either form or function guide design... but rather the interweaving of the two... did not mean that I did not think that the form could have a very fundamental impact in design and systems of thinking. Here I am, however, first of all talking about the special quality a form can have, i.e. to be both form and function in one instance.

Bucky Fuller ignited my interest in this as he describes the formula of Einstein (E=mc2), which in fact is a basic feature of the worldview of physics, as a volume with four sides with a certain ratio between the edges. Fuller also made it a big issue in his theories that the old cube-worldview with 90 degree angles, was not logical in a world that is a sphere. Therefore he posited that his geodesic domes were the logical building form.

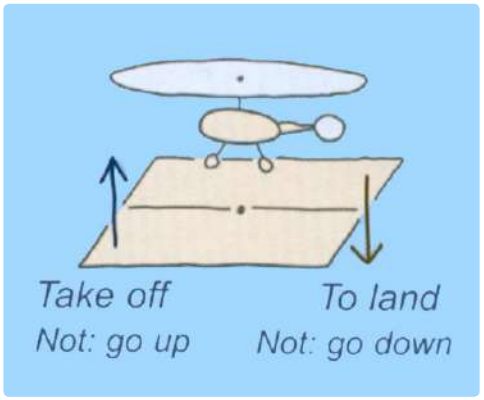
Fuller explained this by pointing out that a horizontal straight line is actually curved because it follows the curved surface of the globe. Also he pointed out that parallel towers, for instance of a bridge, are not parallel because if their central axes are extended downwards they come together in the centre of earth.

What Fuller was trying to have us understand was therefore, in summary, that the system of thought and the terms we use today have its roots in the flat, cubic worldview and therefore does not fit within the worldview of the sphere.

Because of the influence from Fuller I started to analyse the form qualities of different worldviews, research that I have continued ever since. I started with the flat pancake worldview, where it is logical to talk about up and down in relation to this flat area. Another thing that becomes obvious from the picture of a pancake, is that the central area



Our language is still as if we live on a flat earth. The figure explains why we use the wrong words



Aviation vocabulary is already formed by the fact that we live on a sphere

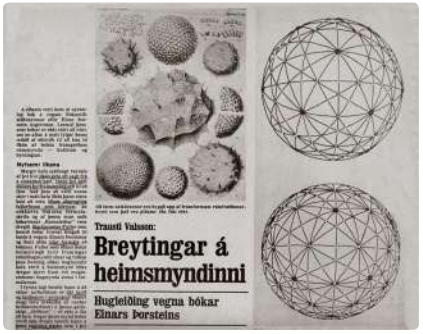
is topologically more important than the areas out on the edge. In regional planning this means that cities that are located at the centre... as, for instance, Rome in ancient times, have a very strong position.

As I started to study the present worldview I discovered that it is like a flat ribbon, that is connected together as a cylinder around the globe, because today's flat maps flatten the earth. This has meant that the two polar areas do actually not belong to the present worldview, and are not shown in the flat view of the world of the common world maps. On the world map of today the uppermost and lowest borders, are the edge of this world, and a line that goes through the most important areas in the northern part of this map, is actually the linear centre of this worldview.

At this time, while developing these ideas, I thought like this: this cylindrical worldview is an important step towards the worldview of the sphere and helps explain the topological position of countries and nations today. However, here we have some remains of the flat worldview included, because in the flat worldview the countries that are close to the linear east-west centre, have a much stronger position than countries out on the edge, like Iceland still has.

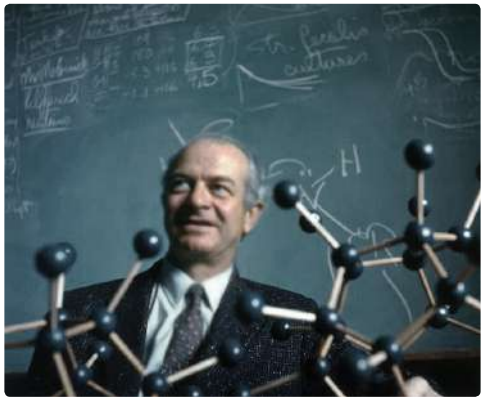
The third step or idea in my study of form characteristics of worldviews, did not happen to me until after 30 years, as I was writing the book *How the World will Change – with Global Warming* (2006). There I described that global warming will make the whole sphere habitable because, as the ice sheets of the North Pole area melt, the Arctic will be as fit for habitation as other areas on the globe, and even better, if the warming becomes extensive! With this the worldview of the sphere has become a fact. This will have very great social and political consequences, because with the sphere worldview all areas on the globe get a similar spatial position. This is in stark contrast with the earlier prioritized

Einar Thorsteinn in his studio in Berlin. We see how extensive his studies were



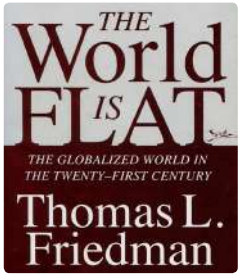
In 1978 Einar published a book on his studies. Fuller wrote the preface and I this article about the book

Space heat image. Dark; cold, light; warm. Form studies help understand the nature of the world



Linus Pauling got the Nobel prize for discoveries about crystals. He and Einar corresponded on this

location of those countries that were close to the linear centre of the globe. The sphere worldview for example means, that countries that were earlier considered to be out on the edge, like Iceland, will obtain a much stronger spatial position.



Flat in the sense of e-contacts, not transportation


Friedman became world famous for his book

The position of areas has already begun to change, because the computer and the internet have made all areas on the globe equal in electronic communication, as Thomas Friedman describes in his book *The World is Flat* (2005). The title of the book, however, is rather unfortunate, and it could be rooted in the expression used in commerce; *flat playing field*.

This point about equal competition positions electronically, however, does not tell the whole story because here, as before, the physical reality of the world is very important as concerns, for example, the position of new resource areas – which are primarily in the Arctic – and the opening of new shipping routes over the Arctic Sea between the Atlantic- and Pacific Oceans.

This too will mean a completely changed position of all the countries in the world in the future. But the description of Friedman of equal positions in terms of electronic communication and a description of a changed position because of the emerging sphere worldview, can jointly create a foundation for a description of how the world will be in the future.

Now it might seem that I had jumped ahead in the description of my professional career. But I put this description here because it shows that the theory of *Form Comes First*, is quite suitable if one wants to describe the spatial characteristics – and thus also the implications – of a worldview, even though it is not a good method for developing ideas about architecture.

I put this description here also because, at this time in Berkeley (ca. 1983), I was trying to get a deeper understanding of worldviews, because I wanted to figure out what aspects of the western worldview made it so bad... and in contrast – what aspects of the eastern worldview were likely to help us improve design and planning.

The first description on this I put forward in an earlier chapter: *The Modern Problem... and a Draft for Solutions* (p. 101). Now my position in my doctoral studies was that I had stopped making the *Iceland Plan* and the *Form comes First* thesis, its subject and had started a third idea for my dissertation, which dealt with *the impact of worldviews* on the shaping of society and environment, in the spirit that has now been described.

Courses in Philosophy and the Shaping of the Dissertation

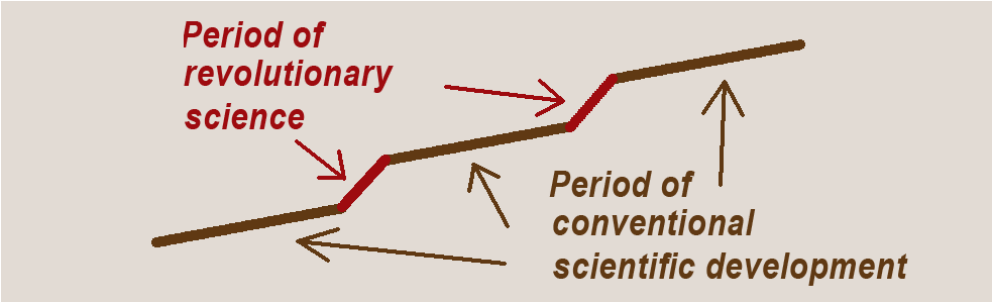
As I had decided to let my dissertation start by an analysis of the faults of the western worldview, to try to understand better the faults of modern design... and, in addition, to search for solutions in the nature of the south-east Asian one... I saw that I needed to take a course in philosophy.

As I studied the writings of *Paul Feyerabend,* a professor of the philosophy of science, I understood that I had found the right professor. The search for him was not extensive as he had become one of the best known philosophers of the world with his book *Against Method* (1975).

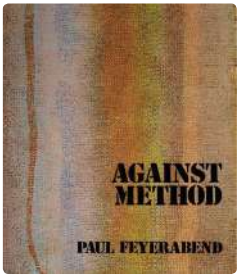
In this book Feyerabend describes how narrowly defined methods in science have very often narrowed the possibilities to develop. Basic new ideas in science – that push stiff thinking – often come from persons in other disciplines, persons that are not tied to petrified methods of the academia in the field in question. The revolutionary spirit that was included in this I liked, and it soon came to light that Feyerabend was critical of many aspects of the western worldview... and was open to the eastern one.

Shortly before, another professor of philosophy at Berkeley, *Thomas Kuhn,* published another highly influential book, *The Structure of Scientific Revolutions* (1962). The book described how the advancement of science does not happen just by adding new knowledge constantly, but rather it develops in jumps. These jumps happen as an accepted idea has developed to its final phase.

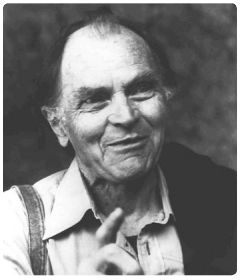
Then a revolutionary idea appears that changes everything, and makes the earlier fully accepted theories obsolete. Kuhn created a term to define such a jump; *paradigm shift*. In this Kuhn fell upon such a big truth about almost all development processes in the world that this term; paradigm shift, has become much used in all disciplines.



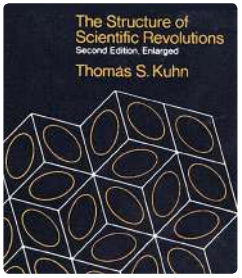
The theory of Thomas Kuhn says that science does not evolve in a steady flow but rather, that it develops in jumps, caused by revolutionary periods that happen occasionally in science



The book shows that rules hinder innovation

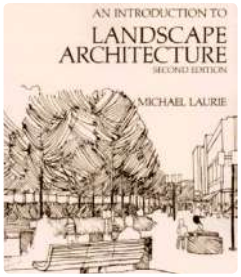


Feyerabend uses humour to open peoples' minds



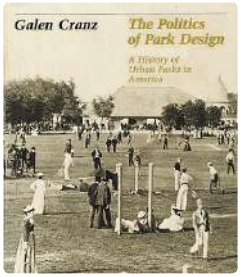
Progress is not gradual – it builds on revolutions

Kuhn wrote his book as a professor at Berkeley



Laurie´s book: Translated into many languages

My advisor Laurie was a friend of eastern ideas



Cranz´s book: A vision of the sociology of parks

Cranz gave a lecture at UI´s Centenniary in 2011

I had developed an intuitive feeling that the solution to some of the worst problems of modern design was dependent on reducing the impact of the western worldview... and establish instead, new basic rules in design in the eastern spirit. I got ever more convinced that this could be a foundation for *a paradigm shift in design and planning*. – More about that later.

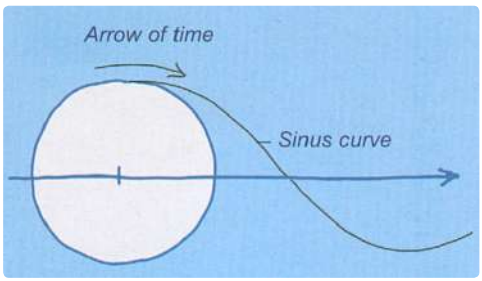
Well, now I had become a disciple of the revolutionary Feyerabend, and took three courses with him. We made quite a good contact because, I think, he was an Austrian so we could talk together in German. Another thing that connected us was a similar taste for absurd humour and we exchanged anecdotes of that kind. Once he asked me for instance: Have you noticed how God and Life are spelled backwards? No, I said. Dog and Evil he said then! This we both thought was quite remarkable.

I now started to construct a description of my third thesis idea. This process started by a description of the problems of modern design and how they have roots in the faults of the western worldview. Also I described how certain aspects of the eastern concepts could become a good foundation for new thinking schemes in design.

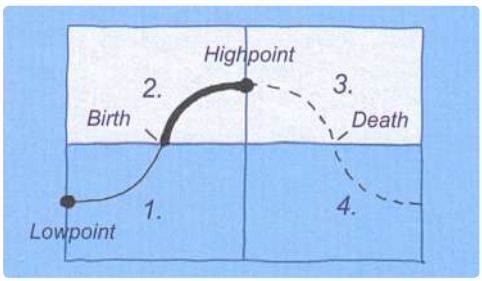
When a student at Berkeley has composed his idea for a doctoral project in some detail, he is to write a report on his project. He is given three questions about the main subject that relate to the writing of the thesis.

The first question asks about the connection to relevant areas of science. The next about the main aspects of the methodology that is to be applied and the third question asks for a more thorough description of the thesis idea itself.

The student is given one year to answer these questions and such an essay is often about 100 pages long. When this essay is ready the student enters an examination which is called the *Qualifying Examination*, and if the student passes this exam, then he and his PhD project, are judged to have enough quality to be continued.



Passing of Time is better understood in eastern thought – It follows a sinus curve



Stations in a life cycle are now, for example, used to describe what stations products go through

There are five professors in the examination committee and they are representatives of those areas of science that have most relation to the PhD project. One of these aspects, in my case, was philosophy and the professors at my department became very proud as they heard that the famous Feyerabend had accepted the invitation to sit on the committee. The examination, which is oral, takes about three hours and it is a severe test to sit trying to answer a flow of piercing questions from these accomplished professors... but I got through... and then it was only to write the dissertation!

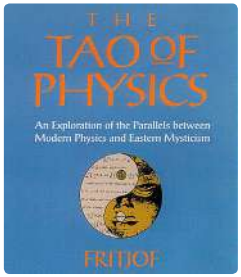
For the support in writing the thesis, a new three person committee is established, that reads everything the student writes and is available for constant consultation. In my committee was *Galen Cranz,* who became well known for her book *The Politics of Park Design* (1982) and also *Paul Groth,* who has written extensively about cultural landscapes in American cities.

The chairman of the committee was *Michael Laurie,* who wrote the book *An Introduction to Landscape Architecture* (1976) that has been translated into many languages and is widely used as a textbook. I worked most closely with Laurie and his knowledge of eastern thinking and eastern landscape design, was of great use for me.

It also helped me a lot that northern California – and thus the Berkeley area – was at this time under much influence from ideas on how, for instance, *Zen* and *Tao* could direct us to new ways in design and science. Very many books on this subject were published but only few of them could be considered to be academic.

The book that had the most impact on me was *Tao of Physics* (1975) by *Fridtjof Capra.* It became very well-known and has been published in 24 languages. Capra compares the newest developments in physics to certain characteristics in eastern worldviews and argues that the two are related. In the preface to a later edition to his book Capra says about the great interest that his book had provoked: "I now see this interest as a part of much larger trend to counteract a profound imbalance in our culture... Our culture has consistently favoured Yang or masculine... and has neglected their complementary Yin.

And Capra continues: "The rising concern with ecology, the strong interest in mysticism, the growing feminist awareness, and the rediscovery of holistic approaches to health and healing, are all manifestations of the same evolutionary trend" (1984). Capra later established the *Centre of Eco Literacy* in Berkeley.

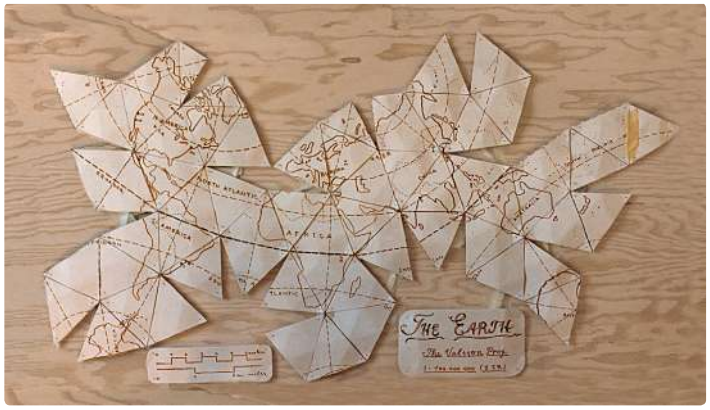


Book on parallels between the Tao and physics

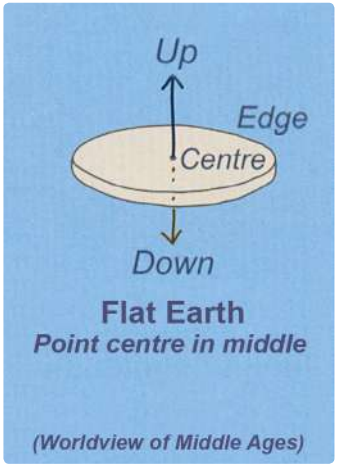

Capra followed Bohr in interpretation of yin-yang

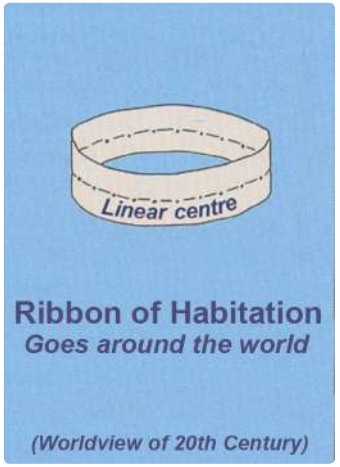


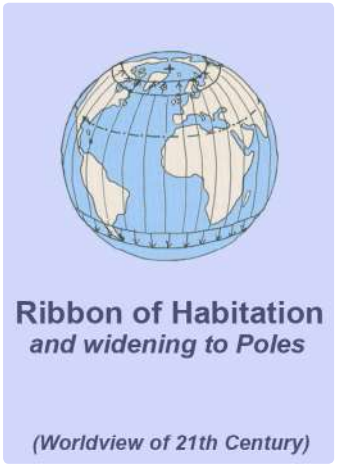

Ornamental sculptures: *Space age ´64, Waves ´64, Rhombuses ´88 and a Mast ´88*

Studies of the Globe: *Tracing patterns ´81 – Map for a folding globe ´82 – A transparent globe for doing studies ´82*







Vocabulary and form characteristics of worldviews – The spatial system of three worldviews

Student Life, Visits and a SE Asia Journey

In the earlier chapters on my years in Berlin, I dealt a lot with the condition of world affairs and the student revolution, because this had a strong impact on the political position of Berlin as well as on what was happening at the University. At Berkeley and in the USA in general, there had been considerable turbulence, not least because of the Vietnam War and also because of young peoples' interest in a change in lifestyles... mainly in the direction of participatory processes and to more ecological ways of living.

As I came to Berkeley in the fall of 1980 there were presidential elections and *Reagan* became the president and remained so all my years in the USA. With Reagan values were brought back to those times when the free actions of individuals were less limited and also less consideration was paid to the environment. Northern California, however, remained mostly on course in the direction of *ecological values*. In tune with this, ecological values were prominent in my department, especially within Environmental Planning.

In Berlin there was little contact between ordinary students and the instructors, but in our 15 person PhD programme at Berkeley, we were in close contact with the professors, and many of us worked with them on research and assisted in the teaching. On the other hand, I wanted to work solely on my own research and tried to make the professors work for me... and succeeded quite well!

We, the doctoral students in *Environmental Planning*, were rather pampered. For instance, we had a big common room with individual work places. To look over the shoulders of others and to discuss matters in the couch group was very useful. We also had evening discussion groups. There everybody presented their project and there we tried to get some wholeness into the theoretical foundations of this new discipline of *Environmental Planning*. There were many that were worried that the theoretical core was not coherent enough, because in this field very many theoretical disciplines enter the picture, like ecology, geology, hydrology and environmental law. In addition to all this, I also tried to maintain my contact with art, among other, by studying the old masters.

We all were primarily connected in an academic spirit, and I think nobody went far towards living according to ecological lifestyles by, for instance, having sprouts and vegetables for all meals. We here – at the citadel of the academic environmental sciences – even made a little fun of the hippie lifestyle. I was, as always, tied to the lifestyles of older times and I loved steaks and old American cars. I thus made my dream of owning an American cruiser come true. It helped that gasoline was very inexpensive. This was a Cadillac convertible, a 1968 model, with a seven litre engine and six metres long. Everything was luxury craftsmanship, for example leather seats and wooden panels.

Review of student projects often takes place on the ground floor of Wurster Hall

I studied Rembrandt by making drawings from his work

Steinunn, Tinna and TeeVee, here at a lake in Yosemite National Park

A Cadillac convertible is splendid in the California sun. Filming is fine from a folded roof curtain

I made a hot tub in the garden on Hilldale Avenue. Tinna and Hrönn enjoying the sun

Christmas Eve: TV, Kata and Jona and Helgi on the couch

My daughters *Hrönn* and *Tinna* came to stay with me for two months in the autumn of 1982, together with Tinna's mother Steinunn. We went on long rides in the Cadillac. There is hardly anything more cool than for seven and a fourteen year old girls from Iceland, than to glide almost without a sound through streets and forests in the Californian sun in an open street cruiser, sitting like beauty queens on the folded top in the back. We travelled in this style up to Yosemite National Park, down to LA where we lived in luxury with Joni Sighvats and Sigga, and finally we drove far south along the Mexican coast. A girlfriend I had in Iceland, also come to visit as well as old friends that wanted to enjoy the paradise that California is.

There were ten Icelanders in Berkeley at this time and we were a tight group. Some of us have ever since come together at a Christmas buffet each year. The core of this group is Helgi Vald a Department Head at Verkis, Björn Stefans, the Head of the Technological Division of NPC, and Björn Ingi, who was for some time the City Engineer of Reykjavik, and also their wives Jona, Gunna and Kata. I brought the woman I had available each time to these gatherings. The unmarried coupled; Skeggi and Elva have also sometimes come... though most often separately.

Like I said earlier, we PhD students were quite pampered in our Department. We were for instance, exempt from tuition, and our finances were therefore quite good. Also the Department had a strong travel fund – money that a wealthy widow, *Farrand,* had donated. For money from this fund I went on a trip around the world in 1985. The purpose of the trip was to learn how eastern theories appeared in design and planning in Japan, in the Philippines, Thailand, India, Hong Kong and China, that was starting to open up. At this time everything was very grey and ancient in China, but modern times were, however, starting to have an inroad.

Four fellow PhD students at spring festivities: Tom, Brent, TV and Rocky

Kari Schram made a fine video film in 1985 where I explain my doctoral research

Svanhildur came and stayed with me for some time. Here dining in a restaurant

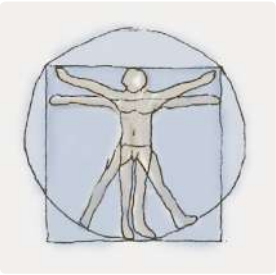
When I came to China for the second time 20 years later, in 2005, with 20 graduating students in engineering, everything had completely changed. Colossal modern cities had been built, with enormous highway systems and swarms of cars... everything in the least-environmentally sensitive western ways. I was totally flabbergasted and I have hardly recovered from the shock yet.

It would take 50-100 pages to describe the cities I visited on my journey in 1985, so I will only describe the most memorable visit, to the old emperor's city of *Kyoto* in Japan. It is endowed with beautiful temples and palaces – often only one storey high – with sliding doors and floor mats – that became the model for bungalow homes in the West in the 50´s and 60´s. These palaces and shrines were interwoven into nature in a magnificent way of designing.

Laurie had contacted a professor of landscape architecture in Kyoto, *Nakamura,* to let him know that I was coming. Nakamura was a well-known designer and the Vice President of the Japanese Horticulture Society. I did not know how much time Nakamura had reserved for me, so I hurried explaining my ideas in order to use the opportunity to get as many comments as possible from him.

After one and a half hours I realized he was not in much hurry (as so often in the West), but sat in a lotus position on the bench. Then he said: "Can I offer you tea?" "Well, thank you..." and a Japanese beauty flows into the room with a tray of tea and cookies. Now I started to try to relax and we continued our discussion. After another one and a half hours this Japanese master said again: "Can I offer you tea?"... "Well, thank you". And the Japanese structure floats into the room. In total this audience with Nakamura lasted 4 1/2 hours... and became the greatest single input I got for my thesis.

In Kyoto I met Halldor Stef (brother of Kari). Here in front of Chion-in temple



Here man is put in relation with the world

Dissection in 17th century cut the world into disconnected bits

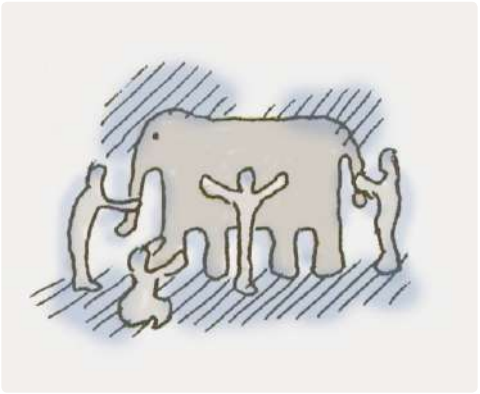
After I had, for some time, tried to find what is the root of the faults of our Western world, I discovered that the main characteristic is *alienation* that actually has much been complained about in most areas.

As a next step I came to realize that the basic characteristic of what is alienated is what is detracted from other things. As I started to dig into how the various types of separation had come to be, I discovered that the governing method of science, *dissection*, is in many cases, was the deep root.

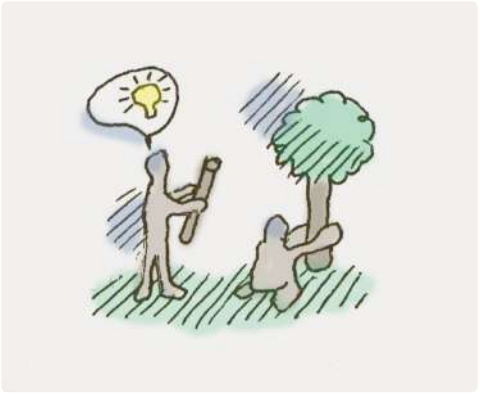
Dissection became the main method in *Western science* in the 17th century and *Descartes, Bacon* and *Newton* are considered to be the main authors of the mode of thinking that made dissection possible... and popular.

The method of dissection is used to approach most objects... even the bodies of people and animals, by cutting the object into pieces, and each object, for instance heart, lungs and skeleton, is then researched, detached from other parts of the body... and scientists draw conclusions about these parts without putting them into enough relation with the whole. This process of acquiring knowledge through dissection, is followed by deduction, i.e. to deduct from the bits as a confident basic truth on the nature of things.

Earlier there had been in science, a quite different method; *induction*. The main characteristic of this method is to look at *the wholeness of the subject at hand* – for instance, man together with his whole environment – to try to understand its nature. This is, for instance, is the main approach in anthropology.



Scientists are like the blind men that often fail to look at things in relation to the whole...



... one studies the trunk and describes it as a hose, another a leg and describes it as a tree trunk

The fault of the method of cutting an object into parts, and then do research without enough connection to the other parts, is often conveyed with the story of four blind men that were asked to research an elephant and to describe him.

The first one researched the leg and described the elephant as the trunk of a tree. The next one felt his belly with his hands, and described the elephant as a wall. The third grabbed the trunk and described the animal as a hose and the fourth touched the end of his tail and described the elephant as a rope.

This story is descriptive of the value of many too specialised research projects today, but many leaders of this approach in science, *the positivists*, nevertheless have got such a hold on, for example scientific funds, that projects that start by looking at the whole first, as e.g. is necessary for studies on design, have a very hard time getting grants.

What happens in design as the aspects of the whole have been researched, is a process of creation; *a synthesis*. If this is successful the wholeness that comes to be through this, has more value than the sum of the parts.

What I have now described is a retelling of the first part of my PhD thesis. This philosophical chapter has the purpose of digging down to the deeper roots of the problems of modern design; *the alienation*, the *lack of connections* and the *little success in creating wholes.*

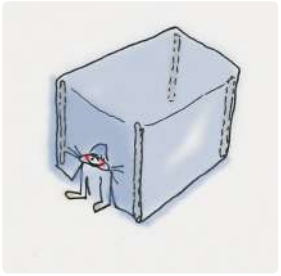
The next part of my thesis described *holistic theories*, both as they appear in modern physics and in eastern philosophies... and here mainly, those theories that have a connection to *T´ai Ch´i.* One of the key terms in these theories is *complementarity.* It can come to be between *polarised pairs*, which in the West are called *opposites*, but *complementary pairs* in the East.

An example of such pairs is a man and a woman, who in the East are said to be complementary, but in the West opposites and competing. Eastern theories group all features of the world into such complementary *yin/yang pairs*.

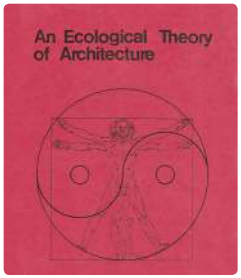
In modern physics clues have appeared that ever more of what we know as separated appearances, are in fact *polarized pairs* that can take the position of the other half under certain circumstances. *Einstein's formula* E=mc2 says that Energy (E) equals mass (m) multiplied by the speed of light squared (c2). Another thing that Einstein discovered, is that time and space are not absolute phenomena, but rather they can change among themselves according to certain formulae.

It was a strike of luck that I found a PhD thesis that had been worked on under the guidance of *Ian McHarg* in Philadelphia. It is called *An Environmental Theory of Archi-*

A girl looks at rods and blanket. What can I do with it?

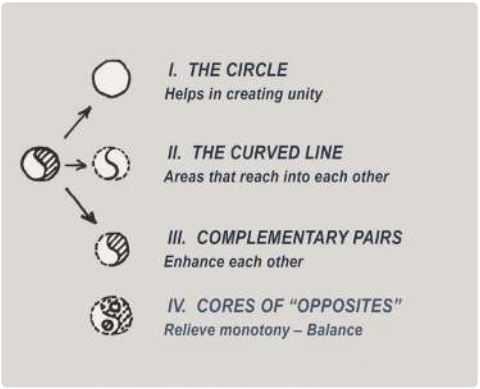


Creation: Here is a house! Elements disappear in a new unity



Koh´s thesis was of much use in my studies

Koh taught at a Dutch university



The T´ai Ch´i symbol can be separated into three form principles. The fourth:"Core of the opposite"

Form values in "Falling Water": I. One whole, II. Dynamism, III. Complementarity of house/nature

tecture (1975). The author was a Korean, *Jusuch Koh.* Koh uses the T´ai Ch´i principle to explain the nature of ecology. It is necessary to explain the T´ai Ch´i symbol to get a short introduction to this eastern thinking scheme and, at the same time, the core of the theory of ecology (see the symbol above).

The T´ai Ch´i symbol is put together from three features; I. *Circle,* II. *S-line* and III. *Black and white halves.* In eastern thought the circle stands for Wholeness, the S-line for a Dynamic Interaction between polarized pairs within this whole... and the two halves of the symbol, the Black and the White, symbolize that we are here dealing with the polarized yin/yang pairs.

Within ecology; I. means Wholeness and II. Dynamism. When it comes to explaining what III. Polarized Pairs correspond to in ecology, Koh says: "...there is a complementarity, or continuity, between the organic and the inorganic... (or) composition and decomposition..." (p. 180).

In order to test the value of these three basic principles in describing quality in architecture, Koh tests the rules on famous architectural examples. He thus describes the qualities of the house *Falling Water* (see picture above) by *Frank Lloyd Wright,* based on the three rules: "Unity: ... It is unified with the place... Dynamic Balance: The dynamism of the building is achieved by bold cantilever structure, contrasts between....stucco cantilever mass and natural stone walls... Complementarity: the mass and space are complementary to each other as are the house and the landscape" (p. 257). Koh's thesis was a great help to me, even though I use the basic rules in a different way, as I will describe in the next section.

Form Used to Strengthen Connections in Design

I will now explain how I succeeded in creating a form theory from the four principles of *the T´ai Ch´i symbol*. And, this is the main contribution of my PhD thesis. There are the three principles that have already been explained, and to that I added the fourth; cores of the opposites, that sometimes appear in the T´ai Ch´i symbol as points within the two halves of the symbol (see the picture on the opposite page).

We will now start to look more closely at the four philosophical form principles that appear in the T´ai Ch´i symbol, and then continue to study how these principles can contribute to connections in design, but the lack of connections is the basic, underlying problem in design and planning.

The first philosophical concept is: *I. Wholeness* that appears as *a Circle* in the T´ai Ch´i symbol. The basic value of the Circle is that it is the densest arrangement of elements. My next step in explaining the value of this form, the Circle, was to define and describe five form features that I linked to the Circle, features that can be applied for strengthening the connecting-impact of the Circle in design.

Rule 1) on how this can be done is by strengthening of the *Rim of the Circle*, which then embraces the area within it. Next, *rule 2)* is based on designing the centre as *a Focal Point*. This can be achieved by making the centre more distinctive, and then the area inside the Circle gets more focus.

The next *method 3)* is to create many *Circumferences within the Circle*, and this can be achieved, for instance, by letting the roads inside the Circle go around like orbits, around a square. This strengthens the connecting value of the Circle. The next *form principle 4)* recommends that the area within the Circle has an *Inclination towards the Centre,* as in an amphitheatre.

The next f*orm principle 5)* recommends that *Lines go from the Rim to the Centre.* For instance, roads can be directed towards a square from all directions. This strengthens the square very much as a central point, as we see in the Arc de Triomphe in Paris. The last form principle 6) says that the impact of a Circle is strengthened by letting the *Facades of Buildings Turn to the Centre*.

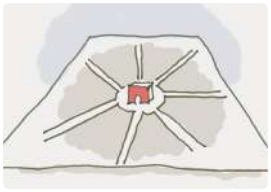
As for the philosophical concept of *II Dynamism,* we see it as a *S-formed line* in the T´ai Ch´i symbol. The curved line is an opposite of the straight line that is so common in mechanical western design. As an example of a curved line in nature, we see that most coastal lines are curved, which forms inlets and bays where the coastline curves inwards, and points and peninsulas where the line curves outwards.

1. Strengthen rim of circle

2. Have a clear focus

3. Circumferences in the circle

4. Inclination to the centre



5. Lines from rim to centre

6. Houses face the centre

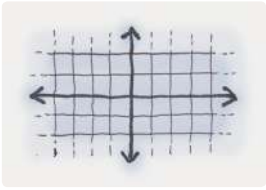
Rules to strengthen circle

Lack of form *– Cities spread aimlessly all over: "There is no there there"*

The West I: No outer boundaries in the world

Circle *– Let cities approach the form of the circle, e.g. to shorten distances*

The East I: The world has boundaries, and wholes get formed

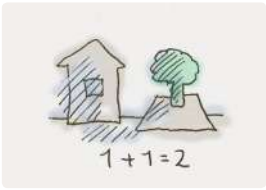


The 90° grid *– Cities spread out. American city scheme (though, cold)*

The West II: The Mechanistic

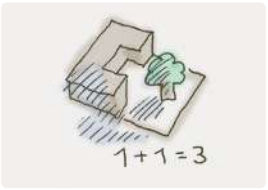
Curved forms *– correspond to the understanding that everything is in flux*

The East II: Use organic methods and -form creation



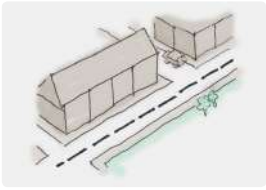
Compartmentalization *– The main rule of planing: All is cut apart and put into boxes (means lack of connections)*

The West III: Pairs are almost opposites



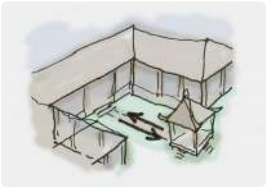
Complementarity *– The understanding that house and garden are one whole (an additional value comes into being)*

The East III: Pairs are mutually enhancing



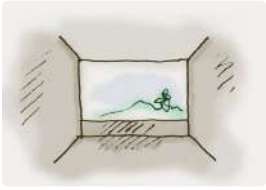
Areas are without reference points *– Houses and gardens are monotonous*

The West IV: Lack of reference points



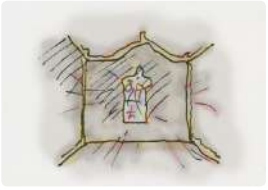
Cores are designed *– Here, a house-core in the garden that connects, and creates a reference point*

The East IV: Reference points are outside the unit itself



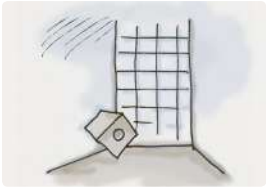
Cold, mechanical forms *– Machine is God, as are its characteristics; speed, toughness...*

The West V: Western aesthetics



Warm, organic forms **–** The aesthetics aim for harmony, softness, comfort...

The East V: Organic aesthetics



Forms the camera likes *– What looks good in pictures is the guide*

The West VI: Alienated; buildings seen from a distance

Form that the people there like *– Such an environment appears badly in a picture*

The East VI: Design sides with the people on the site

Form characteristics of the worldviews of West and East

In the beginning, the *North Coast of Reykjavik* had a very varied form. *The concave forms* gave inlets that provided calm that was suitable for landing and launching boats, and for outdoor life. This concave form is also a precondition for those biological activities of organisms that need a calm environment.

In my thesis I used the North Coast of Reykjavik as a case study and demonstrated that in areas where these curved form qualities have declined, for instance, because of landfill... that have made the coast into a straight line, the connecting of human and biological activities has thus also declined. A way to reclaim these connecting activities is to re-design the coastline with curved forms.

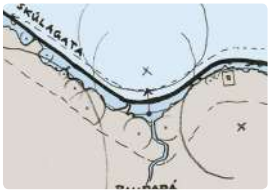
The third philosophical concept from the T´ai Ch´i *III Complementary features,* appears at the coast in such a way that form and activity characteristics, both on land and out on the water, correspond to each other. This was, and still is, the case in the Old Harbour; the warehousing on the shore had earlier both functional and form relationships with the piers and ships. An example where this is not the case is the *Harpa* Music- and Conference Hall that has no functional connection to the water except the visual one, but the shipyards and the whale watching tickets booths have it.

An example of bad functional development on the North Coast from 20th century, is that most of it has been claimed for industries and that Sund Harbour was built in the Sounds. There today, is actually a functional connection to the cargo ship traffic in Videy Sound. It, however, would have been better if the coastline in this beautiful place, had been kept for residential- and outdoor areas that could have played beautifully with the Sounds and the islands, for instance with maritime sport activities of the inhabitants that would have lived there.

The last concept from the T´ai Ch´i is *IV Cores of the opposite areas.* This appears, for example, as pools or ponds (cores of water) and as rocks and islands (cores of land) out in the sea. These cores strengthen the interplay of land and water, and in or at all these cores, biological and human activity can be established that strengthens the connection of land- and sea surfaces.

In these last sections a description of my PhD thesis has been given. This description is however, very selective because the essay is 222 pages long. Those who want to learn about the contents of the thesis can read a shorter edition that I published as the book *City and Nature... an Intergraded Whole* in 1999.

In my last years in Berkeley I wrote a 375 page book based on the thesis, a book that was not quite as theoretical, and placed the main emphasis on the phenomenon of *complementarity*. Two publishers showed some interest and I worked with an editor in Canada, but it was never published. I will tell more about this in next section.

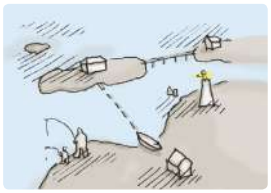


1. Coasts concave/convex


2. Uses connect to the shapes


3. Land-water fit each other


4. Avoid isolation: Harpa!


5. Water-land connect


6. Patterns recreated

TV in his PhD robe on the beautiful campus. The bench is from a tree trunk

Earlier: The richness of Reykjavik´s coasts, used to connect. It has now been submerged!

Today: Curved lines rarely have been maitained... but rather designed with straight, cutting lines

Dubovsky taught TV about symbolic content

Groth helped connect the thesis to historic patterns

In the year before I finished my PhD studies, in June 1986, I went back to Iceland to collect data on the development of the North-Coast for my thesis. Parallel to this I started, in various ways, to prepare for my homecoming after I had finished my studies in the spring of 1987. There were two things that I did for preparation. The first was to finish the *Planning History of Reykjavik* that was published by Fjölvi before Christmas in 1986. And secondly to compose a report on my *Iceland Plan,* a book I published myself in January 1987.

I therefore, was working on four books and managed to shape them in their final form in my last year at Berkeley: The Planning History of Reykjavik, the Iceland Plan, the Book on Complementarity and my dissertation... but for many it seems enough to try to finish the dissertation alone.

At a demanding university like Berkeley, there are many who fall flat in the final phase, even after ten years of study. For a while I considered if I should make the doctoral thesis a foundation for a scientific career at a foreign university. But I had become tired of staying so long away from Iceland and my family, so I could not bear the thought of continuing to live abroad.

At the end of graduate school it is usual, to ask professors for a letter of recommendation. *Dubovsky,* a professor on form theories, says in his letter: "I, likewise, am impressed by his particular ability to clarify his ideas in visual terms." Laurie and Groth, who were on my PhD committee, wrote about the value of the thesis. *Groth:* "Trausti is clearly on a leading edge of design theory, and one which may have very wide and human application." And *Laurie* says: "I believe his concern for a new holistic approach in planning and design is valid and of the highest important for these fields."

The First Twelve Years after Returning to Iceland
Testing Various Subjects

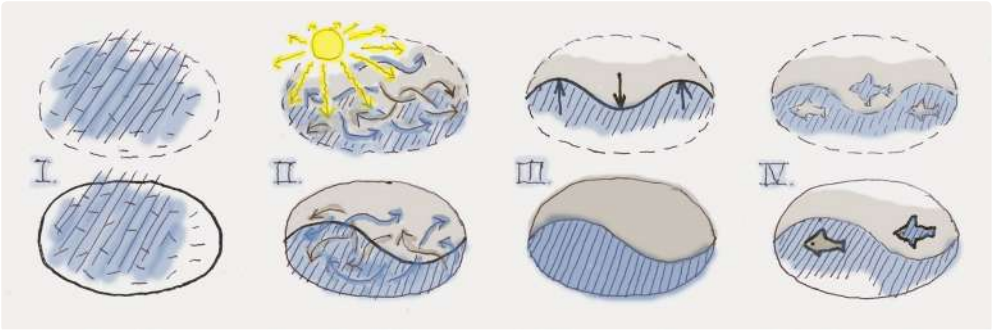
Self-portrait in a post-doc depression

After long years of graduate study, people most often are uncertain what their future will be. I had enjoyed working in design theory at Berkeley, but in Iceland there was no established university department where I could continue my work on theory. I was quite determined not to be forced out of my theory track and let my time and life, after all this work, peter out into mundane work and uninteresting projects. The prospects were that bad that I was caught in what is call post-doc-depression.

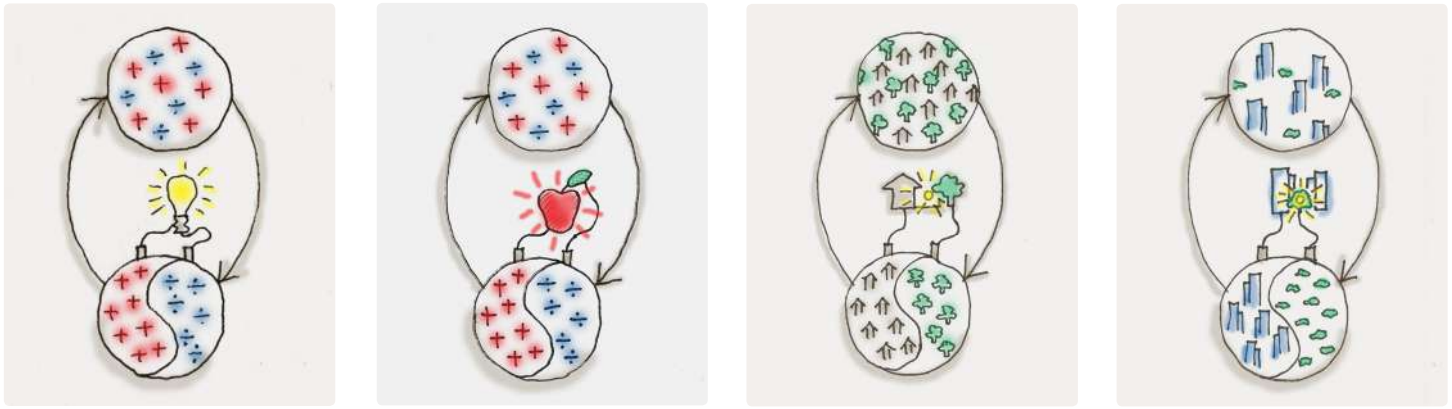
In Berkeley I had written a manuscript that was based on my theories: *Complementarity – The Forgotten Order.* This manuscript I sent to publishers. Thames and Hudson in London, sent the manuscript to one of the most highly respected theoreticians in Britain, *Sir Geoffrey Jellicoe.* In his letter to the publisher he says, among other things: "the author has chosen a subject that is of great importance". Later in his letter he says: "the eye always wanders to the diagrams to access if one is to spend many hours on serious study of ideas of a possible brilliant but unknown author."

As can be seen from this, Jellicoe did not dig deep into the manuscript, but put an emphasis on getting a good editor before proceeding. This also was the conclusion of the Princeton University Press in the USA. This publisher directed me to an editor in Montreal in Canada who had worked extensively with them. I was able to get grants to pay for the editing and I went three times to Montreal to work with the editor. We did not connect well and there was no publishing of the book. This was a tremendous disappointment.

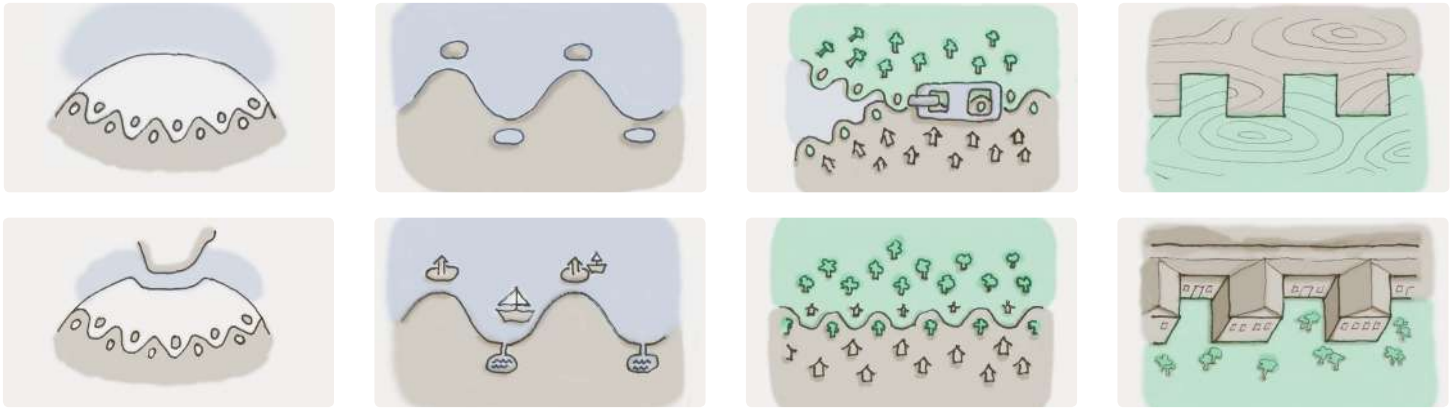
I am now going to explain the contents of this book that I had hoped would make me a well-known author in the international world of design theory. The basic idea is an elaboration of the *principle complementarity*. This principle is known, for instance, from the theory of colour. There, complementary colour pairs are known, and their effect



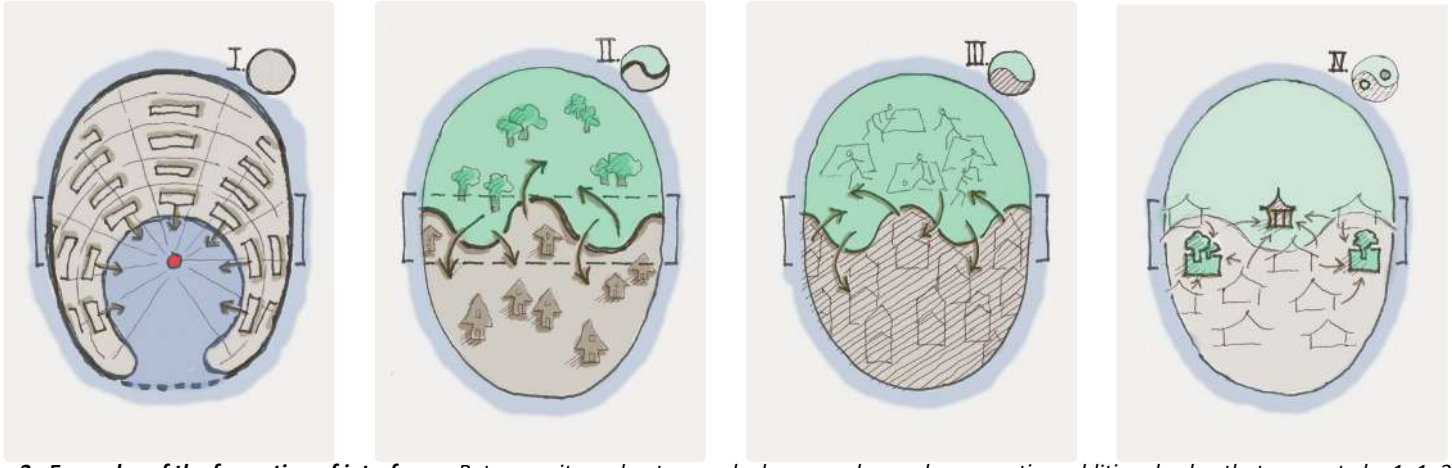
The Tao Story of Creation *(Four steps)*
(Similar in the Bible and Norse mythology)
I. Void *(blank and empty)*
II. Inflow of light and energy, so all wholes get polarized: *E.g. the dimensions of high/low, wide/narrow... Matter gets separated into land/water, land/sky. Texture comes to be: rough/fine, dead/alive, + ions/- ions... Activities also get polarized, as into house/garden and city/open area...*
III. The energy between the two poles *is a resource to work with, for example in design*
IV. Life comes to be*... on land, in air, in water... and carries within itself a core of the opposite element*



1. The worldview of complementarity: *appears both in eastern thinking and in new science*



2. Examples of how it appears in patterns *and examples on their application and utilization (such as to create an interface that connects areas)*



3. Examples of the formation of interfaces: *Between city and nature and a house and a garden – creating additional value that comes to be 1+1=3) – an interface connects*

strengthens both colours, resulting in 1+1=3. Examples of *complementary pairs in design* include city and nature and house and garden. By letting them play together according to certain rules, the two halves are mutually strengthened.

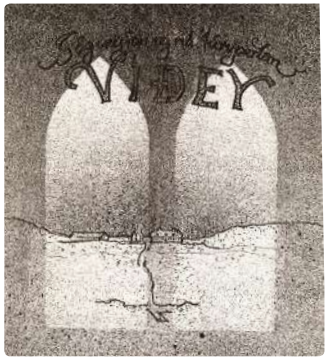
In spite of the disappointment with the manuscript, the theoretical work was not for nothing because I succeeded in suggesting operations in Reykjavik that increase complementarity in the planning of the city. One such was strengthening Austurvöllur Square by taking all traffic from two roads on the edge of the square, and to let the surrounding buildings open more into the square, thus helping them interrelate more with the open area. I also think that my writings on the loss of older connections of the Downtown Area to the Harbour have helped open up the plan in such a way that the Downtown area and the Harbour started to work more together again.

Twelve years after I came back from Berkeley I had digested my theories long enough to be able to write an accessible book in Icelandic about them (1999), and one year later my translation of that book was published with the title: *City and Nature – an Integrated Whole* (2000). Both of them got good reviews in distinctive journals.

In the autumn of ´87 the Association of Icelandic Physicians announced a competition for an essay on: *Human Life in Urban Areas.* This was in memory of *Gudmundur Hannesson*, a physician and a pioneer in planning. Announcing a competition in planning, demonstrated that the physicians understand how much impact planning can have on public health. I was awarded the first prize.

In the winter Reykjavik announced a competition on the *Future of Videy Island.* Valdimar Kristinsson, Kjartan Mogensen and I, proposed making a visualized history on the island. This started with an older proposal of mine to rebuild Old Reykjavik on the causeway out to the western island. The old baroque church and the Mansion in Videy, we made a showcase of life in the cloister that was there in the Middle Ages. And we suggested that the remains of the fishing village Sundbakki, on the eastern tip of Videy be the founda-

The winners: TV, Bergljot and Sigrun (Margret is not on the photo)



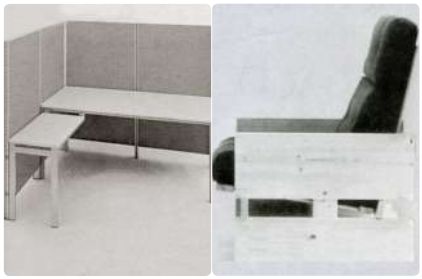
Future of Videy. Our proposal concentrated on historical themes

The Golden Gate Bridge across the opening of San Francisco Bay, is famous for its beauty

The bridge has a symbolic value for connecting the coastline and creating a circular route in the Bay

Here the theory of complementary pairs is used to explain the magic of this bridge. (Explained with graphics in the pictures)

1. Standing and hanging forms *played together in a beautiful way*
2. The vertical towers *create aesthetical tension with the horizontal plane of the ocean*
3. Green land and red bridge *are mutually enhancing complementary colours*
4. The towers are like gateposts *of this golden gate, into golden California*
5. The curve of the bridge floor *creates aesthetical tension with the strict geometrical form of the towers*



The magazine "Hönnun" claimed that Nordic influences are negative and un-desirable (drab, mechanistic...)

Laxness built a home where he grew up. His daughters' houses are also there (in the distance)

Protection *by Einar Jonsson as the Fossvogur Chapel altarpiece*

tion for a show about the first steps of Iceland toward industrial fisheries around 1900. From there we proposed to build a tunnel of glass and place it on the seabed, connecting Sundbakki to Gufunes, where a museum of technology would be established in the old buildings of the fertilizer plant. We got the first bought entry.

In the fall of 1987 my uncle *Kjartan Jonsson* asked me to take part in establishing the magazine *Hönnun* (Design). The first – and unfortunately the only issue – we mostly committed to the decline of design, largely because of the influence of modernism. I published an article about this called *Colours, Ornament and Joy of Life,* in which I said modernism had taken out of their concepts. After the magazine went into bankruptcy, we both joined the editorial board of the new splendid journal of *Gestur Olafsson: Architecture and Planning.* It is almost a miracle that Gestur and his wife *Gudbjörg* could keep this journal alive for almost 15 years.

Kjartan and I wrote a great deal for this journal and we were in charge of special issues. Here one can mention the theme issue: *Icelandic Classic,* where we described what fine periods there often had been of architecture in Reykjavik. We focused on the splendid *Concrete Classic* of the period 1916-´30, but then the dead hand of modernism took over.

Another opportunity to demonstrate how important it would be to re-establish the classical values, we grasped by entering the competition for the restoration of the *Fossvogur Chapel.* The Chapel is classical basilica, designed by Sigurdur Gudmundsson, who had strong roots in Classicism, but strayed away because of the modernism.

We made it our proposal that the Chapel would be brought closer to the classical style, for instance, with geometrical floor tiling and by closing the open aisles. We created closed aisles, as in most basilicas. The jury chose a rather dull modernistic proposal for first place, but we did get the third prize. I grieve that this opportunity was not used to bring the Chapel into a classical form.

Another special issue was *Habitat Culture.* There three of us wrote about an important contribution of *Halldor Laxness* and *his wife Audur* to Icelandic habitat culture. I wrote the essay *In the Fields Back Home*, where Halldor revives the old form of living, by building a house in the fields of his youth, the farm Laxness. Later Halldor and Audur introduced yet another form of living, by building a second home in the City on Falkagata, which led to the beginning of *double residency* in Iceland.

Petur H. Armannsson wrote an article about the characteristics of the architecture of Gljufrasteinn, the Laxness residence in the country, and Falkagata. Kjartan wrote about the interiors. Three of us worked on this for quite a long time and had many meetings with Audur but Halldor was in ill health. We made drawings and took photographs that were published in the journal.

A Design Library -– Settlement Policy and Highland Roads

As I said before, I had hoped that, instead of my failed attempt at publishing my complementary theory as a book, I could again start my work on the *Iceland Plan* in Iceland. In preparation for this endevour I published a book in January 1987: *Ideas on the First Iceland Plan.*

My moving back to Iceland was quite an undertaking and consisted mostly of half a ton of paper. These were my study documents and a large library about design that I had created over many years. This was before the internet, so it was necessary to own for oneself, most of the basic journal articles and books in order to be able to work on theory.

Most of the summer 1987 went into building bookcases to accommodate my library, which took up about 20 metres of shelf space. One element of my library was albums of newspaper clippings.

These albums came about because I made it a habit to add clippings as I removed them from newspapers. In this way I could find what had been said in papers on most design and planning matters. In order to make what I had written in newspapers more accessible, I published three collections of my articles in 1978, 1982 and 1991.

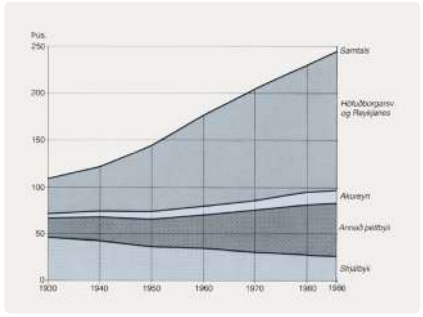
Now all this work is not as necessary because one can find almost any Icelandic article on www.timarit.is. And on the internet a great number of foreign articles are available. I think, however, that still, for a long time, it is a great advantage to own a good professional library oneself.

It makes my library very accessible, is that I constantly mark the most important spots in books and make a note of them in the back of the book. Also the most important pictures I mark in this way. This I call scanning books. This means that I can find the most important items right away. My data collection meant that I could teach and write forcefully, and because of this clear organisation, my output has been great, or about 150 articles and 14 books, in additions to many reports.

In the autumn of 1979 I was ready to start a programme to present my ideas on an *Iceland Plan*. At this point in time there had occurred a serious situation concerning settlement of the countryside, because the rural population had declined drastically. A collapse was imminent in many places.

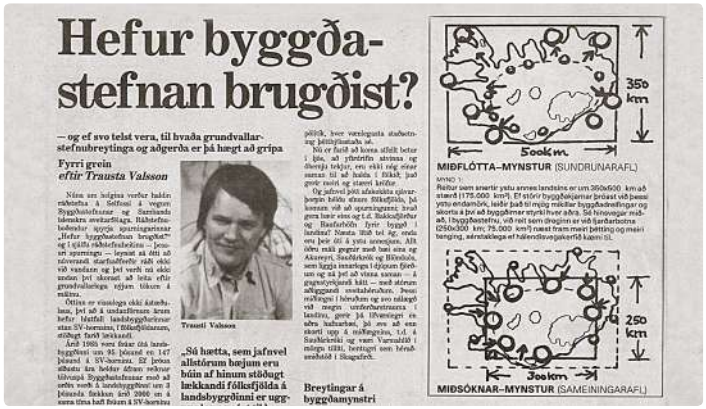
The measures that were mainly applied in such serious situations were to let the Industry Fund and the Settlement Institute and others, pump money into such new companies as hay pellet factories, a salt factory, and fox and mink farms, as well as salmon and trout farms. Most of these companies, however, did badly and collapsed.

I use boxes to classify reports according to themes; about sixty of them



The bottom section shows the countryside in decline: The regional policy failed

Reporter Omar interviewed me in the middle of the highlands in November by a snowless road built by a power company



Hefur byggða-stefnan brugðist?

— og ef svo telst vera, til hvaða grundvallar-stefnubreytinga og aðgerða er þá hægt að grípa

Fyrri grein
eftir Trausta Valsson

Trausti Valsson

„Sú hætta, sem jafnvel allstórum hæjum eru búin af hinum stöðugt lækkandi fólksfjölda á landsbyggðinni er ugg-

Breytingar á byggðamynstri

MIÐFLÓTTA–MYNSTUR (SUNDURNARAFL)

MIÐSÓKNAR–MYNSTUR (SAMEININGARAFL)

Spread out settlements: *Densify the core of the country*

Frumhugmyndir um nýja byggðastefnu

Um það hvernig gerð landsskipulags, sem stefnir að aukinni miðlægni og tengingu byggða, getur stórbætt aðstæður og hagkvæmni á vænlegustu þróunarsvæðum landsins

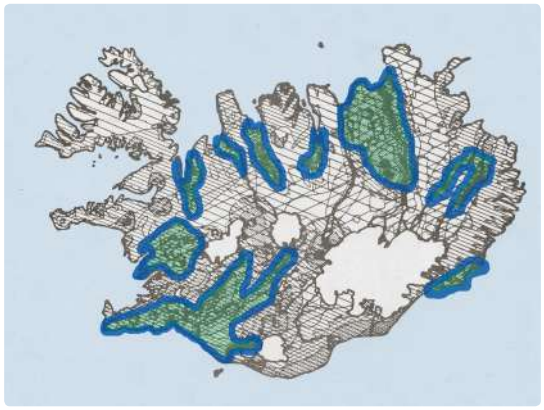
Seinni grein
eftir Trausta Valsson

Trausti Valsson

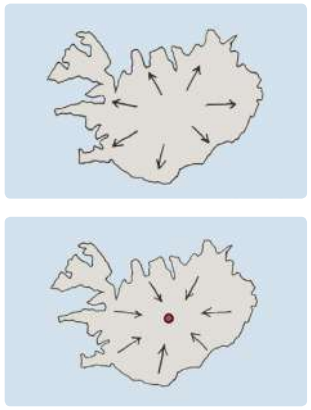
En hver er kostnaður-inn við að leggja hálendisvegakerfið?

Ónumr atriði en vegalengdastytting sem ávinnast með hálendisvegunum

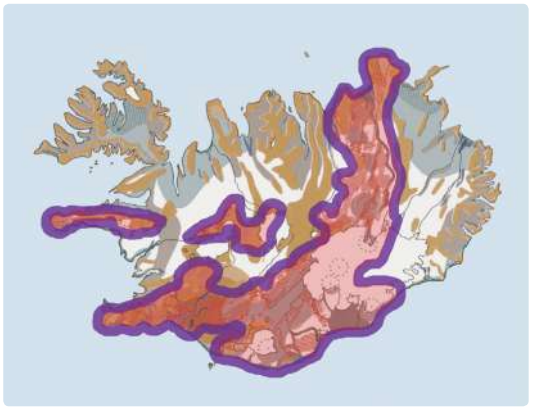
Settlement Plan: *To utilize resource areas and avoid hazardous areas*



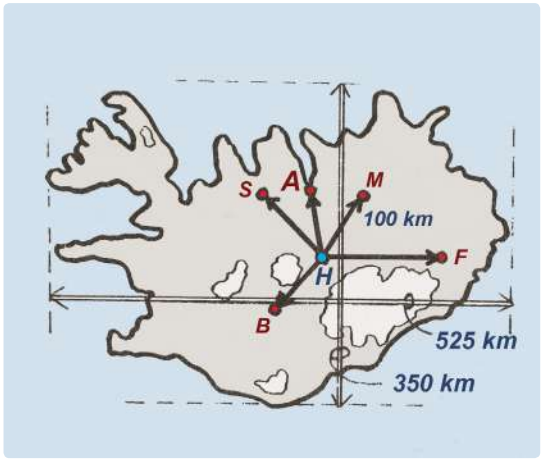
Adding the positive features: *Best areas in green*



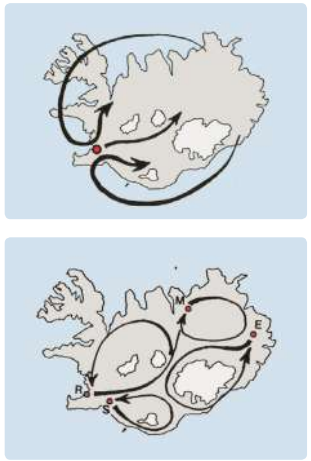
Not Centrifugal – but Centripedal!



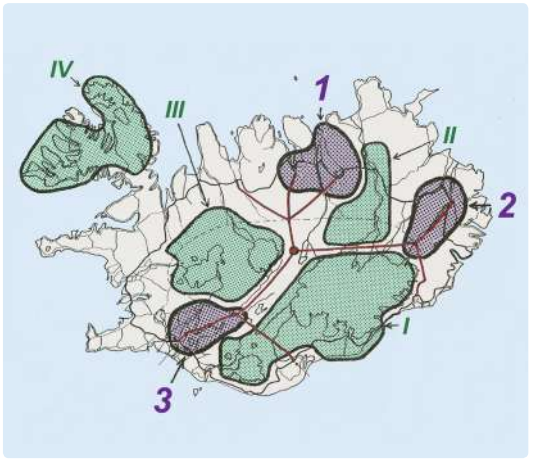
Adding the most hazardous areas: *Shown in pink*



Haborg: A central Centre... connects settlements best



Flow in to land – Circle routes



Plan: Development areas 1,2,3, people parks I, II, III, IV

The Iceland Plan developed into a New Settlement Plan

In this situation I saw it as an opportunity to present my idea on an *Iceland Plan* as a new settlement policy. On this I wrote two long articles in Morgunbladid in the autumn. To the first the question, *Has the Settlement Policy Failed?,* my answer was yes, and I pointed to the constant reduction of population in the countryside and the failed settlement measures.

The second article I published the following day and called it: *First Ideas on a New Settlement Policy.* It dealt with how it was possible to reduce the faults in the disadvantaged situation with road improvements and road shortcuts... primarily by constructing roads shortest distance between settlements of the country, which is over the highlands, instead of having to drive the long and crooked roads along the coast.

I also pointed out that we in Iceland, have a dated settlement structure that was formed in the period of small boats and horse-drawn carriages. I also suggested that we needed to stop distributing settlements grants like sweets from an airplane over the whole country, to hopeful, as well as hopeless, areas. Instead we should reduce the number of villages and state owned harbours and make decisions on privileged, large development areas for the future.

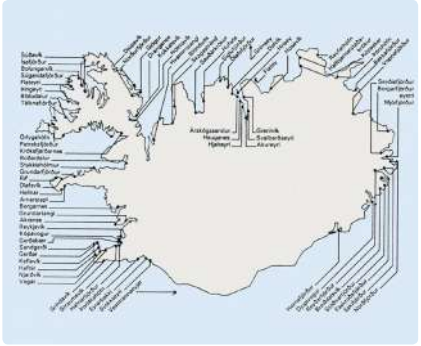
With that article I published my *Iceland Plan Map* (left at the bottom) that has three *Development Areas,* where were best conditions for settlement are found. The map also shows my proposal for *a highland road system* that would connect all parts of the country directly, which would mean considerable shortening of driving distances to be covered.

This highland roads aspect aroused the most interest and was widely discussed. *Omar Ragnarsson,* a reporter, flew with me up to Sprengisandur in November, where he had an interview with me at a road that the National Power Company (NPC) had built because of the Kvislaveitur reservoirs. This road is somewhat elevated, and therefore all the snow gets blown from the top of it.

In the New Year *Johannes Geir Sigurgeirsson,* a deputy member of parliament, asked me to help him to compose a bill on highland roads and the possible impact of them on the development of settlements. There followed an intensive discussion in the media.

In March the Progress Association of Fljotsdalsherad held a conference on *The Building of Roads across the Icelandic Highlands.* I helped organize the conference and gave the first talk. In April The Association of Engineers contacted me to help in planning a one day conference on *The Highland Roads of the Future and Their Impact.* Also here I gave the first talk, and along with ten other speakers, I sat a panel at the end.

In order to publicise this conference and to put the subject into a larger context, I had published the day before, a long article in Morgunbladid called *An Iceland Plan: A Policy*



Too many harbours – a Country Plan has to reduce the number of them

I said: Grimsey has to be abandoned. Channel 2 taped the meeting and broadcast it

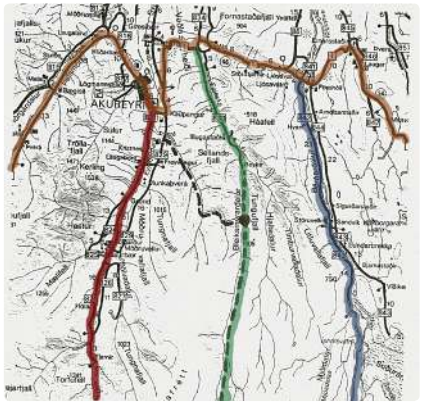
Mbl. 9/11 '92

Klofnar þjóðin?

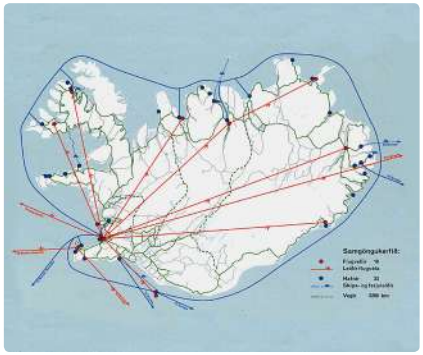
Hatrömm umræða hefur spunnist í útvarpi og sjónvarpi vegna ummæla Trausta Valssonar landfræðings um hagkvæmni byggðar. Sigurður G. Tómasson lenti í nokkrum vanda vegna þessarar umræðu. Kona ein hringdi í gær í Þjóðarsálina frá Bolungarvík og taldi Rásarmenn gera lítið úr vanda landsbyggðarmanna. Sigurður gerðist nokkuð þykkjuþungur og mótmælti þessum málflutn-

"Will the Nation Split?" After the meeting a violent discussion erupted in Iceland

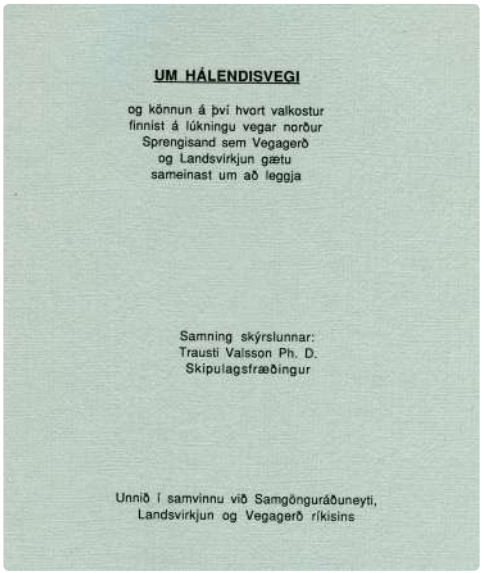
A group that studied highland routes in 1988: Helgi, Thordur, Gudm, Hreinn, TV



Routes: Eyjafjördur (red), Bleiksmyrar Valley (green) and Bardar Valley (blue)



Integrated Transport Plan 2001: Four highland roads become primary roads!



UM HÁLENDISVEGI

og könnun á því hvort valkostur finnist á lúkningu vegar norður Sprengisand sem Vegagerð og Landsvirkjun gætu sameinast um að leggja

Samning skýrslunnar:
Trausti Valsson Ph. D.
Skipulagsfræðingur

Unnið í samvinnu við Samgönguráðuneyti, Landsvirkjun og Vegagerð ríkisins

Report 1988: Three options in connecting the Northland to theSprengisandur Road

Íslandsskipulag

Framtíðaráætlun og sáttmáli ríkis og heimamanna um hvaða byggðasvæði verði varin falli

eftir Trausta Valsson

The article "Iceland Plan: A Plan and a Covenant between State and Local Governments..." (1991)

on the Future and a Covenant between the State and the Countryside on what Settlement Areas Should be Prevented from Collapsing.

After this intensive presentation of the highland road possibilities, I contacted *Hreinn Loftsson,* Assistant to *Matthias Mathiesen,* the Minister of Transportation, and proposed that the Ministry should ask representatives of the Road Directory and the NPC – which had built most of the roads in the highlands – to conduct a study on how the road connection over Sprengisandur to the north, could be completed.

Matthias put a few of us into a work group: three from the Road Directory, one from the NPC and me. In the summer we went on to a three day jeep trip. We explored three routes down to the northland; down to Eyjafjördur Valley, down through Bleiksmyrardalur Valley that is east of Eyjafjördur Valley, and finally down Bardardalur that is still further east. The committee delivered an 80 page report, where I did the writing, but the Ministry was the publisher.

Many other things have happened in the highland road discussion in the last few decades, but the biggest step was when four highland roads were designated primary roads in 2001, in the first unified transportation plan. These highland roads are: *Kaldidalur Road* (from Thingvellir to Langjökull and from there to Borgarfjördur), *Kjalvegur Road, Sprengisandur Road* and the *Northern Fjallabaksleid Road.*

Associate Professor – and the Writing of Three Books

My initiative in writing the Planning History of Reykjavik, and a book about the Iceland Plan and my participation in competitions and public debate, made me known for having fresh ideas and being industrious. This led to an offer by Ragnar Ingmarsson, the Chair of Civil Engineering at the University of Iceland, of a 37% Associate Professor Position at the Department. Other planners had held this position earlier, together with other jobs, but if a teaching position is only part-time, the discipline has a hard time to develop. Ragnar told me that they would try to increase the employment ratio and that I would get an office.

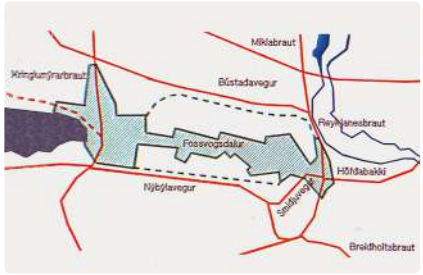
I started my work in August 1988 by teaching *Country and Town Planning*, which was an obligatory course. With this my economic future prospects advanced, and also my opportunity to work as a theoretician. The fact that I was not too involved in other projects and that I was always in the office, meant that I could easily enter into other projects at the University. The biggest step in this direction was that the State Planning Agency was considering hiring foreign experts for advice on a heated dispute among Reykjavik and Kopavogur *on the Fossvogsbraut Road*.

I went to see Ragnar Sigbjörnsson, the Chairman of the Board of the Engineering Institute, and presented him with the idea that the University should establish a cross-disciplinary group that would offer to assess issue for the Planning Agency. And this materialized in this way, and this became an eight month project. I therefore had already by then arrived on full salary at the University.

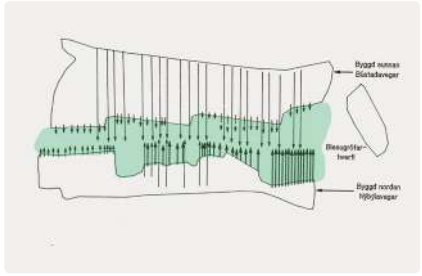
The project was organised as a comparison of alternatives: the Capital Area with, and then without the Fossvogsbraut Road. The impact of these two alternatives was described in the report, in terms of planning, traffic flows and the impact on ecosystems. In order to be able to assess the magnitude and distribution of air pollution, we created a pollution dispersion model. There were six of us experts that worked on the report. It can be called the *first report on Strategic Environmental Assessment (SEA)* in Iceland.

A few years later Iceland, as it entered the EEA in 1994, adopted a directive from the EU that demands that environmental impacts should be assessed for all large projects. The directive on Strategic Environmental Assessment that deals with planning proposals did not come into effect until 2006, and this is what we were actually doing in our assessment of the impacts of the Fossvogsbraut Road on the Capital Area. Of course, I had the students work on projects related to this in my course on planning.

Planning is everywhere a basic subject in civil engineering, because most large engineering projects need to be fitted within a framework of planning, both in urban and rural



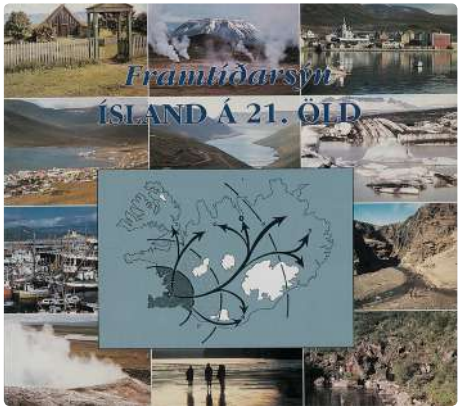
Fossvogur and traffic. First Strategic Environmental Assessment (SEA)

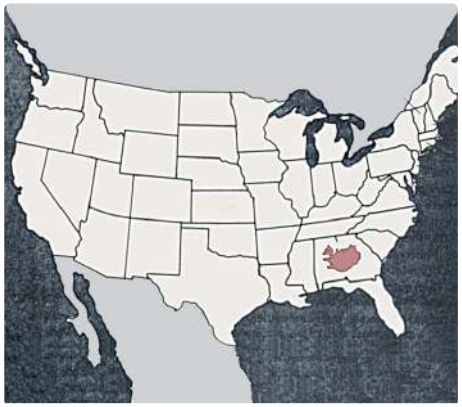


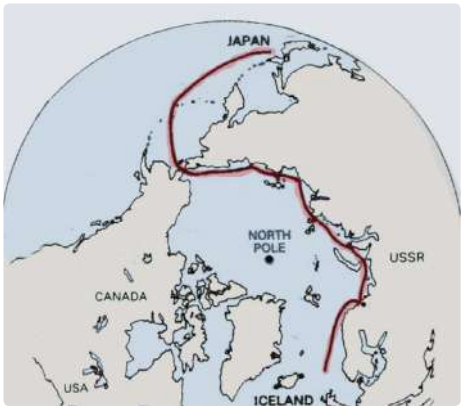
View lines of flats where a worse view would result from a highway in Fossvogur Valley

Ragnar and I had cooperated well on the Fossvogur project

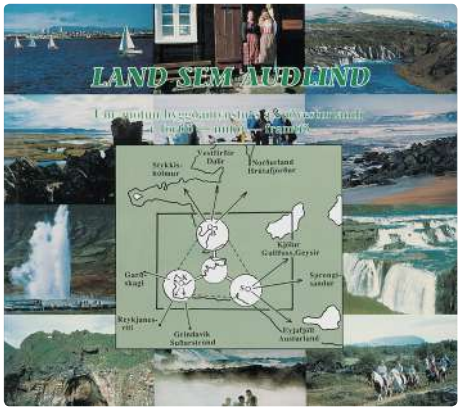
Sigga Fridriks and I had a fine relationship, and have stayed friends ever since

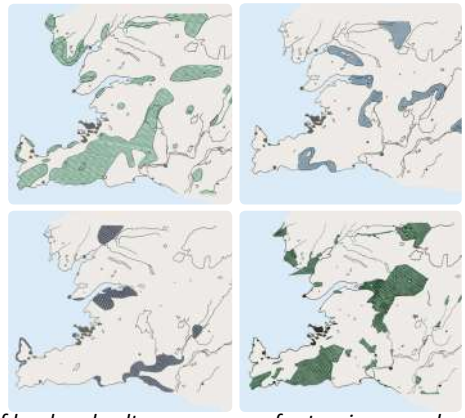




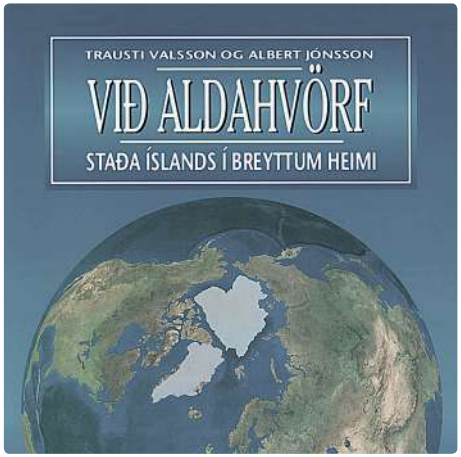


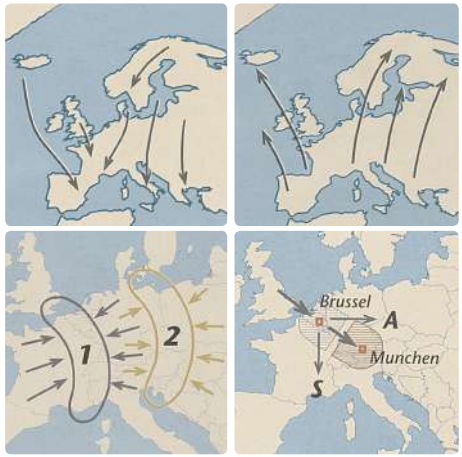
First book 1991: *Analysis of new trends, and a proposal for a country plan – (Iceland is small) (Possible Arctic shipping)*

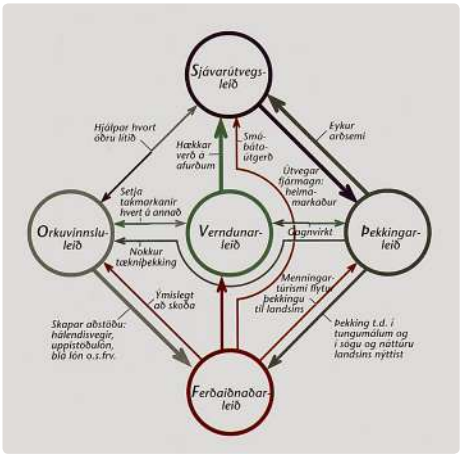




Second book 1993: *Definition and a mapping of land and culture resources for tourism – and a proposal for a plan for SW Iceland*







Third book 1995: *Defining what awaits Iceland because of international developments... how to plan and prepare the country for the future*

TV´s first three books after returning from studies in the USA

areas. By getting the position at the *Civil Engineering Department* I was in fact, more fortunate than I realized in the beginning, because my education on all the newest in environmental matters in California, proved to be a good foundation in helping develop the department towards more environmentally friendly ways.

Furthermore, it became evident, that my analyses of natural features in Iceland, was a very positive addition because engineering was somewhat lacking in such analyses. Analyses of land- and environmental features are a precondition for being able to adjust building projects to local conditions and to minimize their environmental impact.

The fact I had written the *Planning History of Reykjavik,* was also a good foundation for the teaching of the planning course. Engineers, and students of engineering, are very practical people that want to see practical examples on how planning ideas and theories look in reality. My book on the planning history of Reykjavik has many such examples.

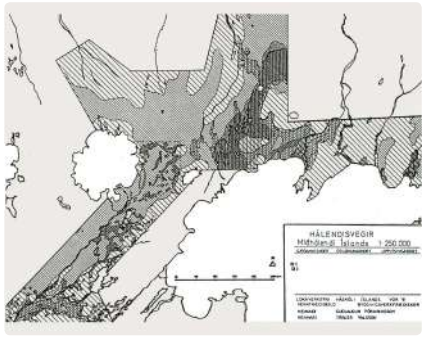
Another big aspect of the course – that I was given the freedom to reshape – were issues about the future, connected to Iceland as a whole... and young people are always excited about the future. The highland roads of my Iceland Plan are the aspect that has most direct connection to civil engineering. The student projects on these roads therefore became popular. The aspects we studied included the choosing the routes and various technical aspects, as well as assessments of the impact of the routes on the local economy, environment and development of settlements along the roads.

A student of mine, *Gudlaugur Thorarinsson,* conducted, for example, a mapping evaluation of the best location for the Sprengisandur- and Vatnajökull Roads. This was a CS project after four years of study, as required then in engineering. Later the engineering course was divided into a three year BS part and a two year MS part. I also assisted students in other departments with projects on the highland roads.

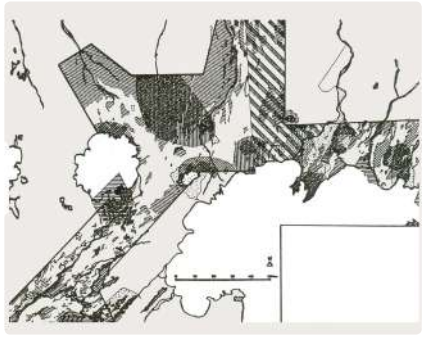
That I could direct the student work into the various aspects of my interests, made it easier for me to write articles and books on them. The first book I published after I came to the University is called *A Vision for Iceland in the 21th Century* (1991). In the autumn of 1990 I made *A Vision for Iceland* the central theme of my course and the student projects were related to it. I chose this theme because I had decided to write a book on this during the Christmas break. I started on Dec. 20th and wrote one chapter each day.

My method of structuring the book was to fasten the lay-out sheets for the spreads onto a wall. I then started to tape the pictures I might use, onto these sheets. After that I moved the pictures and maps around in accordance with my changing views on how I wanted to tell the story. After I was satisfied with the structure, I chose the figures and wrote the figure texts. Then I fitted the main text into the space that was left, always in an interplay with the visual material.

Map analysis of sites for highland roads. Dark: Best location because of little snow



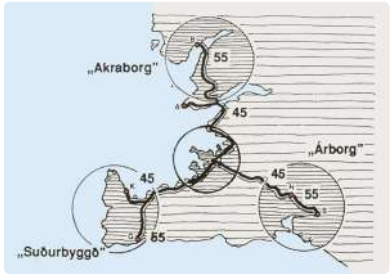
Adding of the positive features. Dark: Best areas for road building



Adding of the negative features. Dark: Worst areas for road building

PM Oddsson opened the Thingvellir meeting of 1993 in Valhalla

My talk was about my book Land as Resource *that was published that day*



A triangular structure for the South-West. Roads to connect at edges were missing

The South Coast Road (red) that I proposed; the only road that has been built

An incentive to finish the book fast, was that people in the Myvatn area had asked me to take part in a conference on highland roads on January 20th. The printers succeeded in finishing the book in time and I took the first copies with me to the conference. The media showed the conference great interest, and also the book.

The next book, *Land as Resource* (1993), I composed in a similar manner, but now the subject was to form a model on how modern regional plans for parts of the country, could be made – in this case SW-Iceland. The outcome was meant to be a *Frame Plan* for this part of the country. Jonas Egilsson, who was then the Director of the Union of Governments in the Capital Area, and I, conceived this project together. We contacted the other government unions in SW-Iceland, i.e. the Westland, Southland and Reykjanes Peninsula areas, and they all agreed to take part, and put their directors into a working group with us.

It soon became apparent that it was a good idea to look at SW-Iceland as one whole, and our cooperation in this spirit became very successful. We contacted PM *David Oddsson,* who was then also the *Minister of Settlement Matters.* We decided to announce a large conference at Thingvellir as the book was published, and Oddsson and I gave the first two talks.

Because of a new revolution in the position of nations as concerns environmental matters, and also because of the communication- and internet revolution, new opportunities were opening up for small and isolated nations. I then realised that it would no longer be enough to study only Iceland itself when creating a future vision for the country. In 1993 I therefore contacted *Albert Jonsson,* who was Special Advisor to PM Oddsson on international matters, about the idea of writing a book on this. He liked the idea and we wrote a description of the book and after that we got a grant from the government to write it.

In the autumn of 1993, I went on two trips to collect material: to the UN in New York and then to Brussels at Christmas. At that time the EEA agreement was in preparation. Thorsteinn Gunnarsson, at the Icelandic Embassy in Brussels, was given the task of getting invitations for me to visit various important EU institutions. I was well received everywhere and after each day I came back with a lot of material. Finally this material had become a full 60 kilos, a heavy load, that I took back home with me.

At the beginning of 1994 Albert and I started to plough through this material. We worked on the book the whole year, and it was published in January 1995 and is called *At the Turn of the Century – Iceland's Position in a Changing World.* The book was very well received, but it was not much reported on in the media. I think that our closeness to political power could have been the reason for this.

A Fight for Ideas, and Their Distribution

All those who want to work on important issues in society need – as a first step – to educate themselves and then distribute knowledge and proposals e.g. with their thesis and articles. If the subject touches on politics and public interest – as do planning matters – the young planner has the duty to distribute his findings and proposals, such that everybody can get to know them. Therefore I started early to write articles in newspapers.

The findings of my work at Berkeley became so large in scope that they could not be communicated with newspaper articles alone, but I rather had to aim for publication of books. To publish a book, with a lot of graphic material, is not simple, especially because if the book is theoretical, it is not likely to get high sales figures.

As I started to look for a publisher for my *Reykjavik Planning History,* it was great luck to get into cooperation with *Thorsteinn Thorarensen of Fjölvi*. Thorsteinn worked a great deal himself on the books he published and had all the main tools for publishing in the cellar of his home. It would have been very expensive to have professional graphic artists make the graphic material for my Reykjavik book. I therefore did all the graphic work myself, and also all the maps… based on original documents. I also took most of the photos. In addition, I could make good use of illustrations from planning reports, and the use of them was free.

Framtíðarsýn Íslands:

Hvernig verða atvinnu- og byggðamál í framtíðinni

Framtíðarsýn Íslands heitir ný bók sem kom út í síðustu viku. Fjallar bókin um skipulagsmál Íslands. Höfundurinn Trausti Valsson hefur unnið árum saman að móton hugmyndanna sem miða að því að gera sér grein fyrir hvernig framtíðarþróun verður hér á landi í atvinnumálum og byggðamálum og búa í haginn fyrir eðlilega þróun.

Í bókinni sýnir höfundurinn fram á að Íslendingar verði að fylgjast með tímanum. Mestu verðmæti landsins eru annars vegar fólgin í þeirri miklu orku sem felst í náttúru en hins vegar í hreinleik og fegurð landsins sem verður nú æ dýrmætara eftir því sem veröldin mengast. Hér er sá gríðastaður sem fólk úr fjölmennu ríkjum sækist eftir í æ ríkara mæli og er réttlætið að gjalda mikið fyrir að mega anda að sér hreinu lofti, drekka hreint vatn og njóta náttúrufegurðar.

Ein kenning Trausta er að hvað sem gert er sé nauðsynlegt að skipuleggja allt vandlega fyrir framtíðina, en jafnframt á þó að forðast alla miðstýringu. Það er Fjölvaútgáfan sem gefur út Framtíðarsýn Íslands. -HK

Höfundur Framtíðarsýnar Íslands, Trausti Valsson, ásamt Þorsteini Thorarensen útgefanda.

Publisher Thorsteinn of Fjölvi and I presenting the book A Vision for Iceland

Maps of colour I had to change to gray because colour printing was expensive

When it came to old photographs I got them at the Arbaer Municipal Museum; at this time they had not started to charge for their use. As for newer photos, I made agreements with a few photographers about using their photographs in exchange for copies of the book. The lay-out I made myself. Here my experience with publishing in secondary school was of great help.

Thorsteinn of Fjölvi and I agreed that I would be paid royalty from the sales of the book. In the beginning I got 30,000 crowns, but after that I got my royalty in the form of books to make the publishing of this expensive book less burdensome. I also often had dinner, on the upper floor, with Thorsteinn´s wife *Sigurlaug from Vigur.* Both they and their children became my good friends.

This type of arrangement is something that the authors of an expensive theoretical books in little Iceland have to accept. I know about many theoretical books that were almost finished, but the authors could not find ways to draw the figures and the lay-out cheaply, so the publishers they were approaching were not able to publish because of high costs.

The good cooperation and friendship with Thorsteinn – and his interest in my ideas – led to his publishing four more of my books. Later the *Icelandic University Press* published

In 1992 Channel 1 made the film The Future has to be Created*, on TV´s work*

A part of the film was filmed in a class of TV in the Engineering Building

TV at the board where he explains the importance of Iceland´s central point

The making of the evaluation maps for preparing of the SW-Iceland Plan

my next five books. There I had very good cooperation with *Jörundur Gudmundsson,* the Director, but the problem was that the press (i.e. the University) only lends the authors the production costs, and if the sales are poor, the outstanding cost falls on the author.

Because of this, like many other university professors, I was burdened with great expenses. For me it was, however, the main thing to get my books published, but royalties beyond the 30,000 crowns for the first book I have never received, for any of my books, but always had to bear considerable expenses connected with them.

From this it is obvious that it is no easy matter to be working on theory, and – practically speaking – it is almost impossible, unless you get a salary from a university, because then at least you receive a pay cheque, and the writing happens mostly while on holiday.

What I most worked on after I came back from Berkeley was to inch my Iceland Plan forward. In this process the student projects were always of much help. After I presented the Iceland Plan as a new approach to settlement policy, I succeeded to further it somewhat by the authorities. The interest of both students and engineers at the Public Roads Administration, and at the NPC, in highland roads made it possible to keep the research work alive.

After I had started to work at the University, I got the idea of presenting *Rector Sigmundur Gudbjarnason* with the proposal that the University become a partner in my projects, because all of it was only meant to further national interest. Sigmundur said that there would be great difficulties in starting a project like this, and said that obviously such work is based on the drive of an individual, and that I needed to continue to "run with the ball" myself.

With similar proposals I went to *Stefan Thors, the State Planning Director,* in the beginning of 1990, after I had worked on the Iceland Plan without any pay for 16 years. I asked him for funds to create an idea on the first Regional Plan of the Central Highlands. In a memo after our meeting, I wrote: "Stefan said that he thought that the University should not be like a practicing firm (that charges 3000 crowns per hour for its service to society), but rather that it should build up knowledge about these subjects among the students, and to perform academic research that institutions and consultants could use for new or complicated projects."

Stefan was right that the most common method is that municipalities do the planning, but at this time the highlands did not belong to any municipality and therefore I considered it right to try to start to form ideas on its planning. My approach, after having being rejected twice about help, was – as so many times before – to do this plan myself... without the assistance of any institutions. Therefore, in the autumn of 1991, I decided to let my planning course mainly deal with creating a proposal for a *Regional Plan for the*

A centrefold interview with me, as my book A Vision for Iceland*, was published in 1991*

The last part of the Highland film, I made with Channel 1, showed placing of a mark for Haborg

Four types of explorers investigated The Unknown Territory in our 1994 film

In ancient times the explorer was the Viking, who found highland routes

In the 19th century foreign romantics went to the highlands to paint

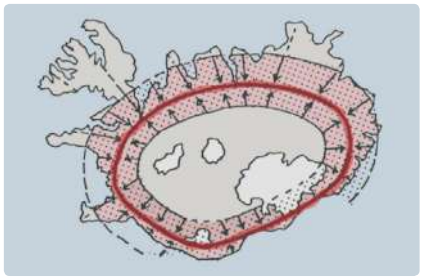
In the 20th century scientists and engineers brought us the highlands again

Central Highlands. I myself worked with the students on this, and also we wrote a report that we distributed widely.

I think the real reason why Stefan did not want to help, was that he thought that this project would be too engineering oriented. He, on the other hand, went to the opposite approach, as he went very far in supporting the viewpoints of preservation. This appeared very clearly in the making of the first official *Regional Plan for the Central Highlands* in 1997, as I will explain later.

Now, at the end of this section on the importance of battle and distribution – i.e. if one wants to push his own projects forwards – I can say that the media are, as a rule, interested in presenting issues if there is already of interest in them, and also if good graphic material has been created. Therefore newspapers and tv stations published many news stories and elaborations on my ideas. For example, the State Television gave *Ragnar Halldorsson* in 1992 the task of creating a tv programme about my work, called *The Future has to be Designed.* Channel 2 also made a programme on me in the series *Independent People.* There the emphasis was on my theories about the impacts of global warming.

In the autumn of 1993 I attended a course at the State Television ment for scholars, on how to make tv documentaries. There I wrote the manuscript *The Unknown Territory – A Search without an End* that dealt with the exploration of unknown territories, especially the Central Highlands. This was the only film that was made based on a manuscript from the course. The producer was *Thor Elis Palsson* and the film was premiered in 1994.



The Ring Road is the linear centre of the country, but its central point is missing

The Capital Area (grey) is stretched and scattered. It needs to be closer to circle

If Heidmörk is freed from water protection, gaps in the circle can be filled (pink)

A prediction from 1995 on active interfaces and growth-areas in the world

Creation of Form Theory of a Settlement Development

One page 24 I explain how methods to simplify forms in art, and research into form qualities from the new math, for example, in topology, helped me to decipher basic qualities of form. I mentioned that this had been the key so that I could draft a quite new picture of the spatial qualities of Iceland as a settlement area, and to point to means to improve the faults.

In short: The spatial characteristics of Iceland are; the country is a circle, the settlement is like a ribbon out on the edge, and in the middle of that ribbon there runs a linear centre, the Ring Road, but the geographical centre of the country, on Sprengisandur, is, on the other hand, inactive. The building of highland road is thus both a method to shorten distances and also to activate this geographical centre of the country... because the logical thing is, eventually, to build a new Capital City at this centre, as was done in Spain, Mexico and Brazil.

My study of the form principles of the T´ai Ch´i symbols at Berkeley strengthened my understanding of how the circular form can be used to strengthen settlement areas. Exactly this principle I have frequently pointed that to move development of settlement areas towards the form of the circle as the most important goal for the Regional Plan of the Capital Area, which, contrary to this, stretches over a long area and is crooked and disconnected. Another asset of the eastern theories that I worked on at Berkeley is the importance of the area where two units come together, called an interface area. An example on this, in design, is the area where a house and a garden meet.

As I wrote the book with Albert Jonsson, I decided to define on maps where such interface areas are on world maps. By marking them, we are able to point to growth areas of the future. In Europe this is the interface where the inexpensive labour of Eastern Europe meets knowledge and capital from Western Europe. Similar interfaces exist in SE Asia and where the USA meets Central America (see the map).

In another book of mine, that I told about in the last section, I discussed the settlement patterns of SW Iceland. There I also put forth analyses of the country as a whole, based on the theory of three steps in the crystallization of settlements. In the back of the book I published a table on the development of settlement patterns of Iceland, divided into seven periods according to those spatial powers that were at work in shaping the settlement patterns, at each given time.

From these powers one can mention the drive towards the interior after husbandry increased, and the reversed: drive again to the coasts, after the fishing industry and the coastal shipping started for real in the 19th and 20th centuries.

My main conclusion from this study was that the centripetal force that had been driving activity towards the interior would again be very active in forming the settlements in the future, for example, because of the highland roads. In the book, with Albert, I predicted that also in Europe the coastal areas would become less important and that the central areas would continue to grow.

In the book I also gave examples of the impact of global warming in the next century. Increased heat in the southern part of the continent would, for example, mean that people were somewhat pulled towards the north. But at the same time the areas along the coast in the south would continue to pull people because only at the coasts you can escape the heat because of the cooling effect of the sea.

About ten years later (2006) I published a book on how the settlement patterns of the world would change because of global warming: *How the World will Change – with Global Warming.* There I define ten principle drivers that will change the settlement patterns of the world because of global warming.

Another important form-theme in that book is the development of spatial systems and the theory I had started to developed in my study on Iceland. Here it is, in principle, a fact the Ring Road is the linear centre of the country. At the same time we see that the point centre in the centre of the country is missing.

In my book on the future development of the globe, the study of the form-systems could be applied to explain the main spatial systems in the development of global settlement. Originally, the global spatial system was a rather equal distribution of humans and animals on the habitable areas of the globe. Later point-centre settlement systems started to be developed, for example, by the Aztecs in Central America, the Romans in the Mediterranean area and with the Chinese in SE Asia (China means the country in the middle).

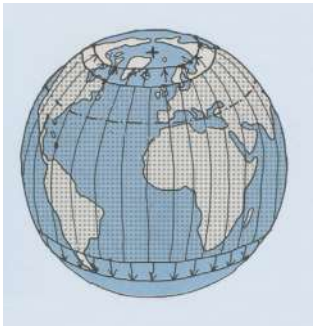
***In 1995 we predicted a continued drive** into Europe´s central areas because of the feasibility of living and operating there. This northern-central area stretches from France to Russia. The areas to the west, north, east and south of this core, are not as well located*

***Along the coasts** of southern Europe the cool of the coasts works against this centrality-trend*

***Along the Baltic Sea, we predicted** in 1995, that coastal areas would become stronger because of increased shipping, as the Iron Curtain had been lifted. It was earlier a great hindrance along this northern sea*

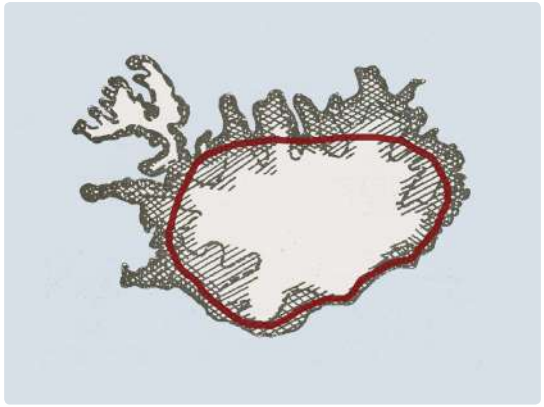
***1. Before societies formed** mankind was distributed like animals*

***2. As great powers came to be** they formed a circle with a centre*

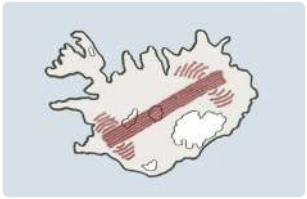


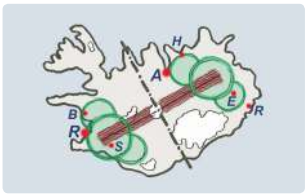
***3. Linear centre of a ribbon** is today's system of habitation*

***Three historically important steps** in the formation of the spatial systems of the globe. The lowest row of figures on the next page, predicts what will be the spatial system of the future, if global warming becomes excessive*

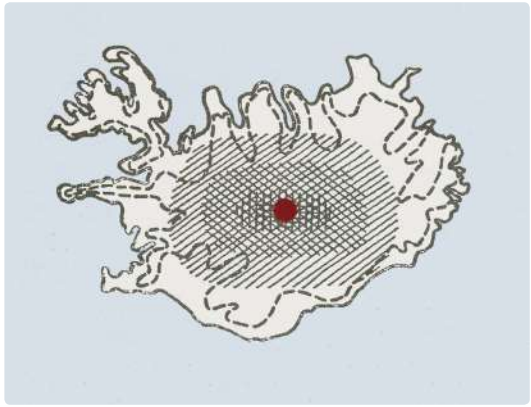


Coastal settlement: *Because of sea travel and cold*

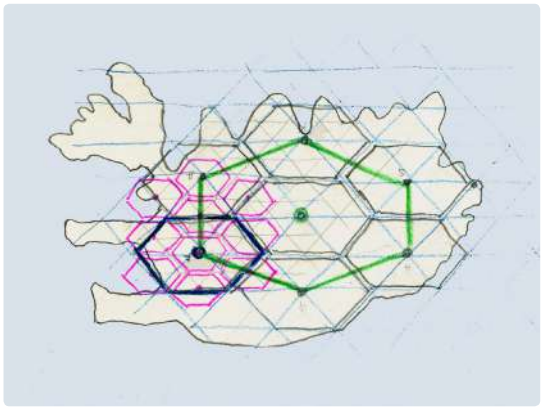




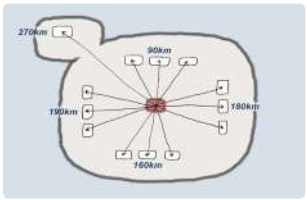
Settlement axis *(1987)*

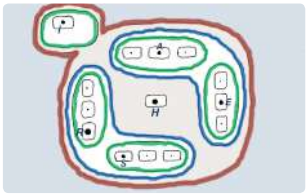


Future centre: *Warming highlands, air traffic feasible*

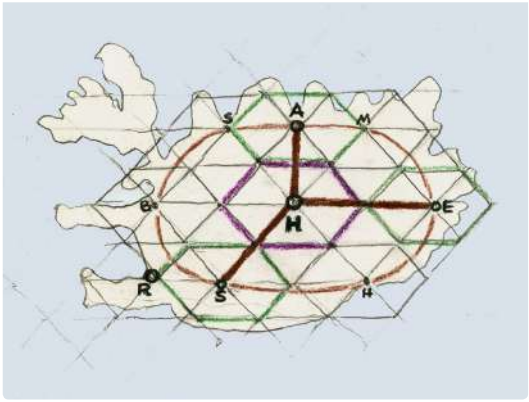


Christaller theory *– A foundation for a plan pattern*

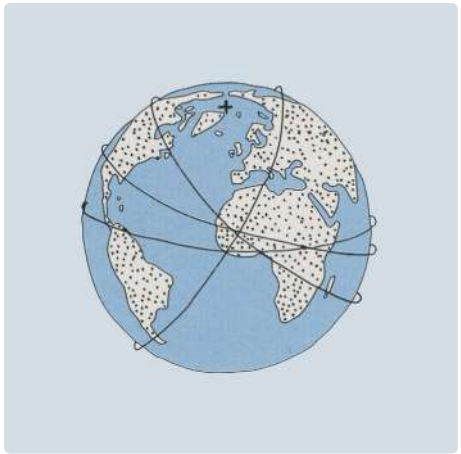




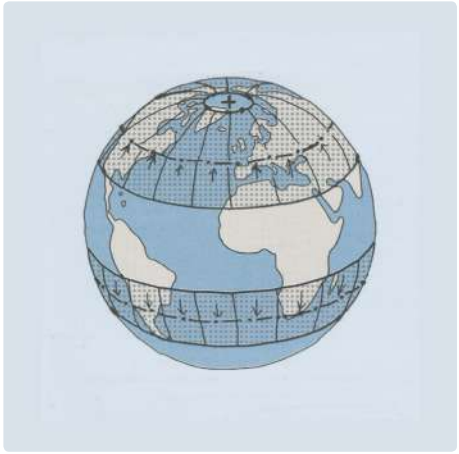
Distances – Settlement-Clusters



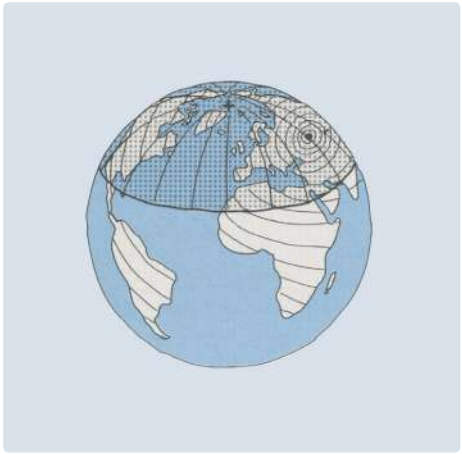
Roads and settlements: *A hexagonal structure (1980)*



Pole flights and the Net *mean more equality*



Earth´s centre uninhabitable *(Much warming!)*

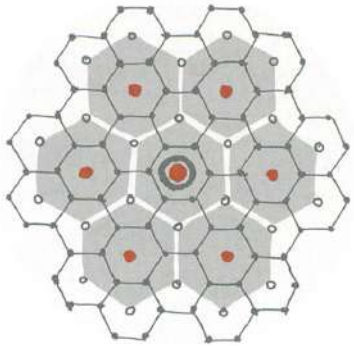


Northern living space: *A centre at the N-Pole*

A study of the spatial systems of Iceland and the globe – and a prediction on how they will be in the future

With the discovery of the New World, with steamship transportation and the extending of the telephone systems around the world, the world started to grow together into one whole. In this process, the spatial system; *ribbon of habitation* around the globe came to be. With this, the strength of various older *point centres* was reduced. In the northern part in the ribbon of habitation, *the linear centre* of the world was gradually formed. This was because most activity was found there, whereas, opposed to this, the countries at the northern edge of the ribbon – like Iceland – had a very isolated spatial position.

Further development of global technological systems, like the sending of telephone- and tv signals via satellites, had a huge impact on the formation of a *global spatial system*. In this new system, where all places have equal position, countries on the edge profit, compared to earlier negative impact of their being out on the edge. In a similar manner the earlier *point centre* and *linear centre impacts*, will be reduced.



The Theory of Christaller *explains how the hierarchy of centres, and their sphere of influence, follows hexagonal patterns, that grow sixfold at each new level*

As I had formed these theories on how *settlement patterns* and *spatial systems* would develop in the future, it was easy to demonstrate, based on this, which will be the *growth areas in the world* and what will become *the leading spatial system* with global warming.

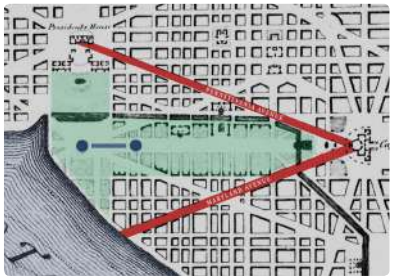
The strongest characteristic of a good theory is that it provides a new and structured understanding of the subject at hand, and – what is still more important – it opens a way to better understand how future developments will be. What came as the greatest surprise in this study of mine on spatial systems, was that with extensive warming, *the ribbon of habitation* will divide into two at the centre of the earth, because of the excessive heat and the lack of water there, in the future.

Because, by far, the largest part of the landmass of Earth is in its northern hemisphere, the part of the ribbon of habitation that is there, will grow in importance and also continue to widen into the *Arctic Region.* The final phase in this spatial development would be, as the whole Arctic has become activated, which would eventually mean the forming of a new spatial system; *the semi-sphere* of the northern hemisspere that would have *a point centre* in the North Pole.

This, that has now been described, shows us that it can take a long time to develop a theoretical hypothesis. Even though, in my book on global developments, all the main ideas had been presented, the hardest part was still to achieve; to make this into a comprehensive theory and to give it academic form.

I was very lucky to get my fellow professor *Gudmundur Freyr Ulfarsson* to work with me on this and we published the theory in a more exact definition, in four articles in highly respected foreign journals from 2009-2013. *Sigurdur M. Gardarson* helped us to work on the last article. I will report on this work on pages 172 to 177.

The Plan of Paris has boulevards that point to centres – The Arc de Triomphe



The White House and the River, seen from the Capitol – Blue dots: The monuments of Lincoln and Washington

Form is a Key to Beauty and Depth

In earlier centuries designers were, first and foremost, artists who had been trained in art schools. In the 20th century the study of architecture became ever more technical and the buildings of architects started to look more like industrial buildings. Even in engineering education artistic training was basic earlier and many buildings designed by engineers are among the most beautiful buildings in the history of architecture.

Earlier city planners also were artists and many of the most beautiful cities in the world, like *Paris* and *Washington,* are basically planned as a work of art. Today the task of planners is mostly to deal with traffic volumes and phases in building-up, or regeneration. Very seldom are aesthetical ideas guide the basic concepts today.

The wholeness and the beauty that was achieved in the planning of Washington and Paris are basically due to the geometry of the plans. In the case of these two cities the most outstanding characteristic is the *geometry of visual axes* and *star formed squares*, but at the same time, the plan was well adjusted to the rivers that flow through them.

The main idea with the use of visual axes is *to provide a view* to beautiful buildings and monuments, and sometimes towards nature areas in the cities. Sometimes these axes run in the middle of a long green area, as is the case with the green axis in Washington, which starts at the Capitol and ends in the Greek-styled *Lincoln Monument,* with the Potomac River in the background. Close to the centre of this green axis is an Egyptian obelisk; the *Washington Monument.* Between the obelisk and the Greek temple is a long pool that reflects these two monuments, depending on which direction you are looking.

Most often, however, visual axes in cities are elegant boulevards, the most famous one being the *Champs Elysees Boulevard* in Paris that starts at the Louvre and points towards the *Arc de Triomphe.* It stands on a circular square that all surrounding main streets point

Looking west over the Reflecting Pool, the Lincoln Monument is reflected in it

Looking east from the Lincoln Monument, the Washington Monument is reflected in the pool

to, which means that it is visible from all directions. This means increased visibility and also increased impact of the monument.

This great visual axis was some decades ago extended to the *La Defence* suburb, where another Arc de Triomphe was built for this axis. This Arc is composed of two 110 metre high office buildings (Hallgrim's church in Reykjavik rises 73m) and a multi-storey building that connects them in the air at the top. The designer was a Danish architect, who won a competition about this new Arc de Triomphe... of commerce!!

In recent decades, boulevards have come into fashion again. In Reykjavik the *Miklabraut Road* comes closest to looking like a boulevard because it is wide and straight, but the two "points de vue" at the end of the Miklabraut are missing. Also rows of houses filled with life, along the road, are missing. A very successful Icelandic type of a visual axis is the Sudurgata Road with a mountain, *Keilir* (pyramid), at its end, but not a monument.

Now Reykjavik has plans to make the *Sudurlandsbraut Road* at Laugardalur Valley into a boulevard. What this idea has going for it, is that there is already some activity in the bordering houses south of the road, that fits the concept of a boulevard. The plan proposes that high buildings will also be built in the Laugardalur site of the road. However, there is a considerable slant down to the Animal- and Family Parks that, in winter, would often be inside the shadow area of this row of tall buildings.

I have presented the geometrically clear planning of Paris and Washington here, to demonstrate that the beauty and the power of a plan always comes down to the basic geometrical structure of the plan. Planners therefore have to start to working again with geometry as a basic feature in planning.

Those who are familiar with old cathedrals know that their power comes also from geometry. In the case of some churches – and sometimes also governmental buildings – as is the case with the Forbidden City in Beijing – the geometry is an expression of a worldview, as well as an expression of the power of the institution in question.

Of course, people of power, who build buildings like these, try to make the buildings as impressive as possible, and the designers use various forms in order to achieve this goal. Best known of these architectural means, is the way designers let the visitor approach the centre of power along a long corridor. Another tool in terms of form, in addition to the *geometry,* is to enhance the beauty of cities and buildings with *ornament.* Our modern times are so impregnated with negativism towards the word *ornament* (as in ornamental speech), that it always, without a foundation, evokes a negative attitude.

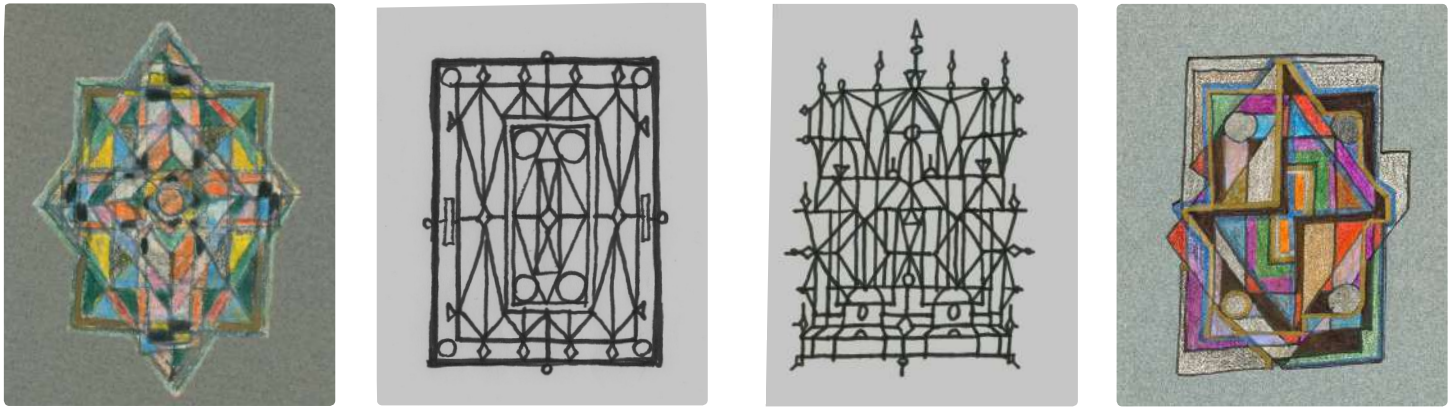
The modernists that were, and still are, most of them, against religions and nationalistic characteristics, have tried, whenever they could, to eliminate ornament – and actually

Arc de Triomphe at the end of the Champs-Elysees. La Defense in the distance

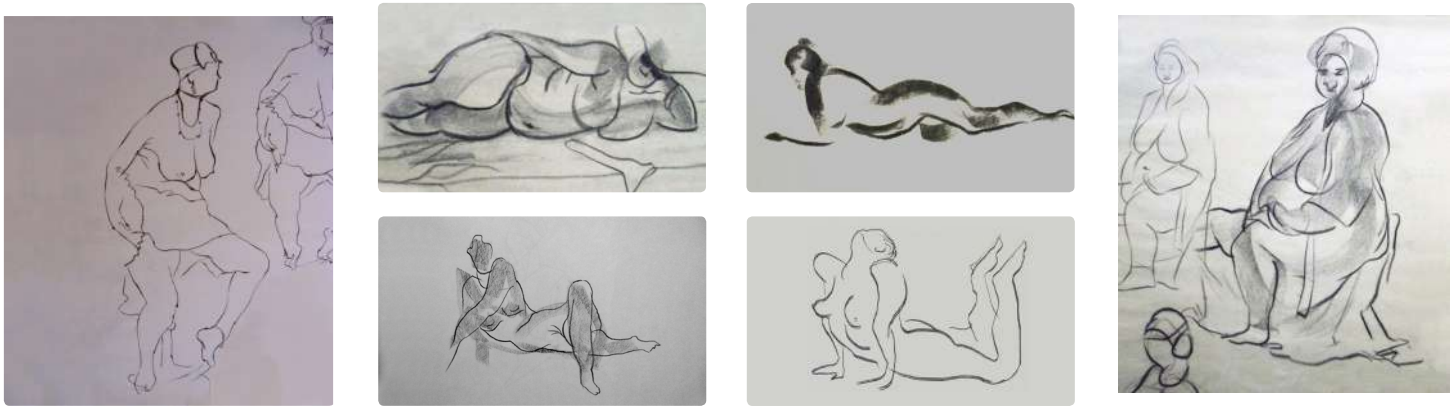
Le Grand Arc in the La Defense area seen from the roof of the Arc de Triomphe

Miklabraut; the only boulevard in Reykjavik... but it looks more like a highway

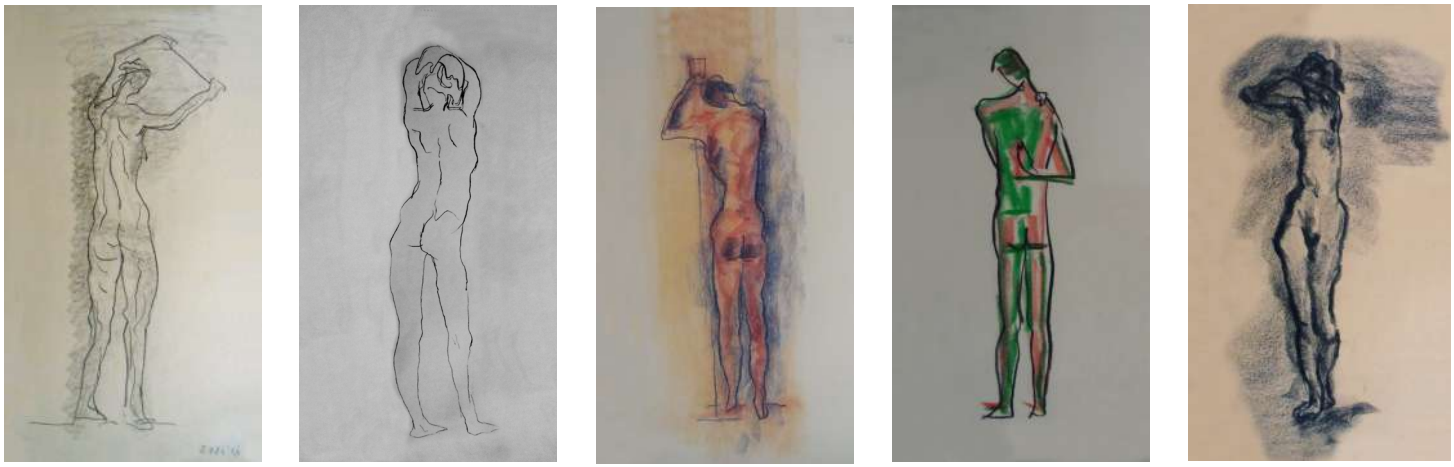
Sudurlandsbraut Road is to become a boulevard – Shadows are a problem



An octagon ornament, grid for a stained figure, grid for a window and a modern, half-symmetric ornament



Exotic models drawn in free evening classes at Berkeley



Models drawn in free evening classes at the Reykjavik School of Art

Ornament, geometry and drawing should again, be a central Preoccupation of Designers

colour also. Because of this, cities and buildings are much more mundane and ugly in our modern times than they were earlier. We, the peoples of northern Europe, went farther in this direction than other peoples, and actually we are not endowed with the same joy of life as southern European peoples are.

Ornament has been forgotten as a basic discipline in planning and architecture for about 100 years. Post-modernism meant some resurgence of it, in the last decades of the 20th century. *Post-modernism* makes, most often, this connection to older times in a rather superficial way with so-called *historical references*. These include occasional Greek gables that are erected in front of the building like a set in a movie. Some architects design these references sometime in a humorous way – so this becomes a cheap joke. This sometimes has been called *private jokes at the expense of the public.* I have made geometry and ornament a point of discussion here, because I think these two disciplines are fundamental, if people want – again – to create beautiful and expressive cities and buildings.

In my studies at the *University of Technology, Berlin,* these two disciplines – and the way to approach projects with them – was not in the curriculum. I had, however, always been interested in these two disciplines, already before going to Berlin, through early acquaintance of the work of my uncle, the sculptor Einar Jonsson.

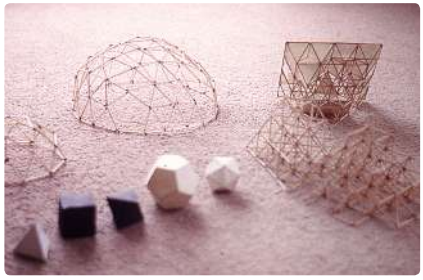
As I was studying in Berlin, *Buckminster Fuller* became very well-known through his Expo Sphere in Montreal in 1967. My friend *Einar Thorsteinn* very early recognised the importance of the geometry that Fuller was using. Einar explained to me how Fuller interpreted this as a visualization of a new worldview and a new understanding of space. Therefore in Berlin I studied geometry. When I arrived in Berkeley in 1980 it was a great surprise to me that the use of ornament was again making inroads into architecture. *Christopher Alexander,* was there at the forefront, as I have already described.

As I now look over my life, I realize that I have always had a great deal of interest in ornaments, and instinctively been working with them – although awareness of ornament at that time was poor and it did not have public favour. I started then, at Berkeley, to dig down into this ancient art discipline and to start to do experiments. Samples from this are in the top row on the opposite page.

At Berkeley there were free model drawing sessions in the evening, where I had opportunity to train my artistic sensibilities. This fitted well with the new understanding that planners need to be artists that should have the goal of making designs as beautiful as possible and in as much harmony with the environment and worldview, as possible.

As I had chosen to become a theoretician of design, I needed to dig into geometry, ornament and art, because a theoretician who wants to support new, artistic development in design, has to know the basic disciplines that beautiful design is based on.

A jewelry box with a geometric ornament made by TV



Models I made in Berlin in order to study geometry (Material: Carton and matches)

The home page of ABET that analysed the UI Engineering Faculty in 1992-´93

Let us now look at how my work at the University developed. Already in 1992 I had got a full position in the Civil Engineering Department. In 1992-93 an assessment was made of the Engineering Faculty by the American accreditation institute ABET. This was a very important undertaking, and I will therefore describe what it consisted of. The purpose of this process is that an outside institution examines teaching- and research programmes, to find out if they are up to international standards.

In the USA this is especially important because state control of universities is not as advanced as in most European countries. The Americans therefore established this accreditation process and it also has turned out to be very helpful for universities outside the USA to have their courses examined in this way. In 1992 the work on the Engineering Faculty of the University of Iceland had started and the examiners were four highly regarded American professors.

The first step in that process was that all three departments of the Engineering Faculty and all professors, were asked to translate all the most important documents into English and send them to the examiners. The examination was very important, but the by-product of bringing all documents of the three departments and the professors, into English, was a very important step for us to create a stronger connection to the international world of science and engineering. At this time international cooperation had become much easier because the birth of the internet.

Up to this time, we the professors, had mostly been writing in Icelandic and were therefore not really at home in the world. Now every professor had to write his CV in English, which only a few had done properly before. In the case of written material, we had to translate the names into English so that the ABET board could get an overview of what it was that individual professors were doing.

Before I proceed, I think it is of use to provide the reader with a short historical overview of how the engineering education at the UI came to be and developed, in order to better understand how it was structured. The first step was that before the Second World War most Icelandic engineers were educated at DTH, the forerunner of the Danish University of Technology (DTU).

As Denmark had been occupied by the Germans in 1940, it became harder for Icelanders to go to Denmark to study. Therefore the University of Iceland established some preparatory courses for engineers in 1940. But the war dragged on, so in 1945 it was decided to establish a two year first-part course of engineering at the University, but people would have to go to Denmark to study the two remaining years at the DTH.

The first two years at our university were mostly math and physics courses, and only one professor in engineering was hired. This was Finnbogi Rutur Thorvaldsson, the father of Vigdis Finnbogadottir who later became the first female president in the world. Vigdis was therefore, in her own words, "brought up in the Engineering Department".

This two year first-part engineering study was active until 1970 when a full four year programme to study engineering at the UI was established. Three fine buildings were then built on Sudurgata and Hjardarhagi. Furthermore, young engineers were hired to teach the various engineering disciplines.

When the *ABET examination* had been finished in 1993, most of the older professors had taught for about a quarter of a century and we, the younger professors, thought they were rather inflexible when it came to giving space for new subjects. The independent advice of ABET helped us, the younger ones, to introduce various changes in the education, supported by the advice of ABET, that shared the newest developments in the USA.

One piece of their advice, was to, right away at the beginning of the study – to offer a course presenting a holistic overview of the engineering profession and how it should cooperate with other disciplines. Julius Solness and I were given the task of creating such a short introductory course.

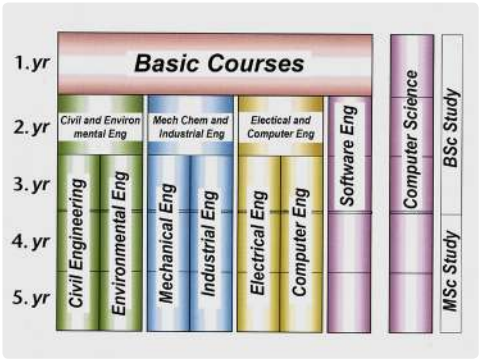
In addition, ABET put heavy emphasis on the need to start teaching *ethics*, *aesthetics* and *environmental matters*. I was given the task of reshaping the course on *Country and Town Planning* and to give it a new name; *Environmental Planning*. Julius and I created a short course; *The Engineer and the Environment*.

At this time, Iceland was preparing to enter the *European Economic Area* (EEA), which meant that the engineering study was to be structured according to EU standards. This

Instructors: Gudm R, Fjola, Birgir, Sigurdur E, Villi, Helgi, TV and Pall Jensson

Proposal for the planning of Geldinganess: Gunnar, Valgeir, TV, Thora and Geir

VR II is the main building of the Engineering Facultiy of the UI. A couple of them are in this area



Structure of UI engineering in 2002. This change from 4 to 5 year study occurred in 1997

TV in his office in the Engineering Building. Good work facilities are important

UI Engineering brochure in 1999. Students and instructors on a field trip

meant that we had to give up on the four year study plan and replace it with a three year BS part and a two year MS part. This, understandably, took much time to develop. It helped a lot in the introduction of these changes that a young professor, *Ragnar Sigbjörnsson,* had become the Head of the Department and I had become the Assistant Head. In 1994 I became the Head of the Department and Ragnar the Assistant Head.

Because of the suggestions of ABET, we started a rather thorough review of the study programme of our department. For example, we changed the name of the department to *Department of Civil and Environmental Engineering*. At that same time five new courses were formed.

To explain these changes we created a sixteen page pamphlet about the department. We came to an agreement with the students that the pamphlet would be printed as the central section in their annual magazine, ...*upp i vindinn,* that they distribute each spring to all connected to construction. In addition 1000 copies of this section were printed, on which we put a cover. In this way we got a very inexpensive promotion pamphlet.

Because this pamphlet turned out well, *Björn Kristinsson* the Dean of the Engineering Faculty asked me to help him make a similar pamphlet for the Faculty as a whole. We did this and it was distributed the following spring by direct mail, to graduates from math- and natural science departments of the secondary schools. The addresses we got from their school offices.

That the graduates received the pamphlet at home was of course an encouragement for them to apply for study in engineering. This was repeated for many years, but finally most of the material of the pamphlet went into the newly established homepage for the Faculty. Today this is the place where secondary school graduates look for information on the study of engineering.

It is hard to assess, to what extent the new brochure contributed to the great increase in number of applicants for the study. Björn, the Dean of the Faculty, said in his farewell speech that it was his opinion that the increase in the number of students was because of the promotion pamphlet that was sent to the home addresses of secondary school graduates. There he mentioned especially my work on these pamphlets.

Country Planning and the Planning of the Central Highlands

In earlier chapters I have described how around 1975 I formed my first ideas on the planning of the country as a whole (see p. 73). The first proposal on a comprehensive plan for the country I published in a book in 1987 (see p. 88). It was based on considerable work in interpretating maps on the hazardous areas as well as the most valuable resource areas.

After I started to work at the Civil Engineering Department in 1988, student projects helped to advance this work. I made the first idea on a *Regional Plan* for the *Central Highlands* with my students in 1991 (see p. 150).

An important phase was reached when I wrote my book *Land as Resource* (1993). This book presents our *frame plan* for SW Iceland, and it was meant to be a pilot project. As we were preparing a conference on Thingvellir on the subject, *PM David Oddsson* entered the picture because he was also the *Minister of Settlement Issues*. A next productive step in the cooperation with the Office of the PM was cooperation with a specialist on foreign affairs, *Albert Jonsson,* on writing the book *At the Turn of the Century – Iceland´s Position in a Changing World* (1995).

In 1996 *Jonas Egilsson* of the Capital Area, and I, together with *Halldor Halldorsson* of The Westfjords and *Hjalti Johannesson* of The Akureyri Area took the initiative to bring together some key institutions to prepare a large conference in Akureyri on settlement issues. A preparation committee was formed were we all took seats together with *Sigurdur Gudmundsson* from the Institute of Settlements and *Vilhjalmur Th. Vilhjalmsson,* the chair of the Union of Icelandic Municipalities. We contacted PM Oddsson and he supported the idea and gave the first talk at the conference. This was a two day conference, broad in scope, held at Akureyri on April 22-23, 1997. I was given the task of leading the planning of the conference and to prepare a 30 page summary when it had been completed.

That winter there had been held the first introductory meeting on a proposal for a *Regional Plan for the Central Highlands*. This plan was so big in scope that a plan for that area necessarily touches the settlement policy of the country as a whole, and the *Highland Plan* should therefore only have been conceived after a *country plan* had been made. A country plan was, however, had not yet been introduced into the planning law.

I soon became critical of the planning process for the highlands. In the beginning phase a proposal had been made at the Ministry of the Environment to divide the central highlands between those municipalities that border it. They were to form twelve District Committees that each had a member in the planning committee that had been established. The chairman was *Snaebjörn Jonasson,* a former Director of Roads.

Þróun byggðar á Íslandi
Þjóðarsátt um framtíðarsýn
Ráðstefna haldin á Akureyri 22. til 23. apríl 1997

SAMANTEKT
að lokinni ráðstefnunni

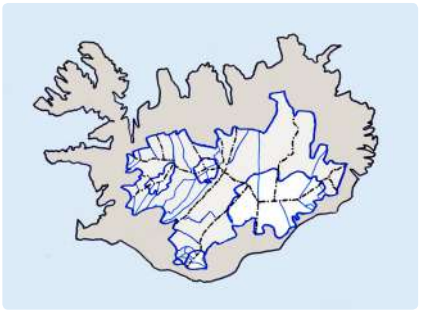
Im aðdraganda ráðstefnunnar

Ráðstefna þessi átti sér um átta mánaða aðdraganda. Jónas Egilsson hjá SSH átt
ugmyndina og hóf að ræða hana við tvo aðra framkvæmdastjóra landshlutasamtaka, þá Halldó
lalldórsson hjá SSV og Hjalta Jóhannesson hjá Eyþingi. Einnig hafði Jónas samband við Traust
/alsson skipulagsfræðing, um hugsanlega skipulagsvinnu ráðstefnunnar. Voru hugmyndir un
agskrá settar á blað haustið 1996 og sendar forsætisráðuneytinu og síðan Byggðastofnun o
ambandi íslenskra sveitarfélaga, með boði um að taka þátt í að halda ráðstefnuna. Byggðastofnu
lnefndi Sigurð Guðmundsson forstöðumann Þróunarsviðs, og Samb. ísl. sveitarfélaga tilnefnd
laf Hilmar Sverrisson, Stykkishólmi, en formaður sambandsins, Vilhjálmur Þ. Vilhjálmsson, tó
ið af honum eftir áramót. Var þá Trausti Valsson ráðinn til að vinna að undirbúningnum me
tarfshópnum. Haldnir voru allmargir fundir þar sem dagskráin var mótuð, fyrirlesarar ákveðni
s.frv.

Síðan að ráðstefnunni lauk hefur starfshópurinn rætt hugmyndir um hvernig niðurstöðu
iðstefnunnar skuli nýttar og hvernig áframhaldandi starfi skyldi háttað, t.d. með þrengr
rmarkstefnum, eða ráðstefnum eða erindum, t.d. á ársfundum einstakra landshlutasamtaka.

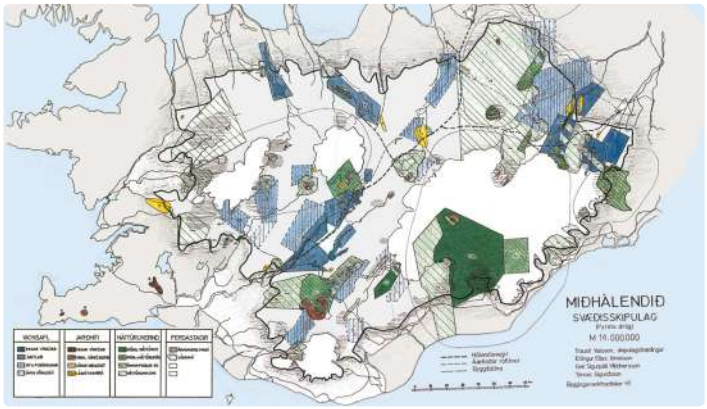
Á fundi allis starfshópsins ..... mat voru þessi mál rædd. Sigurður Guðmundsson benti á a
rvinnslan væri í tveimur stigum:

Here: An ambitious attempt at creating a new settlement policy in 1997

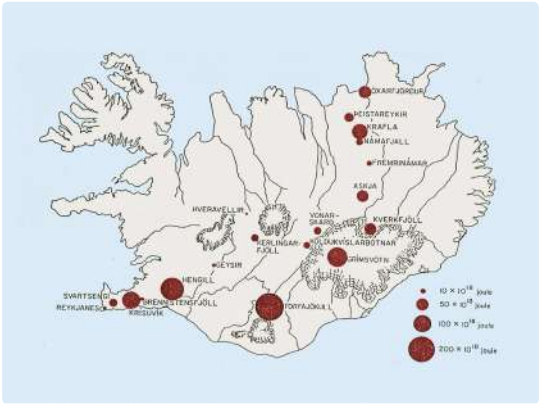


The planning rights were given to nearest communities without support in law

Disapproval of the Plan in 1997 – Only 4% had the planning rights

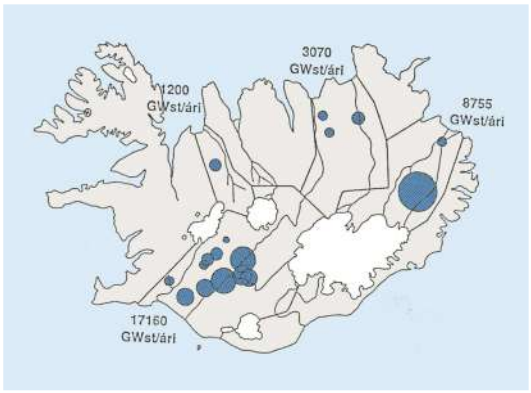


Proposal of TV and students on a Plan of the Central Highlands 1991

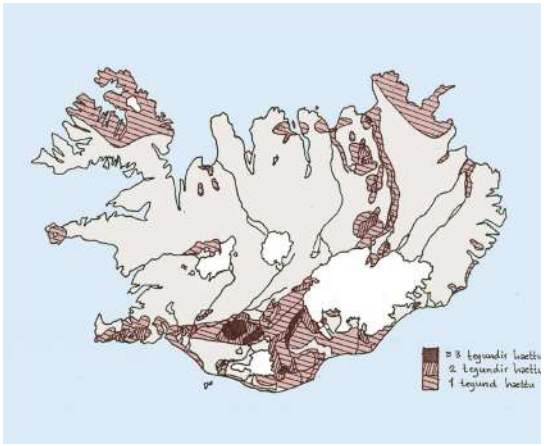


Geothermal areas: Used by TV/students in their Plan

Book of TV/Birgir on this

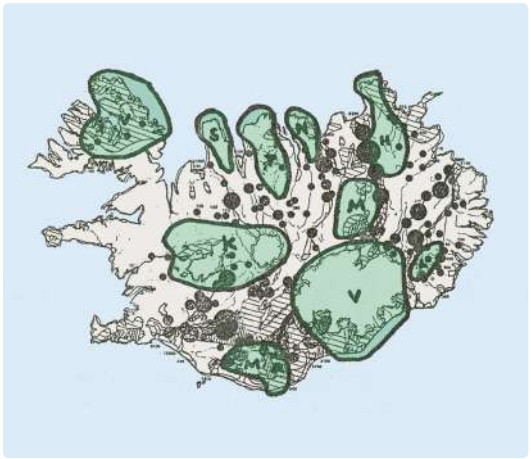


Hydro potentials: Basic map for our planning



Most hazards areas: Logical for preservation areas

Plea of 80 people in Mbl



Hazard areas: a basis for proposal on vastness areas

A fight about the Central Highlands in 1997 – And a proposal of TV and students on its Plan in 1991

Unfortunately, this work had been conceived with many faults. First of all Parliament had never agreed on a bill dividing the jurisdiction of the highlands between the municipalities that border it, and not at all up to the middle of the glaciers. The communities that border the highlands had, at this time, only about 4% of the population of the country. This meant that 96% of the people in the country, had no stake in planning the highlands.

This is especially strange because it was a basic understanding in the nation that the highlands should be common property, just like the territorial waters that surround the country. And in fact, already at this time the national government had published claims that the greater part of the Central Highlands should become a national territory.

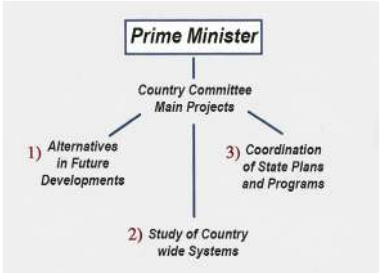
After many years of battle between the state and individual land owners, it was confirmed that the greater part of the *Central Highlands* is a property of the nation. This is precisely a good argument for claiming that planning rights should be with the state and that they are not divided among only the 40 bordering communities. These 40 communities were later meant to overtake the planning rights completely after the first Regional Plan had expired.

In May 1997 the planning proposal was announced open for comment, and *Birgir Jonsson,* my fellow professor, and I, started to examine the proposal. We right away saw many faults. The two reports were about 350 pages long and there were many maps that had to be deciphered. We soon discovered that to make pointed comments on this four year work we would need to write a whole book! The volume of our comment would be so great, not least because we thought that the way the project had been conceived was, in fundamental aspects, wrong. This meant that we, in our comments, had to describe how we meant the project should have been approached.

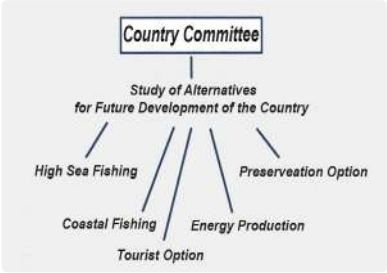
Our main point here was that the *Central Highlands* are so large that it was not right to form proposals on it until a *country plan* had been created that first laid out the main lines of the country as a whole. After that, and only after that, individual regional plans, for instance for the Central Highlands, would be adjusted to the country plan. We put forth the argument that the country plan work should be under the direction of the PM, who would have several ministers, each dealing with special issues, with him on a *country plan committee.*

It needs to be mentioned that the *Planning Committee of the Highlands* had made some contact with state institutions but had – as it later turned out – not contacted any of the ministries to ask for guidance in creating the goals.

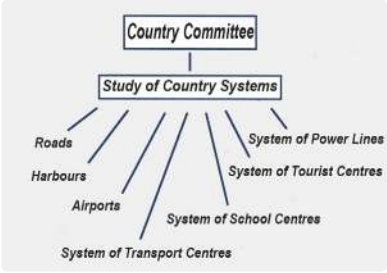
I contacted *PM David Oddsson* and explained that the planning proposal that had been published was characterised by such emphasis on preservation that the plan would mean



Logical that the PM leads the Country Plan – not Minister of the Environment



The Country Plan would need to do a study of routes to the future for Iceland



Three transport-sector plans became one. Other fields also need to be coordinated

NÝR. 17/5'98

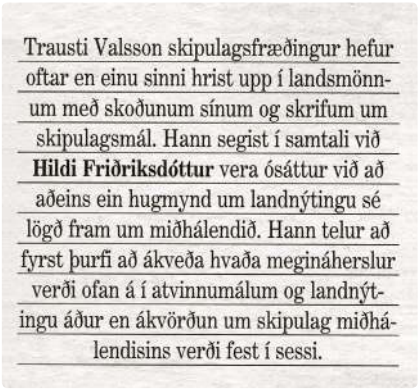
EITT AF HJARTANS MÁLUM ÞJÓÐARINNAR

ÁUNDANFÖRNUM vikum hafa farið fram marabonumræður á Alþingi um hálendið og framtíð þess. Jafnframt hafa miklar umræður farið fram utan veggja Alþingis, bæði í blöðum og á fundum, sem áhugafólk um framtíð hálendisins hefur efnt til. Raunar er ljóst af viðbrögðum manna utan þinghússins, að hér er á ferðinni eitt af þeim málum, sem snerta hug og hjarta þjóðarinnar allrar. Það er sérstakt fagnaðarefni, að það hefur verið staðfest með svo afdráttarlausum hætti.

Þetta þarf engum að koma á óvart. Óbyggðir Íslands, hvort sem um er að ræða miðhálendið eða byggðirnar hafa opnast öllum almenningi. Betri bílar hafa stuðlað að því en jafnframt hefur sá lífsstíll rutt sér til rúms að ferðast um hálendið bæði á hestum og fótgangandi. Kannski er þó merkilegasta breytingin á seinni árum sú, að hálendið og jöklarnir hafa opnast að vetri til. Hálendissvæðið er heillandi að sumri en það er ævintýralegt að vetri.

Það hafa lengi verið uppi mismunandi skoðanir um það, hvernig ætti að umgangast hálendið. Sumir hafa haft uppi sjónarmið um, að þar ætti að hefja viðamiklar framkvæmdir til þess að auðvelda samgöngur um þetta svæði. Aðrir hafa ver-

Mbl warned the Parliament forcefully not to press the highland bills through



Trausti Valsson skipulagsfræðingur hefur oftar en einu sinni hrist upp í landsmönnum með skoðunum sínum og skrifum um skipulagsmál. Hann segist í samtali við **Hildi Friðriksdóttur** vera ósáttur við að aðeins ein hugmynd um landnýtingu sé lögð fram um miðhálendið. Hann telur að fyrst þurfi að ákveða hvaða meginháherslur verði ofan á í atvinnumálum og landnýtingu áður en ákvörðun um skipulag miðhálendisins verði fest í sessi.

A centrefold interview with TV in Mbl as the highland debate was at its peak

that most construction in the highlands was banned, as well as in the country as a whole. Oddsson gave us a grant to write the book *Iceland the New* that dealt with how to make a country plan, and at the same time it published extensive criticism of *the Central Highlands Plan*.

We sent him our 192 page manuscript in August, and offered him the chance to write the preface, but he declined. Then I started to suspect that he was not going to try to stop the highland plan. This turned out to be right and was a great disappointment to me.

In October it became clear that a whopping 94 parties had sent in their comments on the plan, but Birgir and I were the only ones to send in a whole book. The comments showed the enormous dissatisfaction that many felt. *The Ministry of Social Affairs* said, for instance: "...it has not yet been decided what will be the jurisdiction of the Central Highlands". *The Ministry of Industry* said: "The Ministry claims that the policy of the government and, in fact, of most governments in the past decades, on the utilisation of the energy resources in the Central Highlands, has not been taken into account".

With these, and similar comments, it had become clear that *Össur Skarphedinsson*, the then Minister of the Environment, and his Ministry, had given the jurisdiction and the planning rights over the Central Highlands to otnly about 4% of the nation, which can be interpreted as a *coup d'état*. An enormous burst of anger surfaced in the society on which an editorial in Morgunbladid (Mbl) said: "The core of these matters is that the opposition to the approval of the highland bills in the Parliament is so great that it does not make any sense for the two parties of the government, to have them approved in an unchanged form." (May 24, ´98).

In the spring of 1998 the *Minister of Social Affairs* proposed a bill – actually after the fact of a finished plan for the highlands – that the jurisdiction of the Central Highlands should be divided up among the bordering communities. This was actually the permit that would have been necessary for starting the plan work but which had in fact, been started illegally four years earlier and was about to be finished. This was followed by a filibuster in Parliament that lasted for several days.

Members of the Parliament always need a text to read from, in order to keep up a *filibuster*. It seems to me that the book Birgir and I wrote, was read about twice to back up the filibusters. As this bill had been approved by the Parliament, the DV newspaper said in its editorial: "…the country fathers have given 40 communities of very few people the jurisdiction of the highlands, even though a protest wave had arisen in the nation... (July 2, ´98).

Tourism in an Iceland Plan – with Connection to Road Plans

As I was studying in California a new vision towards society and the role of individuals was in the forming stages. This new vision had its foundation in increased density and population in the world, so that everything connected to wide spaces and clean areas was now being considered more valuable. I realized that this could mean a great opportunity for Iceland, given the increased tourism to wide open and little spoiled countries.

This vision and this assessment are not considered to be news now, a quarter of a century later, but when I started to present this idea – just after I had returned from my studies in 1987 – it was. My central message was that the future policy of the country should take guidance from this vision.

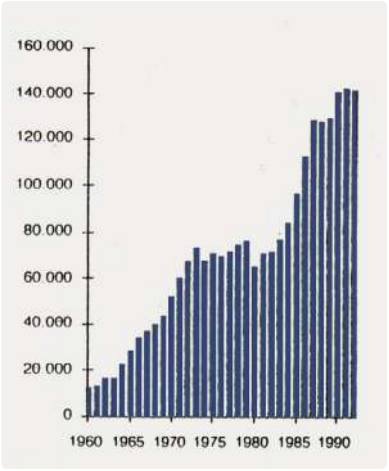
At this time (and actually for the most part, still today) the *Settlement Institute* was run as a bank that provided loans – which often got lost – to old fashioned activities in the countryside, and did not have any opportunity to support projects like road building that can improve the position of every activity in the settlement areas in question.

My message in newspapers after my homecoming, was that the policies of future development should be presented in a physical country plan where, for instance, improvement of roads and settlement grants are jointly enforced, taking into account not only individual settlements, but rather the country as a whole.

In 1991 I published a book on this that I called *A Vision for Iceland in the 21st Century*. In the introduction I say on p. 12: "What is so fascinating about the policy to use the cleanliness and the beauty of the country for increased income (especially from increased tourism), is that we Icelanders also profit from this ourselves." Lower on the page it continues: "In this book ideas will be presented on how to open the country for the whole nation... and to be able to enjoy the country... there has to be a good road system... Fortunately there is a good but under-used service system in the country... and there are primarily the obstacles in the road system that prevent us from utilising the country better." – All this is still valid today!

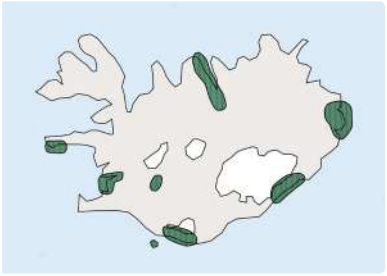
The most famous obstacle, at this time, was a 50 km road around Hvalfjord. I and many others urged building a tunnel under the fjord. As this was under discussion, not everybody understood what enormous revolution and increase in tourism the tunnel would lead to.

It can be said that tourism to Iceland started around 1960 when about 10,000 tourists came to the country. In 1980 the number had grown to 80,000 and to 140,000 ten years later. Since then the increase in tourism has been still stronger. In 2000 the tourists had



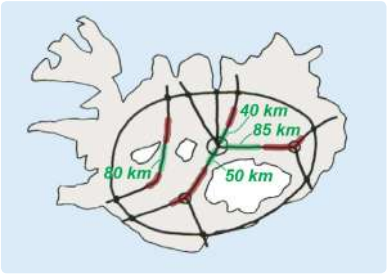
The increase in tourism called for a country plan for tourism and roads

First step was to map most important tourist resources – Here: Hiking areas



This map shows the best areas for seven types of tourist resources

Tourists rarely go beyond asphalt roads. The highlands and the NE are worst off



Red: Finished parts of highland roads. Green: Left pieces on three main routes

The book Roads and Tourism *links these two aspects*

become half a million and about fifteen years later they were one million... and in 2016 they were almost two millions, which is about six times the number of the inhabitants in Iceland... and is still growing at a very high speed!.

The industrialization of fishing and agriculture has meant that the number of jobs in these fields has been drastically reduced in the country side, and in many areas the reduction in number of workers would have meant almost total collapse of many settlements if there had not been this great increase in tourist-related jobs.

In order to allow the number of tourists to grow – meaning both domestic and foreign tourists – the roads need to be improved, and the authorities have made a significant effort to do so. Maybe my persistent propaganda on the importance of improving the roads, because of the great opportunities of tourism and the importance of better transportation in general, has had some part in this. If the road system had not been improved significantly, the country would not have enjoyed the immense increase in tourism that happened at the beginning of the 21st century, and then the country would not have had the tremendous financial help from tourism that it did as the national economy collapsed in 2008.

But the part of the road system that is most urgently needed is the highland roads. Some important advancement there has, however, been achieved, because Kjalvegur, Sprengisandsvegur and Vatnajökulsvegur Roads are already half finished. But the remaining parts of these routes are only dirt roads. This means that these three highland roads are yet of very little use for the tourist industry.

As the road system of the country, started to form in the beginning of the 20th century it was logical to start by connecting the biggest towns at the coast. Eventually these roads traversed the whole coastline, so the road around the country was formed out at the edge. Next – after connecting towns – came connecting regions. For example, the road to the East Fjords was opened in 1934. The two Skaftafell counties were connected with bridges on Skeidararsandur in 1974, which meant that it now was, for the first time, possible to drive all around the island. This meant a greatly increased ring flow in tourism.

Also there was a great effort to build roads towards the interior, but these were all cul de sac; dead end roads; that were of little use for tourism. The great opportunity to increase the flow of tourism in the interioris to finish the highland roads and connect the country roads to them. With this the large coastal settlements in the north and south and elsewhere, could be connected directly across the country, whereas today drivers have to drive a big loop either through Reykjavik and the West, or through the South and the East Fjord regions, if people want to get to the northern part of the country. One of the greatest advantages that would come with the highland roads, is a multitude of short circular routes, as the coastal ring road is far too long, or almost 1400 km.

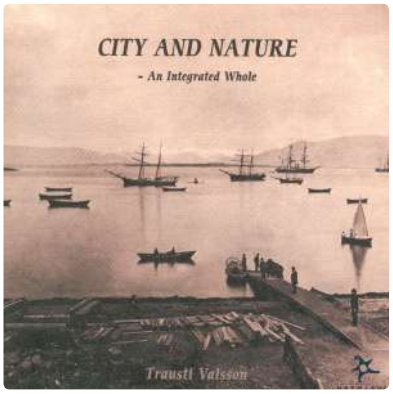
From what has now been described it can be seen that the new trade, tourism, makes quite different demands on planning and building up the road system than the old trades of agriculture and fishing did earlier. In 1997 I got a grant from the *Public Roads Administrations* to write a book about this. I worked on it for three years and the Administration published the book in 2000. It is called *Roads and Tourism* and some of the illustrations in this book are taken from that book.

The Director of Roads, *Helgi Hallgrimsson,* appointed three division heads to work on it with me and the Annual Meeting in 1998 in Skagafjördur, was dedicated to this project. In the preface to the book Helgi writes: "…the effort of Trausti Valsson to write this book on roads and tourism is quite a catch. The author is known for his fresh approaches to his projects and for putting forth new and provoking ideas about the future." (p. 8).

The first part of this book deals with connections between the development of transportation systems and the connection with tourism and is, in part, a historical analysis. The second half deals with the subjects that should be the main aspects of a unified country plan for tourism and transportation, for which my book is a start. One of my biggest tasks in preparing such a plan, was to define on maps where the most valuable tourist resources are located. These maps were partly drawn with the help of my students. I had earlier conceived of similar maps for SW Iceland with my students, when I was working on the book *Land as Resource* (1993). With my book *Roads and Tourism* (2000) my work on country planning came to an end for the time being, and I started other projects.

In 1998 there came an announcement from Europe that Reykjavik had been selected – together with seven other small cities – as *European Cities of Culture* in the Millennium Year 2000. In their applications for becoming a *City of Culture,* all the cities had presented a theme, and the theme of Reykjavik was *Culture and Nature*. This was in strong harmony with my main theme at Berkeley: *Connection of City and Nature*. Together with three institutes in Reykjavik, I received a grant for publishing a book and to build an exhibition in the City Hall on the theme. These institutes formed a work group, to help me write a book about this, a book that is called *Borg og nattura* (1999). In 2000 it was published in English and called: *City and Nature – An Integrated Whole*. In the spring of 2000 we opened our exhibition in the City Hall.

Early in this spring, I had finished my translation of the book into English and at Easter I went on a sabbatical to Berkeley. My earlier professors there liked the book that was based on my PhD dissertation there. A special bonus was that my daughters and my grandson Kristofer (Kiki) came to visit me there for two weeks.



I took this new book with me to Berkeley and discussed it with my former teachers


My daughters and Kiki stayed with me in Berkeley – Here in a Japanese place


For this trip we used a Mustang convertible, which Kiki liked very much

Home page of the Association of Icelandic Planners (SFFI) is informative

Tbe board of SFFI and some old timers at the 30th anneversary of IPA/ SFFI

The First Professor in Planning

Advancement in Planning Matters at the University

The turn of a century often leads to some shaking up, and people start to look towards new developments. Environmental and planning matters had entered the social discourse strongly at the end of the 20th century and people started to realize that more formal activity in these areas would make sense within the University.

My opportunity to take some lead in this was strengthened as I had been promoted to *Professor of Planning* at the University. Fifteen years later (2015/16), at my retierment, I was still the only professor on planning in Iceland. At this time a special jury was created to assess the merits of a person to be promoted to a position of a professor. Before, you had to have collected the required number of points in research and teaching to be able to apply for promotion.

It is very important that the jurors are top rank and, preferably, two of them should come from abroad. The selection of the jurors was very fortunate as they were *Dr Bjarki Johannesson* (Chair), *Jon Kristinsson,* Professor Emeritus from Delft, and *Börkur Bergmann,* a Professor and Department Head at the University of Montreal. The jury started their work in the winter 1999-2000.

The jury studied my documents and my writings, and wrote *an Opinion* that recommended the promotion based on clear arguments. The idea that it would be beneficial to aim for the establishment of an *MS Degree in Planning* I think came from both Ragnar Sigbjörnsson and Bjarki. The jury described this idea and wrote a report stating: "The jury highly recommends that planning education should be established at the University of Iceland."

Bjarki, who was then the Chair of the *Icelandic Planning Association* (IPA/SFFI), introduced the idea to the Association and a committee was formed with him, *Stefan Thors,* State Planning Director, *Haraldur Sigurdsson* at the Reykjavik City Planning, and *Gestur Olafsson* a self-employed planner. Our Department also established a committee with *Birgir Jonsson*, Chair, *Ragnar Sigbjörnsson* and me.

It soon became clear that the IPA committee was very keen that the planning programme should be formed in close cooperation with the *Royal Town Planning Institute* (RTPI) in London. This institution has the task, both in Britain and in some other countries, to provide assistance in establishing planning programmes and also, regularly, to conduct reviews of courses offered, similar to the way ABET had vetted the Faculty of Engineering of the UI in 1993.

The two committees met in the spring of 2001 and I was asked to write an initial report on how the planning programme could be structured. I based this on guidelines from the RTPI and also created a list of nineteen courses at our Department and at the University, that could possibly form the core of the programme, or suffice as elective courses.

In the summer I went to visit the *RTPI* in London to have meetings with them on our programme idea. I also visited the *Bartlett School of Planning* that the RTPI was in the process of reviewing. The RTPI declared they were ready to create a committee to work with us for free, as they always do, we only needed to pay the airfare, food and lodging. As I returned to Iceland, we had a meeting and decided to collect funds for the first visit of two RTPI representatives. They came and gave very good advice, and we were very happy. Following the fine RTPI assistance it was decided that the IPA committee would meet with our Department to decide on further steps. What then happened was that professor Julius Solness came out strongly against our plans and said that, in his view, our Department should not graduate planners. But, of course, it was never the idea that they would be given the title of an engineer.

With this all the fine work was for nothing. The fact that Julius clung to his principle becomes strange indeed in the view of that, at the same time, he was participating in establishing cross-disciplinary MS study at the Environmental Institute of the UI. There the students would be guided by instructors in various departments of the University, so our department was actually a part of this and started to graduate people in this line... though of course not as engineers.

At the same time as this happened, *Rector Pall Skulason* and *Stefan Olafsson,* a professor of sociology, established a *City Research Centre* with the City of Reykjavik. This Centre mostly dealt with social aspects of cities. Pall and Stefan had a good political connection with then Mayor *Ingibjörg Solrun,* and it was agreed that Reykjavik would pay most of the salaries but that the University the housing. I got the position of *Director of Research in Planning,* and I started to visualize the Centre as a part of a MS programme in planning.

It may sound fine to make use of connections with politicians for strengthening activities at the University – but there are faults in this approach. For example, it happened that *Prof. Hannes Holmsteinn* very soon started to criticize projects that Stefan had established at the Centre, as being too leftist. Stefan replied full-throat and their fight is still ongoing.

Soon after Ingibjörg stopped being the Mayor, the contributions from the City of Reykjavik started to wane. It proved to be hard to get other grants, perhaps because of the leftist stamp the Centre had acquired. It also did not help that the Centre had the word "city" in its name, so that other communities that were only towns, did not see it as its own. Therefore the operation stopped after a couple of years.

The Royal City Planning Institute helped form ideas on planning studies in Iceland

TV went to Bartlett to get info on the RTPI assessment process there

Options in airport elections in 2001: A) and B): Little changed – C) Keflavik

D1) A new airport south of Hafnarfjördur... in Hvassahraun

D2) A new airport on landfill on Löngusker in Skerjafjördur Bay

New Master- and Regional Plans Press the Airport Issue

At the turn of the century the revision of the Reykjavik Master Plan and the Capital Area Regional Plan started. Many influential people of the governing Leftists in Reykjavik (the R-list) wanted to include in the new plan that the Reykjavik Airport should be removed. It was obvious that the removal would cause great opposition, for example from the transportation authorities, not least because the City had issued a permit for rebuilding the airport in 1996. In order to get backing for the proposal about the removal, the R-list now started to prepare a survey or an election about airport alternatives, in the spring of 2001. The Department of Sociology of the UI has considerable experience in conducting surveys and *Prof. Stefan Olafsson* was asked to prepare the alternatives for the election.

Three alternatives were formed: A. The present airport with 2-3 runways; B. The airport with some changes, i.e. that the NS-runway would be moved more to the south, into Skerjafjord; C. That the centre of domestic flights would be moved to Keflavik (the site of the international airport); and D1. A new airport would be built south of Hafnarfjördur or, D2 on landfill on Löngusker in the Skerjafjördur Fjord.

The proposal about the airport on the *Long Skerries* in the Skerjafjord I put forth in 1975 (see p. 70). Therefore I have always taken part in discussion about that alternative and I, and many others, think that this is the best option, even if it may be more expensive than some other alternatives. I had always pointed out, that now there was a new generation of native "Reykja-vikings" that were not happy with a suburban lifestyle, but wanted to live centrally in a mixed settlement, with all services that make it possible to live without a car, as in most central urban areas abroad.

In the autumn of 2000 I dedicated my planning course to a vision for the planning of Reykjavik, where the main subject was to design a mixed-use settlement in the airport area. Some students of mine, with *Orri Gunnarsson* in the lead, took part in establishing a group of people that were opposing the airport, a group called *Reykjavik 102,* which is the postal number of the area. This group was very active in the debate and published some humorous one page ads, that were also placed like posters in many places in Reykjavik. The association *Better Settlement* was also very active in the debate with *Örn Sigurdsson* and *Gunnar H. Gunnarsson* in the lead, as they have been ever since.

In 2000 my colleague *Birgir Jonsson* and I, had two Swedish master's students who came from the Department of Real Estate in Lund, Sweden. We formed a master's project with them where they compared four types of plans for the airport area. They found that both Reykjavik and the Icelandic State would profit financially from selling lots there and that Reykjavik, in addition, would receive high property- and income taxes from the people that would live there.

This was an important input into the debate because earlier proposals had only allowed for a very low density in the area, which meant that the area would not become very valuable and that only a relatively few would life there, meaning that the tax incomes would not be very high. The findings of the MS project gave the opponents of the airport data for their argument that the concept of a high density and high value for the area, would strengthen the opinion that the airport should be removed.

A great discussion started in the media about the airport issue and many thought it was peculiar that the transportation authorities were active in the debate to support the airport, probably because of the influence of the Minister of Transportation Sturla Böðvarsson, who is a "countryside" man.

The planning authorities in Reykjavik made themselves vulnerable by not having the planning options prepared well enough, in fact having insuffient data on weather and technical conditions. Actually the Aviation Authorities only gave their technical assistance to two of the alternatives: that the airport would stay where it is, and that the domestic operations would be moved to Keflavik, which was an unrealistic option. The airport issue is an example of a political tug of war, where the parties are not able to sit down in good faith, to find a solution. This tug of war has been going on for many decades.

In the summer of 2013 a group opposing the removal of the airport, started an unpleasant campaign and collected signatures to oppose the removal. In this case Conservatives from the country-side were at the forefront. The occasion was that the ruling Leftists (the so-called *Best Party,* and others) were presenting a revised Master Plan, which included proposing that the airport would be removed. Yet again the Leftists made the mistake that the main option for a new airport – on *Holmsheidi* – was badly prepared.

The collection of signatures showed that the majority of people, both in Reykjavik and in the countryside, were against the removal of the airport. Here the *Airport Friends* were taking advantage of the fact that the economic crisis was still in full swing and people were against everything that required much tax money. This meant that most people were against the idea of building a new airport… for the time being.

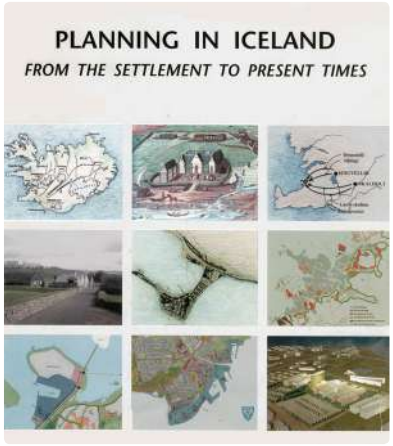
The people at the forefront in opposing the removal of the airport were not happy that most of their fellows in the Conservative party in the City Council were supporting the removal and said they would be observed dimly in the primaries in the autumn. This meant, that *Gisli Marteinn Baldursson,* pulled out of the primaries.

But now, for the first time, a representative of Reykjavik had become a Minister of Transportation, *Hanna Birna Kristjansdottir.* She was in addition, a former Mayor of Reykjavik and had supported the removal. She and the Icelandic State made an agreement to form *Ragna Committee* to solve this locked issue. This committe did not solve the issue.


Sviðsstjóri slysa- og bráðaþjónustusviðs Landspítalans
Nálægð vallarins æskileg, ekki lífsnauðsynleg
ÓVISSA EINKENNIR SÖGU FLUGVALLARINS
BREYTTUR
VÖLLUR ER
VERSTA
LAUSNIN
Samtök um betri byggð
Meta Vatnsmýrina á 51,6 milljarða
BORGARBÚAR KJÓSA MILLI TVEGGJA KOSTA
Silfur Egils · Pistlar
Flugvöllur framtíðarinnar á Lönguskerjum
Fráþær grein Trausta
Grein Trausta Valssonar í sunnudagsblaði Mc
umræðunni um flugvallarsvæðið í Vatnsmýri.

Clips showing the debate ahead of the airport elections

"What are we waiting for?" A poster by the opponents of the airport



This book I published in 2003 as a translation of the Icelandic version of 2002

1. Narure: Forces that Shape it
2. First Steps in Shaping of Settlements
3. Plan Development of Towns and Regions
4. Development of Systems on a Country Scale
5. The Developments of Today

The five "Books" of the volume. It is 480 pages and has 1250 illustrations

Agustina is one of Iceland´s best poets. We had a very fruitful relationship

My Overview Book: Planning in Iceland

In 2001 I had become 55 years old and had been teaching for thirteen years at the University, which meant that a lot of material on planning- and settlement issues had accumulated on my shelves, that was not much use to anybody but my students. I decided therefore to write a large overview book about planning in Iceland, from the early settlement to present times.

The first step in writing the book was forming a concept on which to base the book. Here I decided to follow the thinking I learned about environmental planning at Berkeley, i.e. that settlements are often mostly formed by the natural conditions in the area in question.

I knew that the early settlement of Iceland is one of the clearest examples of this, not least because the natural conditions here are very decisive both as to resources and hazards. Therefore the book could have value outside Iceland as a way of displaying how settlement and society are formed by local conditions.

In making this attempt to describe the interaction of settlement and nature in the book, it was very obvious that it would have to touch on many branches of the natural sciences, in addition to the disciplines that deal with settlements and planning. I therefore decided to divide the book into distinctive parts that I call *Books,* as often is done in English books. Each Book would be divided into many chapters and sections.

The First Book, I called *Nature: The Forces That Shape It*. It is meant to describe the so-called internal and external forces of weather and volcanism. *Book Two* I called: *First Steps in Shaping of Settlements*. This book was meant to describe how the shaping forces of nature and natural conditions, were most decisive in forming the settlement structures in the beginning. Later other shaping parameters, like ownership of land and possible routes for travel, become influential.

The Third Book I called: *The Plan Development of Towns and Regions*. There I decided that the first chapter would describe the basic types of urban areas, and then the first sprouts of urban areas of Iceland that were clusters of farms, the two episcopal seats and the first fishing hamlets. Later fishing villages developed and eventually the industrial hamlet Reykjavik in 1752, that later developed to become a centre of administration, education and fisheries – and finally the Capital of the country.

The Fourth Book I decided to call: *Development of Systems on a Country Scale* – that are formed over a very long period of time. The two main types of systems are the communal/educational systems and the technological infrastructures.

The Fifth and last Book I called: *The Developments of Today*. Here I decided to review new, emerging ideas that were changing societies at the turn of the century and following that, to draft a picture of how the planning of settlements and towns would change.

When I had decided on the names of the *Books*, I decided on the names for chapters and sections. Finally, I decided, which maps and illustrations would come into each chapter. As I had finished this, I was ready to start to write the text for the 120 chapters. My method was the same as when I give a lecture; I assemble all the illustrations, and then I decide on a narrative thread and then, finally, I start to dictate the text into a dictaphone.

At this point I had already created a layout for all the chapters in a computer programme. I proceeded by forming ideas for the chapters, one after the other, and I also composed my first ideas about texts for the illustrations. As this was completed, I could see how much space there was left for the main text on each page. After I had finished this preparatory work for each chapter, I started to speak the text into the dictaphone. I took good care to follow the narrative thread, but also to refer to the illustrations at the right place in the text. By letting the illustrations and the text play pointedly together, the text becomes stronger, and the visual material too, because of its close interplay with the text. This is an application of the complementary principle in the making of a book: 1+1=3!

The Icelandic version was published before Christmas in 2002. It is 480 pages long, and has 1250 illustrations. It was well received. Birgir Jonsson said in his review in *Verktaekni:* "Trausti deserves a great thank you for the great feat of publishing this remarkable book". In Morgunbladid, *Agust H. Bjarnason* said: "It (the book) can be seen as a proof that some Icelandic scholarly work has something to say to foreign audiences...."

It was always my plan to translate the book into English, and therefore my guiding thought was always, that the book would not only be of domestic interest, but rather that I was writing a book that was explaining a universal system that directs how settlement patterns and towns get formed. It also was my plan that the book should become a textbook in *Environmental Planning* and I have ever since used it as such. Because I was going to translate the book into English in 2003, I taught it in English in the spring. This made it easier for me to compose the translation into a dictaphone as I was translating the book in the autumn. I then had the text typed. The whole time I tried to adjust the English edition to the foreign readership.

The preface was written by *Sir Peter Hall,* a professor at Bartlett in London. Sir Peter starts his preface with: "Trausti Valsson has achieved an extraordinary feat of scholarship...." And he ends the preface by saying: "... TV´s book sets a new standard in historical scholarship and provides a model for other scholars in other countries to follow." Many scholarly magazines abroad published reviews that were for the most part very positive.

Reading my translation for Planning in Iceland *into a dictaphone*

„TV has acchieved an extra ordinary feat of scholarship."

„TV´s book sets a new standard in historical scholarship and provides a model for other scholars in other countries to follow."

From the preface of Sir Peter Hall to Planning in Iceland

Peter Hall was one of the most respected theoreticians on planning in later times

The Kyoto Protocol on greenhouse gas emissions was formed in 1997

Obama in 2009, just crowned as a Nobel Peace Laureate: "Kyoto is not working"

Giving a talk on the warming in Greenland for officials in Nuuk, the Capital City

Impact of Global Warming – Farrand Professor 2004

It is quite memorable to me that our professor of weather and hydrology at Berkeley – *Luna Leopold* – came back from a conference in 1981 and said that so much greenhouse gases were accumulating in the atmosphere that it was quite likely that the world climate would start to get warmer. This would mean, for example, a higher sea level and a shift of eco-zones towards the Poles and to higher altitudes.

Another event that aroused my interest in global warming and Arctic concerns, was a conference that *Thor Jakobsson* and *Gestur Olafsson* initiated in Reykjavik in 1987. This was about the possibilities of opening sea routes through the *Arctic Ocean* because of better sea ice forecasts and better ice breakers. At that time global warming and the melting of Arctic ice were not yet in the picture and also not the political thaw that later came in the relationships of the great powers after the *Soviet Union* collapsed in 1990.

In 1997 people were becoming so convinced that projections about the warming were true that the UN held a conference on this in *Kyoto*. Following that about 100 nations signed a treaty on limiting CO2 emission. These nations, most of them very small were, however, only responsible for about 25% of the world emissions. The signing of the treaty meant that these nations had to shoulder considerable CO2 related development constraints. The larger nations, like the USA and Russia, were reluctant to sign, and it was decided not to push developing nations hard to sign, because they had only caused little of the warming because it had come from two centuries worth of accumulation of CO2 of the old industrial nations.

The rejections of the great industrial powers to sign, were one of the biggest media themes in the first decade of the 21st century and the USA was especially hard pressed. In 2009 the UN made a "final" attempt at a conference in *Copenhagen* (COP15) to get an agreement on the renewal of the *Kyoto Protocol*. Two days before the conference was over, the Norwegians had given *Obama,* the new USA president, *the Nobel Peace Prize,* in order – in my opinion – to pressure him to land in Copenhagen on his way home from *Oslo*. There he would not be able to escape declaring that the USA would in the future sign the treaty.

Obama came to Copenhagen and said rather unexpectedly, but candidly, that still today, twelve years after the Kyoto conference, only small nations with only about 25% of emissions had signed and said that there was no likelihood that the large industrial nations and the developing nations would sign in the near future. I was at COP15 and the atmosphere was quite peculiar.

Already in 1992 I had started to take the predictions of the warming seriously and my students and I showed on a map (see figure on p. 78) how large were the coastal areas the

rising seas would engulf in SW Iceland, and we also showed how much higher the line of vegetation would go. Because of this, the agricultural areas would expand up to higher ground. Since then I have written about the impact of global warming in all my books.

In 2003 I started to seriously consider if I should make the impact of global warming a central issue in studies on the future that were most often a basic theme in my work. This would mean that I would restart my earlier studies about how global settlement might develop in the future. Most of these studies *Albert Jonsson* and I had already written about in our book *At the Turn of the Century* (1995).

In the autumn of 2003 a former professor of mine at Berkeley, *Joe McBride,* came to Iceland to gather data for his book *Urban Forests*. We had many good conversations, among others about the impact of global warming. When Joe returned to Berkeley he arranged that I would be invited to come to Berkeley in the fall of 2004 as a *Farrand Visiting Professor*. This was a great honour for me.

I was given the task of teaching a planning studio with him and *Jennifer Brooks*. The town *Richmond*, in a flat area by the San Francisco Bay, became the area of our study. I proposed to make a study of the impact that global warming and a higher sea level the central theme in the planning of this coastal town. And, this became the first studio at the Department that concentrated on these questions. As frequently happens when new subjects are introduced at universities, we the instructors did not learn any less from the projects than did the students. In addition Joe and I had extensive conversations about global warming.

As the seminar was drawing towards its end, a large report from the *Arctic Council* on the impact of global warming in the *Arctic* (ACIA) was presented. Iceland was then holding the chairmanship in the Council. The report aroused a great deal of interest and in the tv-news in the USA, there were reports about the announcement of it in Reykjavik. This gave me a somewhat peculiar feeling.

Because of the knowledge of the impact of the warming that I had acquired in the studio, from the *ACIA report* and in other ways, I decided that I would make *the impact of global warming on planning* and on the *settlement patterns of the globe*, my main research theme in the years to come. Also I decided that my next book would be about this. Already in Berkeley I laid out the first draft for the *Table of Contents* for the book and started a systematic gathering of data.

In the summer before I went to Berkeley, *Jon Arsaell Thordarson,* had started to make a film about me for his series *Independent People*. Jon and I decided that the main emphases would be on the impact of *The Big Thaw,* as Jon called it. The second part of the programme was filmed in California. As the film was shown on tv in Iceland in January

Joe McBride and I in his and Debbie's home, as I taught at Berkeley in 2004

It was great fun to meet again my friend Kris Albert, the former graduate advisor

Talking with Jon Arsaell of Channel 2 at the University, on the "Great Thaw"

From the tv-programme: Entering the LAEP office at Berkeley, where I taught

I have warned that the new landfills and breakwaters, are not high enough

At a planning conference in Vienna in 2005, with Sveinn the Ambassador

Helga and I were in an informal relationship for ten years; a good arrangement

2005, it brought me into the public debate about world climate concerns. This film can be seen on my homepage at UI www.hi.is/~tv and also on YouTube.

After I came home at New Year's 2005, I dedicated my planning course to the impact of global warming on various aspects of planning and society. It was fortunate that several Icelanders had worked on the ACIA report and I asked several of them, including Snorri Baldursson and Thor Jakobsson, to give lectures in my seminar.

In February I gave a talk at a conference of them *Foreign Ministry* about the impacts of climate change. This Ministry is in charge of Icelandic participation in the Arctic Council, and it had published a report on this in the autumn called *North Meets North* (2005).

In the spring I prepared a conference at the *Engineering Faculty* about the impact of a higher sea level and dangerous coastal floods, with nine speakers. It became very clear that the *Maritime Institute* and coastal engineers had for a long time warned that the seawalls in Reykjavik were not sufficient. Looking back in history we see that great coastal floods have come here, and that they would create much damage when they came next time. Not least because of this, the conference aroused much interest in the media.

In my lecture I warned that some new landfills in the Capital Area were not high enough, and I also warned that some of the proposed landfills faced the open sea. Reykjavik has taken notice of this and big landfills that earlier were planned at Ananaust, Grandi and out to Örfirisey have been removed from the Reykjavik Master Plan.

When one is writing a book, it is a good method to give talks on the issue in as many conferences as possible. Most of the year 2005 went into this and I can mention my talks at a conference of *European Planning Schools* in July in Vienna and my talk at a conference *Nordregio in Helsinki* in the autumn. There I described how the North would partly profit from the warming.

In these years it was almost a blasphemy to mention this. The guest of honour at the conference was the Swedish pioneer in climate matters *Bert Brolin,* who had headed the UN committee on climate change. The Swedes looked overwhelmed by adulation for the master.

As I was giving my talk I saw that Brolin got ever redder in his face from anger. In the discussion afterwards, we had a sharp exchange of words about my message, and Brolin had then almost become speechless with anger. Two years later I was the keynote speaker at a climate conference in *Torshavn in the Faroe Islands*. During a break the Director of *West Norden* came to me and asked: "Do you know what happened to Brolin after the conference in Helsinki?" "No! "He died from a heart attack a short time later!"

A Book about How the World Will Change with the Warming

The whole year 2005 went into writing the book *How the World will Change – with Global Warming*. I wrote it in English because most of the issues had rather a global than an Icelandic reference. This book, I think, is the first book in the world that describes the impact of warming on planning and settlement issues on a global scale.

The first chapter describes what causes global warming and what is being attempted to stop it. The next chapter describes the impact of the warming, as well as impacts of other changes in climate. The main characteristics are that the biological belts in the seas and on land will move towards the Polar areas and to higher ground, because it is colder there.

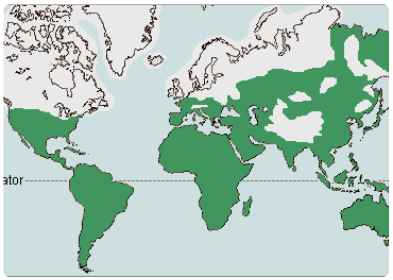
This pattern of change resulting from a warming climate has been repeated several times in the geological history of the world. The patterns are reversed as it starts to get colder again and in an ice age, the ice cap starts to spread south. The last time the edge of the ice cap stretched to today's location of Berlin and Kansas in the USA.

The third chapter of the book describes how the spatial system of the human settlement of the globe, has changed in history. Based on this I made a prediction on how these patterns would change in the future.

On the development of spatial systems I wrote earlier on page 139 to 143. The impact of the warming is, in short, that the cold areas of earth will profit from the warming... even all of Europe north of the Alps, where there are only a few weeks each summer that are properly warm, and the winters very cold.

It is ironic that the *old northern industrial nations* that built their wealth with unrestricted burning of fossil fuels, are those countries in the world that profit most from the warming. One the other hand, the young developing nations of the south will suffer most from the pollution and the rising temperatures. It is very unfair that the developing nations are now meant to shoulder heavy burdens in order to repair a problem that the wealthy nations created in a 200 year period with enormous coal burning and pollution. It feels like hypocrisy now, as the rich nations talk about a common responsibility for all mankind to reduce emissions, when it was their fault to start with. Based on this I had already said a long time ago, that Kyoto would never work... a view that was considered at the time to be blasphemy!

As I decided on the structure of the book, I decided to make this idea, that Kyoto would never work, a point of departure. My message was therefore that we should rather embrace the changes that come with the warming. I wrote a poem *Let´s Embrace Change!* in English and published it in that book and also in this one. (See next page).



The white regions are the areas that were covered by ice in last Ice Age

The wealty North enjoys life as the South burns and suffers

This picture presents the view that the Kyoto Protocol is dead and buried

Let's Embrace Change! *(TV: The warming can not be stopped – Let´s embrace the changes and look for the positive)*

I A New Way of Life

Modern man
Is static in his ways.
This is in conflict
With the nature of the world

Time changes everything,
But time is not accepted.
And we don´t accept the changes,
That time brings

The world is changing,
Fast and profoundly.
Today, global warming
Is the catalyst of change

Not to fight change
Is a lesson to be learned.
The new way of life;
Is to embrace change!

II Patterns of Change

From dust to dust;
The story of planets.
This same pattern
Applies to everything.

To a day-fly,
Not much changes.
The same holds true
For us humans

Looking at history,
Continents change,
Organisms change –
Nothing is static

Periods of warming,
Periods of cooling –
They come and go:
Patterns of change

III To Fight Change

Man thinks:
I can control Nature!
And man wishes:
May nothing ever change!

On a small scale
Man is in control.
But in mega-events
He needs to reconsider

Nations build levees
And gain land.
The fallacy becomes clear
With rising sea-levels.

Not to fight the oceans
Is the lesson here.
The oceans will rise –
It is ours to yield

IV Change: A Disaster?

Change is trouble,
Change is hardship.
But we can rephrase:
Change is challenge!

We can gain from change,
Or let it defeat us.
The same with global warming:
We can gain from it

There is a simple solution:
Yield to global warming,
Seek cooler areas,
Move toward the poles

We have fouled our nest,
But new frontiers await;
Filled with opportunity,
For a new beginning

V A New World

The Arctic from above
Is like a new planet.
Frost and isolation
Made it unknown

A warm Arctic,
Is a new paradise;
A place to escape to,
From excessive heat

Exploration and settlement,
Once a pride –
Have soured
From bad conduct

Arctic settlement
Has to be planned
To make sure
It is sustained

VI Objections

Some will say:
Let's stop global warming!
Sadly, not possible –
But it saves resources

Others will say:
Let's create clean energy!
A good solution –
But not yet in sight

As of now,
The warming will continue.
Let's draft a picture
Of northward migration

Migration is a natural way
By warming and cooling.
Only static thinking
Makes it seem impossible

In chapter four in the book, I described how the system of ship transportation in the world will change because of the opening of *shipping routes in the Arctic Ocean,* i.e. north of America and Asia. Also that land transportation will be much easier in the High North (for example in Iceland) because of less snow and shorter winters. I had to push me hard to publish these presentations, because I knew that many would consider them absurd. But I had good training at being shouted down for my ideas.

Abroad the book got a good press, including in a tv-interview on the BBC (see YouTube) in 2007 and in *Time Magazine* that published the cover story *Who Owns the Arctic?* The main cause was that in October that year the Russians had sent a remote controlled submarine to place the *Russian flag on the North Pole* at a depth of some 3000 m. In the summer I had been in New York, where I was invited to come to the offices of Time in Rockefeller Center. I thought this was quite an adventure, even though there was no reporting of my issues in sight. This is because Time only reports on occurrences that are happening in the world shortly before this weekly magazine is issued.

Well: About three weeks later the Russians placed their flag and the media went bonkers. Then I get an email from *Time* saying that they are going to publish a *Cover Issue about the Arctic* in the following week: "Are you willing to help in the preparations?" "Yes, OK" I replied, and I got twenty questions that took me two days to answer. There followed long telephone conversations where the reporter and I went deeper into this. As a theme issue like this, is prepared, many journalists – placed all over the world – provide the basic material and then a supreme writer composes the text on the theme based on this. The cover story was about six pages, half of it going for graphics or photos. What I had contributed became ten column centimetres, which is pretty good.

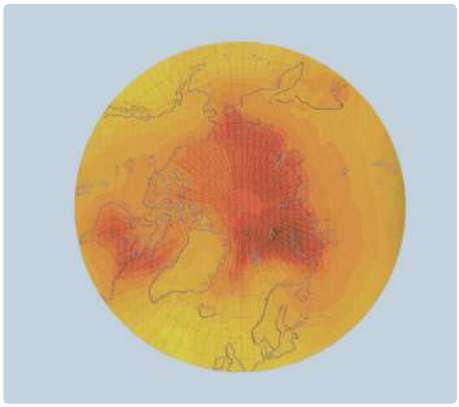
The 1500 copies of my book were soon sold out, but it is still on my homepage at the UI. After the book had been published I was invited widely to give talks. The most memorable invitations in 2007 were to *Nuuk in Greenland* and to *Torshavn in the Faroe Islands*. The one who initiated the invitation to Nuuk was *Klaus George Hansen,* the State Planner of Greenland, who had heard me speak at the Helsinki conference. In Nuuk I gave three lectures for, among others, all the main politicians of the country.

The West North Council invited me to a conference in Torshavn where I was the keynote speaker. The theme of the conference was the changes in the *High North* and the enormous *rise in the number of cruise ships* in the northern seas. The possibility that something could happen to these ships is a cause of great concern for the small nations in that area. Most of the passengers are old people that would be hard to transport with helicopters, or other means, to ships on an accident scene. The possibility of an accident requires much planning on the part of the coastguards and their ships, in these countries. But there is a possibility of a new "Titanic" accident in this new area in the next few decades.

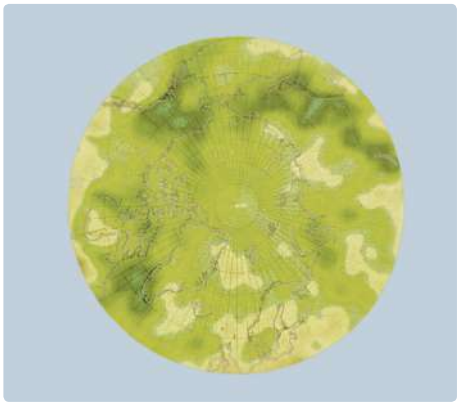
TV interviewed by Sally Magnusson on BBC. It is on Utube under TV´s name

By placing the flag on the North Pole seabed, the Russians caused a great uproar

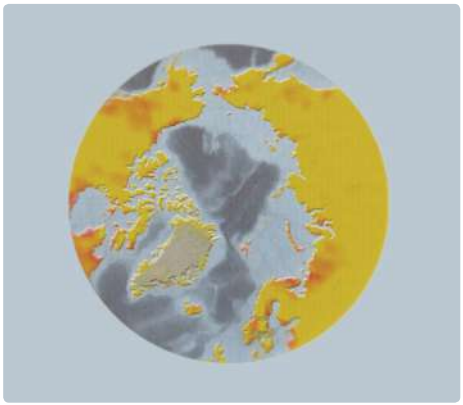
TIME published a cover story. A journalist contacted me and quoted my answers



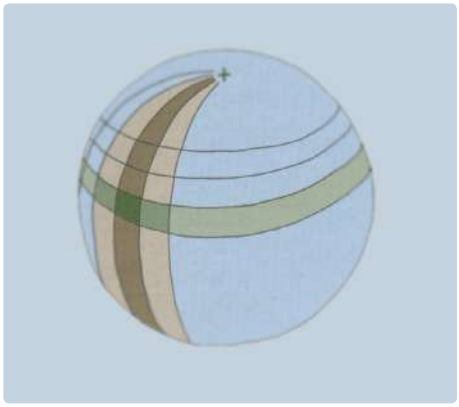
Warming in the winter in 2100. Most +12°C



Increased precipitation 2100. Most +12mm/mo

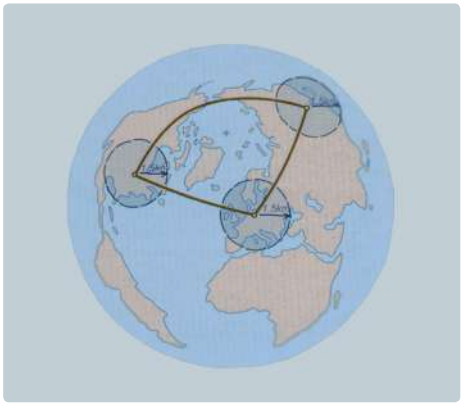


Increase in growing days. Dark red: +70 days

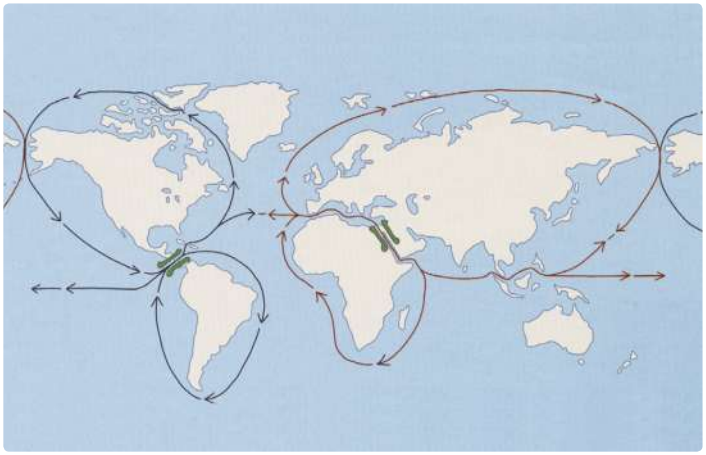


North-South relations will increase

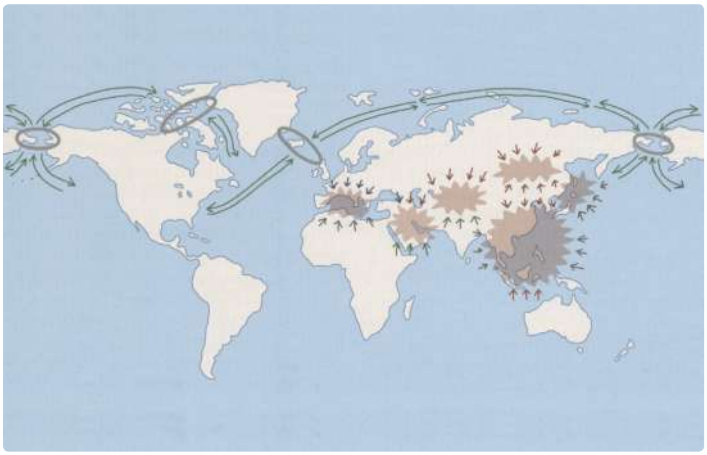
Shipping routes – and new settlements (green)



High speed trains in vacuum tubes can connect



Routes over the Arctic Ocean would create circular shipping systems



A route north of Eurasia: Secure transport in case of SE-Asia conflicts

TV´s book on warming was the first in the world that described the global planning consequences

The Impact of Climate Change on Iceland

After I finished writing my book on the impact of climate change on the world, and followed up on it for two years, I decided to start a closer analyses of what the changes could mean – practically speaking – as concerns planning, engineering projects and settlement issues in Iceland. One of the first thing I initiated, as I have already mentioned, was a conference in the Engineering Faculty in the spring of 2005 as I was preparing my book. The theme of the conference was coastal floods and rising sea level, which suited well for continued student projects.

One of these projects was the analyses of the impact of coastal *floods on Down Town Reykjavik,* which has a very low elevation. Thus a flood there could lead to enormous damage, mostly in cellars. There is also, for example, the danger that the sea uplift forces could lift houses and make them skewed.

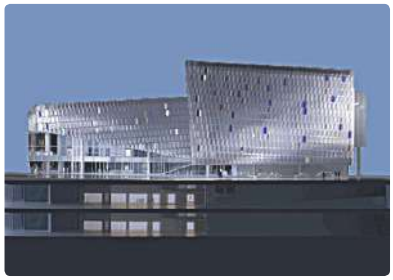
Because of this danger, the bottom of the two cellars of the *Harpa Concert Hall* had to be anchored to the bed rock. One of my students *Reynir Saevarsson* later took the initiative to form a new project af Efla his firm, on how the Down Town Area could be protected against floods and their consequences.

The students performed analyses with me of the impact of global warming on the various types of outdoor activity that I later presented in articles and conferences. This brought to light, for instance, that there would not be enough snow in the skiing area Blue Mountains, and actually the number of opening days there has been greatly reduced.

The hundreds of millions of crowns invested there would therefore not be of much use. Therefore plans needed to be made to move the skiing areas of Reykjavik to mountains that are further inland and where there is also higher elevation, like for instance, in the *Botnsulur at the bottom of the Hvalfjord*.

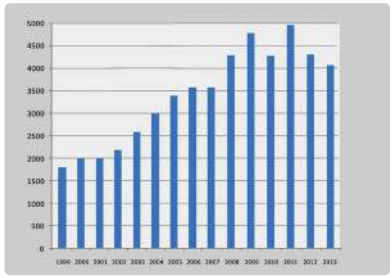
Another example of wrong planning and wrong investments, was to advertise *Myvatn Lake* as an area for snow mobile competitions and fishing through ice. Not long time after these investments had been made, the ice on the lake had become so unsafe in the winters, that it did not allow this type of activity. I gave a talk about this in a conference of Scandinavian leaders in tourism at *Budir on Snaefellsnes* in June 2007, as bad examples.

One of the greatest impact of the warming in Iceland is that the summers are getting ever longer, that means, for example, the lengthening of the period for summer tourism, and farmers can now even get three corps from their fields in the summer. Also a great increase in grain growing has taken place because of better summers, and generally speaking, Iceland is destined to become a good agricultural country in the future.

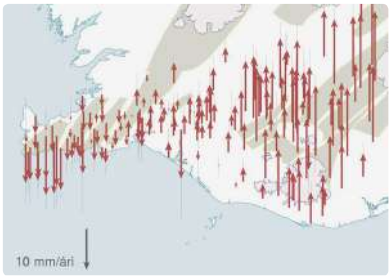


Harpa Hall at the Harbour – Uplift by the sea, required anchors into the ground

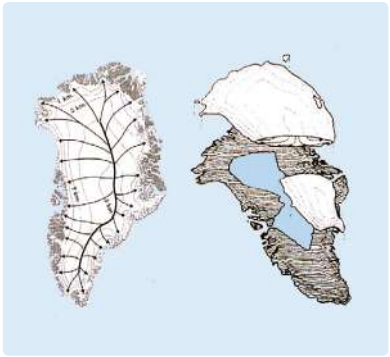
EFLA has defined three alternative sea walls to defend the Harbour and Kvos



Grain fields tripled in size 2001-´14. Iceland will become good for agriculture



Subsiding in the West, land-lift in the East where glacier-melt let land lift



Watersheds on the Greenland Glacier, and subsidence. There a sea could form

Our study on three scales: 1) The Arctic, 2) Vicinity of Iceland, 3) Iceland

One of the fields where engineering plays a big role, is building of harbours. Here it is a subject of basic research what the sea level will be in the various parts of the coast in the future. This is a especially complicated field in Iceland because e.g. in SW-Iceland the western tip is subsiding because of the weight of the lava fields that have been building up there for a long time. This means *ca 15 cm subsiding in a year*. On the other hand the heavy glaciers in the East are getting thinner, which means that the thin crust under them is now lifting.

It has been calculated that SE-Iceland will *elevate about 2 m in this century,* and at the same time it is predicted that the sea level will rise about 1,5 m so the netto rise of Iceland there, will be about 0,5 m. Because of this people have been worried about the reduced depth of the harbour *Höfn in Hornafjördur*. A study has, however, shown that there is a great depth there to the bed rock, so to make the harbour deeper is no problem.

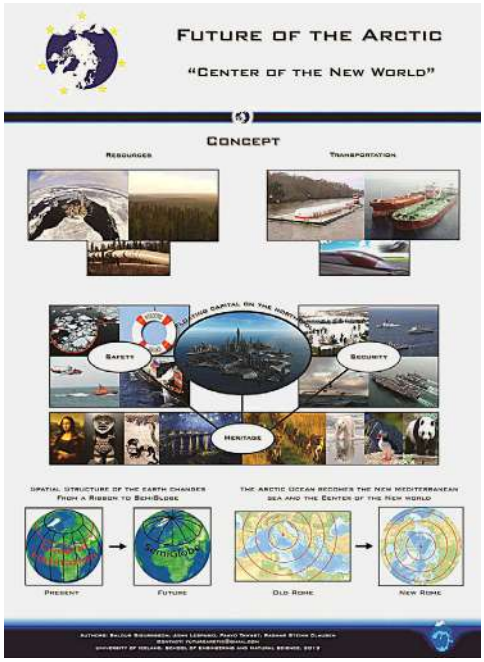
The issue that makes the question of how the sea level in Iceland will change, is even more complicated because Greenland will get much lighter because of the melting of its glacier. This will have two consequences: the surface of *the globe around Greenland* will lift, and the mass of Greenland that now pulls ocean water towards it, will now get reduced and lead to a less elevation of the surrounding waters.

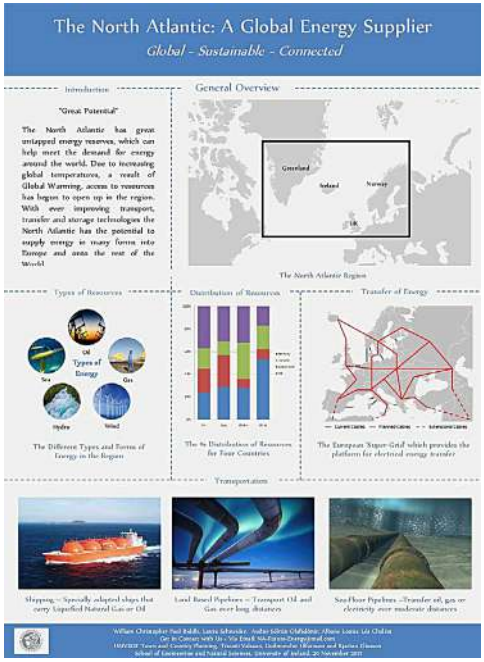
But the melting of the *Greenland glacier* will happen very slowly because it has high elevation and because the thick crust that is under it, will only lift slowly. In our Civil and Environmental Department it is mostly professor *Sigurdur Magnus Gardarsson* that has been studying the *sea level rise*.

The activity in Iceland where there will be greatest impact because of the warming is transportation. There one should first mention the road traffic over the highlands. Both the vegetation- and snowline are moving upwards, which has meant that the amount of snow in the highland routes has been reduced. The increase in vegetation in the highlands has also, for instance meant, that behind the *Burfell Mountain* the soil has started binding which means less sand blast of cars, which has been a problem.

It is to be expected that the sands of the highlands will be vegetated to a considerable degree after some decades. This would mean that there would not be much visual difference between the highlands and the lowland and therefore the highlands will lose much of their charm of untouched wilderness. This will mean that people will become less sensitive to roads and other constructions projects there.

In the fall of 2013 *Gudmundur Freyr Ulfarsson* and I decided to let our planning course focus on the impact of the changes that are likely to happen in the Arctic, in the North-Atlantic around Iceland and also in Iceland itself. We divided the students into six groups. The first two groups conducted an analyses and prepared two different visions on the future in the Arctic, i.e. a) much human activity and b) a vision about much preservation.





Posters from a planning studio at UI: *A poster on Iceland's position and emerging opportunities in the Arctic – and a second poster; an analysis of what may happen in the vicinity of Iceland in the North Atlantic*

The poster on the Arctic (left) *presents some planning ideas, for example a floating World Capital on the North Pole*

This poster on the North Atlantic, *emphasized how much renewable energy there is – especially in the ocean areas. (Currents, tides, wave energy, temperature differences, wind) – A map shows in red the proposed European Super-Grid, and the connecting of Iceland to it*

The next two groups used these findings and drafted pictures of what was likely to happened in the North Arctic, i.e. in East Greenland, Iceland, the Dragon Area NE of Iceland, and Scotland.

The last two groups used then the information that had been gathered in the first four groups about what is likely or desirable, to happen in Iceland or its nearest areas, because of these developments in the North.

One of these two groups created an idea on *a country plan* where it was assumed that a transhipment harbour would be built in the *Finnafjord* in NE Iceland, oil extraction in the *Dragon Area,* and possibly the placing of a submarine electrical cable from East Iceland to Scotland. The group concluded that if this great activity would start in the East, the roads to the East had to be improved very much. The group also proposed a better connection of the East to SW-Iceland by building *a highland road north of Vatnajökull.* This road would shorten the distance to Reykjavik some 200 km.

The group that had the idea of keeping human activity at bay in the country plan, wanted that sustainable tourism would become a major trade in the future. This group chose to put main emphasis on the *Vatnajökull Glacier National Park,* and also *the Westfjords,* as the two main areas for sustainable tourism.

Students listening to a presentation of a project in the Arctic planning studio

Megapatterns driven by global warming:

1. Towards the Poles

Interpretation:

A draw of people and activity towards the warming Polar areas. Repelled by the heat in central areas

Areas that benefit:

The large land mass of the high Northern hemisphere makes northward migration more interesting than southward migration

2: *To coasts in much warming areas*

Interpretation:

Increased draw to the cool of coasts in very warm countries, and are pushed by their increasingly hot interiors

Areas that benefit:

Coastal areas and coastal activity in countries that are not already very warm, but will become very warm

Megapatterns driven by global warming:

3. To high central areas in warming countries

Interpretation:

Today high interiors of very cold countries are largly uninhabitable. With warming they start to draw

Areas that benefit:

N-Canada, N-Europe, Central Siberia and the southern-most parts of S-America and S-Africa

4. To high central areas in much warming countries

Interpretation:

Today high interiors of very cold countries are largely uninhabitable. With warming they start to become comfortable

Areas that benefit:

High central plataues of N-Canada, N-Europe, Central Siberia and the southern-most parts of S-America and S-Africa

Patterns 1 to 4 are driven by global warming

Megapatterns driven by transport and resources:

5. Towards coasts

Interpretation:

A centrifugal force of sea transport and -resources, sends people out of interiors towards coasts

Areas that benefit:

Historically harbour regions were created by this. Siberia and N-Canada will experience coastal growth

6. To interior areas

Interpretation:

A centripetal force of resourses and better transportation pulls people towards central areas

Areas that benefit:

Coastal areas and activity in countries that are not already very warm, but will become very warm

7. To the linear centre of global habitation

Interpretation:

Activity at the linear centre in the middle of the ribbon of habitation, draws people from both directions

Areas that benefit:

Today, areas in Europe, USA and Central Asia benefit from activities there, but the linear centre will move north with global warming

Megapatterns driven by spatial position:

8. *Towards new global cenres*

Interpretation:

New mayor living-centres on the globe have a pull that pulls people and activity towards them

Areas that benefit:

Some older areas have problems, or offer in-suffient opportunities, that pushes some people to move from them

9. *Towards the linear centre of the globe*

Interpretation:

A linear center in the middle of the ribbon of habitation, draws people and activity from both directions

Areas that benefit:

Today, areas in Europe, USA and Central Asia benefit. The linear centre will move north with warming, so people will be pushed in that direction

10. *Towards the centre of the landmass of earth*

Interpretation:

The centre of the landmass of earth in the Urals, will pull. Boarders will become more open

Areas that benefit:

Globalization and the wish to live more centrally on a land-mass, will push people from the edges to the centre of landmasses

Patterns 5 to 7 are driven by transport and resources

Patterns 8 to 10 are driven by spatial position

Mapping of Patterns that will shape the Settlement Structures of a Warming Globe

The Development of Settlement Patterns on the Globe

In 2006 our University created the goal to get into the group of the 100 best universities in the world. Many thought this was over-ambitious, but one has to face the fact that international rankings can critically impact key possibilities like grants, and also whether other universities will cooperate, or are willing to receive students from another university.

There are many institutions that rank the universities of the world and the UI uses the *Times Higher Education system*. Everybody can see on the internet what it is that gives universities points and if a university directs their people into those areas that give the most points, that university is more likely to move upwards in rank.

For example, within this evaluation system, university staff have to have their papers published most highly respected journals – for example in the so-called *ISI journals* – to get many points. To publish in low ranking magazines that are not peer reviewed, gives hardly any points.

In order to encourage, or force, its instructors to try to have their articles published in highly respected journals, the University changed its assessment of points in such a way that people do not get ahead in salaries, or in the advancement system, except by publishing in highly respected journals, most of which are foreign. This means that people have to push themselves much harder to create original ideas and to give their work a highly academic form. The time of the under-qualified has passed.

This increased ambition in terms of creating something that is considered to be of some value in the international world of science, has the drawback that there is little or no incentive to write for Icelandic magazines. Articles published there sometimes give a few points that are called "small things", but only publications in ISI magazines give the necessary power points, and these one needs to have to get ahead in the salary and the advancement system of the UI.

After this new point system had been enacted, I almost totally stopped writing for Icelandic journals and newspapers, and I think it is unfortunate that Icelandic theorists, in areas like planning, start to take less part in public debate.

To meet the demand to write for ISI magazines was a problem for me because I had never done it before. – However, I had some good ideas that probably would be considered to be original enough, and at the leading edge of knowledge in the world, which is a precondition of ISI magazines to publish an article.

Now I got very lucky – and not for the first time – because a new professor of transportation, *Gudmundur Freyr Ulfarsson,* came to the Department. He is among the most

University of Bremen

University of Hawaii at Manoa

University of Iceland

University of New Mexico

University of Otago

UI was in place 251-275 of best universities in 2014. Here with the four nearest

The cover of "Futures", one of the best known future journals

Sialing time from Yokohama

to Rotterdam:

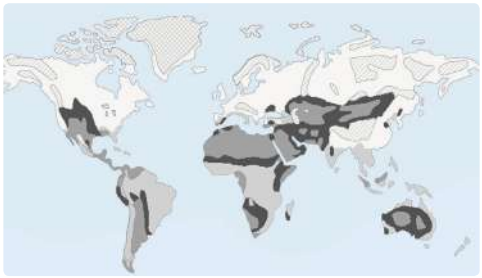
1 Cape of Good Hope: 28.8 days

2 Suez Channel: 22.2 days

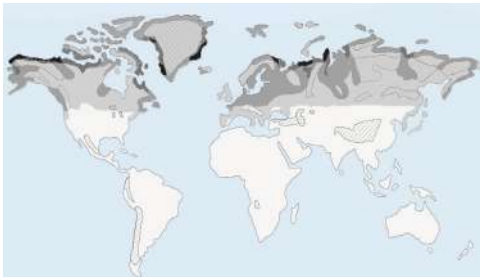
3 Arctic Ocean: 15.5 days

Difference between 1 og 3: 13.3 days

Shortening, by routes through the Arctic, is most for northern harbour cities



Areas that loose by the warming and the opening of Arctic routes. Our map published in Futures



Best located areas becase of shipping, oil, climate and a point centre at the North Pole

skilled persons in writing ISI articles. Gudmundur told me that the US Association of Transportation was, at its conference that year, focusing on *The Impact of Global Warming on Transportation*. Gudmundur had seen in my book that I had created some original ideas on this subject, i.e. as concerns the global shipping transportation system, ideas that were yet to be taken further. Gudmundur asked if I would like to join him in writing an article on this – which we did. A few of the papers given at the conference are published in the most respected transportation journal in the USA, and our article was accepted for this publication. The editor wrote to us: "Your article is utterly fascinating".

The next theme in our writing, was to assess what areas on the globe would profit, or lose, from global warming, something that comes mostly from the retreating of the Arctic ice. In our paper we assessed what this would mean in terms of better access to the resources of the High North, how much shorter the shipping distances would be, as well as the opening of ship traffic in general, in the Arctic Ocean.

I had already described this to some extent in my book *How the World Will Change...,* but now we used the evaluation mapping of McHarg to define the areas that would be impacted. This article also got accepted and published in Futures, one of the most highly respected journals on future matters in the world.

Especially built ships are needed for navigating the Arctic Ocean in the winter

Our third theme to write about were my earlier ideas on how the settlement patterns on the globe would change. A draft of this theme I had put forth twelve years earlier and later in somewhat more detail in the book How the World Will Change..., especially as concerns the impact of the warming on the settlement patterns of the globe in the future. On page 138 I have already described how I took the first steps in these studies in the 1990´s. This article we also sent to *Futures* and it was published without difficulty.

Then for our fourth article we chose to describe the drivers that are shaping the settlement patterns of the world... now applied to the study of the development of a small area, which in our case was Iceland. I will tell about this study in the next chapter.

Threads of Work-Life Come Together

Our Settlements Studies Become an Important Theory

In 2006 I had become 60 years old and there were ten years to my retirement. I felt that I had not been too successful in bringing several of my fighting matters to completion. The most important ones are: 1) to create a good *theory on the development of settlements*, 2) to make *environmental planning* more central in the University, 3) to establish *country planning*, 4) to have *highland roads* built, 5) to have *Sundabraut Road* built and 6) to have a landfill built for *a new airport on the Long Skerries*, and thus to get the valuable Vatnsmyri where the airport is now, as an addition to the Town Centre.

I had been working on all these issues – with some breaks – ever since I returned from my studies in Berlin almost 40 years ago. I had started to long for more visible results even though planning matters on a large scale take a long time. In some cases the time for "digestion" needs to be long as, for instance, has been the case with the highland roads, but my ideas on their system I introduced first publicly in newspaper articles in 1977.

As I described on page 154, half of the Kjalvegur, Sprengisandsvegur and Vatnajökulsvegur Roads have already been built, mostly because they were needed for the building of reservoirs and power plants at Blanda, theThjorsa Area and at Karahnjukar. In the currency of 2016 these 220 km of roads would cost about 6 billion crowns. About as many kilometres need to be built as have been completed, and the amount in crowns for the construction is not that high. Six billion crowns are equal to the cost of an average road tunnel in Iceland.

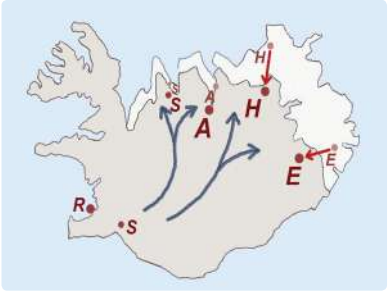
This side-gain of the power plants for highland transportation has been great. This gain will, however, only fully materialise as these three roads have been finished, because then they will provide the shortest distance between the opposite sides of the country. It can be said that the biggest step in the airport matter came by winning the airport election in Reykjavik in 2001 by us opposing the airport. Another big step was as its removal, in phases, was decided in the *Master Plan* of Reykjavik of 2002. In spite of this there is still in 2016, a great uncertainty about the final outcome, even after the Ragna-report.

In this seventh and last part of the book I will report about positive developments in the six above-mentioned issues of my battle. How positive many developments have been of late, means that I can view my career, now at its end, rather positively.

My interest in number 1) was – as said earlier – was to try to form a comprehensive theory on the development of settlement patterns. The primary reason for the positive developments here, is that I started an effort to bring this academically forward as in 2006 the University decided to try to get into the group of the best 100 universities in

1. *To create a settlement theory*
2. *To further environmental planning*
3. *To have a country plan started*
4. *To have highland roads built*
5. *To have Sundabraut Road built*
6. *Relocate airport- Build Vatnsmyri*

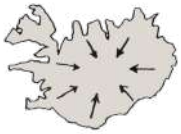
Six main projects TV has been working on in his professional life



Highland roads will bring the East and NE of Iceland ca 200 km closer to Reykjavik

TV, daughters, grandchildren in 2011: *Tinna, Brimar, Harpa, Hrönn, Kristofer*

Patterns driven by warming or cooling



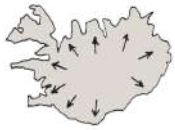
***Pattern 1**: By warming: to the interior*

Forces that pull:

A growing pull of the interior highlands. Lessened snow makes transport easier. The vegetative cover increases, allowing more agriculture

Forces that push:

Because of the rise in sea level and increased flooding, that lead to increased coastal erosion. Also high land prices along some coasts, push



***Pattern 2:** To coasts from cooling interior*

Forces that pull:

The ocean at coasts rarely gets below 0°C. The coasts in cold countries thus get warmed by the ocean and pull people, especially in very cold periods

Forces that push:

High lying central areas get very cold in very cold periods. This leads to poor crops there so farmers are forced to relocate towards coasts

Patterns 1 to 2 are driven by warming or cooling

Patterns driven by technology/resources:

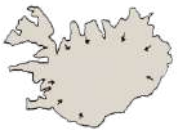
Pattern 3: *Along coasts; sea transportation*

Forces that pull:

Coasts attract because of resources, and lee for sailing in fjords and behind islands. Also good landing- or harbour conditions

Forces that push:

Coasts repel; dangerous transport, cold and wind that is hard on sailing, people, animals and vegetation. Lack of space for cultivation



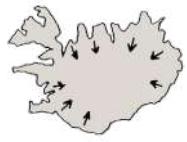
Pattern 4: *Transport-caused; to interior*

Forces that pull:

Improved inland transport draws from coasts to interiors. Easier land transport is facilitated by knowledge and bridge construction

Forces that push:

Push from coasts; lessened feasibility of sea or coastal transportation, harsher climate in cold periods, or by the lack of boats in downturn periods



Pattern 5: *Resource-caused; to interior*

Forces that pull:

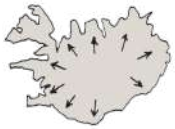
Little used and plentiful areas of the interior draw from coasts, with increase in agriculture and husbandry that require inland resources

Forces that push:

People and activities pushed away from coasts; reduced value of sea- and coastal resources due to a cooling climate, especially in cold countries

Patterns 3 to 5 are driven by technology/resources

Patterns driven by technology/resources:



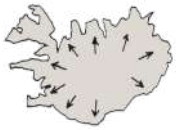
Pattern 6: *Transport-caused drive to coasts*

Forces that pull:

Periods during the Middle Ages caused problems for inland transport because of snow and bad weather. This pushed people out of some interiors

Forces that push:

Periods during the Middle Ages caused problems for inland transport because of snow and bad weather. This pushed people out of some interior areas



Pattern 7: *Resource-caused drive to coast*

Forces that pull:

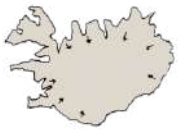
People and activities are pulled by new resource development areas; oil, gas, minerals; along Iceland, north-east Greenland, and Jan Mayen

Forces that push:

Over-exploitation, and reduction of inland resources, may push some people and activities out of the interior towards coasts in the future

Patterns 6 to 7 are driven by technology/resources

Patterns driven by spatial position:



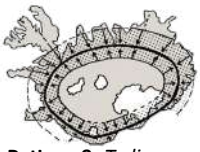
Pattern 8: *To important interiors*

Forces that pull:

Major centres have a force that pulls towards them. Such new centres started to develop inland in Iceland after one century of settlement

Forces that push:

Crowding and over-use repelled from coasts in Iceland after the initial settlement of the coasts: A push towards interior areas and centres



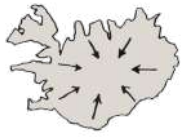
Pattern 9: *To linear centre of Ring Road*

Forces that pull:

In 1974 a linear centre was created by the Ring Road, which led to the development of a "ribbon of habitation" around it. It draws/pulls people

Forces that push:

Placement far away from the active ribbon pushes towards the Ring Road. Today Internet and other communication tools reduce the drawbacks



Pattern 10: *To spatial centre of the country*

Forces that pull:

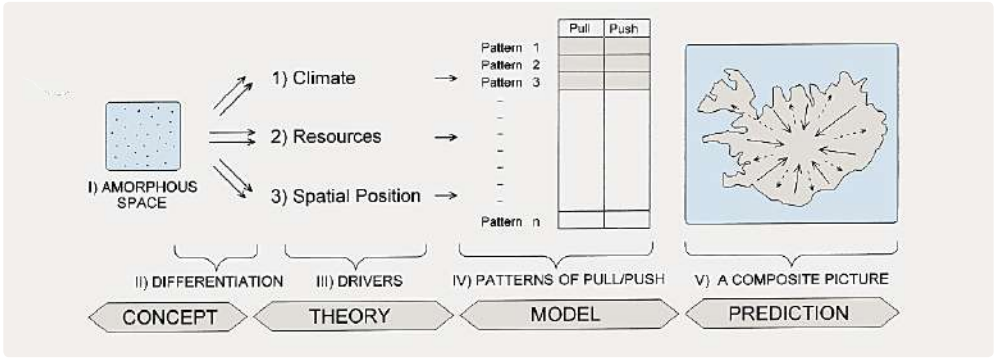
Centres of landmasses will pull people, especially in cold but warming regions. Primarily in interiors that have bad weather

Forces that push:

People and activity are attracted to central areas. This means a push of people and activity from areas at the edges, towards the central area

Patterns 8 to 10 are driven by spatial position

Mapping of Forces that have shaped, and will shape, the Settlement Structure of Iceland

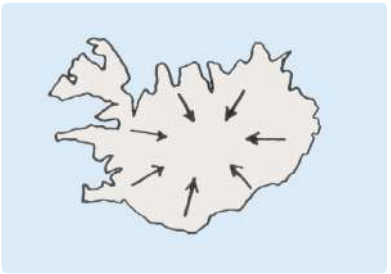


The figure shows the steps in our theory on how settlements form and develope

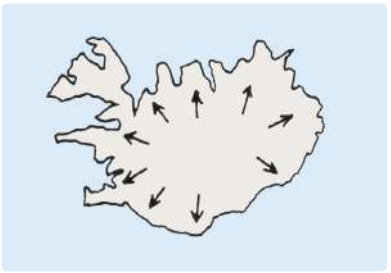
The basic principle is to divide the driving forces into forces that pull and push forces impacting settlements. As we conclude what driving forces will be influential in the future, we have indicators on how the settlement structure will change in the future

the world. This meant that we, the professors, started to work more on high level projects and on the creation of theories, as has already been described. Many people criticized this goal sternly, and some thought it was totally unrealistic. The end station – "The 100 best" – is probably totally unrealistic, but it expresses basically the goal to get as high in the ranking as possible, because it will help the University in various ways.

After *Gudmundur Freyr* and I had written three articles on the impact of the climate change that is now facing the world, we chose, in our fourth article, to describe the drivers that are at work on the globe, but now in terms of settlement patterns in a small area. We decided to use Iceland as a case study. Here we could build on a historical analysis that I had published in 1993, where I identified those drivers that had been active in shaping the settlement patterns in the history of Iceland. We soon realized that here was a good opportunity to dig down to the deepest roots of how settlement patterns come to be, and develope. We thus created a theory on this and the article we published in Future. The article on our theory takes its name from it: "A Theory of the Evolution of Settlement Structures Based on Identification and use of Patterns: Iceland as a Case Study".



In shaping future Iceland, two main forces will be at work: Towards the centre...



... and from the centre to coasts, e.g. because of oil in the Dragon area or in Greenland

It is not every day that a new theory on the development of settlement patterns is published in the scientific journals of the world. It is a very good feeling that we succeeded in creating a comprehensive theory that brought all our other studies on the development of settlement patterns into one theory. On the negative side, the readers have to buy access to the journal to be able to read the article on the net, as is the case with most ISI articles on the internet. On the positive side, our University has bought entrance rights for us the staff, for many such journals.

The figures on the opposite page are examples from our article about the theory we succeeded in creating, presenting a thorough investigation of the driving forces that have been at work in the development of settlement patterns in Iceland. This study of ours reached all the way back to the initial settlement of Iceland.

Six conferences in 2008 on Engineering in the World of the Future

A New Policy for the Faculty and the School

After I had come to the University in 1988 as an Associate Professor of Planning, it was one of my main goals to bring environmental and future concerns into the policy for our Faculty and the School, as concerns teaching and research.

The first big step in this direction was when *Ragnar Sigbjörnsson* and I succeeded in changing the name of our faculty from *Civil Engineering* to *Civil and Environmental Engineering* (Note: Until 2007 department was called a Skor). My next big opportunity to work on policy, was when I was commissioned to create an information pamphlet for the earlier Engineering Faculty. Conceiving such a brochure with the President of the Faculty, *Björn Kristinsson*, gave me the opportunity to give future and environmental aspects a strong position in the pamphlet.

The next opportunity that I was offered in terms of formulating a future policy, was as the last Dean of the old Engineering Faculty, *Ebba Thora Hvannberg,* gave me the task to plan six mini-conferences under the name *Engineering in the World of the Future*. This took place in the spring of 2008. In these conferences, fifteen respected speakers described what the future development of society and engineering was likely to be. Four of the speakers came from abroad, which was costly, but highly useful.

The reason why Ebba and the Faculty wanted to launch such an ambitious and costly project, was that a unification of the Engineering and Science Faculties was in preparation. This would mean that extensive funds that Engineering had collected with prudence, would be used to pay off the debt of the Science Faculty. These conferences of the Engineering Faculty, in its last days, was therefore decided on so that Engineering would enjoy some befits from its funds before they were gobbled up.

These young folks opened a web of the Centennial in 2011

Ebba and I cooperated very well. For example, we worked together on deciding themes for the conferences and which speakers to invite. In this project my decades' long experience in studying future prospects, as well as my work on creating plans for the future, was of great use.

My next opportunity to work on events that were dealing with future visions of engineering – and thus future visions in general – was as I was made the chair of a committee of the three engineering departments that was to prepare for the Centennial of the University in 2011. The newly established *School of Engineering and Natural Sciences,* was assigned the month April for its 35 events.

Because the new Dean of this new school, *Kristin Vala Ragnarsdottir,* had a keen interest in environmental matters, they were prominent in our programme and it was a joy for me to assist in putting emphasis on them in my work in planning the events.

The foreign speakers were four: *David Suzuki* from Canada, who spoke about sustainability; *Peter Head* from Arup in London, who talked about the role of the engineer in an ecological age; the third one was *Galen Cranz* from UC Berkeley, who talked about the ecological dimension in landscape architecture; and finally *Harry Petroski* from Duke University, who talked about how experiences with engineering mistakes could be very important in assessing future directions.

Somewhat later I was fortunate also to have the opportunity – once again – to work on the policy making for my own *Civil and Environmental Engineering Department.* This time it was a direct continuation of my earlier work as the Head of our department ten years before, as we were taking the first steps in forming our master's programme.

The master´s programme grew very slowly, and we had only a few MS students, so it was urgent to increase their number. It was therefore very important to make a special effort to create a full fleshed MS programme. We, the professors, were convinced that with a clearer plan and vision, we would be able to make the MS programme much stronger.

A few of us professors established a group to create a clearer structure for the MS programme and to prepare a promotional effort. We now defined the study tracks and the elective courses more closely, and put them into very organized tables. When this had been finished *Sigurdur Magnus Gardarsson* and I created promotion pamphlets for the MS programme, both in Icelandic and English. They were printed and posted to selected universities abroad, which led to some increase in student numbers.

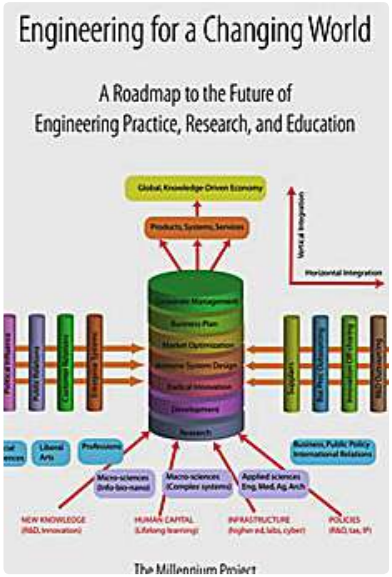
Before *Kristin Vala* became the first *Dean of the School of Engineering and Natural Science*, she was a professor of sustainability in Bristol UK. As she came from there to take her office, she soon expressed her wish that the work within the School would be brought more into the direction of environmental matters and sustainability.

She organised many meetings where we, the staff of the School, were obliged to take part in work- and discussion groups that she called *World Café*, that were characterised by a free flow of mind. I was happy about the emphasis Vala put on environmental matters, but many thought she had visions about the future that were very hard to realize and therefore an opposition to her grew. After only two years she stopped being the Dean and *Hilmar Bragi Janusson,* who had been the Head of Development at Össur, took over.

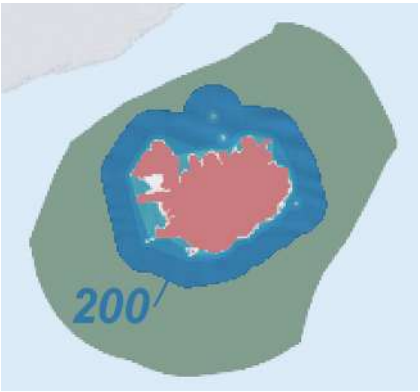
I tried to follow the policy that Vala had created by increasing the emphasis on sustainability, both in my courses and in student projects, as I will explain in the next section.

1. *David Suzuki on sustainability*
2. *Peter Head on ecological design*
3. *Galen Cranz on landscape design*
4. *Programmes for young people*
5. *Arrival of the first super computer*
6. *H Petroski: Learning from mistakes*

Six events in the Engineering departments because of the Centennial in 2011



This report on the future of engineering is regularly updated on the Net



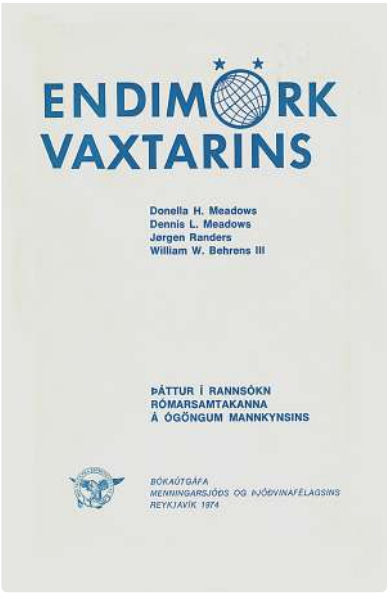
The serious condition of the cod stocks in the 70's helped expand the fishing zone

Environmental Planning has become a Key Discipline

We Icelanders know well that overuse of nature's resources can have terrible consequences. An example on this was the desertification of the highlands because of overgrazing in cold periods in the early centuries of the settlement of the country. Another example is the overuse and collapse of fishing stocks, as was the case with the herring stocks around 1968, and somewhat later, the cod stock was also about to collapse. Our first measure in the view of this terror, was to *enlarge the fishing limit zone,* and in that way push foreign trawlers away. Later we decided on a quota system to keep the fishing at a level at which the stocks could be sustained.

Because of these examples about how incautious acting has, time and again, threatened the base of the livelihood of the nation, Icelanders have a better understanding than many other nations that resource management is needed in the world, because of the ever-growing craving for its resources. This is mainly because of increased industrialisation and the increase in the number of the world's inhabitants. If nations are not able to instrument such systems, a collapse is to be expected... as has happened in many areas many times of the history of the world.

Of late there have been developments in addition to this, that could put life on earth as we know it today, in danger. The global warming that results from exessive burning of fossil fuels for producing energy, is considered to be the most dangerous. My answer to these worries has been: If technology can be developed for producing clean energy (e.g. nuclear fusion) this problem would mostly disappear. If we don´t succeed, the warming will be so great that mankind would have to move to cooler areas, i.e. towards the Poles and up to cooler altitudes, as has happened in earlier periods of global warming.



Club of Rome published reports around 1970: "End of the World" is imminent

Environmental planning was the subject I studied at Berkeley in 1980-´87, and even though this subject was mostly directed towards adjusting settlements and constructions to nature on the scale of cities or regions, this knowledge has helped me to assess theories about what could happen on the global scale, and then, at the same time, to assess what can possibly be done to reduce the negative impacts.

In order to try to understand what could happen, and what could be done, it is very important to acquire a good historical overview. Then one soon discovers that things have often looked very badly because of various problems. Then, as a rule, individuals and groups have entered the scene, that have made nations and leaders so afraid that sufficient measures were taken to avert disaster. The most extreme ones in these groups can be called *end-of-the-world prophets*. There are certain psychological characteristics that characterize such *doomsayers,* and in any period of time they have been quite keen on finding themes for making end-of-the-world predictions.

Often it can be maintained, with rather good arguments, that mankind would have perished if certain negative developments would have been allowed to continue without working on their resolution. Often the solution requires a new type of technology, but if we only look at techniques that already exist, things can often look very badly, but – time and again – it has happened, that quite unawares – new technology, planning methods and medications have been invented in the nick of time, to solve the problem.

In Europe, to take an example, the dangers connected to energy production (from oil, coal and uranium) are considerable... and the rising energy costs have also become such a threat that the EU has enforced very strict rules in order to reduce the use of energy, for instance in buildings and factories. We here in Iceland have had to adopt these rules, even though the price of energy is much lower here and although we mostly use clean energy. This means, for example, that buildings are much more expensive here because we are a part of the European Economic Area (EEA).

One of the methods in Europe to save energy, is to try to prescribe what types of planning of cities and towns use less energy. The most common measure in this effort is the attack on the private car, which, for instance was done by making streets narrower and by building more densely with fewer parking spaces, as was done in the *Reykjavik 2014 Master Plan*. This creates a pressure on car owners so that more of them will use buses and bicycles, or they will walk. It is one of the main goals of the new Master Plan to make such alternative transportation modes easier. A side impact of such a plan is that the position of people of lesser means gets improved at the cost of the rich people in big cars. I think that here in Reykjavik this leftist policy is the underlaying reason for this planning policy, more than worries about the environment.

The reason why I support *denser building* and *constraints to cars* in old areas, is that I like old urban areas with mixed land use, where people can walk to run their errands. It makes sense to support this urban vision, because it seems that the educated and more valuable part of the young generation, puts a heavy emphasis on being able to live in this type of urban environment. If this is not provided for in Reykjavik, very many of these important individuals are likely to move abroad. The main problem today (2016) is that *tourism* is gobbling up space in the *Town Centre*, so it is becomming expensive for most Icelanders to live there.

After the *financial crisis of 2008* the cost of gasoline for peoples´swallowe cars an ever bigger part of people's income. This meant a reduced interest in houses and lots in the suburbs. Therefore many wanted to move into, or closer to, the old neighbourhoods, where most of the working places are, in order to save money by using the car less. This has now meant ever-increasing prices for flats to buy or rent there. This situation – that might be temporary – has made it rather easy for Mayjors *Jon Gnarr* and later *Dagur Eggertsson* ,and their group, to introduce this new emphasis in the planning of the city.

Highways mean high costs per passenger. Often, however, not much moves

Three transportation modes for 70 people. They require different street space

1. Minimize use of foreign supplies

2. Strengthen organic agriculture

3. Emphasis: Livestock welfare

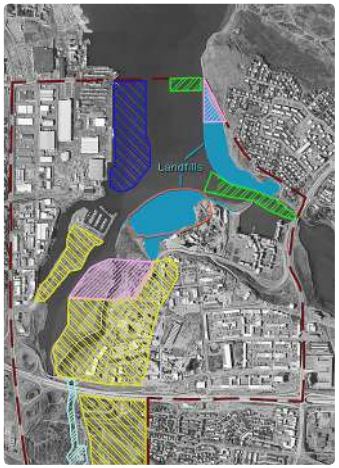
4. Use the rules of New Localism:

” Produce as close, as possible, to the market
” Emphasis on locally governed production
”Emphasis on self-worth and the culturally ambitious Localism
” Integrate agriculture into city culture

5. Minimize the use of foreign energy and resources

6. Minimize transportation supplies and products

New sustainable agro policy



1. Lack of water, climate problems and destruction of land and habitats

2. Much use of artificial fertilizers/pesticides

3. Too long transportation distances

4. Much use of irrigation that leads to more salty soil

Sustainable agriculture – Why:

1. Abundance of water

2. Possibilities linked to geothermal power

3. Plenty agricultural land

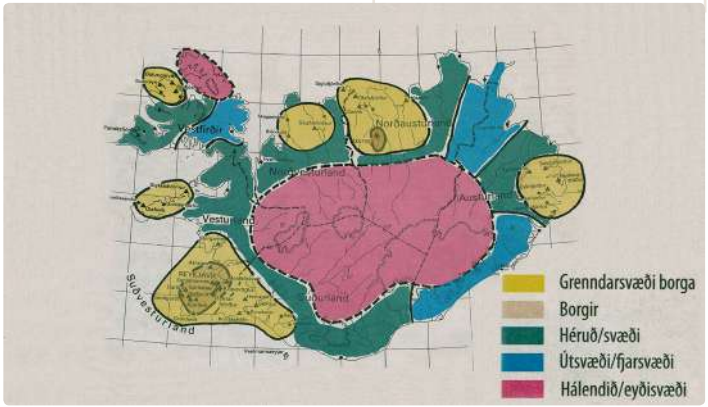
4. Warming climate (More fertile areas get larger)

5. Little artificial fertilizers

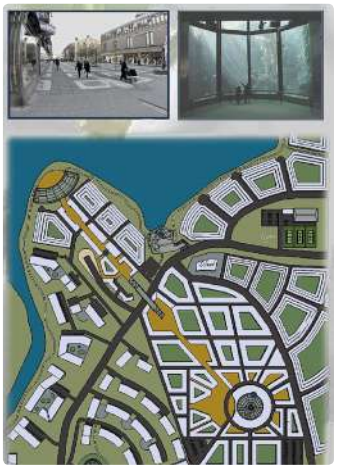
6. Products (storing good)

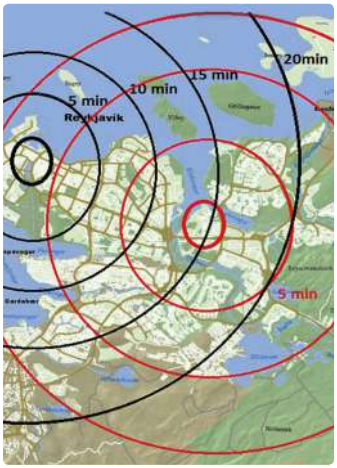
7. No irrigation= less salt

Positive features in Iceland



Division into agro areas: Minimize transport. Durabillity plays a part





1. Iceland should – to a higher degree – be self-sufficient in agro products

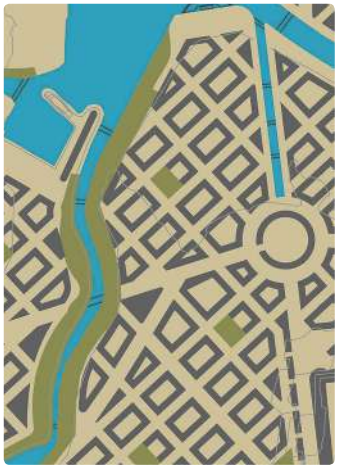
2. Certain types of production should be strengthened by, or inside urban areas

3. Certain types of production should be brought together into few, very good areas...

4. ... but, on the other hand, people need to look to the threat of hazards and take care that production has efficient distribution to minimize the risk connected to natural hazards

5. Various social viewpoints also support the distribution of agricultural areas

***Advice** (With BJ and EB)*



***“Everything” solved or produced locally:** Energy, food... and local services provided in a new centre – and the aiming for dense planning*

Posters from Katrin's planning group *The group emphasised that their plan supports motion and outdoor activities (Same emphases as in the tv-series Lazy Town)*

To the left *is an overview plan of the whole Ellidaar area and Artunshöfdi. Green areas follow coast and the river – and bus-, walking- and cycling paths are emphasised (Black, blue and red lines)*

The map to the right *gives a detailed picture of the Centre (Marked with a hatched line on the other map). In the middle of the yellow central area is a pedestrian street – Also, urban areas embrace water areas*

In 2009 I got my first MS student in the sustainable planning of cities, *Katrin Halldorsdottir*. Because of the few courses offered at the UI, she had to go abroad in order to enrol in specialized courses there. In her case it was the KTH in Stockholm. In advance we had decided that her final project would be the sustainable planning of a mixed land-use settlement in the *Ellidaar Bay* and on the *Artunshöfdi Headland*. In order to strengthen our work on this, I decided to dedicate my planning seminar in the fall of 2011, to this project. I was very lucky that I succeeded to get the City and *Björn Axelsson* (who later became the Planning Director of Reykjavik) to give this course with me – Katrin being an assistant instructor.

The Jury that evaluated the student proposals for sustainable planning of the Ellidavogur Area: *Ragnarsdottir, then Head of the School of EandNS, professor Ulfarsson, Axelsson, now (2016) Planning Director of Reykjavik, Örvarsdottir, now Head of the Planning Division of Reykjavik – and TV*

We divided the students into groups and each group was given a theme important in sustainable planning: planning without the private car; planning to increase outdoor activities, which means better health; planning that makes production of food easier in the area; planning in the style of old dense cities and finally; a plan where all possibilities in producing energy in the area; wind, solar, tides, currents and heat pump energy are used.

After New Year's we professors in charge of the course *Strategic Environmental Assessment* (SEA), decided that the course that spring would be aimed at making a sustainable plan for the University. In addition *Prof. Hrund Andradottir* changed her *Water and Sewage Course* into a sustainable direction. This means that this area would become more sustainable in terms of water usage. Following this the department organized a big conference on its effort in the spring of 2012 in order to introduce sustainability in planning and construction.

Dense cities produce higher emissions than diffused ones with less services

The plan of the Capital Area is a very highly spread-out car-plan

Cycling and walking are more for outdoor activities than to reduce car use

The New Master Plan of Reykjavik 2014

Urban planning in small countries often takes guidance from the most current ideas abroad. Icelanders are eager to follow ideological trends and it takes a theoretical insight to understand what makes the situation in Iceland and Reykjavik different from abroad. Let us now examine current foreign themes that have been imported to Iceland and are a foundation of the planning strategy that characterizes the new Master Plan of Reykjavik.

The first fundamental issue is associated with the wish to create an urban structure that will lead to lower emissions of greenhouse gases. The Master Plan employs two methods to achieve this goal: *To reduce the use of cars* and to *aim for more urban density*, because these two will reduce emissions. Closer inspection, however, reveals that neither goal will be effective. The reason why less use of car will not lead to lower emissions is because in the future dangerous emissions will be much reduced, because the number of electric vehicles will increase significantly.

Concerning the other principle: *increased urban density,* new research by Jukka Heinonen, a young professor of planning at the University of Iceland, reveals that densely built cities are responsible for more greenhouse gases than the less dense, when everything is considered. Least emissions come from villages where all the daily needs are done by the people themselves. Most emissions are produced by dense urban areas where the lifestyle of people is such that it often requires services that are highly polluting.

As the goal of giving private cars less space – and try to reduce their number – has been made fundamental in the new Master Plan (and in the new Regional Plan of the Capital Area), then the task obviously becomes to create new plans to replace the old ones.

The basic policy objectives of the new plans are related to land-use. Here the goal is: 1) increased urban density and 2) the mixing of city functions. On this the following two comments: Reykjavik and Capital Area are fundamentally planned as a car city with the zoning of activities. This means that it is very difficult to be without a car. Only in 101 Reykjavik it is possible to get by without a car, because this area was planned before the zoning of functions became the dominant planning principle. Here, and in the adjacent neighbourhoods, many of the City Council Members live and they see how much fun a mixed structure is. They live in a world of dreams, that a similar structure can be created in the suburbs that were based on zoning, but not on the principle of mixing functions.

The squeezing of the private car is therefore not only directed to the rich, but also low-income people, because e.g. the increase of parking fees is hardest on them, because they pay same amounts from lower income. And besides, it is precisely those low-income people, that many of whom live in the suburbs, and thus cannot do without a car. Politicians point to the bus as a solution and promise that now finally, a good plan has been achieved

to make the bus system so comfortable and inexpensive that it makes it unnecessary for people to own a car.

It is true that the use of buses increased somewhat in the wake of the Crisis in 2008. The reason is that the income of many people was reduced so they had to reduce the use of the car and take the bus. Also, high gasoline prices have had the same effect. It is, however, unlikely that the bus use will increase in the future as the economy improves and car use becomes cheaper. This will happen as electric vehicles become cheaper, because electricity costs only a fraction of the energy for gasoline cars.

The new Master Plan of Reykjavik makes a lot of the possibilities that comes with better pedestrian- and cycle paths, and has spent enormous sums on their construction, but almost nothing on the primary road system. Walking is possible between close by localities, but not between Breidholt and downtown areas – and cycling is also not suitable, except for the young and healthy. It is unrealistic to assume that children, old people, the disabled and the ill, will use such transportation.

It is beautiful, but an unrealistic vision, that the City presented in an expensive volume two days before the 2014 election, for which the citizens were supposed to pay a large sum. Previously, such planning material was mostly free.

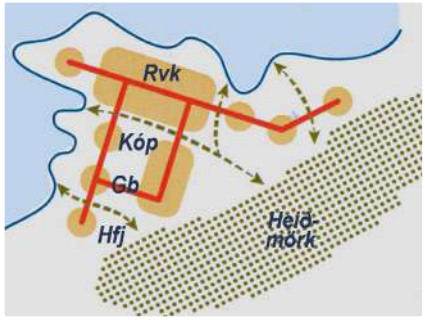
The goal of densifying, and the promise that buses, bicycles and walking paths can easily replace the car, if the density is high enough – is unfortunately unrealistic. This can only be achieved in areas that are already dense and well-connected, i.e. in areas 101, 105 and 107. Densification there will, however, not make buses in the suburbs more attractive.

The false picture that has been presented in the new Regional Plan of the Capital Area, is especially shocking. Here a very unrealistic dream image is presented, which has – as a base – a high-speed rail system that is ment replace the car, to a large extent. First one has to notice that the area is too dispersed to be able to support the expensive high-speed rail system. The argued method of the plan, to make this work – is to plan for large service areas at all train stations. Again, this is a beautiful thought, but it will not work in the Capital Area. In reality, service facilities have already been constructed in other places than in the now planned railway stations.

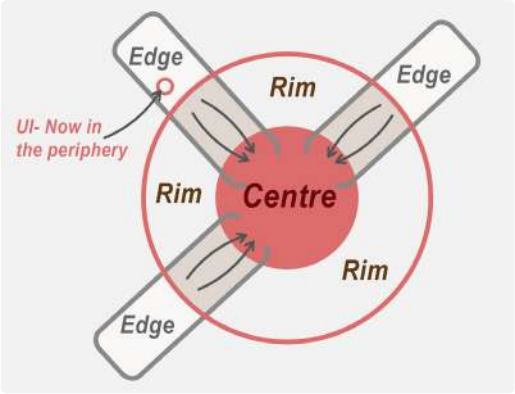
Even at the densest service axis in Reykjavik, i.e. the axis Laugavegur, Sudurlandsbraut and further over a planned bridge over the Ellidaar River, to Artunshöfdi – this will prove very difficult: The axis is – and will be – too thin and long. Only on the street Laugavegur the axis hangs together, but the Laugavegur length is only about 5% of the axis, or about 700 meters. The idea that a fast train, or a fast bus, can fit in there, beside the walking paths, does not fit with the idea that this should be a calm and pleasant boulevard. Even the bike paths, planned here, will destroy the sense of easiness.

The Development Axis is thin and long. Interactions would therefore be sparse

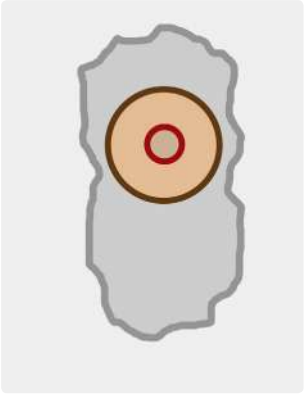
These tall buildings are intended for densifying this axis in Reykjavik



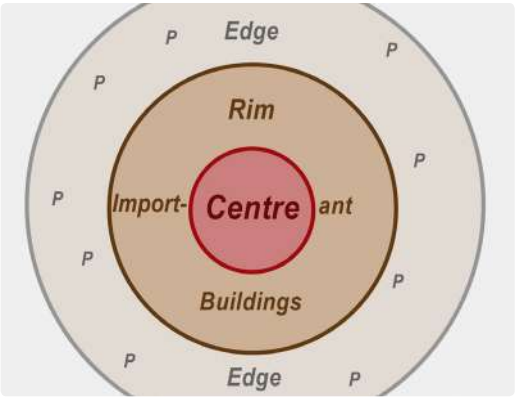
Very unrealistic ideas on light trains are fundamental features of current plans



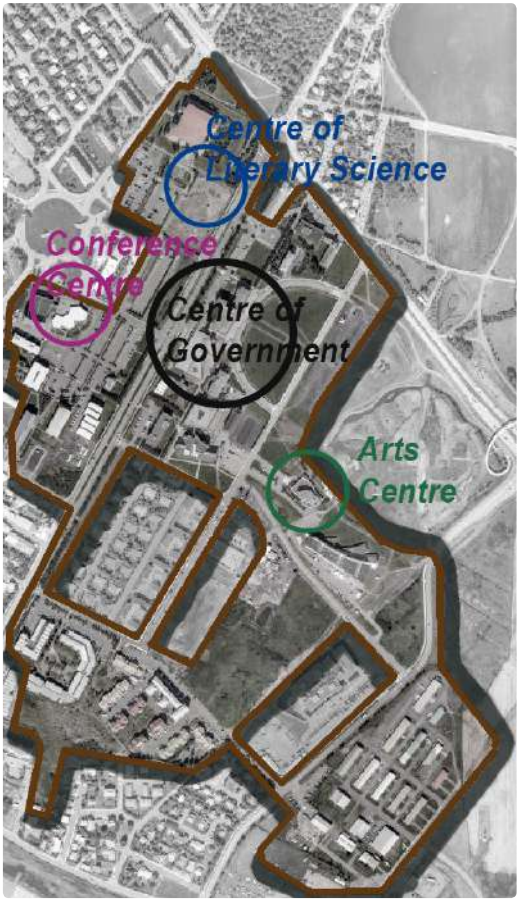
The Capital Area centre: for central funtions



The circle is better than a long area

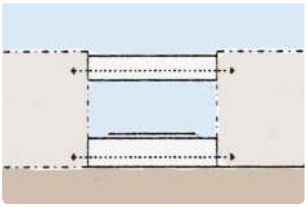


Areas should hava a center, a rim and an edge

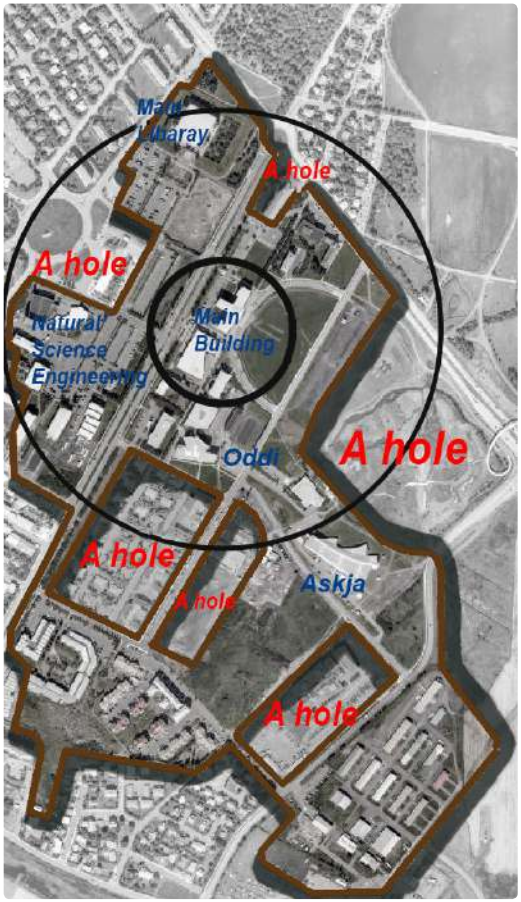


Proposal on four centers in the University Area

A video by TV and students at UI



KG's connections across Sudurgata

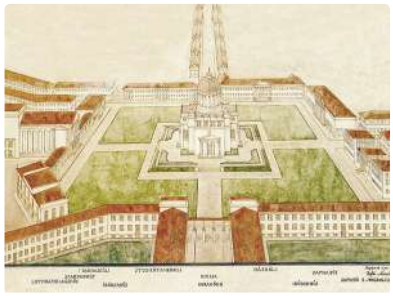


Little related funtions in the UI Area create holes

Connections in the University Area are weaker because it is long... and the Holes make it less Dense

The Planning and Location of the University

In the beginning the University was designated to be only one building in the Haborg on the Skolavörduholt Hill. The small universities of the past were often located in such old urban centres. During the 20th century the faculties of technology were often moved out of the city, because they needed larges buildings for labouratory work. This meant that the links between the old humanities and the new technology were reduced.



The University was located in only one building in the SE-corner of the Haborg

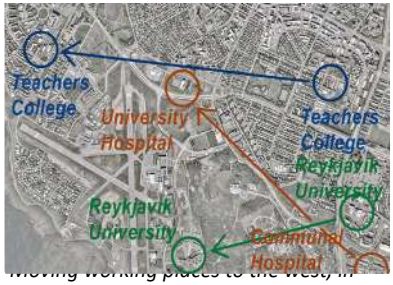
In the thirties it became clear that the space for the University in the Haborg would not be enough. It was therefore allocated a large area outside of town, on the Melar, which was not such a bad location. After the war, however, Reykjavik grew very fast, and finally stretched up to Breidholt. Reykjavik is located on the peninsula called the Western-wing of today's metropolitan area. A wing also developed to the south and consists of the towns Kopavogur, Gardabaer and Hafnarfjordur. Later the third wing developed to the north. It consists of the settlements Grafarvogur, Mosfellsbaer and Kjalarnes.

The Capital Area is thus formed by three wings, and the area where the wings meet – consists of Keldur, Artunshöfdi, Ellidaarvogur and Ellidaardalur. This central area would have been the most logical location for institutions that should be in the centre, such as the Parliament, museums and universities. A great point in favour of this central area is how beautiful it is – and it is easy to relocate today´s unpleasant activities in Artunshöfdi.

Laboratories were relocated to Keldnaholt – but not the technical departments

The technological laboratories of the University were relocated to Keldnaholt Hill in the 70 's, but not the engineering and science departments themselves. This reduced the contact of these departments to research and laboratory work. It would have been best if the University as a whole, had been relocated to this fine central area. Also the buildings of a new Country/University Hospital would have found a fine context here.

This relocation of large institutions to the east would have been good for the planning of Reykjavik because with this the number of working places west of the Kringlumyrarbraut would have been reduced. Today most of the working places are there, whereas most people live in the east- of the west wings, as well as in the other municipalities. This means that exceedingly wide traffic lanes are now needed to the west, in the west-wing.



stead of east, creates traffic problems

In new plans for Reykjavik an opposite strategy was adopted with the relocation of the Reykjavik University to the west; to the airport. Also it has been decided to relocate the Teachers´ College from its fine buildings at Stakkahlid, to the west, into the University Area, because it has now become the School of Education at the University. This will require that new buildings for teacher education will have to be built there in the west.

Unfortunately, the basic structure of the campus was wrongly conceived. The Main Building, however – which was built first – was put in the right place, i.e. in the mid-

Sudurgata Road is to be "... re-designed with life on Campus and environment quality in mind and the City of Reykjavik declares its readiness to finance reconstruction of the street in accordance with the new design".

Mayor Gnarr confirmed in a declaration of his and the UI that the Sudurgata Road would not be a connecting arterie

dle. Then unfortunately, the infamous "in-corners-placement" policy took over. This meant that important buildings were placed in the corners of the campus, for example: the University Library at Birkimelur, the Engineering- and Science Departments at Dunhagi and Hjardarhagi, the Student Union at Hringbraut and Askja in Vatnsmyri at the eastern fringe of campus. A consequence of this was, that the parking lots – that should be at the edges – were placed in the most important central areas, instead of the most important buildings. Because the main buildings are in the fringes of the campus, the distances are so long that people need to travel by car.

In 1992 I gave a seminar on campus planning where we pointed out ways to correct these mistakes. We made, for example, a proposal for a central service building, a building that is now called *University Square*. We positioned it on both sides of Sudurgata Road and designed a tunnel and a bridge across the street, to connect the Engineering and Sciences west of the street to the Humanities east of the street. I and the students did a video "Planning in Focus", on this, to make these ideas known. It can be seen on YouTube.

In 1993 Kjartan Gudmundsson designed a *University Square* as a thesis in civil engineering, under my guidance. I sent his thesis and the video to many people at the University to advocate that such a building needed to be built.

In 2000, Rector Pall Skulason embraced the idea and in 2007 the *University Square* was opened. It has proven to be very effective in strengthening the campus; college life finally found a focus. Skulason spoke to me about my contribution to this personally, but officially there was not much mentioning of it. In 2013 an annex to the square was built, and thus finally a *Student Club* was opened in the cellar. Today we are still waiting for a *Faculty Club*.

In the spring of 2014 a competition on a future plan for the campus was announced. An overall plan had never been made, so the planning worked in a fragmented way. The City of Reykjavik initiated this competition, as a way to implement the ideology of its Master Plan, as the campus is a very important area in the City. The City was instrumental in the shaping of the criteria for the competition and gave half of the prize money. The jurors were seven. Only two of them came from the University – me and Anna Dora Saethorsdottir.

"... The competition is based on the goals the City has set its revised Master Plan, i.e. goals on a green, dense and beautiful city ... "
" ... A Frame Plan shall be made for the campus, a plan that is to be a part of the approved Master Plan ".

From a declaration by Gnarr and the Rector in the wake of the competition May 8th '13

As the work of the jury progressed I realized that the University had made a great mistake by agreeing to be a minority in the jury, as it would determine the main lines of the future for the University. The worst thing is, that both the authors of the competition proposals and the other people in the jury, tried to follow the Reykjavik policy to put little related activities into the area. For example, one proposal proposed to build eight one family houses in the centre of campus!

Country Planning and Highland Roads again

Earlier in the book, I discussed my work on *Country Planning* in four chapters: "The First Steps towards an Iceland Plan" (see p. 73), "Work on an Iceland Plan" (p. 88), "Country Planning and the Planning of the Central Highlands" (p. 149) and "Tourism in an Iceland Plan – with Connection to Road Plans" (p. 153). Attempts to establish Country Planning in the planning law have failed. An attempt was made in 2010, but it failed. The reason was that local planning authorities were afraid that this level of state governed planning could intervene in various municipal planning matters.

The fear was so great, because it was planned that the Minister of Environment would be in charge of Country Planning. This minister has the role of "pulling the brakes" as ideas on large projects are presented. I believe that the work on future planning for the country needs to be managed by a Council of Ministers under the chairmanship of the PM. The Minister of Environment commissioned the *State Planning Agency* to create the policy. This is wrong, because this institution has the task of reviewing plans and policies, but should not be controlling and reviewing work it has created itself.

To compensate for the disappointment that the Country Plan did not get into planning law, there was created a strange phenomenon called *Country Planning Policy*. A proposal for this policy, was presented to Parliament in the spring of 2013, 2015 and again in 2016, as it was finally approved. The four sections of the policy have little internal connection, i.e. the sections on the Central Highlands, rural areas, settlement patterns and ocean- and coastal areas. This seems to demonstrate – as many other things – that there is a fundamental misunderstanding of what Country Planning is.

To make this misunderstanding clearer, a parallel with the *Master Plan of Reykjavik* will be drawn. Let us assume that it would be presented in four sections that correspond to the four sections in the Country Plan Policy: 1) The Reykjavik Highlands (Breidholt); 2) Policy on rural areas (i.e. on jurisdictions outside the City); 3) Policy on settlement patterns within the City and 4) A policy on the ocean- and coastal areas of the City.

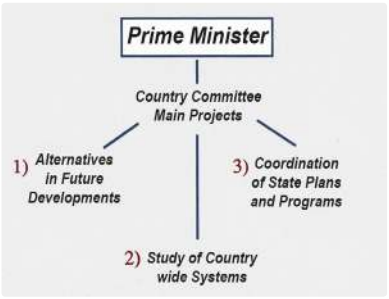
We immediately realize that such a report would never be called the *Master Plan of Reykjavik*. For example, it would be unacceptable that nothing was presented on the transportation system of the city and also that no map of the city was presented. In the light of this comparison it is equally ridiculous to use the word *Country Plan* as a term for the report that was submitted to the Parliament in 2013, '15 and '16.

Country Planning needs to be a comprehensive policy of the State for the future, like a Master Plan presents the future developments of a municipality. The elements of these two types of plans are very similar, except that the planning should be more schematic as the scale becomes larger and also, the planning has to cover a longer period.

Country Planning Policy – 2016
for 2015 to 2026

1. *Plan for the Central Highlands*
2. *Planning of Rural Areas*
3. *Settlement Patterns and Distribution*
4. *Policy on Ocean- and Costal Areas*

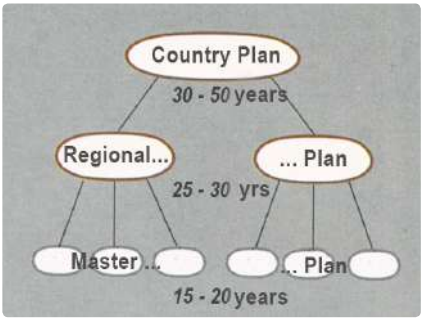
Country Plan Policy is composed of these four little connected sections, not the whole



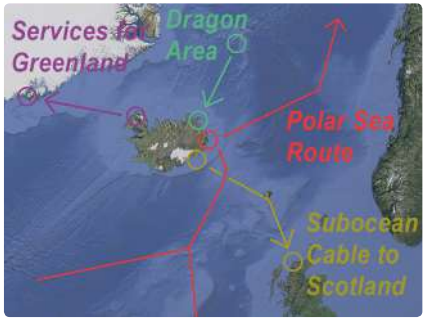
The PM should be leading a National Planning Committee, consisting of three Ministers

1. *The Central Highlands become green*
2. *Large eruption, e.g. in Bardarbunga*
3. *Oil extraction in the Dragon Area*
4. *Transhipment harbour for Polar routes*
5. *Sub-sea el-cable to Scotland*
6. *Services for industries in Greenland*

Examples on possible scenarios that need to be presented in a Country Plan



At higher levels planning needs to be more schematic and long-term



Developments of major impact, on Iceland´s Country Plan for the future

Bremen Ports is conducting research for a possible Arctic harbour in Finnafjord

Both of these rules are violated in the *Country Planning Policy*. It even dwells in details that should be in the auspices of local authorities. Also it only has a 12-year time frame, where as a 30-50-year frame would be logical. By having a the time frame only 12-years, surveys of likely future change – on a large time scale – does not enter the work. An example on such changes is e.g. global warming, which will lead to the reduction of glaciers and to greener highlands. The Country Plan Policy mostly disregards this!

The consequence of global warming that is most discussed, is the melting of the sea ice of the Arctic Ocean. This will result in a great increase in shipping off Iceland's East Coast. A large transhipment harbour in Finnafjördur is being considered. Also it is possible that oil extraction will be started in the Dragon area, and a sub-sea electrical cable from the East Coast to Scotland is a possibility. All these scenarios should be highly influential factors as one considers which regions and communities will be strengthened in the future. Country Planning needs to consider factors like these. As many future possibilities are possible, planners need to sketch scenarios on possible development tracks into the future. The Country Planning Policy does not give consideration to this.

The Country Planning Policy, has the vision that the centre of the country should be some kind of a *national park*, visited from the edges. The emphasis on natural protection and "wilderness" is so extensive that the plan contains many obstacles to energy production and road construction. The plan, for example, speaks of "summer roads", which will be open 4-6 months a year, and is does not take into account that global warming will mean that it will be much easier – because of less snow – to keep the roads in this area open for longer periods. Actually the roads in the Central Highlands are not much different from other mountain roads in the country, except that they are longer.

The strangest thing about this policy on roads in the Central Highlands – as presented in the Country Planning Policy – is that it takes little account of the fact that in 2002 the Parliament adapted a policy that four main roads should be created in the highlands. Two of them: the Kjalvegur- and Sprengisandur Roads would reduce the distance between the upper regions of the North- and the South Country by hundreds of kilometres. It is almost impossible to create a more efficient policy on rural matters. This would also increase the flow of tourism out of SW-Iceland – which is too crowded – to the countryside. Circular routes for tourism, created by this, would also be very valuable. A special benefit would be the reduction of environmental impacts of tourism in SW-Iceland.

The highland roads would also play a great role in *security as natural hazards happen*. The road Northern Fjallabaksleid, has the biggest role, e.g. as Volcano Katla erupts. This eruption would disconnect the Ring Road for a long time. Many seem to think that the opposition to the highland roads is great, but a poll on radio Bylgjan on April 4 2015 asked: "Do you wish for a highland road to connect the North and the South?" Those who opposed this were only 28.6%, but 71.4% were in favour of a highland road.

Conclusion: Shaping the Future is an Important Matter

In this last chapter, I am going to highlight some points relating to shaping the future. Writing the book – as a whole – had the goal to create an overview of what is most influential in shaping our environment and our future.

Not many professors have written their autobiography and only one professor published such a book in the first decade of this century. This was Hjalti Thorarinsson, a physician and a professor. I believe that such biographies have value beyond the most common biographies, because they provide the readers with an insight into the academic world of universities, which is often pretty sealed off.

Title of the book is *Shaping the Future*, and planners and designers are among those most active in the shaping of physical environments. For design to be successful, a close cooperation between designers and politicians on such tasks is required.

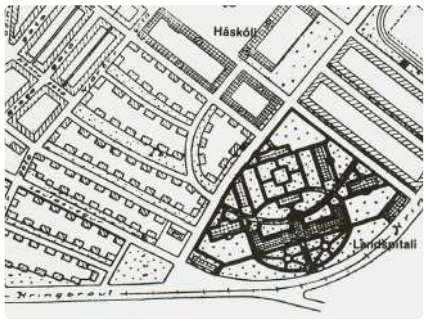
In the 20th century the cooperation of State Architect *Gudjon Samuelsson* and politician *Jonas Jonsson* was most successful. Remarkable designs were the result of their collaboration, like the important design of local school centres in the countryside. The school at Laugarvatn, in an Icelandic gables style, was the most successful one. The underlying wish of their effort, was that cultural centres should be created in the countryside and their wish was that the design should take Iceland 's architectural heritage into account.

In the spring of 2015 PM Gunnlaugsson presented his proposal that a new building on the grounds of the Parliament should be formed in the spirit of the classical style shaped by Samuelsson and others, for the Reykjavik Centre in the early 20th century. Gunnlaugsson published a drawing of a building Samuelsson designed, but never had been built. This caused a misunderstanding, but the design policy to let new buildings adapt to characteristics of old city centres has become accepted design policy abroad.

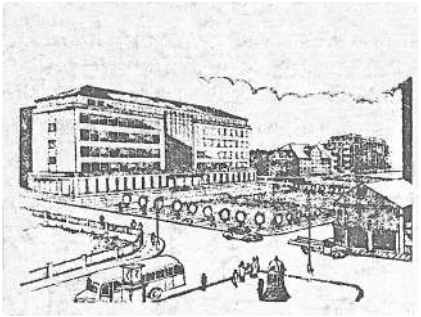
In Iceland, on the other hand, modernism is still so strong that many people consider it right to build ailen modernistic buildings in the *City Centre*. My view is, contrary to this, that this type of fill-in must end and I see it only to be luck that modernism has not already destroyed the City Centre. Within the field of planning of towns, Samuelsson was also very prolific, but the person that introduced the garden city policy to Iceland – that was most popular in planning at the beginning of the century – was *Gudmundur Hannesson*, a physician and a professor at the University of Iceland.

Let us now look at the design of neighbourhoods in Reykjavik. Here we have a remarkable pioneer; *Einar Sveinsson* who was the City Architect of Reykjavik, and a great aesthete. The planning of the pre-war neighbourhoods in Western Reykjavik is quite remarkable, and he also designed some excellent buildings. These include the Directorate of Health and the Melar Primary School. Sveinsson also had a big part in shaping the *Master Plan*

Samuelsson shaped this architectural style. Later "flatness" got the upper hand



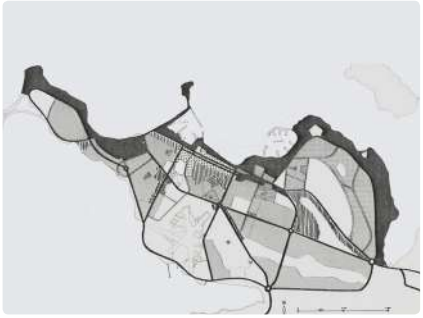
The Reykjavik Master Plan of 1927 was influenced by the garden city theory



Sveinsson published this drawing to demonstrate that MR was too small to remain here

Harpa, Tommi, Hrönn my older daughter, and Kristofer, coming from abroad in 2008

Oli, Edda, Tinna, my younger daughter, and Brimar, in Kjalarland at Christmas in 2014



The 1948 Plan, shows that wrong ideas can have devastating consequences

of 1948 for Reykjavík – the first plan to include the entire peninsula west of the Ellidaar River. Here, however, unfortunately modernist times had arrived with zoning, large traffic archeries and too large green areas – all of which were part of a very flawed planning policy. This had a very unfortunate impact on the planning of Reykjavik.

Only few people may realize that the work of all these designers and planners is actually always heavily influenced by the foreign ideologies that are the most influential in any given period in time. This book has made an effort to provide an insight into what has shaped the ideas behind the planning- and design conceptions in the past 50 years. I support my argument, among others, by how I experienced these ideologies myself, especially in my study years in Berlin and Berkeley.

I was quite lucky to get to know personally three of the most important proponents of worldviews, design and planning in the late 20th century: *Buckminster Fuller*, *Ian McHarg* and *Christopher Alexander*. The story of their contribution, here in this book, is probably clearer because of the personal encounters. Their ideology also had a distinctive influence on how I worked myself on my projects.

Now we are coming to the final words. I wish to thank all the people who contributed to the book or gave support to it. I also am grateful to Providence that I had the opportunity to live in a necessary, revolutionary times within the field of planning and design. Also I am grateful for the opportunity to study at two remarkable universities, and to have had a part in shaping theories and planning in tumultuous times in Iceland.

Personally I am most grateful for having had good parents, grandparents, and many good friends. I have been so busy with my projects and scholarly work that I have had rather little time for my daughters Hrönn and Tinna and my sons in law Oli and Tommi, and my grandchildren; Kristofer, Brimar, Harpa and Edda. Now at my retirement at seventy, this should start to change.

On the Book – and appendices

Comments on the Book

Joe McBride PhD, Professor at the LAEP Department, University of California, Berkeley:

Trausti Valsson's *Shaping the Future* is an important contribution to the fields of planning and biography. It provides a lifelong view of the factors that modeled the development of Iceland's foremost planner and thinker. We see in this work the multiple forces impinging on the child, the student, and the young professional planner as he strived to develop his own concepts of design and planning.

It is insightful to see how social movements of the day and leading thinkers in the fields of architecture, landscape architecture, and urban planning shaped the young man. Valsson's experience as a graduate student at Berkeley was characterized by his ability to cross intellectual and disciplinary boundaries in his pursuit of understanding. The creativity of his doctoral dissertation stands alone in creation of new ways of thinking about design.

The book also serves as a catalogue of planning in Iceland since The Second World War, a period of transformative planning in which Valsson played the leading role.

Shaping the Future should be required reading in introductory courses in architecture, landscape architecture, and urban planning for its insights into the field of planning in the 20th century and its ability to inspire students to be courageous, creative-thinkers.

Galen Cranz PhD, Professor at Department of Architecture, University of California, Berkeley:

Trausti: I see from the several books you have published since and your role as professor, advocate, and thought leader that you have served Iceland wholeheartedly and devotedly. I was able to see first hand the significance of your broad overview of Iceland 's morphology when I visited Reykjavik in 2011 as one of the University Centennial Lecturers. I hope that you will continue to advocate for the earth and its various inhabitants at many places around the globe. Helping science, industry, and government find ways to analyze wholes rather than parts is a necessary mission at our time in history.

Gudmundur Freyr Ulfarsson PhD, Professor of Transsportation Engineering at the Department of CE Engineering at the University of Iceland:

In the book, *Shaping the Future*, Professor Trausti Valsson PhD, explains the development and history of planning ideas in connection with his career. During this period, the current urban form of the Capital of Iceland is developed. Prof. Valsson explains how Eastern and Western theories have influenced his own ideas and how his proposals have influenced Icelandic society.

Prof. Valsson has focused on creating a systematic basis for planning without hesitating to present innovative and bold ideas that can deviate considerably from current plans.

In the book, Prof. Valsson puts his ideas in a historical context of planning and society. We read how the young student, who looks at the contemporary surroundings, has developed into a broad-minded planner who is concerned about the Earth at large and who looks a hundred, if not hundreds of, years into the future. It was especially interesting for me as I read the book, to see how Prof. Valsson has in his career, moved from the small and contemporary, towards the large-scale and long-term.

First Prof. Valsson works on a scale smaller than a person, for example, faces in portraits, then he expands to the human scale in his pictures and models of the complete human being. Then he proceeds to the scale of furniture. Next he gives his attention to buildings and physical structures. Prof. Valsson wants to see things in a larger context. As a result, he has continually expanded his horizon.

From buildings, his perspective proceeds to the scale of neighborhoods, then towns, cities, regions, and finally all of Iceland. Prof. Valsson has proposed, among other things, ideas for connecting highland roads and a capital city in the centre of the Icelandic highlands. In recent times, Prof. Valsson has broadened his vision still further, first to Europe and then to the globe. There he has studied megapatterns, large-scale forces, that can drive settlement changes in a future with global warming.

Prof. Valsson's ideas have sometimes been ahead their time and given guidance far into the future. It takes courage to present big ideas because a person that puts them forward must often endure opposition. Prof. Valsson tells this story in an interesting way and describes how it

intertwines with Icelandic society and the social climate.
Prof. Valsson has, in recent years, worked on developing and publishing scientific papers on a theoretical foundation that can help us think about big ideas over a long time into the future. The book does therefore not only present historical knowledge but is also a guide forward, which shows us the importance of thinking far ahead and to take into consideration the effect of human activities on Earth as a whole.

Birgir Jonsson, Associate Professor of Geological Engineering at the CE Department at the University of Iceland:
Trausti Valsson has written a very interesting book about the ideas, planning and designs he has been working on during his career. I thought it was, for example, very interesting to read how he explains the development of architecture in the world and in Iceland, where he heavily criticizes modernism in architecture (characterized by boxes), but instead embraces classical and traditional architecture.

The foundation for this is his wish that environment design should more take the culture and environment in each place, more into account. He describes in an interesting way how his eyes were opened to the cold and mechanical features of Western culture, but found guidance for reforms in eastern studies and philosophy. A design theory on this he formed in his doctoral thesis at UC Berkeley, California.

Valsson has always regarded himself not only as a planner, but also as a futurist. He for examples published a book of 143 pages in 1987. It contained the first physical national plan for Iceland. After that he created a reginal plan in 1991 for the central highlands with a group of students in Civil Engineering at the University.

In 1997 I and Valsson published a book on Iceland in the future. The book contained major criticism of the newly published Regional Plan for the Central Highlands. This plan was directed against the use of energy resources there and made it virtually impossible to plan good roads the shortest distance between regions across the interior. Valsson has in his work always placed a heavy emphasis on the importance of the highland roads.

Valsson's best ideas are impressive "out of the ordinary ideas" on planning; e.g. Sundabraut Road, Long fjordcrossing Skerries Airport, roads across the Central Highlands with a service centre in the highlands, etc. All these issues finally entered a serious discussion in the recent decades.

Valsson's life's work has been characterized by selflessness and a great urge to shape the society in a positive way, and he has shown great persistence in putting them into discussion in society. All civil engineers, who have graduated from the University since 1988, have been exposed to the novel ideas of the enthusiast Trausti Valsson**.**

Hrafn Gunnlaugsson, film director:
In grammar school I began to notice, in the school paper, drawings that had such a personal profile that there was not any doubt that they were made by the same draftsman. It is remarkable that those who are likely to make an impact, early have a very clear profile.

At this time I knew nothing about the draftsman, but I got to know him as he wrote poems for a volume of grammar school poetry which, I and late Vilmundur Gylfason published with a bang, as the foreword was written by Nobel author Laxness. These poems were also characterized by a personal profile, which since then has characterized all the ideas and artistic work Valsson has conducted.

It was at the Art Exhibition of the Art Society that I was captured by a small iron sculpture that I later realized that was made by Valsson. I bought this sculpture after having convinced the artist to sell it to me. I have always been very fond of this sculpture – and displayed it prominently in the locations I have lived at each time.

As I understand there is an image of this sculpture in this book that I am honored to have been offered to write a commentary on Valsson. It is a fact that few have made drawings for the yearbook of our grammar school, Fauna, that were not only caricatures but rather that the draftsman was able to capture the character and the personality of the subject it describes. This Valsson did with such artistry that I question myself today if Icelandic art has not lost something, as Valsson chose to become a professor at a university, instead of giving his life to the goddess of art.

I have not read this book to the fullest, but I suspect that there is an abundance of knowledge to be found on the spectacular planning ideas that Valsson has put forward, far ahead of his times.

One of those ideas is about an airport on the Long Skerries in the Skerries's Fjord, which inspired me to make the movie "Reykjavik in a Different Light". Also it was a remarkable experience to enjoy the advice of Valsson in the movie I made subsequently, and is called "Iceland in a Different Light".

It contains an elaboration on the idea of Valsson on a citadel in the Central Highlands and as well as highland roads that would make the rock Iceland far more habitable. I have long admired

Valsson from a distance, but now in more recent years, we have grown to become friends. It is always inspiring to meet him and hear what is fermenting in his head. In my mind Valsson is the most original thinker in Iceland when it comes to planning. He has created large scale ideas that seem to see into the future, not just around the next corner, but also the next corner after that too.

Harpa Thorsdottir, Director of the Icelandic Museum of Design:

The book of Trausti Valsson is extremely rewarding and characterized by his frankness. His profound respect for the past has led to his critical study of modernism, which he says has had a bad impact on communities and has been lacking in regard to human factors.

Valsson has in his work on design, buildings and planning, adopted the method of scientists that always tries to be open and thus helps unwind mistakes. Valsson describes how much influence scientists and mathematicians have had on design and planning. He has been driven by visions and his creative artistic thinking. He is a rebel who loves to attack accepted conventions. Valsson is the author of many radical ideas, such as the domestic airport on the Long Skerries and an Iceland plan based on new objectives.

One can dip in to the book to gain an overview, and also it serves as a sourcebook. Valsson's descriptions, as well as photos on a DVD that accompanies the book, are very informative. Valsson describes on the DVD, how art is the basis for all design and planning, and emphasizes that designers should always be active as artists. Valsson displays there a number of his paintings and sculptures. He has designed large or small objects: furniture, playgrounds, buildings and concepts for planning.

It is interesting to see and feel how the individual works and projects of Valsson benefit from the fertile and creative thinking that art gives any person who engages in it. I especially liked to see how Valsson has created systems and processes of thought for his multifaceted design, for example, in his award winning proposal for a children 's playground as well as the design of furniture. There he brings his fertile creativity under control with a rational approach, which is always the base for excellent design.

Sigurdur Örlygsson, painter:

Valsson and I are of the same age and our common interest in art and old buildings in Reykjavik, created a friendship that has lasted for more than half a century.

In grammar school the Art Society gave evening classes under the supervision of artist Sverrir Haraldsson, who was a prodigy in Icelandic art. At this period in time Haraldsson was renouncing abstract art and had started to paint landscapes like the painter "September 12". To be in contact with this creative revolutionary, made the sessions a living crucible, which we still cherish.

In the spring we held an art exhibition in the basement of Casa Nova, which were mostly pictures of people. Some of Valsson pictures from that time are on page 24. Here his sensitivity to personalities, and a tremendous visual talent, is revealed. Valsson didn't choose art, but related subjects; architecture and planning, where his artistic talents have been of much use.

Whenever we met – even after many years – we find the "thread", as it was yesterday. The discussion often centres on themes in visual arts: colour, form and ideas. These meetings have helped both of us, because our analysis technique is similar. This seems to have been the key to a very fruitful and productive friendship over the years.

Petur H. Armannsson, architect:

A future planner looks back: – In this book the foremost future thinker of the nation, Trausti Valsson, looks back. In a lively narrative he discusses his growing years in Reykjavik, his study of architecture in Berlin in the revolutionary years of the '68 generation. Subsequently he describes his work on shaping the future of Reykjavik in the 80 's and his doctoral studies in planning at the prestigious Berkeley University in California.

The book highlights the experience of young Icelandic student of the major ideologies in architecture and urban design in the second half of the 20th century and his efforts after graduation, to shape the future of Icelandic society with a new thinking and an interdisciplinary vision. The history of his work and the shaping of Valsson, is an important source on events and attitudes from the recent past – should be an essential reading for students and anyone interested in the history of ideas, planning and the shaping of the built environment.

Goddur – Gudmundur Oddur Magnusson, Professor at the Icelandic Academy of Art:

This book is important and in many ways it arrives from an unexpected direction. It is important because it describes clearly the work of those who are in charge of important operations, the man-made landscape; the big scenario type: -planning. It is valuable because it is sincere, revealing and candid about the conflicts and struggles between short-term interests and of those who have a vision and insight, and know more about long-term consequences.

The book is an interesting idea- and zeitgeist history, because it describes very well thought processes in the time of an upheaval in the second half of the last century. It is a fact that some people are more sensitive to their environment than others. They know how to read it, and have conscience and intuition. They are honest and have the courage to speak their minds. As strange as it may sound, this is not well received by the scientific community. This community most often seems to think that the world revolves around just what can be measured and mirrored. It declares "neutrality", but is actually in the service of certain stakeholders. The mirror is insensitive, it has no insight and it knows nothing about the future – the unborn possible reality! The mirror and the measuring scales for various things know little about quality – they are only instruments that give us quantity information.

These tools of measurements have had a huge and growing impact, but neither emotional intelligence nor intellectual imagination has power. It is like knowledge is decreasing and wisdom has mostly disappeared into the abyss of information gathering – data base, that has no vision and is now collapsing from within.

Therefore, this book comes from an unexpected direction. This type of scientific literature is rare. The book is a messenger, based on information, knowledge and wisdom!

Discussion and References

The discussion is ordered by chapters. The page number is mentioned and in case of special features, the line number is mentioned. General references are listed on p. 212. The names of Icelandic documents are translated into English. The Icelandic terms can be found in the Icelandic version of the book on www.hi.is/~tv

Environment and Growing Years (p. 7 to 24)

In the beginning of the first chapter, p. 7, it is pointed out that only one biography of a professor has been published in Iceland in the first decade of this century. This is based on a report by Ragna Steinarsdottir at the National and University Library of Iceland. On p. 7 Le Corbusier and Walter Gropius are introduced. They are the best known leaders of modernism in architecture and planning in the 20th century. The author of this book (TV), is highly critical of modernism, and in his dr.thesis "A Theory of Integration ... " (1987) he traces the problems of modern design (see p. 101), to the modernist worldview that was created in science in the 17th century. This meant that the worldview became cold and mechanical, as has become evident in the cold and mechanical modernism and functionalism in architecture and design. The main authors of this worldview were Bacon, Newton and Descartes.

The scholars and the literature TV quoted in his dr.thesis are for example, E.N. Bacon in *Design of Cities* (1967) and K. Lynch in *A Theory of Good City Form* (1981) and S. Grabow in *Christopher Alexander. The Search for a New Paradigm in Architecture* (1983). The description of the Youth Association of Iceland (p.11) is based on the book *Cultivation of People and Country* (1983) by Gunnar Kristjansson. The discussion of the Jata family (p. 12) is, among other things, based on *A Few Families of Arnesingar* (1956) by Sigurdur E. Hlidar. The referring to the criticism of Einar Jonsson (p. 17, line 14) is based on his autobiography *Memories and Views* (1983). The book *Icelandic Building. The Pioneering Work of Gudjon Samuelsson* (1957) is by Jonas Jonsson and Benedikt Gröndal. It places the work of Samuelsson in the context of social trends (p. 17).

References to the activities of students at MR (p. 19-21), are for example, based on the school paper in 1962- '67. The discussion of Kristin Hannesdottir, on the art of TV (p. 20, line 12) appeared in the school paper 41. year. 1966, nr. 5, p. 180. The description of the theatre activities in MR (p. 20-21) was based on *Herranott-Playbill* (1967). The DVD that accompanies the Icelandic version of the book, displays various related items, such as a part of the film *Herranott* 1967 (in part 1), filmed by Jonsson. The description of the 100th anniversary of the University of Iceland is among others, based on *University of Iceland 2011* (a calendar).

The Berlin Years (p. 25 to 53)

The views of Tomas Saemundsson on the planning of Reykjavik (p. 29, line 3) was based on "Letter from Iceland dated January 30, 1835" that was published in the first issue of *Fjölnir* in 1835. Quotes on the views of Tomas's on Berlin (p. 30, line 1) are taken from the *Travel Book of Tomas Saemundsson* (1947), edited by Jakob Benediktsson.

Documents on the academic years of TV in W-Berlin are preserved in the National Library. Information on the activities of radical students in West Berlin and on the Red Brigade (Rote Armee Fraktion) and its members (p. 27 and 33-34), is taken from the internet.

The book *Die Kinder von Zoo* (1978) (The Children of Zoo) is written by journalists for Christiane F. (p. 37, line 25). A film has been made from the book; *Christiane F. – Wir Kinder von Zoo* (1981). The book was published in Icelandic *Dyragardsbörnin* (1998). It was translated by Solveig Thorarensen.

Very many books and websites exist on modernism (p. 36) and post-modernism (p. 37), but one of the most influential book on it is *Learning from Las Vegas* (1972) by R. Venturi. Substantial data on the planning of Breidholt neighbourhood (p. 37) is in newspaper articles, available on timarit.is. Examples: Thjodviljinn Dec 8, 1973 and Nov 11, 1978. See also an exhibition pamphlet on a show on Breidholt at the Reykjavik Art Museum in 2002.

A textbook on the "new" math at the MR in the study time of TV was *Principles of Mathematics* (1955) by C. B. Allendoerfer and C.O. Oakley. A book for the general public was *Staerdfraedin* (1966), which was Björn Bjarnason's translation of *Mathematics* (1963) by D. Bergamini. Published in the USA as *Mathematics* by Life.

The dr.thesis of Christophers Alexander: *Notes on the Synthesis of Form* (1964) (see p. 46) has been published in many editions. His famous article "A City is not a Tree" was published in 1965. A translation by Einar Thorsteinn Asgeirsson "Christopher Alexander: City is not a Tree", appeared in Birtingur, 13th year, 1967, issue 4, p. 50.

Björn Kristleifsson was a contemporary of TV in the architectural programme in W-Berlin (1967- '72). By viewing teaching materials, photographs, maps, etc. together, they managed to review their student years. In the autumn of 2013 they went to Berlin for a further review, and to take photographs, some of which are in the book. In the DVD of the book (in part 1, at the back), there is a video from the trip, as well as parts of two films that they, and other Icelandic students in Berlin, made. In their trip TV and Björn revisited their School of Architecture and drove to the sites and buildings that were most discussed in their study years, to re-evaluate them, such as the Unité d 'habitation (p. 35), Olympia Station, National Gallery, Akademie der Künste and Märkisches Viertel (p. 36).

Among the books that they read in their architectural studies were books on Bauhaus, the colour theory of J. Itten and publications on the Internationale Bauausstellung 1957 (International Architecture Show) in Hansaviertel.

Because of his interest in new subjects related to mathematics and methodology of science, TV read, among other, *Wörterbuch der Kybernetik* (1969) (Dictionary of control theory), by G. Klaus, and *Grosse Naturwissenchaftler* (1970) (Important natural scientists) by I. Krafft and A. Meyer-Abich.

The books *Community and Privacy* (1966) by S. Chermayeff and C. Alexander, and *Shape of Community* (1971) by S. Chermayeff and A. Tzonis, also served TV well as he was writing his diploma thesis. Of most importance, however, was the book *Entdecken, Erfinden, Forschen im Morphologischen Weltbild* (1966) (Discover, invent and investigate in the world of form theory) by F. Zwicky.

TV´s diploma thesis is called "Kritik und Anwendung of Morphologie als Entwicklungsmethode in Bauentwurfs-Prozess"(1972) (Analysis and the use of morphology in the development process of design and architecture). This overview of the most important literature for the thesis, described here, provides an understanding of what is said about the thesis in this book (p. 41, 51 and 53).

The Years at the Development Office (p. 54 to 91)

TV has previously written about the role of the Development and Planning Office of Reykjavik, in two of his earlier books; *Reykjavik – Its Potential for Development* (1986) (p. 63-78) and in *Planning in Iceland* (2002) (bls.143-160). In both books, he also discusses the Danish Plan, that came before that period. The second book, in addition, deals with the period of planning that followed.

The current book, p. 52 to 72, places more focus on the larger social context. Newspaper articles, that give information on the Development Office, can be found at timarit.is. Examples: Visir Nov 25, '76, Mbl. 24, 26 and 28 of March '77, Thjodviljinn April 27 and 28, 1977.

Letters sent by TV to Hilmar Olafsson, the Director of the Development Office, in the preparatory phase for establishing the Office in 1972 (written on June 15, '72 and July 20, '72) can be found in the collection of TV's letters in the National Library.

Baldvin E. Baldvinsson, a traffic engineer, was a fellow of TV at the Development Office from Nov 1, '72 to Jan 31, '79. Discussions with him on July 1 and 19, 2013, were important to review and reassess this period in the planning of Reykjavik. TV interviewed Gestur Olafsson on June 30, 2013. Olafsson worked on several projects for the Development Office. TV interviewed Birgir Isleifur Gunnarsson on June 3, 2013. He became the Mayor of Reykjavik on Dec 1, 1972, one month after the Office was established.

At the Reykjavik Archives, data from the Development Office are well preserved. Reading the data in the following five boxes were most useful for the book: Box 1: The Old Town and Kvosin, Box 4: Review of the Master Plan, Box 8: The Future Areas and the Capital, and also a box with reports. My thanks go to librarian Gudjon

Indridason for his assistance. The DVD (which is also on TV´s homepage www.hi.is/~tv), contains various related items, among others, a video of former employees of the Development Office from 2011 (see part 2 in the DVD on You Tube.

In the chapter "The Hippies Come Home and Start to Become Active" on p. 87-89, TV describes how the hippie generation was heavily involved in the changed values which, for example, had the effect that the plan for the for the Central Bank at Frikirkjuvegur 11, and a second proposal at the foot of Arnarholl Hill, were cancelled. Newspaper articles on this are for example in Mbl. Des 26 and 27, '73 and in the newspaper Timinn on Des 10, '73.

TV wrote the article "Architecture" for the Student Handbook in the spring of 1973. There he describes the major changes in the field. The article was republished in Arkitidindi in the fall of 1973. In January 1975 a special issue of Arkitidindi was published by young architects. This issue was devoted to new attitudes in architecture. In the chapter "Systems of Thought and Systems of Value" on p. 86-87, in the present book, there is among other things, a report on the message of an article TV published in Lesbok Mbl. Jan 9, 1977, which is called "Environmental Protection and Development of Value Systems".

The chapter "New Settlement Areas North-East of Grafarvogur Bay" (p. 60 to 62) was based on the earlier mentioned books: *Reykjavik – Its Potential for Development* (1986) and in *Planning in Iceland* (2002), and also on the newspaper articles mentioned. The basic report on the planning: "Future Areas" (1973) was written by TV and Bjarni Reynarsson.

The chapter "Open Areas for Activities and Beautification" (p. 63 to 65) tells, among other things, about the "Green Revolution", as it was called in the time before the City Council Elections in 1974. The official report was entitled "A Plan for Environment and Recreation" (1974). A preparatory report was written by Haflidi Jonsson, Director of Parks: "Reykjavik in a Microscope" (1973) and by TV on the open areas (1973). "The Blue Book" of the Independence Party before the elections: "Life in the City" (1974), is also an important source on the "Green Revolution".

Very much was written about this plan in the papers. Here are three articles critical of it: Thjodviljinn March 23, '74, Timinn March 25 '74, and Althydubladid May 17, '74. In the chapter "Spoiled Coast – Harbours and Boating Harbours" (p. 66 to 68), the main discussion is on the Reykjavik Master Plan of 1948, in which the whole North Coast was decided for heavy industry.

In his book *Planning in Iceland* (2002) TV deals with that plan in the chapter; "The Infamous Plan of 1948" on p. 133 to 137. In the spring of 1949, architect Gunnlaugur Palsson wrote three articles on the plan in the Visir, in the section "Our Town".

Next chapter is called "The Capital Area – and an Airport on Löngusker" (pp. 69-72). It contains a description of an article by TV "Planning of the Capital Area" (Lesbok Mbl. Aug 12, '73). Also there are reports on how TV presented his ideas on the Airport Löngusker (Interview in Timinn, August 20, '75). Also the virgin speech of Gudmundur G. Thorarinsson MP, at the Parliament on the Löngusker Airport in Timinn May 7, '75.

In the election on the airport issue in Reykjavik on March 17, 2001, Löngusker was one option. A great number of newspapers reports were published. Examples: Mbl. Dec 6, 8 and 20, 2000, and in Mbl. Jan 26, '01 and on Feb 9, '01. A series of articles was begun in Mbl. on Feb 11, '01. The DVD (part 10) contains conversations about the airport matters in State radio in 2001. See You Tube.

Hrafn Gunnlaugsson premiered his film "Reykjavik in a Different Light" on December 30, 2000 in the State tv. It contains much discussion about the airport matter and the Löngusker. A discussion of the film was published in the DV on Jan 4, 2001. A segment from this film is in the DVD, part 10. (See You Tube).

Next chapter is named "The First Steps towards an Iceland Plan" (p. 73 to 76). A detailed description of this is in *Planning in Iceland* (2002) by TV, on p. 345-362. The first newspaper articles on this, by TV, were published in Thjodviljinn April 7, '77 and in Timinn on May 1, '77. A photocopied book about this is: *Ideas on the First Iceland-Plan* by TV was published in 1987, and in 1991 he publish a book on this called: *A Vision for Iceland in the 21st Century*. So much interest developed that the State tv had a film made on TV´s ideas; "The Future has to be Created" (1993). (See DVD, part 3 on You Tube). The director was Ragnar Halldorsson.

In 1994 TV took a part in a script course for television. There he wrote the script "The Unknown Land – Search without an End", that the State tv had a film made from, under the direction of Thor Elis Palsson. The film is largely about the Highlands. It was aired in Jan1995. A segment from it is on the DVD, in part 3. The chapter "Work on an Iceland Plan – A New Phase in My Life" (p. 88 to 91) also discusses these issues.

In 2001 Hrafn Gunnlaugsson made the film "Iceland in a Different Light". It deals, among other things, with TV´s ideas on highland roads and a city in the centre of the country. A part of this film is on the DVD in part 8 on You Tube under TV´s name).

Next chapter is called "Prelude to the Writing of the Planning History of Reykjavik" (p. 77 to 80). After several mishaps, Fjölvi published TV's book *Reykjavik – Its Potential for Development* (1986) on the plaanning history. Sixteen years later TV went back to this topic in his book *Planning in Iceland* (2002). There he added to his earlier accounts, what had happened in the sixteen years that had passed.

The Forming of Theories in Berkeley (p. 99 to 122)
There was much reporting on the making of the film "Paradise Reclaimed" in the newspapers. Examples: DV on March 29, '79; Visir March 31, '79; Mbl April 10, '79; Visir August 14, '79. On p. 92 TV tells about a project he received a grant on in 1979, from CCMS in Brussels. It dealt with making map-transparencies on natural conditions in Iceland. Ian McHarg is the main author of this method. It is described in his book *Design with Nature* (1969). On the bottom of p. 99, there is a short description of the method and also a description of a TV´s visit to Prof. McHarg in Philadelphia in the summer of 1979.

On p. 93 and 94 TV tells about his first visit to University of California, Berkeley, in August 1979. There it was decided that he would apply for admission. TV´s stay there eventually became almost seven years. Data on this section on the Berkeley years of TV, are on p. 99 to 122. They are preserved in the National Library. In the autumn of 2013 TV went on a trip to Berkeley to review and evaluate his time there and to take photographs, some of which are published in this book. This trip was planned to coinside with the 100th year anniversary of the LAEP department. It was celebrated with a conference and a historical exhibition.Because of the celebrations TV had the chance to meet some of his former instructors and co-students. An anniversary book was published: *Landscape at Berkeley – The First 100 Years* (2013), editors W.B. Lowell, C.I. McDade and E.D. Bryne. TV wrote an article for this book. All these data were an important input as TV was writing the section on his years in Berkeley (1980- '87).

On p. 97 the remarkable work of Professor Sim Van der Ryn on ecological design is described. In the spring of 2000, TV went on a sabbatical to Berkeley. At that time he had acquired a video camera and took lots of videos, including an interview with Van der Ryn. Also interviews with his former professors; G. Cranz, R. Mayer, P. Groth, M. Laurie and C. Alexander, mostly about TV´s new book *City and Nature* (2000). It is a popular version of TV´s dr.thesis. TV has ever since taken videos of the places he has visited. A copy of this video collection – which also includes family photos videos, is in the National Library.

In the chapter "The Modern Problem... and a Draft for Solutions" (p. 101 to 102), TV tells how he tried to better understand, and to define, what might be the primary causes of the problems of modern design, and what the deep roots to these problems are. Also, what possibly could help us realize how dangerous it would be to continue on the same path.

In the introduction to TV's diploma thesis at TU Berlin (1972), he also discusses this. The beginning of it is as follows – in an English translation: "Mankind is steadily approaching a turning point in its existence on earth. – A simplification can help us understand this, from two things: Previously people lived in small groups in close integration with nature, but now we are increasingly comming to the limit of what nature can give, or absorb"(p. 6).

At Berkeley TV started analysing the problems of modernity in terms of some basic factors and, based on that, he created ideas for solutions to them (see p. 100). TV concluded that the basic symptom of the problems is *lack of connections*. TV traces the problems to the influence of modernism, and searched for solutions in oriental design and theories. The first chapter of his dr. thesis: "A Theory of Integration ..." (1977) discusses this.

The professor of architecture at Berkeley, who had put most work into the analysis of the defects of today´s worldview, and the need for new, improved worldview, was C. Alexander. As TV came to Berkeley in 1980, Alexander had somewhat changed his theories on design (p. 103 to 105).

During his second year at Berkeley, TV came into contact with P. Feyerabend, a professor of philosophy. His books; *Against Method* (1975) and *Science in a Free Society* (1978) deal with some of the flaws of the worldview of science, from a philosophical point of view. These books of Feyerabend were a great help to TV. Another Berkeley professor, T.S. Kuhn, wrote a book about a similar topic: *The Structure of Scientific Revolutions* (1962).

In TV´s effort to connect ideas and form, the books of R. Buckminster Fuller, were of great help. Through his friendship with Einar Thorsteinn Asgeirsson TV got to meet Fuller personally in his three visits to Iceland. A book by Fuller: *Synergetics: Explorations in the Geometry of Thinking* (1979), gives a good overview of Fuller's thinking.

In 1978 Einar Thorsteinn published the book *Children 's Game*, which is about spatial forms of various kinds. Fuller wrote the preface, and TV wrote an article in Timinn on Nov 12, '78, called: "Changes in the Worldview – Reflections on the Book of Einar Thorsteinn".

The books of the main advisors of TV in writing his dr.thesis, were also related to these themes. So it is with G. Cranz remarkable book: *Politics of Park Design* (1982), which shows very clearly that the philosophy of each period is reflected in the design of that period. TV´s main advisor was M. Laurie, who wrote *An Introduction to Landscape Architecture* (1976). Laurie was TV´s principial contact to eastern thinking and design. Books about this, on which TV relied in writing his dr. thesis, are for instance, *The Aesthetic Cape Town* (1983) by A. Yoshinoubu, and *Topophilia: A Study of Environmental Perception, Attitudes, and Values* (1974), by T. Yi-Fu.

A video on the DVD (in its part 4, see You Tube) there are images by Kari Schram and Thorsteinn Jonsson. There TV explains the *Integration Theory* he created in Berkeley. Authors, who later dealt with a changed worldview, are e.g. Naisbitt, *Megatrends* (1982) and T.L. Friedman; *The World is Flat* (2005).

The First Twelve Years after Returning to Iceland

(p. 123-155)

The book manuscript that TV wrote based on his dr.thesis "A Theory of Integration ..." (1987), is called "Complementarity – the Forgotten Order" (1985) and is preserved in the National Library. The editing of the book did not work out and therefore the book was never published. (See p. 123-125).

The essay that TV got the first prize for, in an essay contest called "Cultural Landscape in Urban Areas". It was announced by the Association of Icelandic Physicians (1987- '88) (see p. 125). TV´s essay is entitled "A Policy of Cultural Values and Human Welfare – the Theoretical Background of the Current Planning Policy Criticized – and a New Policy Illustrated by Examples." It was published in the Medical Journal in the autumn of 1988.

The report by TV, Valdimar Kristinsson and Kjartan Mogensen from the Videy Competition (1988- '89), is in the collection of TV's articles in the National Library. The same hold true for the report by TV and Kjartan Jonsson (p. 125) on their proposal to restore the Fossvogur Chapel (1988- '89).

The magazine TV and Kjartan Jonsson published, but only one issue, is called "Design" (1st edition, 1. year, fall 1987). After that TV and KJ joined the journal of Gestur Olafsson "Architecture and Design". There they were in charge of three theme issues: "Icelandic Classic" (11. year, 4. issue, 1990) and "Indoor Culture" (13. year, 4. issue, 1992), where Petur H. Armannsson participated in data gathering and writing.

The third theme issue was "Indoor Environments" (14. year, 4. issue, 1993) (p. 126). For these special issues TV and KJ created the layout, took the photographs, made the drawings and wrote most of the articles. The fourth and last theme issue was "Natural Disasters" (17. year, 1. issue, 1996), that TV and Ragnar Sigbjörnsson were in charge off.

The central essay of that issue is a 23-page article: "Natural Disasters in Iceland". This article published ten maps of where natural hazards are located in Iceland. Eight of them were hazard maps made by TV that he had published earlier in his book: *Ideas on the First Iceland-Plan* (1987). Now they were republished in colour. The map showing areas most prone to landslide, was based on a map by Pall Imsland. The map on the areas of most violent storms was made by TV and RS. Many municipalities have used these hazzard maps and this article, as basic data for their planning.

On p. 127-130 there is a chapter on regional policy and highland roads. In 1987 TV started to write articles about these matters. He published, for example, three articles in Mbl. 1987- '88: "Has the Settlement Policy failed?" (Nov 12, '87), "A proposal for a New Settlement Policy" (Nov 13, '87) and "A Future Plan and a Covenant of Locals on which Areas should be Protected from Failing" (May 5, '88).

In "Architecture and Design" TV published two articles on this same theme: "Steps Towards an Iceland-Plan" (9. year, 2. issue, '88) and "Ideas on Environmental Centres in Iceland" (12. year, 3. issue, '90).

TV's basic understanding was that the reduction of number of inhabitants in the rural areas was so great that one would have to choose which places where salvageable. In addition, the demands of the future, do requier the building up of strong service centres. Recently, a committee had been at work, called the "firing squad", which had the task of reducing the number of farms. TV made a parallel proposal on the reducing the number of small, remote villages, naming Grimsey Island as an example. An interview of Eirikur Jonsson with TV and a news report by Eggert Skulason on Channel 2 about this (1992) are at the end of part 5 on the DVD.

The issue contained in TV´s ideas about Iceland-Plan, that got most attention, were the highland roads. He proposed that they should be a part of a New Settlement Policy. Omar Ragnarsson had an interview with TV at a snow-free track on the Sprengisandur, in the middle of Iceland in November 1988. This interview is in part 6 on the DVD, along with other material. A few conferences followed. Minister Matthias Mathiesen formed a committee, and a proposal was presented to the Parliament (p. 129).

Next Chapter (p. 131 to 134), tells about three books TV wrote on the future plan issue: *A Vision for Iceland in the 21st Century* (1997), *Land as Resource* (1993) and *At the Turn of the Century – Iceland's Position in a Changing World* (1995), with Albert Jonsson. As the title shows, this book attempted to analyse the position of Iceland in a different world, and on this basis, to conclude about a sensible vision for Iceland for the future.To communicate the ideas only with articles and books, was not enough, and TV was quite lucky that the State Television offered to make a film about his ideas (see p. 136). It is called: "The Future has to be Created" (1994). Ragnar Halldorsson was the director. A segment from it is in part 3 on the DVD. In the middle of part 5 there is the second part of this film.

In 1994 TV was admitted to a script course at the State Television. There he wrote the script "The Unknown Land – Search without an End" (see p. 137). This film was made in 1995 under the direction of Thor Elis Palsson. The film deals mostly with the highlands: past, present and future. In the second part of part 3 on

the DVD, there is section of the film. There also, is a video by TV filmed on July 30, 1979, as he and Einar Thorsteinn laid the cornerstone for a possible future capital in the centre of the country.

In 2000- '01 Hrafn Gunnlaugsson made the film "Iceland in a Different Light" where TV´s ideas on highland roads and Highland City are presented. A clip on this is in part 8 on the DVD. In 2005- '06, Jon Arsaell Thordarson made a film on the ideas of TV in his tv-series "Independent People". At this point in time, global warming had started to have an impact on Iceland's and the Arctic's future vision, because increased warming, increases e.g. the importance of the highlands. See part 5 and 6 on the DVD on You Tube.

The next chapter of the book is "Creation of Form Theory on a Settlement Development" (p. 138 to 141). It begins by referring to TV studies in Berlin, where he discovered that by simplifying forms, one comes closer to understanding the very core of them (p. 38). As TV began to explore the settlement patterns of Iceland in 1992, these form studies were of help in analysing the patterns. The settlement patterns of Iceland have gone through seven pattern-transformations. These findings he published in the appendix of the book *Land as Resource* (1993), on p. 101 to 103.

Two years later TV employed forms of law, for example, on centrifugal and centripetal forces, to conduct an analysis of the evolution of settlement patterns in Europe. This was published in the book *At the Turn of the Century* (1995) (p. 60-64). There it is mentioned that the settlement pattern of whole world will also change with global warming. A point in case is a picture on p. 50, which shows future migration trends to the North.

Eleven years later TV published the book *How the World will Change – with Global Warming* (2006). Ten types of these displacement forces are defined there. They will change the settlement patterns of the globe. This is described on p. 139 to 141.

A good knowledge of form not only can be used to help understand functional aspects, but rather it also can be used to enhance the beauty of a structure. This is what the next chapter "Form is a Key to Beauty and Depth" (p. 142 to 145) deals with. There is e.g. a discussion on a needed rediscovery of geometry and ornament, of which C. Alexander is the forerunner. His four books on the *Nature of Order* (2003- '06) provides a good guidance to this.

Next chapter is entitled "Engineering: A New Policy for the Department" (p. 146 to 148). This is injected here into the present book, because in addition to the various other issues, TV needed to work on policy issues of his department. TV e.g. worked on audit- and policy formulations as he was editing brochures for the Department and the Faculty of Engineering. This contributed to his better understanding of future technologies and helped him identify and assess, the influence of technological developments on societies.

After this detour chapter the previous thread is continued in the "Country Planning and the Planning of the Central Highlands" (p. 149-151). Now it became clear that the position of the highlands, for example, in terms of administration and property rights, had to be analysed. Now a major conflict on this erupted... especially as concerns who should be in charge of the planning rights. On this TV and Birgir Jonsson wrote the book *Iceland the New* (1997).

The final chapter in the chapters on the first twelve years after TV returned from California, is: "Tourism in an Iceland Plan – with Connection to Road Plans" (p. 153-155).

TV was here in collaboration with the Icelandic Road Administration in formulating ideas about the future road network of the country, a road network that increasingly needed to serve the tourism industry. The book TV wrote about this was published by the Road Administration, is called *Roads and Tourism* (2000).

The First Professor in Planning (p. 156-183)

Data on the career of TV as a professor, is placed under "Worksheets of TV" in the National Library. Data on attempts to establish a MS degree in Planning at the University in 2000- '02 are in the same place, as well as the data on the Centre on Urban Studies.

The next chapter is "New Master- and Regional Plan Press the Airport Issue" (p. 158 to 159). Many dealt with this, as well as the new Master Plan of Reykjavik, in newspapers. Examples: Petur H. Armannsson, Mbl. 9/3 '01: Björn Olafsson, Mbl. 24/7 '01; Björn Bjarnason, in an interview in Mbl. 3/2 '00; Thorvaldur S. Thorvaldsson in an interview in Mbl. 22/1 '02 and Vilhjalmur Th. Vilhjalmsson in Mbl 12/1 '01. In 2001, a special issue of AVS on the Regional Plan of the Capital Area, was published. There many people were interviewed on the Regional Plan. In the months before the referendum on the 17th of March '01, articles on the airport issue were published in Mbl. Examples: Dec 6, 2000; Dec 8, '00; Dec 20, '00; Dec 24, '00; Jan 20, '01; Jan 26, '01; Feb 9, '01. On Feb 11 in 2001, Mbl. began publishing special issues on the matter.

In the years 2013, '14 and '15 there was a very intense discussion on airport issues in the media, which led the establishment of the Ragna Committee in 2015. The committee presented its findings on 25th June 2015. The report and supporting documents are on www.innanrikisraduneyti.is/frettir/.../29311.

The prediction on the number of flight passengers is central in the report and it is expected that landings and take-offs in Keflavik Airport will increase from 5 to 15 million in rather short time, which means that the number of tourists will increase from 1 to 3 million. Based on these predictions, the committee concluded that the current facilities

at Keflavik Airport are inadequate and that many facilities need to be rebuilt from point zero. Therefore perhaps it is, the report concluded, better to build a new airport in Hvassahraun, which is close enough to the Capital Area that the international and domestic flights could be united there.

The next chapter is called: "My Overview Book: Planning of Iceland" (p. 160 to 161). This book is a summary of the lectures of TV on planning in Iceland and also what has been written about planning through time. In the back of the book is an eight-page bibliography on the subject. A tv-programme on the book is in part 10 on the DVD. (These videos are on You Tube under TV´s name).

Next chapter is: "A Book about How the World Will Change with the Warming" (p. 162 to 164). It tells about TV´s process leading to the writing of the book *How the World will Change – with Global Warming* (2006). In the fall of 2004, TV was invited to teach a seminar as a Farrand Visiting Professor, with others, at his old department at Berkeley. It was decided to let the seminar deal with the planning consequences of global warming. The main cooperation was with Professor Joe McBride. Later in this fall TV wrote a draft for the contents of his idea on a book on global warming.

The years 2005- '06 went into writing the book and pre-presentations of its contents on the subject in conferences. Following the publication of the book, TV was widely invited to give lectures on the subject, among others to the cities: Cologne, Helsinki, Nuuk, Torshavn and Copenhagen. Many media dealt with the book, the best known is TIME, which published quotes from TV on the Arctic in its theme issue on Oct 1, '07. On BBC-tv, Sally Magnusson had an interview with TV. It is the back in part 6 in the DVD on You Tube.

The last chapter of the book is: "The Impact of Climate Change on Iceland" (p. 169 to 171). There, the impacts on Iceland are explained. The chapter that comes next (p. 172 to 174) describes three articles that TV and Gudmundur Freyr Ulfarsson published in highly respected foreign journals on these issues. (See the homepage of TV). On p. 175 to 177 their cooperation with Sigurdur M. Gardarsson on an article in *Futures*, is described. Here the development of land-use in Iceland in the past and present is described. The article presents, based on this analysis, a prediction on how settlement patterns in Iceland might change in the future due to global warming and other factors.

Threads of Work-Life Come Together (p. 175-192)

Page 175 tells about the evolution of the highland roads issues. This culminated with a conference that TV, Gudni Agustsson and others initiated. The main theme was the Kjölur Highland Road. This took place on May 23 '13 at the Radisson Blu Saga Hotel. In the autumn Austurbru announced the conference "Resources in Eastern Iceland" on Nov 5-7, '13. TV´s talk was called "Increased Activity in the East will Require Improvements of Roads", which can be found on
www.austurbru.is.

On p.146 there is a chapter on policy making for the CE Department and also for the School of Engineering and Natural Sciences at the University. Here the public events of the 100th anniversary of the University in 2011 are described. Many articles about this are on the internet.

Another main subject of TV´s career was to initiate more environmental planning at the University. The chapter on p. 180 to 184 tells about how successful this was. A major step towards more environmentally friendly aspects was the MS thesis of Katrin Halldorsdottir in 2012. It dealt with sustainable planning – with examples taken from Ellidavogur Area. This thesis was supervised by TV and Björn Axelsson. The thesis can be found under the name of Halldorsdottir in www.skemman.is. This is a webside for academic theses and research publications.

In 2011, TV and Birgir Jonsson, started a collaboration with Erna Bjarnadottir, an economist at the Farmers Association of Iceland. They wrote the article "Food Security and Sustainable Agricultural Planning in Iceland" (Baendabladid, 22. issue, Dec 15, 2011, no. 361, year 17). The main purpose of the article was to create an Iceland map, showing a sensible country plan for sustainable agriculture in Iceland. (See p. 182).

Next chapter is called "The New Master Plan of Reykjavik 2014" (p. 184 to 185). There TV utilizes his overview and his knowledge of planning and planning history, to show that the policy for the new Master Plan that tries to limit the role of the car and try to strengthen other modes of transportation, is characterized by a utopian thinking that is only likely to work in a limited way.

The next chapter is called "The Planning and Location of the University" (p. 186-188). There TV explains some mistakes that have been made in the location of the University and some of its institutions. This has, for instance, meant that important institutions are located in the far corners of campus. Another drawback is that the campus area is long stretched, whereas it should be close to the form of a circle. It also contains activities that have little connection to the functions on campus. These activities and areas, are marked as "holes" on a map on page 186. The chapter also explains errors made in the competition on the planning of the campus in 2014.

Next chapter is called "Country Planning and Highland Roads again" (p. 189-190). This chapter initially refers to earlier chapters

in the book on these topics. In the spring of 2013 and 2015, a bill on a National Planning Policy was presented to the Parliament. In the fall of 2016 this policy was adapted. TV wrote an article on the incorrect policies and practices it promotes: "The New Country Planning Policy Means Development Constraints" (Mbl, April 13, '13), and "The Country Planning Policy does not Reach the Goal of a Country Plan in Creating a Vision for the Future" ("Into the Wind" 2013, 31. year).

The Country Planning Policy was created on the behalf of the Minister of Environment and Resources, and is characterized by decisions on development constraints, especially in the planning of the Central Highlands, for example, as it comes to road construction there. The highland roads could actually play a great role as it comes to security. The great accumulation of snow in the highlands in the spring of 2015, showed that the National Plan Policy decision that the roads should almost not be elevated at all, but rather designed as summer roads, is of a major concern, because only with some elevation of the roads in area with the most snow, it can be prevented that the tourism in the highlands is made difficult because of snow, even well into the summer.

The last chapter of the book is "Conclusion: Shaping the Future is an Important Matter" (p. 191 to 192). There it is pointed out how important it is that politicians and planners have a similar vision, and that they work together, as for example in the case of Hrifla-Jonas and Gudjon Samuelsson.

Some of the old plans and concepts for new buildings in Old Reykjavik – as we see in the example of the 1948 proposal of a new government building on the Bakarabrekka Slope (p. 192) – shows us that we often have been very close to destroying the Old Reykjavik Town Centre.

One might have thought that these ugly examples would have led to a deeper understanding of the beauty of the Old Town, and that modernistic designs would have been limited to the new areas of Reykjavik, meaning that the modernissm would not thrust itself into the beautiful old and unassuming Old Centre. This unfortunately was proven wrong in the summer of 2015, as a drawing of a hotel at the corner of Vonarstraeti and Laekjargata was published. (See figure on p. 17). Many, for certain, agree that if that hotel will be built in this modernist way, it would be one of the greatest disasters in the Old Centre in decades.

Visual Material

This book is partly a summary and re-evaluation of what TV has dealt with in his career in a written form or in other media. These are, for example: theses, reports, fourteen books and about 150 articles. About half of the visual material of the present book comes from these, and most often it was created by TV himself. In his earlier books most of the pictures were black and white, but they have now been coloured. As TV always has noted in his books, his illustrations are always open to free use for everybody, but the source should be acknowledged.

Figures and maps made by TV – sometimes created with the help of his co-workers – are: (First: page numbers and then the number of the figure on the page in question): 34-2, 41-1, 41-2, 41-3, 42-1, 42-2, 42-3, 42-4, 42-5, 50-3, 50-4, 51-1, 51-2, 52-5, 52-6, 52-7, 52-10, 52-11, 52-12, 52-13, 53-1, 61-1, 61-4, 61-5, 62-3, 64-3, 66-2, 66-3, 65-3, 67-1, 68-2, 69-2, 70-2, 70-3, 70-4, 70-5, 70-6, 70-7, 70-8, 72-3, 75-1, 75-2, 75-3, 76-3, 77-1, 77-2, 77-3, 77-4, 78-2, 80-2, 80-3, 80-7, 80-8, 88-1, 88-4, 89-2, 89-4, 90-1, 90-2, 90-3, 90-5, 90-6, 90-7, 90-8, 100-1, 100-7, 106-3, 106-4, 109-1, 110-5, 110-6, 112-8, 112-9, 112-10, 112-11, 116-1, 116-2, 116-3, 116-4, 117-1, 117-2, 118-3, 119-1, 119-2, 119-3, 119-4, 119-5, 119-6, 120-1, 120-2, 120-3, 120-4, 120-5, 120-6, 120-7, 120-8, 120-9, 120-10, 120-11, 120-12, 121-1, 121-2, 121-5, 123-1, 124-1, 124-2, 124-3, 124-4, 124-5, 124-6, 124-7, 124-8, 124-9, 124-10, 124-11, 124-12, 124-13, 124-14, 124-15, 124-16, 125-1, 125-2, 125-4, 126-2, 126-3, 128-3, 128-4, 128-5, 128-6, 128-7, 128-8, 128-9, 128-10, 130-2, 131-1, 131-2, 132-2, 132-3, 132-5, 132-6, 132-7, 132-8, 132-9, 132-10, 132-11, 132-12, 132-13, 132-14, 134-3, 134-4, 138-1, 138-2, 138-3, 138-4, 139-1, 139-2, 139-3, 139-4, 140-1, 140-2, 140-3, 140-4, 140-5, 140-6, 140-7, 140-8, 140-9, 140-10, 140-11, 141-1, 142-2, 149-2, 150-2, 150-6, 150-8, 151-1, 151-2, 151-3, 153-2, 153-3, 154-1, 154-2, 160-1, 168-4,168-5, 168-6, 168-7, 168-8, 170-3, 172-1, 172-2, 172-3, 172-4, 172-5, 172-6, 172-7, 172-8, 172-9, 172-10, 174-2, 174-3, 175-2, 176-1, 176-2, 176-3, 176-4, 176-5, 176-6, 176-7, 176-8, 176-9, 176-10, 177-1, 177-2, 177-3, 182-1, 186-1, 186-2, 186-3, 186-4, 186-8, 187-2, 189-2, 190-1, 192-2, 192-3.

Figures from the City of Reykjavik: 17-2, 55-1, 56-1, 56-2, 56-3, 56-4, 60-1, 60-2, 60-3, 61-1, 61-3, 61-4, 62-3, 63-1, 63-2, 63-3, 65-3, 66-3, 67-3, 68-3, 71-1, 71-2, 89-1, 91-3, 131-1, 131-6, 164-1, 169-1, 169-2, 181-1, 185-1, 185-2, 187-2, 192-1. Figures from the Capital Area: 55-2, 62-1, 184-2, 185-3. Figures from the "Blue Books" of the Conservatives: 65-3, 66-1. Pictures from Google Earth: 37-4, 62-2, 67-4. Pictures from books by C. Alexander: 46-1, 46-2, 103-1, 103-2, 104-3, 104-4. Picture by Ian McHarg: 93-2. Picture by Sigurdur Gudmundsson, architect. Picture from the Farmers Association of Iceland: 169-3. and from the National Land Survey of Iceland: 170-1.

Photos by TV are on: 18-2, 20-1, 20-2, 36-4, 37-1, 38-2, 40-9, 40-11, 49-3, 50-1, 52-3, 52-4, 52-8, 52-9, 53-2, 53-3, 64-1, 80-1, 80-4, 80-5, 80-6, 80-9, 80-10, 80-12, 80-13, 82-2, 84-2, 84-3, 87-1, 88-2, 89-1, 89-3, 94-2, 96-1, 102-3, 103-3, 112-1, 112-2, 112-3, 112-4, 112-6, 114-3, 114-4, 122-5, 127-1, 129-2, 135-2, 145-1, 145-2, 147-1, 184-1, 192-4, 192-5.

Photos by known authors: Groa Gudjonsdottir 18-1, 23-1, 28-5, 33-2; Ingolfur Margeirsson 22-1; Björn Kristleifsson 30-3, 49-1, 49-2, 58-3; Fridur Olafsdottir 33-1, 51-1; Thordur Vigfusson 50-2; Johannes Long 61-1; Unnar Stefansson 60-4; Magnus Olafsson 76-1; Svanhildur Valsdottir 80-11; Einar Thorsteinn Asgeirsson 82-3, Thor Jakobsson 88-4; 94-3; Björn G. Björnsson 92-3, 92-4; Thorsteinn Jonsson 94-4; Arthur Löve 112-5, 112-7; Hrönn Traustadottir 114-1; Björn Ingi Sveinsson 114-4; Thorfinnur Gudnason 127-3; Eymundur Runolfsson 130-1; Bjarnveig Höskuldsdottir 131-3; Trausti Eiriksson 121-4; Jonas Egilsson 134-1, 134-2; Birgir Jonsson 148-1; Kris Albert 155-2; Tinna Traustadottir 155-3; Katrin Gunnarsdottir 156-2; Kjartan Jonsson 161-1; Sigridur Jonsdottir 164-2; Ingi Rafn Jonsson 171-3, 183-3; Olafur Thorvaldsson 175-3; Hördur Bragi Helgason 192-3;

It was not possible to find who took some of the photos in the family albums, but usually they were relatives or friends of TV´s. Sometimes anonymous passers-by were asked to take pictures. These images are throughout the book. About 15 images are book covers. About 30 images are from paper clips.

All the freehand drawings, coloured pictures and sculptures in the book are by TV, as mentioned in most of the pages in question, which are: 15, 17, 18, 19, 20, 22, 24, 28, 34, 38, 39, 40, 112, 113, 123, 144, 216.

Several images are single frames from videos or television documentaries that TV has been associated with in some way. These are: "Recordings from Herranott MR" (1967) by Jonsson (p. 20-4). "Adventure on the Promenade" (1969) by Björn Kristleifsson and TV. Photos by TV, (p. 48-2, 48-3). "Shadow Boy" (1970) by BK and TV. Photos by TV, (p. 49-1, 49-2, 49-3). "The Future has to Created" (1994) by Ragnar Halldorsson. Filming by Sigurdur Helgason, (p. 136-1, 136-2,136-3, 136-4). "The Unknown Land – Search without End" (1995) by TV and Thor Elis Palsson. Filming by Einar Rafnsson (p. 137-1. 137-2, 137-3, 137-4). "Independent People", by Jon Arsaell Thordarson on TV (2005). Filming: Steingrimur Jon Thordarson (p. 163-3, 163-4).

For small publishers the internet offers the opportunity to use visual material that otherwise would be too expensive. These benefits of the internet concern both licenses and the costs of searching in conventional images collections.

Today, internet image collections offer free visual material to use in books. This book has benefited from these new opportunities in the internet. Our best thanks for this. The small figures in the image collections are of sufficient size and quality for the small photos in this book.

Image collections, that were mainly used were: Wikipedia Image Bank, the part of Flickr Image Bank that has a Creative Commons license, and Stock.xchng Image Database. These image banks have come to be because of the generosity of hundreds of thousands of people who offer their images for use by all. In addition many websites of many public institutions and organizations offer visual material open to the public (public domain).

Index of Terms

The Italic numbers refer to figures.

Index of Persons and Places

There are also referances to names in the picture texts, then in italics.

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English Summary

The book´s title: ***SHAPING the FUTURE***
Ideas – Planning – Design

This book is an auto-biography of Trausti Valsson (b. 1946), an Icelandic architect, planner, theoretician and a professor of planning at the University of Iceland. It gives his personal account of what shaped planning and design in the world and in Iceland as he experienced it in his lifetime. Valsson studied architecture and planning at TU West-Berlin from 1967 to 1972, during the height of the East-West tensions. These were also the hippie years, where the revolutionary students helped change many mechanistic ideas on planning and society.

After finishing in Berlin in 1972, Valsson got hired by the new Reykjavik Development and Planning Office. There he became one of the main authors of the first Green Plan and a plan for the new settlement areas to the North-East of the Reykjavik Peninsula.

During these years TV started working on a future plan for Iceland, consisting, for example, of roads connecting Iceland´s settlements, across the Central Highlands. He also started an overlay mapping project, mapping both the hazard- and resource areas of the country, which created a basis for his Iceland-Plan proposals. Work on this he continued at Berkeley and at the University of Iceland as he started teaching there in 1988. Many of his articles and books deal with this subject.

In three visits of Buckminster Fuller to Iceland, Valsson was introduced to thinking about the globe as a whole, and was intrigued by Fuller's explanations on how different worldviews can be defined geometrically.

In 1980 Valsson got admitted to the PhD programme of Environmental Planning at UC Berkeley, California. In the philosophical section of his dissertation he presented his argument that the Western, mechanistic worldview – created in science by Descartes, Bacon, Newton and others in the 17th century – was the underlying cause for today´s alienation, and that more holistic and integrative schemes were inherent in Eastern worldviews.

In order to be better able to write this section Valsson took three courses in the philosophy of science with Paul Feyerabend, who, following that, sat on his qualifying committee.

TV´s dissertation is called "A Theory of Integration for Design and Planning – Based on the Concept of Complementarity"(1987). During his Berkeley years Valsson also finalised two other books: *The Planning History of Reykjavik* (1986) and *Ideas on the First Iceland Plan* (1987). In 1988 – a year after Valsson returned to Iceland – he got an associate professor position in planning at the Engineering Faculty of the University of Iceland, and later a tenured professor position. In Iceland all state employees retire at 70. This important date in Valsson´s life was Jan 7, 2016. The last part of this book describes Valsson's 27 years at the University.

The title of this present book: S*haping the Future – Ideas – Planning – Design*, describes the central projects and ideas of Valsson. It gives an insight into how wide the field of his operation has been. In his professional life Valsson took an active part in public debate in Iceland, for example with his 150 articles and fourteen books. He has got many prices in competitions and also other public recognition.

Epilogue

This book was four years in the making. The work began by establishing a good order for my archives, but it has been part of my studies and work to build up databases. This was necessary, because of my work at the University of Iceland, not least the research and writing part.

My collections include about 20 shelf meters of a specialized library. A considerable part of this are reports stored in sixty document boxes, one theme in a box.

Before the internet had arrived, it was necessary to store newspaper articles. I created twelve scrapbooks, additional newspaper clippings are stored in folders. My photocopied collection of old articles and newspaper clips, is large.

My photography collection contains 20 thousand images and my video-collection is 70 hours long. A large part of that is, admittingly, my family photos and videos. Since my study years in Berlin and Berkeley, I possessed a large number of loose-leaf folders and also folders about most of the projects or themes I have worked on. Notes I have written are contained in six large folders.

In 1994 I started to write a dairy, and later from 2004. They fill three large folders. The correspondence fills two folders.

These data collections were a precondition that I could write the book. In addition, trips within Iceland and abroad, while I worked on the book, were important. On these trips, I spoke with many people, as described in Discussion and Sources on p. 196 and 198.

Gudmundur Freyr Ulfarsson PhD, Professor Sigurdur Magnus Gardarsson PhD, Professor Birgir Jonsson, Associate Professor, refereed the parts that were related to their field of knowlegde.

In order to improve the book and to prepare its release as "books on demand" and as an E-book at Amazon, I translated most of the text in 2014- '15 into English, with the help of Astrid Lisa Ingvadottir. Terry Lacy PhD and Birgir Jonsson corrected the translation. The English version is on the Facebook page: *Shaping the Future*, together with videos and other material. This makes the book more accessible to the international scientific world.

On p. 193 and 195 there are reviews of the book and TV´s work, by eight respected individuals. One of these individuals, Joe McBride PhD, a Professor Emeritus at the LAEP department in Berkeley, California, says for example: ... "*Shaping the Future* should be required reading in introductory courses in architecture, landscape architecture, and urban planning for its insights into the field of planning in the 20th century and its ability to inspire students to be courageous, creative-thinkers". Here it is said that the book could have a big role on the international stage, and the publishers will ensure that it will happen.

Early the idea emerged that an exhibition should be organized at the National and University Library of Iceland, as the book was published on Oct 1 ´15. This was connected to my retirement from the University at year´s end 2015-'16. The cooperation with Olafur Engilbertsson, the curator of the Library, was excellent.

An idea emerged that I would donate selected material from my data collection to the Library. Ingibjörg Steinunn Sverrisdottir, the Head Librarian, was the initiator of this idea.

Those who worked with me on the various aspects of the book and the DVD, are mentioned on p. 2. My thanks for their excellent cooperation. Those who awarded grants were the City of Reykjavik, and the companies; Kleo, Kadeco, Verkis and Klasi. My best thanks to them all.

The family of Thorsteinn Thorarensen permitted to use the name and the logo of his publishing house Fjölvi. On the advisory boards were: Birgir Jonsson, Associate Professor (Chair), Gudmundur Freyr Ulfarsson PhD, Professor, and Aevar Hardarson PhD, architect at the Planning Division of Reykjavik.

About the DVD

A DVD is on You Tube. It´s name in Icelandic is: MÓTUN FRAMTÍÐAR – Hugmyndir – Skipulag – Hönnun, which translates into; SHAPING THE FUTURE – Ideas – Planning – Design, which is also the title of this book. The videos are listed on You Tube under TV´s name as *Mótun framtíðar.* The videos can also be watched on TV´s web-page: *http://www.hi.is/~tv*

Producer, writer and commentator is Trausti Valsson. Jakob T. Arnars was co-producer, and he did the editing and the soundtrack. The DVD devides into ten videos (Here English translations of the titles are given):

01 Grammar school – and University Years in Berlin (1962-1972). 22:00
02 Years at Reykjavik Development and Planning Office (1972-1979). 12:00
03 Iceland Plan and the new Capital City in the Highlands. 16:30
04 Berkeley – City and Nature (ca. 1984-2000). 25:30
05 Iceland-Plan and Settlement Policy (ca. 1975 – ‹97). 15:30
06 The Road System and Highland Roads (ca. 1975-2001). 8:30
07 Global Warming – Causes and Impacts. 12:00
08 Changes in Settlement Patterns of Iceland and the Globe. 5:30
09 Art and Design by TV. 14:00
10 The planning of Reykjavik and the Capital Area 25:30
Photographs 3:30

On You Tube there is the option of turning English sub-titles on (the fouth button from right on the ribbon under the video). Translation of the sub-titles into other languages can be achieved by clicking on the desired language in a list.

The main data used to make the videos, were pictures and maps, mostly from this book, and film material.

The names of the videos are all in Icelandic, but their names have been translated, into English, see here to the left. Film-clips were taken from: “From Herranott MR” (1967) by Jonsson; “Adventure on the Promenade” (1969) by Björn Kristleifsson and TV; “Shadow Boy” (1970) by BK and TV; “The Future has to be Created” (1994) by Ragnar Halldorsson; “The Unknown Land – Search without an End” (1995) by TV and Thor Elis Palsson; “Independent People”, by Jon Arsaell Thordarson on TV (2005); “Tour of California” (1982): Trausti Eiriksson, and “TV Explains his Theory” (1985): Kari Schram.

“TV Explains at the Coast” (1985) by Jonsson; “Seminar at the University” (1985): Filmed by Thorstein Jonsson. “An Interview with TV” (1999): Egill Helgason, SkjarEinn; “The Laying of a Cornerstone” (1979): TV. “Interview with TV on BBC” (2007) by Sally Magnusson; “COP 15” (2009), filmed by Olafur Rögnvaldsson.”Interview with TV on Sprengisandur” (1994): Omar Ragnarsson, State Television.; “Eirikur: An Interview with TV” (1992): Eirikur Jonsson, Channel 2; “Channel 2 News about the Grimsey Meeting” (1992): Eggert Skulason; “Reykjavik in a Different Light” (2000) and “Iceland in a Different Light” (2001) by Hrafn Gunnlaugsson.

The authors and the television stations gave their kind permission to use this material for the DVD. Best thanks to them all. Sources for the soundtracks are mentioned at the end of each video of the DVD.