

# Pre-diploma Booklet

Kristiania Teglverk:

Preservation of architecture and ecology

*A new annex to NATUR Vocational School and  
developing a Flowerfield at Bryn*

## 1. Pre-diploma (fall 2019)

The pre-diploma discuss the correlation between preserving Architecture and Ecology in a broad perspective. It briefly looks at the history and movements in sustainable design. Then a short selection references were described as potential strategies for Architecture to relate in a fruitful way with the nature. These references are categorized in a list.

The Pre-diploma presents the backdrop and the bigger context for my Diploma work. The categorizing of the approaches has been with me in the development of the approach on Kristiania Teglverk.

The Oslo School of Architecture and Design

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Pre-diploma, fall 2019

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# 1. Introduction

This diploma looks into the question of protecting our surrounding environment, both the built and the nature. To recognize the values in what's already there, before new projects are to be developed. How to establish a holistic framework for designing and restoring buildings in coexistence with a diverse nature?

The initiative for choosing this theme for the diploma was a concern regarding the rapid degeneration of the species on the planet. For me, as a coming architect led me into the question on how we build today and how we protect what we already have. This led me further to look at how the conservation of nature share some common ground with Historic preservation. The conservation of nature and the preservation of architecture are two separate fields, however both deal with the questions of values and what we have around us. And that these values often is neglected for the sake of modernisation and a fast progression of societies.

In May of 2019, The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) published an alarming report on the current state of the planet's ecosystems:

*Nature's Dangerous Decline 'Unprecedented'; Species Extinction Rates 'Accelerating'*

The message was clear:

*"The Report finds that around 1 million animal and plant species are now threatened with extinction, many within decades, more than ever before in human history."*

Architecture has been relating to nature in various ways throughout history. Two main approaches are to be extracted. An architecture that seeks to meet or even absorb nature in a coexistence or a symbiosis - intentional or just by being. Examples of this can be found in vernacular architecture, urban farming, green roofs or façades, bridges for animals and so on. Another approach would be to seek a detachment from nature, a constructed barrier. One would then typically choose non-organic materials, clean industrial surfaces, toxins and other methods to keep life at a distance. Since the industrial revolution this

has been Architecture's main approach, with many exceptions like the Garden City movement to the more recent eco-oriented alternatives.

The benefits are a streamlined planning process with a high degree of efficiency. Designing with living matter has other requirements from the designer, both in terms of facilitating for the organisms, but also to maintain a building that is exposed to a life-form that can deteriorate the building over time. These methods do not necessarily contradict each other, but can be rather complementary. This diploma work does not seek to proclaim a new architecture that is only meant for a complete symbiosis or a direct contact surface between the man made and the nature, but rather seeks to investigate the nuances in this relation.

Preservation of both nature and human heritage is a question of values. And changes by time in relation to what the contemporary culture consider valuable. What happens when human needs contradict the needs of nature? These are open questions and would be answered different from culture to culture and from one period of time to another. It is questions that are difficult to meet with a general answer, it needs to be addressed in relation to each different case. To give an example you can look into a case in Norway in 2019 where a red\* listed Woodpecker attacked a yellow\*\* listed Church.

*How do you value the contradictory conservatory needs?*

- In this case the Woodpecker were considered less important and was killed. I am sure cases like this could be addressed in different ways. My position is that you should take all measures to avoid that something has to be sacrificed and find solution benefiting all parts.

\* The red list is an international list documenting species in danger of extinction.

\*\* The yellow list is a national list showing that caution should be taken that there is heritage value on site. The status secures an official statement from heritage authorities but they may well be overlooked by other authorities.

I ask myself: How to establish a holistic framework for designing and restoring buildings in coexistence with nature? Where can the line be drawn between meeting the needs of humans and the nature? Can we learn from the past? What contemporary examples exist, that takes the relation between the organic and the built in a new way we can draw knowledge from?

The questions of ecology, and of historical heritage are site specific. Each case will have to be looked at from a different perspective and needs a customised approach. I will not seek to solve these big questions with general ideas. I will focus on a local context, and by surveying and looking at what is there, I will seek to understand the value and the relation between the built and the nature. Then I will hopefully get a concept of what could be changed, and how these values can be highlighted and kept for the future.

**The pre-diploma will look at these questions from a general, global and national perspective.**

**The diploma will look into a specific site with its ecosystems and an existing building with an uncertain future.**

## Biodiversity

The number and types of plants and animals that exist in a particular area or in the world generally, or the problem of protecting this.

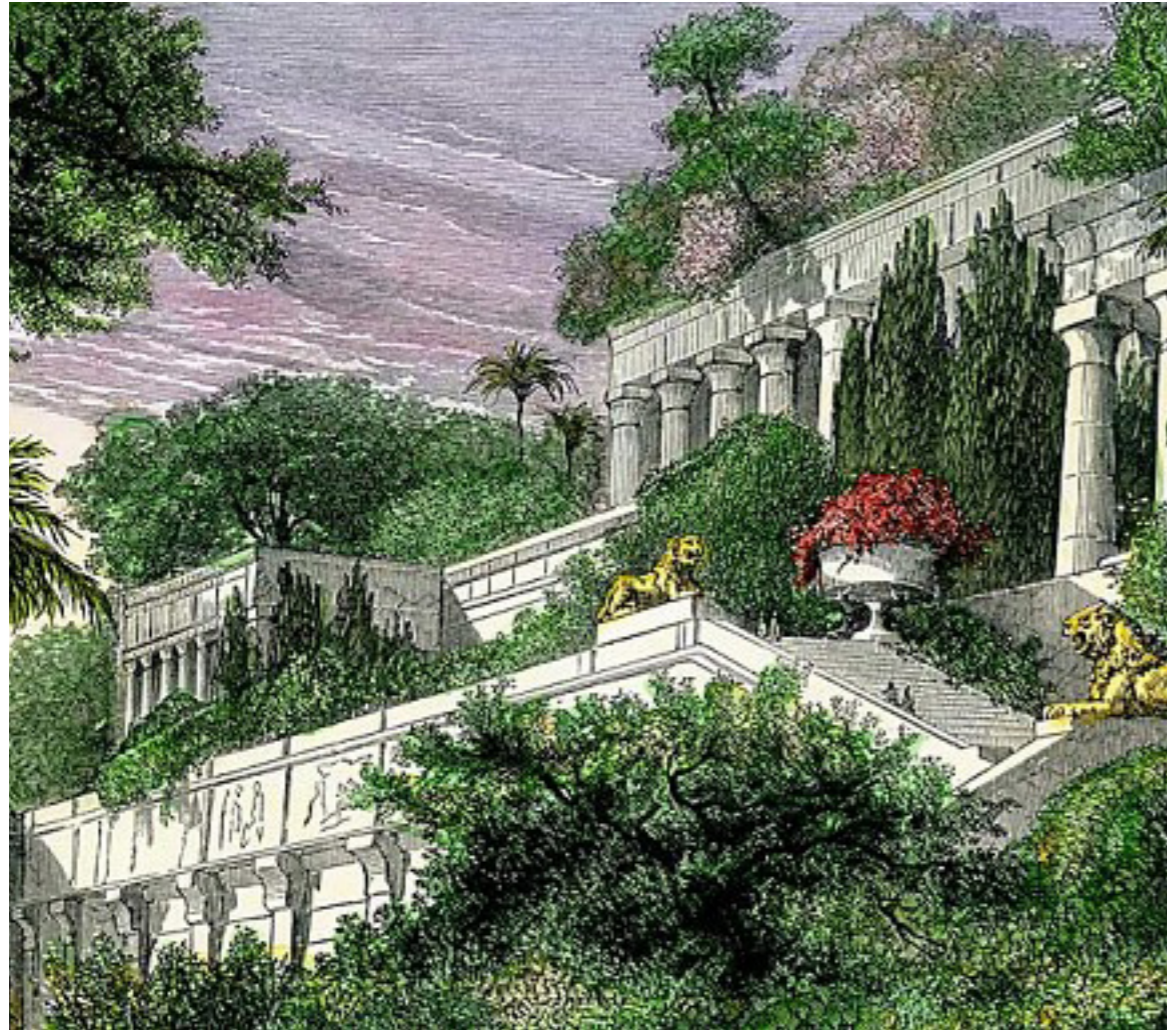
<https://dictionary.cambridge.org/dictionary/english/biodiversity>

## Heritage

Features belonging to the culture of a particular society, such as traditions, languages, or buildings, that were created in the past and still have historical importance.

<https://dictionary.cambridge.org/dictionary/english/heritage>

## 2. Field of research



Hanging Gardens of Babylon

Humanity depends on a healthy ecosystem with a high degree of biodiversity. It is one of the building stones of our society as it directly and indirectly affects most of our domains like the economies, food security, health (medicine research and preventions of pandemics), tourism and general quality of life.

This was insights influencing many disciplines from politics and economy to engineering in the 1970's. It emerged a growing awareness of the consequences of environmental and nature loss. And the idea of the industry and the economic and material growth as the number one parameter of human happiness and development were challenged.

The common argumentation from ecologist and environmentalist were mostly seen from a humanistic perspective. The Norwegian philosopher Arne Næss took it further and introduced a non-anthropocentric view on ecology in his paper "Deep Ecology" (1972-73). Deep Ecology is an philosophy looking at the value of nature independent of being an instrument to meet human needs. The philosophy argues that all ecosystems are in equal dependence of each other and that destruction of an ecosystem therefore not only is a threat to humans, but to all other ecosystems. In this perspective, nature should be considered valuable regardless of human needs.

The knowledge about humanity's influence on the climate and the biosphere has been increasingly accepted by the public throughout the last decades. It is also public knowledge that many big mammals are in the risk of getting extinct. The red-list of species are a way of communicating this. Simultaneously, the understanding of the total changes in biodiversity from post industrial times until now, has been more diffuse for the public. To make it clearer you can look at the biomass distribution on earth. Cambridge Dictionary defines biomass in biology as "the total mass of living things in a particular area" The report "The biomass distribution on Earth<sup>1</sup>" describes the impact of humanity on the biosphere. It explains that the current human lifestyle and the exponential population growth have had radical ecological effects.

*"Biomass of humans ( $\approx 0.06$  Gt) and the biomass of livestock ( $\approx 0.1$  Gt) far surpass that of wild mammals, which has a mass of  $\approx 0.007$  Gt. This is also true for wild and domes-*

*ticated birds, for which the biomass of domesticated poultry ( $\approx 0.005$  Gt C, dominated by chickens) is about threefold higher than that of wild birds ( $\approx 0.002$  Gt). In fact, humans and livestock outweigh all vertebrates combined, with the exception of fish. Even though humans and livestock dominate mammalian biomass, they are a small fraction of the  $\approx 2$  Gt C of animal biomass, which primarily comprises arthropods ( $\approx 1$  Gt and, followed by fish ( $\approx 0.7$  Gt).*

*The impact of human civilization on global biomass has not been limited to mammals but has also profoundly reshaped the total quantity of carbon sequestered by plants. A worldwide census of the total number of trees, as well as a comparison of actual and potential plant biomass), has suggested that the total plant biomass (and, by proxy, the total biomass on Earth) has declined approximately twofold relative to its value before the start of human civilization. The total biomass of crops cultivated by humans is estimated at  $\approx 10$  Gt C, which accounts for only  $\approx 2\%$  of the extant total plant biomass."*

The biomass distribution on Earth  
Yinon M. Bar on, Rob Phillips, and Ron Milo  
Department of plant and Environmental Sciences, Weizmann  
institute of Science, et al.

The numbers from this report makes it crystal clear that human intervention on this planet has dramatically reshaped the global ecological balance. Humanity has gone from being (like all other lifeforms) unable to drastically change the global biomass, to be in a position were it can choreograph how this planets biomass should be distributed. Many people now claim we are entering a new era named Antropocene.

### How did we get here?

Through time humans have gone through several development paradigms - among them is the Neolithic Revolution (first Agricultural revolution) and Industrial Revolution. These development stages was driven by new ways of doing things. New ways of controlling and cultivating the environment. During the Neolithic Revolution, humans gradually went from a nomadic lifestyle where the nature were a given entity, to permanent settlements where plants were cultivated and animals domesticated. From a high degree of variation of plants and animals evolved through natural selection

during millions of years, humans started to select a few species and by cultivation and refinement transit towards a monoculture. This process have continued to present day and has left us with a few domesticated highly specialized species that exist to serve man's needs. The outskirts of human territories have been left untouched by Man and therefore continued its evolutionary processes.

The industrial revolution was the next paradigm in humanity's control over nature. It was the transition to new manufacturing processes that was increasingly more efficient. Both the neolithic and the industrial revolutions made a growing distinction between human society and the nature. When moving into cities, the societies become more and more separated from the wild nature. The nature went from something **we lived in**, to something we had to be **protected from**. This distinction between human societies and nature was not a linear development, but rather a back and forth relation throughout history. Even to the present day, we have indigenous people living in coexistence with nature close to huge metropolitan cities detached from the nature. Today the human relation to nature is often seen as binary; either you are for the protection of nature or for the progress of humanity. However there are contemporary examples in architecture and urban design aiming to reconnect the relation between humans and nature without the cost of lost progress.

*"What about the rights of other organisms to co-exist with us? Should we consider cultural relationships with nature and ecology? How do we evolve society further so that the value system can be brought into proper alignment with ecological sustainability. We are left with serious questions about the relationship of our species with the others on this planet."*

Sustainable Heritage

### Relevance to Architecture

There are many attempts and approaches towards sustainable and ecological design in architecture. Among them you find The American based, Italian architect Paolo Soleri. He invented the term Archology in the 1970's combining the word architecture and ecology. The aim were to create architectural principles

for very densely populated human habitats with minimal ecological impact. His ideas and principles were tested in the experimental small town of Arcosanti in central Arizona.

All these attempts can be looked at as a response to the terrible consequences of neglecting the ecological footprint human society is putting on the planet. Some of these consequences and drivers are documented in the latest report (6th of May 2019) from the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). This organ organized under the United Nations are considered the highest level on protecting diversity in nature globally.

The report says that it is done many measures conserving nature in both global and local scale, but the degeneration of species cannot be met by current trajectories alone. It must be achieved through changes across economic, social, political and technological factors. This includes our built environment and thereby the field of design and Architecture.

The report lists up five direct drivers for the loss of species, in descending order:

- 1 **Changes in land and sea use**
- 2 Direct exploitation of organisms
- 3 Climate change
- 4 Pollution
- 5 Invasive alien species

**The first driver with focus on changes in land use, is the one driver where Architecture and design most clearly can make a difference. Our urban areas has more than doubled since 1992 and has a high degree of conflict between development and the protection of nature. Urban areas also often consist of a dense number of heritage buildings and in a similar way as the protection of the nature contradicts the need of a fast development to meet the society's demand on progress.**

*"Sustainable design and heritage preservation are not completely discrete entities but must be considered part of the same essential perspective when anticipating a habitable and meaningful planet in the long term"*

Sustainable Heritage

In the book Sustainable Heritage, merging environmental conservation and historic preservation, Amalia Leifeste and Berry L. Stuefek claims that the two disciplines Heritage preservation and sustainable design should be understood in relation to the other. They claim that Natural and Cultural heritage once were integrated, but by the twentieth century the two fields have gradually separated. Their book seeks to (re)merge our thinking about these fields. This will require a technical to theoretical re-conceptualization. Both of these fields seek to understand, document and classify the value of existing elements in our environments. And by communicating these values it can be possible to protect them from being destroyed - intentional or by ignorance. The connection between sustainable design and heritage preservation gave directly meaning when I came over this book. This made me curious on how a project dealing with both a existing historical building and a protection or relation to the surrounding nature could be developed. How could a understanding and a documentation of qualities of both the building and the surrounding nature complement each other, and together strengthen the argument for protection.

### Contemporary movements seeking connection between Architecture and Nature

There exists many different approaches to make a more meaningful connection between architecture and the nature. Two movements are of particular interest; Biophilic design and Hortitecture.

Biophilic design was a hypothesis first proposed by Edward O. Wilson (1984) in his book Biophilia.

*"Biophilic design is the creation of build environment that foster a symbiotic relationship between the natural and cultural heritage of any given locality"*

Sustainable Heritage

**Biophilic design** is a concept used within the building industry to increase occupant connectivity to the natural environment through the use of direct nature, indirect nature, and space and place conditions. Used at both the building and city-scale, it is argued that this

idea has health, environmental, and economic benefits for building occupants and urban environments, with few drawbacks. Although its name was made in recent history, indicators of biophilic design have been seen in architecture from as far back as the Hanging Gardens of Babylon.

**Hortitecture** (Hortia latin for garden and architecture) were introduced by the University of TU Braunschweig. The book Hortitecture is a collection of projects, ideas and experiences shared by 33 international experts at four symposia held at TU Braunschweig. Their critical reflections advance the awareness and expertise needed to develop a nature-based urban architecture.

Definition of sustainability:

*"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."*

Bruntland Commission 1987

### 3. Potential strategies

The very idea of diversity is its constant variations and endless variations. It is the opposite of the general. The number of possible meeting-points between architecture and the nature is in this sense endless. The following pages presents different projects with strategies on approaching nature with architecture and visa versa.

On the opposing page there is an attempt to make a list of different ways this can happen. Again, the list has no end since the nature in its logic is diverse.

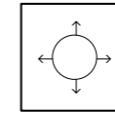
Methods of excluding nature or neglecting it, is not part of this list. The list is only meant as a starting point to think of possible ways to interact between architecture and nature.

„NATUR IST NICHT STATISCH.“

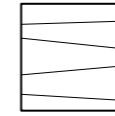
Landschaftsarchitekt, Thomas Hauck Forschungsprojekt „Animal-Aided Design“ (AAD)



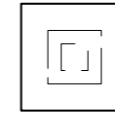
Not to build



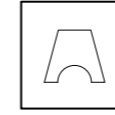
Temporary portable construction leaving minimal impact on the nature



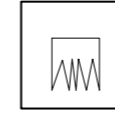
Natural materials, easy to recycle and gives minimal impact on the nature



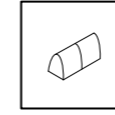
Abundant constructions and areas gives back to the nature



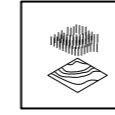
Exclusively designing and facilitating for one species



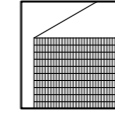
Creating a habitat for some species at the same time as humans can enter; shift of hierarchy



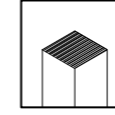
Living in a shared building, benefit from exchanging heat etc.; coexistence



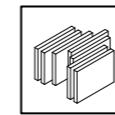
A symbiosis relation in production of food and shelter



Using the facade as a surface for the nature



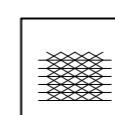
Using the roof as a surface for the nature.



Adjusting the construction to existing nature



Blur the border between the human domain and the natural



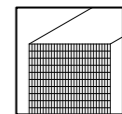
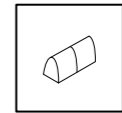
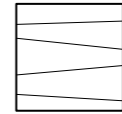
Using living matter as the load-bearing construction



#### Stiv Kuling arkitekter

The farm-related multi use building facing the north sea is based on an old Norse type of housing dating 2000 years back; *The long-house*. Traditionally such houses contained one part for the farmers and the other part for the animals. The house shared temperature, materials and was better suited for the harsh Nordic winters and the strong winds. With a panoramic view the wooden building is locally adjusted on an agricultural field, among cultural traces dating thousands of years back. Sandswallows nest in their own hotel at the north-eastern wall in tubes made of steel, also functioning as a sundial.

<http://www.stivkuling.no/projects>

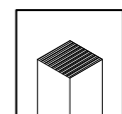
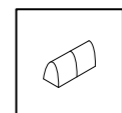
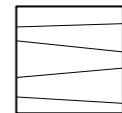


#### Ullanhaug, Stavanger.

Reconstruction of traditional long house. Using local organic materials, this building will leave minimal impact on the environment and the ecosystem when it is left behind to deteriorate.

Using organic materials in the construction is in itself an invitation for biodiversity in the construction. The turf roof is both serving as a food supply for the animals in the barn, and as a pollinator field for insects. Going into the floor plan, you will see that the animals and humans share the same roof, with just a wall separating them. In this way, heating is shared.

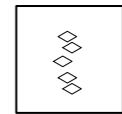
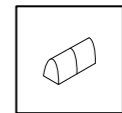
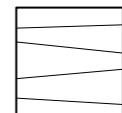
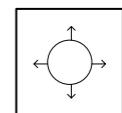
Norsk Arkitekturhistorie Frå steinalder og bronsealder til det 21. århundre Page 36



#### Mongolia, Yurt

A traditional yurt (from the Turkish languages) or ger (Mongolian) is a portable, round tent covered with skins or felt and used as a dwelling by several distinct nomadic groups on the steppes of Central Asia. The structure is made from materials of the local environment, like bone, skin and wood. Due to its nomadic nature, the culture will move after a relative short period of time. This leaving minimal impact on the local ecosystems, so it can evolve with little disturbance. It is also a structure with minimal separation to the surrounding element and is a good example on how architecture can be totally integrated with the surroundings.

The Green Imperative, Ecology and Ethics in Design and Architecture





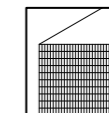
### Regional Chamber of Commerce and Industry of Picardie

*Chartier - Corbasson Architects*

The Art Nouvea motifs of the facade of the existing building are sensitively restored and the interior is redesigned as a reception area.

The elegant, energy-efficient extension project juxtaposes not just old and new buildings, but also traditional and modern gardens. The use of greenery extend beyond landscaping to become a seamless architectural language that unites old and new, varying programs and porosity, as well as building and nature.

Dense+Green page 100

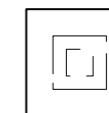


### Chernobyl, Ukraine

Rare and endangered animals have thrived in the Chernobyl disaster zone since it was evacuated in 1986. "The Ukrainian site is now popular for its eerie ghost town and reactor ruins, but on this side of the border it's all about the wilderness, and our tour will be a nature-watching trip like no other. The reserve claims to be Europe's largest experiment in **rewilding**, and the unlikely beneficiaries of the nuclear disaster have been the wolves, bison and bears that now roam the depopulated landscape, and the 231 (of the country's 334) bird species that can also be found here." Journalist from the Guardian describing his visit at Palieski stateradioecological reserve.

This is a clear evidence that absence from humans is the best strategy to reintroduce the original nature of an area.

[www.theguardian.com/travel/2019/may/28/chernobyl-wildlife-haven-tour-belarus-created-nuclear-disaster-zone](http://www.theguardian.com/travel/2019/may/28/chernobyl-wildlife-haven-tour-belarus-created-nuclear-disaster-zone)

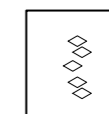
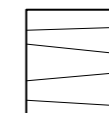
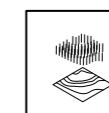


### Iranian Pigeon tower, Vernacular

The Iranian Pigeon towers erected in the 16th and 17th centuries make a good example on a common interface between Architecture and nature. Pigeon poop collected from these towers provided natural fertilizer for the surrounding fields. The edifice were often over six stories high and 45 to 75 feet in diameter, these towering structures were filled with a honeycomb of small roosts for the pigeons. Each tower held as many as 14,000 pigeons.

Once numbering in the thousands, many of the towers are now falling apart. Today, due to the use of artificial fertilizer, only a few hundred pigeon towers remain operational. The remaining towers are clustered largely in the Isfahan region of Iran.

<https://www.atlasobscura.com/places/pigeon-towers-iran>





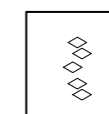
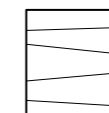
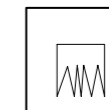


### The Anthropocene Folly

*Pneumstudio/ Cathryn Dwyre and Chris Perry*

The folly is configured from nine columnar planters, the interiors of which are filled with gravel, soil, and vegetation. Modest interstitial spacing between each of these columns generates a second interstitial interior for human occupation. Taking the form of a series of crevice-like spaces, this second interior forces the human body to bend, duck and slither suggesting to human occupants that these spaces, while physically accessible, were not necessarily designed for them. The projects puts the nature needs in grater importance than the needs of humans, completely turning the current consensus on how we priorities up side down.

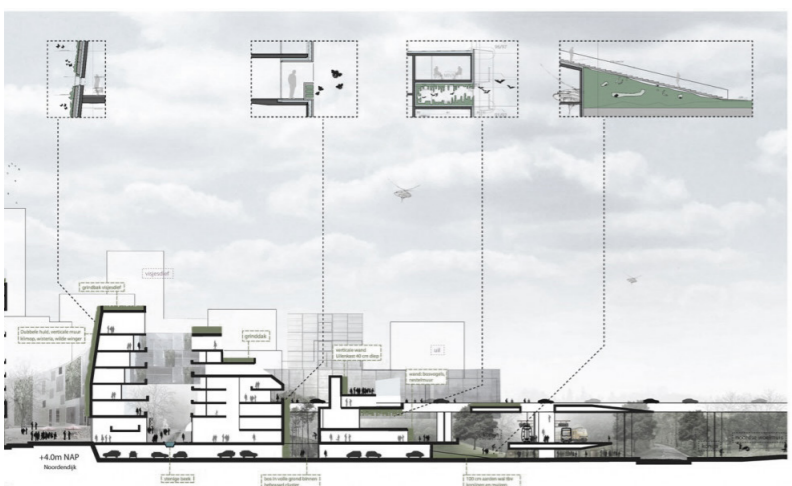
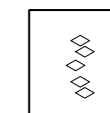
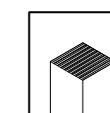
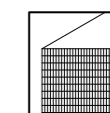
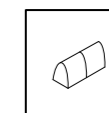
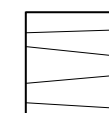
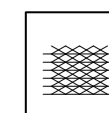
New Directions in Ecological Design page 71



### Baubotanik, Germany

"Baubotanik" is a method of construction that utilizes living plants as the load bearing systems in architectural structures. Baubotanik takes advantage of the "constructive intelligence" of plants. At the same time the concept exposes architects and practitioners to the bio-dynamics and uncontrollability of the natural growth process. By attempting to control the growth process of the plants, the loss of control becomes inevitable. Through the exploration of this conflict, a form of architecture emerges that is characterized by accidental processes, hope and risk.

[http://www.baubotanik.de/index\\_en.html?open=true](http://www.baubotanik.de/index_en.html?open=true)



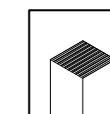
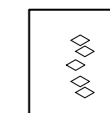
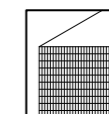
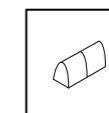
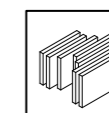
### Biesbosch Station

*By venhoeven cs, Dutch design office*

This imaginative project on a huge development site connected to a unique natural area, looks at many different strategies to connect, facilitate and adjust the design to meet both the needs of humans and their society, and to make improvements for the situation of the nature.

The office write "The walls, roofs and leftover corners will provide a wealth of nesting places for animals. Biesbosch Central Station explores how nature can be combined with dense urban living. In Biesbosch the worlds of nature and humans are fully integrated. Thus a special new biotope will arise on this spot in 2050, in which Dordrecht will gain its own place in the inter-regional urban conglomerate."

<https://venhoevencs.nl/projects/biesbosch-station/>



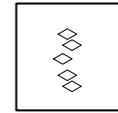
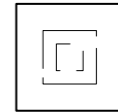


### High Line in New York

*James Corner Field Operations (Project Lead), Diller Scofidio + Renfro, and Piet Oudolf.*

A park-reusing a no longer functional elevated railway line on Manhattan's West Side, derives its specific ecosystem from the inspiration by the melancholic beauty of the wild vegetation that grew on the long-disused railway bed. The park comprises a "self-seeded" landscape of perennials, grasses, shrubs, and trees selected for their hardiness, sustainability and textural and colour variation, with focus on native species including many that already existed on the site

Sustainable Heritage page 95



### Vertical Garden House

*Ryue Nishizawa*

The architectural envelope is no longer thought as a singular line, or a series of offset lines, but instead as an entire voluminous landscape occupied by people and nature.

The project redefines city living by providing an infrastructure that can be occupied both by humans and plants simultaneously.

Dense+Green page 170



## 4. Norwegian Context

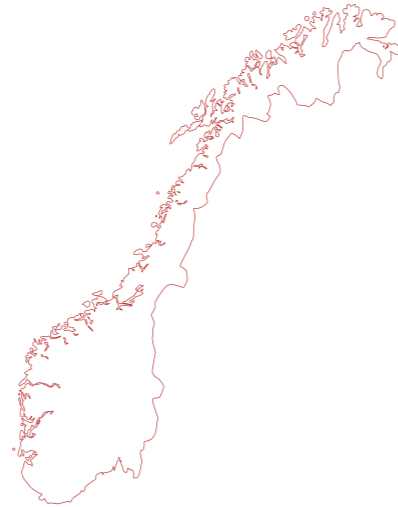
It is considered negative for a contractor to find a threatened species on a building site. This could mean that the project will be delayed or stopped. But way too often the nature have to be sacrificed for the sake of the development. There have recently been modification and changes to make surveys on biodiversity early on the design-process of a building. BREEAM (Building Research Establishment Environment Assessment Method, method of assessing, rating, and certifying the sustainability of buildings) is an example of such a system.

### Jurisdiction for protection of nature in Norway

The formal protection of nature in Norway is organized on three levels. - A National, B Regional, and C Municipal

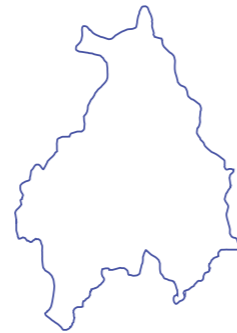
#### A National

It is the law "Om forvaltning av naturens mangfold (Naturmiljøloven)" (Act relating to the management of biological, geological and landscape diversity) from 03.04.2009 that is the highest instance on protecting the nature and it's biodiversity in Norway. The law is developed by "Miljødepartementet" - Ministry of Climate and Environment. The Ministry has developed mapping services and databases open to the public. There are two main ways of describing nature. - On species and on type of nature.



#### B Regional

The county level works as a controlling organ over the decisions made on the municipal level. It is the Fylkesmann in the region that deals with complaints and he execute control of cases approved by at the municipal level.



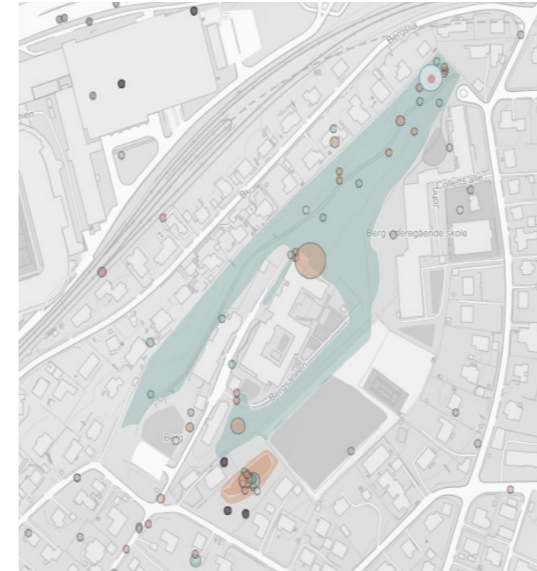
#### C Municipal level

There are different ways of organizing and prioritize the protection of the nature at the municipal level. Using Oslo as an example it is the Bymiljøetaten BYA (the Urban Environment Agency) that is the responsible organ for protection of nature. They claim they have Biodiversity as a top priority. The planning and building service develop overall plans with biodiversity as a theme. BYA has mapped over 1500 locations of red listed species the last 10-15 years. These locations can be accessed through the online service called Planinnsyn, temaktart 4 Naturmiljø online.



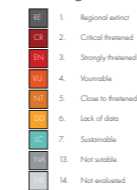
## B: National tool, Artsbanken

Artsbanken (the specie database) is the National tool for collecting, classifying and communicating types of nature and species. Artsbanken is a great resource for all organs and private persons that deals with biodiversity.



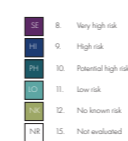
Typical map from Artsbanken showing the registered Redlisted, alien species and nature types in a chosen area.

#### Norwegian redlist for species



There are different status for the threatened species, it gives information of how to prioritize the protection of the different species in an area.

#### Alien species in Norway



Alien species is one of the triggers for the loss of biodiversity. Alien species also has different status regarding their aggressiveness.

## 5. Site, Approach, Program

### Requirements for site

Norway

Urban

Preferably Oslo

Should contain an existing building with a original function relating to the surrounding nature.

The site should have a close proximity to a diverse nature.

### Approach

The site will be surveyed and researched. Information will be gathered regarding:

Different types of nature

The history of the site

Tectonics and material

Condition of the building

Fragments of the previous production

Traces of an interaction or a relation between the building, its previous function and the surrounding nature

And more

This will be done through different media chosen after need:

Site visits

Photos

Study trip

Talks

Readings

Existing drawings

Models

Drawings

Sketches

Writing

### Program

There will be a search for quality and value in both the nature and the building(s). Drawing from this information the architectonic program or intention will be formulated and enable me to understand what this place **can become**.

## 6. Schedule and deliverables

Month	Sessions	Deliverables
Feb 1	Submit webform	<b>Building Survey</b> Big physical construction and material model of the building without site 4 Elevations/photos with condition of the facade Plans of the three floors, showing construction and use Two sections showing construction
Feb 28	Per Olaf Fjeld/pin 1	Collection of images inside and outside documenting the condition of the building Short text on the history of the building Collection of sketches and short texts imagining a valuation of the different human needs and the needs of flora and fauna to coexist in and around the building The sketches for the architectonic program or intention will be formulated
Mars 20	Per Olaf Fjeld/midcrit	<b>Site Survey</b> Diagrammatic site model following Alna Showing: the river and its nature, the industrial heritage buildings, the blocking infrastructure, the fences, the asphalt and the grass surfaces. Length and size to be decided Situation plan following the same size as the model Interview with Saabima (organization working on protecting nature) on basic principles for improving the conditions for a diverse nature related to this site Interpreting and applying these principles on the site and the building The architectonic program or intention will be concluded
April 5.-13.	Easter	
April 17	Per Olaf Fjeld/pin3	Close discussion on proposal and clarify
May 1	Deadline for withdrawal + title must be set and registered in studentweb	<b>Final deliverables</b> Diploma report Abstract Context surveys Situation plan Situation model Construction model 1:50 Plans, sections, elevations, demolition plans/ section 1:100 Perspectives/ model-photo/ collage
May 15	Submission of project	
June 2-5	Presentations and reviews	Texts talking about the relationship between the building and the nature Process book

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<sup>a</sup>Department of plant and Environmental Sciences, Weizmann institute of Science, Rehovot, Israel; <sup>b</sup>Department of Physics, California Institute of Technology, Pasadena; and <sup>c</sup>Division of Biology and Biological Engineering California Institute of Technology, Pasadena

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