WATER RESORT IN CĒSIS

#identity
#nowness
#healing

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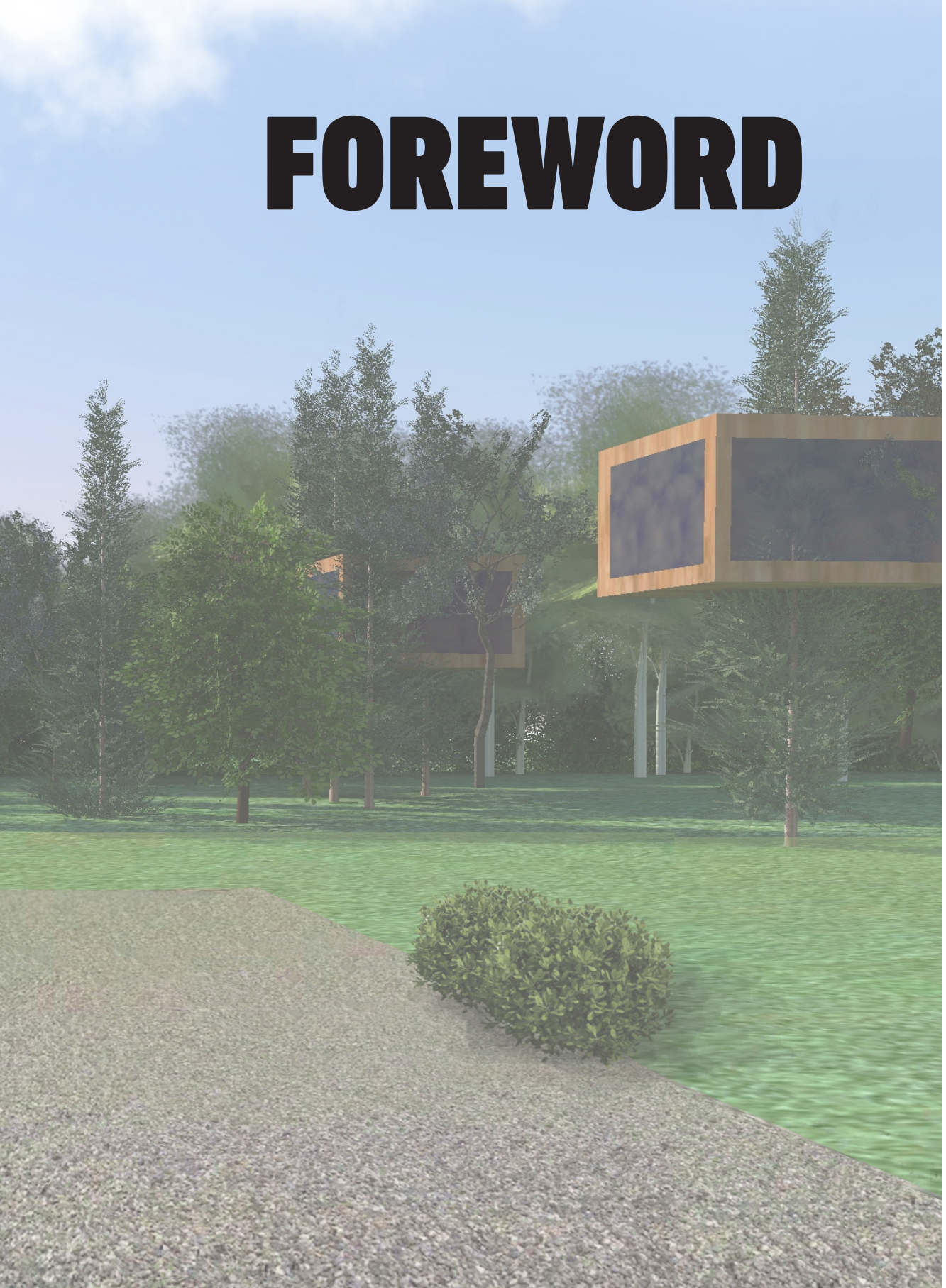


FOREWORD

WATER AS THE FORMING ELEMENT OF IDENTITY, NOWNESS AND HEALING

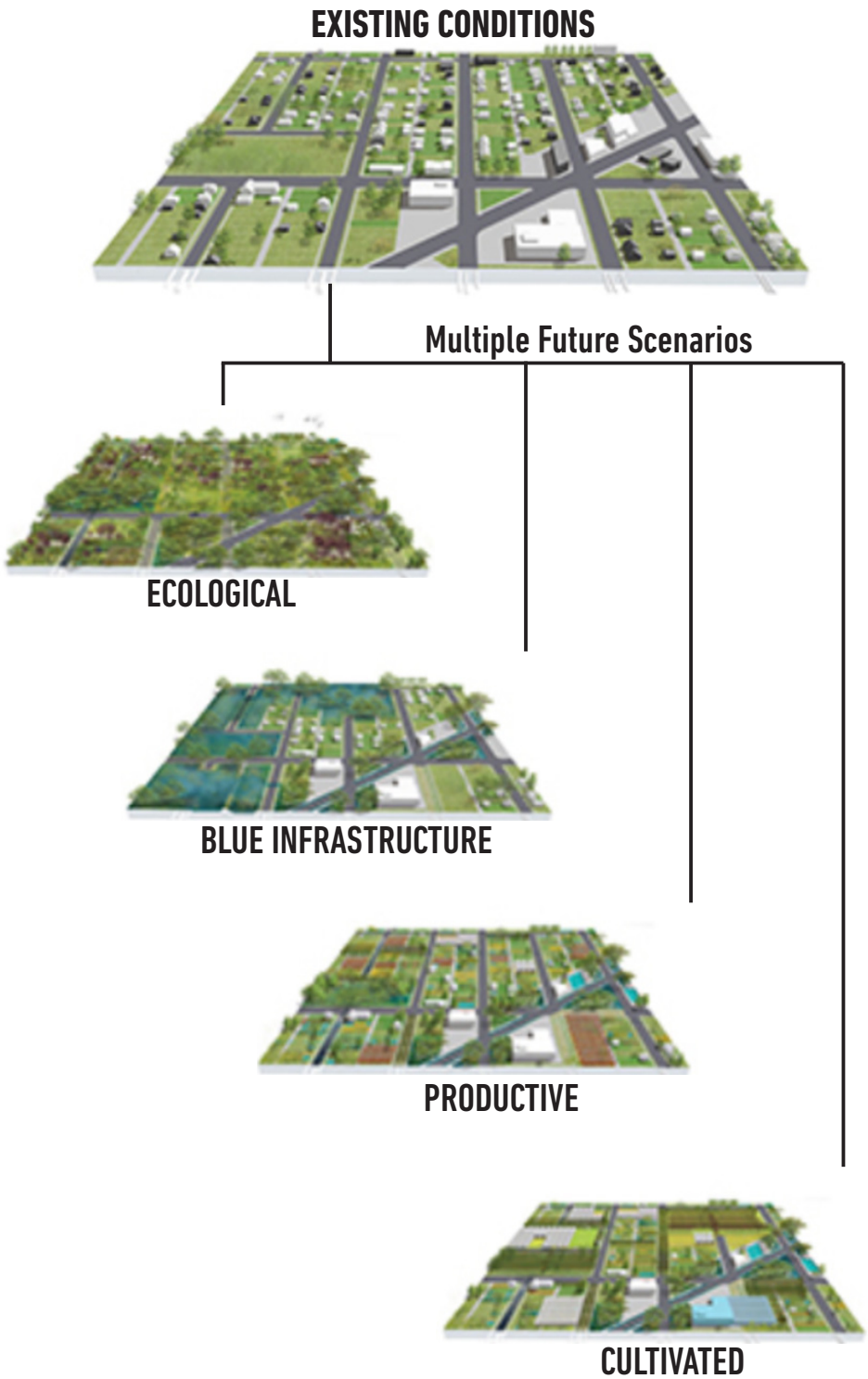
Cēsis is a unique town with long history, strong identity and rich nature. Its location, as well as local atmosphere and physical features, make Cēsis the perfect place for a resort. The distinct characteristics of Gauja National Park and the undisturbed rural lands, which are still in close proximity to the urban areas of Cēsis town, would set a peaceful background to a place where visitors are able to relax, enjoy nature and use its presence to heal both physically and mentally.

River Gauja is one of the most prominent features within Gauja National Park. The undeveloped areas along the river hold a great potential to become places for recreation. Using water as the key element for the resort would not only maintain the focus on the already existing beautiful landscapes, but would also provide significant medical treatments and healing opportunities, since water is known to possess various properties that positively affect human health. In the case of Cēsis, water is the element which on many levels becomes the tie between the place and its visitors.

Along with the instant benefits that the water resort would bring to its visitors, the town of Cēsis can also benefit from the presence of such facilities in a long term. By carefully planning the development of the resort itself and the surrounding infrastructure, Cēsis has the potential to become widely recognized as a unique water resort town. Scenario method is applied to analyze the potential risks and benefits of such developments, in order to find the most suitable solution for the future of Cēsis.

This project presents one of the possible development scenarios for Cēsis town – a proposal for a place-unique water resort. The resort focuses on water as the central forming element of identity, memory and healing. Through interactions with water, the visitor here experiences the greatness of the surrounding wilderness and is able to feel and gain the strength from the invisible bonds with which the water has for centuries bound all living beings and shaped the planet.

SCENARIO PLANNING



DEFINITION & OUTCOMES

The word “scenario” originates from the dramatic arts, where it is understood as the outline of a story and is characterised as a hypothetical, detailed and coherent narrative that represents alternative futures (Van Notten, 2006; Mitković, Mitković and Stojanović, 2014). Scenarios are not meant to deal with all aspects of the future in detail, but rather highlight the most important current issues that need to be solved (Gaßner & Kosow, 2008). Scenario planning is a strategic tool which combines a systemic approach and multiple thinking styles in order to illustrate how current events and trends may develop, change and impact future urban developments over a longer period of time (Boyer, 2017).

The aim of the scenario planning method is to help identify current issues by evaluating the existing developments and strategies. The collected data and findings can be implemented at both local or regional level and used by government institutions, planners, stakeholders or other involved bodies to make more informed decisions about desired future developments which consider the interrelationship of regional needs and individual communities (Envision Tomorrow, 2013). The most important functions of scenarios are “to test risk and evaluate possible alternative policy options” (Greater London Authority,2010,p.10).

WHY SCENARIO METHOD?

Contemporary urban planning methods, which are currently in use, face many difficulties. Due to the nature of today's society and trends, urban planning is mainly concerned with fulfilling present demands that do not take in account time as an influential factor (Ratcliffe & Krawczyk, 2004). Most of the traditional planning systems use a "predict and provide" model, however, these methods are based on historical observations and only reinforce past and present trends which makes it a lot more difficult to incorporate alternative future-oriented thinking patterns (Ratcliffe & Krawczyk, 2004).

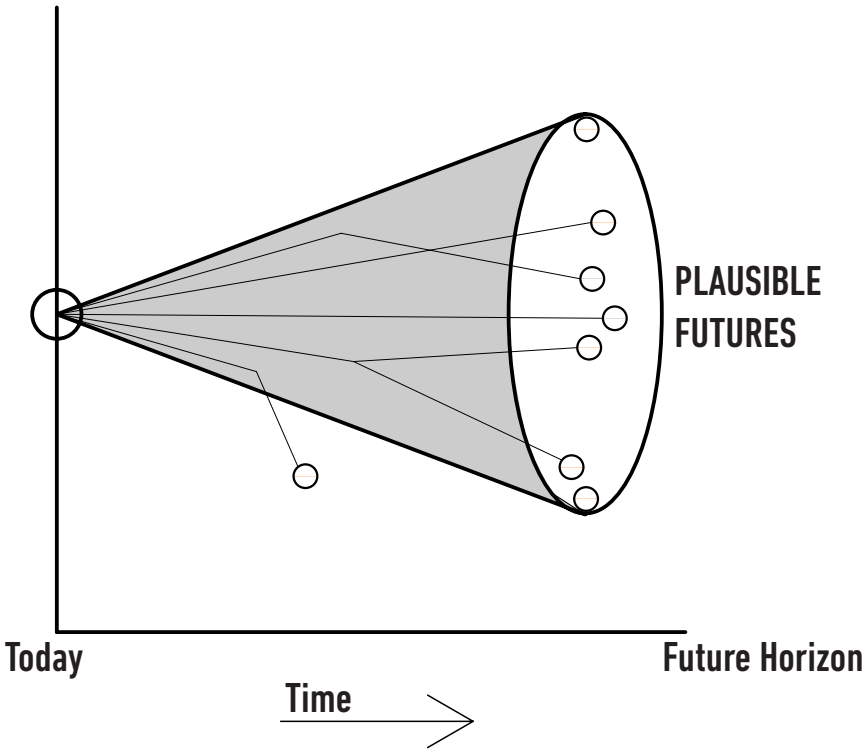
The currently adopted methods gradually lose their effectiveness because of their inability to generate thoughts and discussions about possible future developments, to provide enough knowledge that is required to initiate changes and to promptly respond to future events (Mitković, Mitković and Stojanović, 2014). Unlike the traditional urban planning, scenario method as well as other future-oriented planning methods are focused specifically on these issues. One of the most important benefits of scenario planning is that it never considers only one possible future outcome, but rather provides a bigger summary of various alternatives for the same territory.

The main factor that differentiates scenario planning from other methods is that it provides a qualitative description about the transition from present to future in a way which reduces the complexity that usually arises when several future development paths are being explored at the same time (Mitković, Mitković and Stojanović, 2014).

HISTORY OF SCENARIO METHOD

Scenario planning emerged as a concept in the 20th century and its roots can be traced back to Manhattan where in 1942 three nuclear physicists (Oppenheimer, Teller, Bethe) evaluated the possible damage of a full-scale hydrogen bomb explosion to the surrounding environment (Xiang & Clarke, 2003).

In 1950s scenario method was used for military planning studies by the US Department of Defense RAND Corporation as well as DATAR – French spatial planning (Van Notten, 2006).In later decades scenario planning was often used to assess future possibilities for society and environment, regarding world resource consumption, while the corporate industry applied scenario analysis to ensure growth for their businesses (Van Notten, 2006; Xiang & Clarke, 2003).
Even today scenario planning is used in a variety of contexts, including enterprises, governments, studies for regional and national organisations, environmental assessments and private organisations (Van Notten, 2006).



WHAT IS A GOOD SET OF SCENARIOS?

Although there is no definite answer to how many scenarios should be created within the scope of a particular research, the average number is said to be between 3 and 5 in order to consider all possible alternatives, but avoid the amount of final data becoming too impractical (Mitković, Mitković and Stojanović, 2014).

As stated by Mitković, Mitković and Stojanović (2014), a successful list of scenarios should present an internal consistency between all scenarios within the full set, as well as each scenario should form a logical path and be relevant to the main current issues.

Although the criteria for scenario validation varies, depending on every researcher's perspective, and no definite list can be found, Xiang and Clarke (2003) propose three characteristics of a good scenario which could well establish initial guidelines for evaluating scenarios:

-plausible unexpectedness – in order to break out from the established methods and stimulate creative out-of-box thinking which could lead to formation of new strategies, a good scenario should surprise (if not shock) people, however, it should also remain plausible and coherent as these characteristics have the most power to convince the audience and gain their trust;

-informational vividness – to attract people's attention and maintain it, scenarios should be presented in a vivid and direct way since numerous researches state that vivid presentations are more likely to be perceived as emotionally interesting (relevant to each audience member personally) and imagery provoking;

-ergonomic design – scenario method by default could be considered as a mental exercise for the audience, therefore to avoid misunderstandings or unclear results it should be clearly decided at an early stage – what topics will be covered by each scenario, how many scenarios will be contained in a set, how big will be the time period that the scenarios will consider.

APPLYING SCENARIOS IN URBAN PLANNING

Because scenarios are created based on the data and trends which illustrate just the current and past situations, it is only possible to create a hypothetical vision of the future events rather than a certain set-in-stone outcome (Gaßner & Kosow, 2008). Therefore, typically, scenario method is applied during the early exploration stage where scenarios help to better understand the bigger picture and pinpoint the problems which need the most attention. It is important to remember that scenario planning should not been seen as a separate isolated process and scenarios "are not a substitute for setting a clear strategy" (Greater London Authority, 2010, p.7).

Early pre-policy stage. According to Van Notten (2006), one of the main functions of scenario method is to encourage observation and learning skills as well as unconventional thinking, therefore scenarios are often applied at the early exploration and pre-policy stages where they are only very general and are used to form recommendations for future policy developments or to challenge the existing mindsets by analysing the past events and probable future outcomes.

Case study: Lageweg, Belgium

As the current predictions show, the population of Antwerp (Belgium) will keep growing over the next decades, therefore the city needs new housing, amenities and workplaces. The Antwerp fringe is an important part of the city, developed after World War II, which needs redevelopment that could also stop potential suburbanisation (De Bruyn, 2017).
Lageweg is a formal industrial site area with many empty industrial buildings, working businesses, schools, housing and green spaces just in the south of the Antwerp fringe where a pilot project was carried out between 2015 and 2018 by Lab XX – a team of local and municipal architects and urban planners (De Bruyn, 2017; URBACT, 2018).
The aim of the project was to establish a new learning process that would challenge the traditional methods and closely involve local residents, stakeholders and planners in co-designing the possible development of the area. Four design teams were established and each of them created a different scenario for the potential development of the area which were later used to carry out discussions and communicate ideas with a larger audience (URBACT, 2018). The project included dialogues, discussions, co-creative design tables and even specifically organized guided tours just for the stakeholders, where each stakeholder was handed a brochure showing possible future development scenarios of the area, spanning over one, five and twenty years (URBACT, 2018).
As a result of employing these tools, most of the land owners realised that the existing land use plan needs to be updated to achieve the determined long-term goals, but for the stakeholders the project resulted in signed declaration of "engagement and join efforts for the layout of the financial model" (De Bruyn, 2017; URBACT, 2018, p.8).

Later planning stages. Most often scenario planning is used as a complementary process to strategic planning. There are also several cases where scenario planning has been applied even at national level. Governments in places such as UK, Sweden and Finland have insisted on making a bigger focus on scenario planning as scenarios can be incredibly useful in research fields such as environment and sustainability where they offer added value to the analysis of existing policies, strategies and other documents (Mitković, Mitković and Stojanović, 2014).

Case study: Uusimaa, Finland

In 2014 Uusimaa Regional Council issued "The Helsinki-Uusimaa regional programme – Vision and Strategy 2040 – Strategic priorities 2014–2017" document. The programme has been prepared "based on nationwide regional development and usage targets, Uusimaa regional plan 2033, regional land use plans as well as other regional plans that have an impact on regional development" (Uusimaa Regional Council, 2014). This document includes a separate section dedicated to scenarios and future analysis.

The Regional programme describes the results of scenario planning process "Uusimaa 2040" carried out by the Centre for Economic Development, Transport and the Environment in 2012, where four possible future scenarios for the region were created, using the development of economy, politics and society as the key players in the scenarios (Uusimaa Regional Council, 2014).

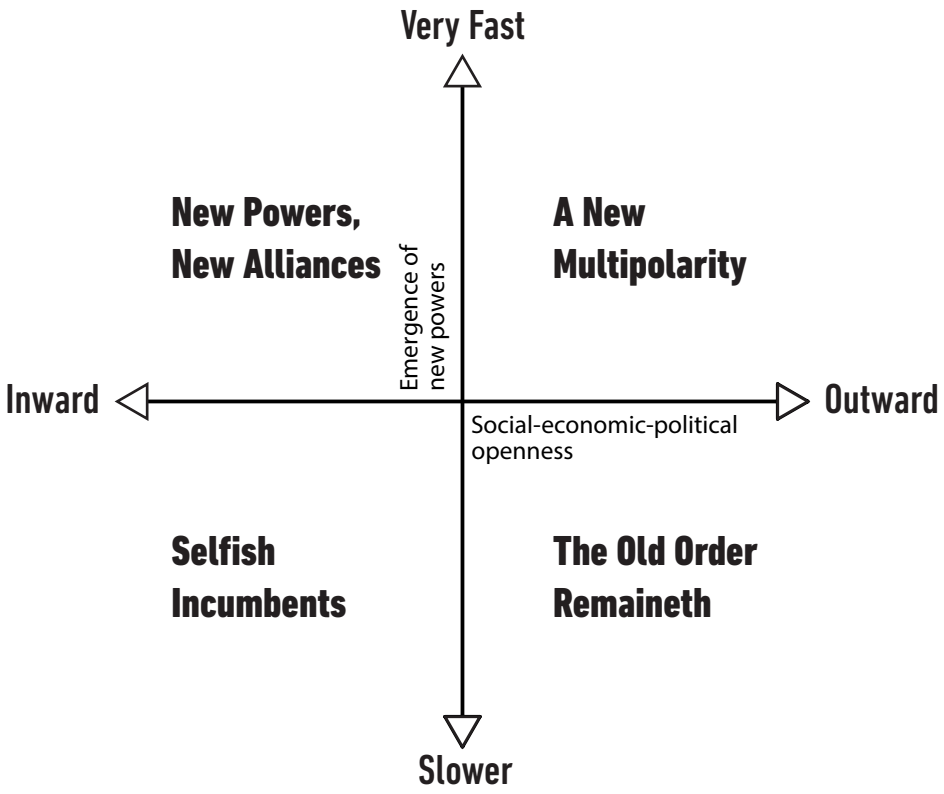
The establishment of these four scenarios led to the identification of five important factors that are listed in the regional programme as central focus points for the future:

"• Developing the region from the perspective of value-networks;
• Increasing people's engagement and resources;
• Enhancing business in a quick and agile manner;
• Building a functional and flexible community;
• Improving the status of the environment" (Uusimaa Regional Council, 2014, p.39).

In the case of Latvia, scenario method or let alone the word 'scenario' is rarely mentioned in any of the official planning documents and sometimes is understood in a different context.

In 2010 Saeima of the Republic of Latvia issued "Sustainable Development Strategy of Latvia until 2030". This document includes four different scenarios on a national level. Each of the scenarios is based on the four quadrant matrix method and broadly describes the possible public administration, education system, culture, economy and entrepreneurship, environment and energy, migration, spatial development, necessary conditions and possible risks (Saeima of the Republic of Latvia, 2010; PRCENTRS, 2008).

In 2017 the City Council of Liepāja issued Sustainable Development Strategy of Liepāja City until 2030. Unlike the sustainable development strategy of Latvia, this document distinguishes only one scenario for the city which is in accordance with four different possible future development directions and the spatial planning development, focusing on residents' prosperity, life quality, economy, reachability and recognition (Liepājas pilsētas dome, 2017).



(EXAMPLE OF TWO AXIS METHOD)

DIVERSITY OF METHODS

There are many approaches and methods for constructing scenarios, however, there is not a specific general approach that would be used by all – in fact, it is suggested that these approaches should remain flexible and should be chosen according to the individual case (Mitković, Mitković and Stojanović, 2014). Gaßner and Kosow (2008) name the following reasons why there is a variety of scenario approaches and not a single defined set of methods:

-scenario planning is a process which is widely used in different fields, such as business, economics, research, environment and land-use planning, therefore many scenario techniques have developed so that they can be used and applied only in one particular context which may be of no use when applied to another;

-scenario planning nowadays has aims that differ from those which were in place back when the use of scenarios first began;

-scenario planning has been influenced by a number of different schools each of which uses a specific approach, focus and technique for creating scenarios;

-the importance of scenarios differ in every project – in some cases scenarios can be the end product while in others the creation of scenarios can be only the initial phase of the project.

Although the research shows that there is not a single source of literature or other form which could provide a unified methodology, all scenario methods (regardless of the field) should “represent applied knowledge, with theoretical underpinnings” where the final product is based on practical and pragmatic approach (Gaßner & Kosow, 2008, p.24).

SCENARIO TYPOLOGIES

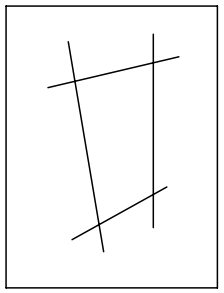
Similarly to the scenario constructing methods, there are many scenario typologies created, but there does not exist a single preferred system. Van Notten (2006) argues that typologies tend to become quickly outdated because of the fast development of the urban planning field, and they also cause the problem of not expressing thoroughly the progression of scenario planning.

In order to have a structured system for our research we decided to choose one of the already established scenario typologies that fit the most for the case of Cēsis. This typology, formed by Dühr (2007), distinguishes three types of scenarios:

1. Descriptive (explorative) or trend scenarios that explore the ongoing continuation of existing patterns and their long-term impact on the particular place, assuming that no changes in the policies are made;
2. Strategy (normative) scenarios which create a guiding principle, showing how the application of certain policies or planning strategy would impact a place;
3. Alternative scenarios which are the most radical of all three and provide a comparison between the existing situation and the favourable conditions that would take place if currently non-existent policies and institutional structures would be in place.

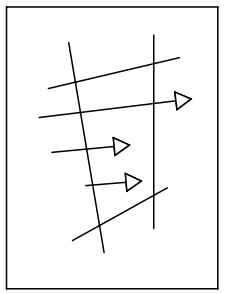
The main difference between descriptive and normative scenarios is that descriptive scenarios reveal the possible future developments and outcomes based on the current situation and disregards the desirability of these future probabilities, while normative scenarios focus on trying to answer the question – what needs to be changed in the current situation and done to achieve this desired future (Gaßner & Kosow, 2008).

Phase 1



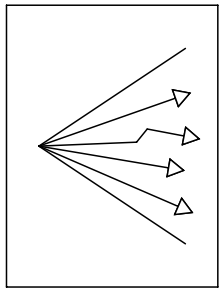
Scenario field identification

Phase 2



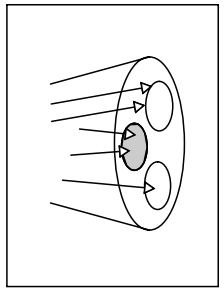
Key factor identification

Phase 3



Key factor analysis

Phase 4



Scenario generation

PHASES OF SCENARIO CREATION

As explained by Gaßner and Kosow (2008), there are five main phases in the process of creating scenarios.

Phase No. 1 – Identifying the focus. This is the stage which identifies the problem that needs to be studied through scenarios. It is important at this point to investigate and understand all the other aspects that can be affected by the chosen problem so that it is possible to draw the boundary of the research which will have to be done or the amount of data which will have to be collected.

Phase No. 2 – Identifying variables (key factors). At this stage it is necessary to identify all the key factors and their relation to each other which will later be used and explored more during the further stages. Key factors are the external forces which can impact, alter, drive forward, and help to solve the problem which was identified earlier in Phase 1 – these forces can be "variables, parameters, trends, developments, and events".

Phase No. 3 – Analysing key factors. Phase No. 3 is unique and only common in scenario planning – in this phase each of the previously identified key factors is analysed separately in order to understand what are the main possible future characteristics that can be achieved when the specific factor is applied.

Phase No. 4 – Creating scenarios. During this phase, scenario creation is based on the results of Phase No. 3 where a selection of factors is put together and made into a scenario. The first scenario to be created is always the base scenario which shows the possible future outcomes if nothing is changed in the current policies and all developments keep continuing as before.

Phase No. 5 – Scenario transfer. This phase (.depending on the particular scenario method is not always necessary) describes the possible future use of the scenarios created in Phase No. 4, for example, developing strategies for taking action in order to achieve/avoid the described future outcomes or evaluating the existing planning strategies against the created scenarios. (Gaßner and Kosow 2008).

CASE STUDIES

Case study 1 - Planning Scenarios for the Growth of Hervey Bay (Pettit & Pullar,

In this chapter we have analysed different case studies to understand how scenario planning can be applied in various situations and what outcomes can be gained. We began by analysing the creation process of the case of Hervey Bay (Australia) in depth and then broadly looked at some other case studies.

To analyze the process of scenario creation of Hervey Bay (Australia) two articles were used - "Planning Scenarios for the Growth of Hervey Bay" and "A way forward for land-use planning to achieve policy goals by using spatial modelling scenarios" by Christopher Pettit and David Pullar.

As many coastal towns along the east coast of Australia, Hervey Bay faces major land-use planning issues due to the strong population growth. It is important for townships like Hervey Bay to protect its natural amenity and ecological significance. Although Hervey Bay is a strong tourist attractor and is one of the strongest population-growth areas in Australia, there is a high level of unemployment because of a regional decline in manufacturing and other industries.

The research question is: "how can demographic and land-use information models may be used to efficiently plan for future urban growth?"

First of all a number of socio-economic and physical and environmental data inputs are required to begin creation of scenarios. Socio-economic data inputs include population projections, industry employment projections, projected average household size and the projected number of dwellings. The physical and environmental data inputs includes - cadastral land parcels, building footprints, road, sewer, water, land use zoning, remnant vegetation, national parks, riparian vegetated areas, coastal wetland, areas of prime agricultural land, and existing open space. The data have been obtained from governmental organisations, agencies, councils and bureaus of statistics. For Hervey Bay it is decided to create three scenarios.

CONTINUED GROWTH SCENARIO

First scenario as usual is a "do-nothing" or "future trends" scenario where predictions are made based upon existing situation. The scenario is prepared by urban modellers and is used as benchmark against which to measure other scenarios.

The method is developed in two steps:

1. Computing land-use requirements to accommodate projected future populations and employment by industry sector;
2. Spatial allocation of the land-use requirements to suitable areas based upon an accessibility index, land-use allocation parameters and transition rules.

Equations are used to calculate land-use requirements that are employment-based and residential-based and to calculate the accessibility index to determine the most suitable location of the projected land demand with respect to land supply.

The final component of the model were the land-use transition rules specified in the Hervey Bay strategic plan. The continued growth scenario is created using ArcView GIS, ArcView geoprocessing extensions and Avenue programming script.

MAXIMISING EMPLOYMENT

Main objective of the second scenario is to reduce unemployment through maximising the most labour-intensive organisation of existing and future land-uses. The scenario utilises linear programming to maximise the objective and minimise possible constraints which include ecological, technical and financial considerations. Linear planning and Geographic information system are combined in two steps:

1. Predicting future land-use requirements based upon an optimal land-use mix;
2. Forecasting patterns of change by means of an accessibility index, and land-use allocation parameters and transition rules.

Property valuations were combined with the cadastral parcel land-use attributes to calculate average property rates values for each land-use type. A variety of regulatory documents, planning guidelines, policy directions, and governmental authorities were consulted in order to formulate the underlying criteria and decision variables, these included Queensland State planning policies, and regional and local planning objectives, and engineering regulations.

The maximising rates base scenario is created using ArcView extensions, Avenue programming scripts, Excel Solver extension.

SUSTAINABLE DEVELOPMENT

Main goal of this scenario is to reduce conflict between environmental and economic areas. This scenario is made using Klosterman's (1999) What If? Planning support system, that includes three steps:

1. Formulating land-suitability maps using spatial datasets obtained from government agencies;
2. Predicting future land-use requirements based upon projected population and employment growth;
3. Forecasting patterns of change using land-use controls and growth pattern values.

Equations are used to calculate the land required for light industrial, general industrial, commercial, social infrastructure purposes and land required for medium-density residential, low-density residential, park residential and rural residential purposes.

The sustainable development scenario is implemented using ArcView GIS and Avenue programming script.

EVALUATION OF SCENARIOS

The evaluation of each of the three land-use scenarios is undertaken using core policy objectives as outlined in the regional growth strategy and the town planning scheme. Appropriate method to evaluate land-use scenarios is goals-achievement matrix where the lower the GAM value the more efficient the planning scenario. The relative weights for each of the objectives have been derived from feedback obtained through a focus-group survey of stakeholders.

Based on these results the continued growth scenario was stated as least efficient of the three scenarios. The most efficient scenario is sustainable development scenario as it performed the best with eight out of ten measurements.

CONCLUSIONS

The advantage of this scenario approach is that it enables land-use planning proposals to be formulated and evaluated in a framework that combines both regional and local planning procedures. The data inputs and parameters used are based largely upon existing conditions. The scenarios were developed iteratively as part of consultative process with professional planners in the region, and we received expert advice and feedback to guide the development of the three final scenarios. The scenario outputs are future predictions and we do not claim that they represent accurately calibrated forecasts.

Case study 2 – Urban Form and Sustainability: the Case Study of Rome (Coppola, Angiello, Carpentieri, & Papa, 2014).

Problem: Which urban structure achieves the highest sustainable development in terms of transport use, performance and environmental impacts?

Key factors: Travel behaviour, population, transport supply, property values, jobs, residential locations.

Scenario types: Base scenario (business-as-usual / descriptive scenario); 'compact' scenario – all activities are condensed in the city centre (normative scenario); transit oriented development – new activities are developed near transport station areas (normative scenario); 'sprawl' scenario – activities are moving further away from the city centre (normative scenario); 'city master plan' scenario – includes location of new activities and transport infrastructure as planned by the municipality (normative scenario).

Results: The analysis of the scenarios showed that the compact development form achieves the highest sustainable urban development, however, it also has the highest risk of creating congestions and increased real estate prices.

Conclusions: The study gives a broad idea and some initial results of the possible most desirable urban development, but it needs further research that would focus on separate neighbourhoods within the city to better analyse and understand the impacts of each key factor.

Case study 3 – Envisioning Beijing 2020 through sketches of urban scenarios (Song, Ding, Knaap, 2006).

Problem: Due to changes in economy, many Chinese cities have grown and developed very fast over the last few decades, but the current policies and city plan is unable to successfully guide the new development patterns, therefore new alternative approaches and planning methodologies are needed to adapt the cities to the new changes.

Key factors: Population, employment, distribution of population and employment, transport networks, development capacity, employment accessibility, labour supply accessibility.

Scenario types: 'Compact growth' scenario – new development is contained within the existing boundaries of Beijing (normative scenario); 'eastward-directed expansion / development of polycentres' scenario – the greatest development is redirected to three existing satellite towns while being restricted or strengthened in other parts of the city (normative scenario); 'outward expansion / sprawl' scenario – development is continuing in all directions further away from the central areas (normative scenario).

Results: Considering efficient land use and improved quality for air as the priorities, all scenarios were analysed and ranked accordingly, with scenario 1 ranking first and scenario 2 ranking last. However, the results in each category varied and the raking could have been different if other priorities had been set.

Conclusions: The research was completed within one month and did not have the intention to provide detailed vision of the future land use. It was intended for the planners as a useful source of information to consider, showing what are the relationships of different key factors and potential outcomes of certain situations when each of these factors are altered differently.

CONCLUSIONS AND RECOMMENDATIONS FOR CĒSIS

Following the research process, we have come to some specific conclusions about scenario planning method, its purpose and application.

1. Using scenario planning method, it is possible to create a hypothetical future vision of a territorial (but not only) development which focuses on the potential evolution patterns of current issues and trends as they are impacted by different key factors (e.g. changes in population, number of workplaces, real estate availability and affordability, transport infrastructure).
2. Because scenarios are hypothetical in nature, they cannot replace other official documentation, such as territorial plans, strategic planning programmes, etc. Scenarios are meant to place an added value to these documents, by encouraging planners to think out-of-box, consider other ways to deal with existing planning issues or demands, and acknowledge otherwise missed future opportunities.
3. The creation process of scenarios is long and complicated. Depending on the goal of the project and the required level of detail, scenario planning can take time from several months up to even years. In order to achieve better and more plausible scenarios, a large amount of information needs to be gathered and analysed, including statistics, social-economical data, surveys, historical data, and other sources. Therefore, scenario planning teams usually consist of various people from different backgrounds, involving architects, urban and regional planners, government/municipality members, stakeholders, local residents, analysts and researchers to name a few.
4. Scenario planning typically takes place at the early exploration stage before the creation of the actual masterplan, strategic planning programme or other documents.
5. Rather than being an official document which expresses legally enforced acts or processes, scenarios only have an informative nature. The results of the scenario planning can influence and shape the final published versions of strategic, regional, urban or other types of planning documents, by either incorporating the results directly in the text, making decisions or judgements based on the scenarios, or publishing the research as a separate document or appendix.
6. Scenarios are created in order to explore and consider the main issues of a specific territory and their potential solutions. A complete set of scenarios within the scope of one project, normally focuses on one issue and at least five key factors which can have an impact on the development of this issue. Each factor (or variable) is then altered differently to test if this kind of development would have a positive or negative effect on the current issue. Eventually, the results of each created scenario can be compared and it becomes possible for the planners or other responsible decision makers to take appropriate actions and plan accordingly for the the future.
7. Scenario planning method is relatively complex, therefore it is important to make sure that the graphical presentation is clear and understandable for everyone. The planning process can be described using text and even mathematical equations, however, the findings are illustrated using maps, comparative tables, diagrammes and sometimes photo collages.
8. The results of scenario planning usually indicate the need for specific further research, in order to gain more information about the possible impacts or developments of a certain key factor or another issue. This tend to be stated at the end of scenario planning process.
9. Not always the use of scenario planning method or the process of creating and analysing particular scenarios as a part of compiling official planning documents is acknowledged and accessible. In some cases there are only brief references in the final published document about the fact that such scenarios have been created during the process of strategic planning, while other times there are even no direct mention of scenarios.

steps	example for Cēsis	actions to take
identify the problem	transportation	analyse existing situation
identify the key factors (at least 5)	population; road infrastructure; location of workplaces; location of residential developments; distance between home and workplace	gather data, complete surveys
determine the main issues and trends	lack of public transportation; road network is outdated; negative environmental impact due to heavy use of personal vehicles	make conclusions about the existing situation and analysed data from step 2
identify affected parties	local residents; visitors from outside	gather statistics
identify other important factors	historical situation	analyse historical development
determine the possible directions	no changes; free public transport for children, seniors and other social groups; new transport networks with more routes; improved transport infrastructure	study similar case studies
create different scenarios	1) continued growth 2) improved use of public transportation 3) improved infrastructure	analyse the chosen key factors
test policy options	Development programme for the county of Cēsis 2013-2019 Development programme for Vidzeme planning region 2015-2020	analyse existing policies; suggest possible implementations and, using created scenarios, test how these changes will affect the overal situation
compare screated scenarios	Scenario No.1 will have smaller risk than scenario No. 2, but in the long term this kind of development will not be able to deal with factors such as growing population or increase of distance between home and workplaces, as it will create a greater impact on surrounding environment and other issues. Scenario No. 2 provides situation in which public transport becomes more accessible and affordable for people, therefore there is a higher chance in the decrease of the use of private vehicles and better impact on environment.	compare the advantages and disadvantages of each scenario
make conclusions	according to step 9	decide which of the scenarios would be the most suitable and desirable for the future development of the area
move to strategic planning	inclusion of a separate section on transport infrastructure in the strategic development plan for Cēsis	take into account the results of the scenario analysis in the process of creating strategic plan for Cēsis

10. Scenario planning can be beneficial for all involved parties - government institutions, planners, stakeholders and residents, because the most successful cases of scenario planning have implemented initial co-creative design meetings, workshops, open discussions and conversations in which all parties have been closely involved doing brainstorming, mind map exercises and creating general outline of the potential scenarios. This process has helped to achieve results with everyone's interests in mind as each party has made an input in the planning process and determination of the most important issues.

In the case of Cēsis, scenario planning method can be implemented as a part of the creation of newer Development programme for the county of Cēsis (Cēsu novada attīstības programma) versions. Scenario planning can be a useful tool for:

-identifying the main current issues in Cēsis and understanding their potential situation in future;

-acknowledging the need for further data, statistics or research in order to fully explore an existing problem;

-exploring possibilities (both desirable and realistic) for future development of the town itself;

-exploring possibilities for future development of Cēsis in a wider context of the Vidzeme region and the nearby towns.

Based on the research findings and the fact that Cēsis already has a functional territorial development plan, it is possible to conclude that the most appropriate type of scenario to work with in the case of Cēsis town is the strategic or normative scenario. This type of scenario explores existing planning documentation and, based on that, establishes guiding principles for the future, showing how the application of certain new policies or planning strategies would impact the place as a whole. For the purpose of this project, one scenario is created and explored more indepth for the town of Cēsis. It is a development scheme proposal for a new place-unique water resort next to river Gauja.

RESORTS

HISTORICAL DEVELOPMENT OF RESORTS

The history of resorts extends as far back as the Roman Empire. One of the oldest known resorts was Baiae – an ancient Roman town which provided recreational public and private thermal baths filled with mineral water from hot springs, saunas and medical treatments for various illnesses (Yegül, 1996). Historically, resorts were not accessible to the whole society as they were aimed only at the upper-class, wealthy people, or even royal families who wished to improve their health and relax by escaping everyday-life (Hur, 2008).

In North America, major focus on sports and recreation as important tools for boosting physical health and wellness emerged in the 19th century and changed the way many resorts and resort hotels had been previously designed (Adirondack, n.d.). Many indoor activities were either brought outside, or new additional outdoor facilities were included as a part of the resort (Adirondack, n.d.). In Europe, the accessibility and popularity of resorts grew rapidly due to the invention of steam engine and the newly constructed railway networks across the continent in the 19th century (Hur, 2008). The new form of transportation allowed people to travel faster and further, which lead to the development of numerous seaside and coastal resorts, especially in the Great Britain. It is estimated that by 1911 approximately 55% of Brits took part in one-day journeys to seaside and 20% went on holidays that included overnight stays at a hotel or similar accommodation (Brown, 2010). Gradually, the time which visitors spent at the resorts increased, therefore a typical seaside resort started to include elements such as hotels, restaurants, piers, fairs, entertainment activities, sports, sea bathing and transportation (Hur, 2008). Resorts quickly became a major part of the tourism industry and provided main income for many rural towns (Brown, 2010).

Similar trends could be observed in Latvia, where the city of Jūrmala also gained its popularity as a seaside resort and spa town after the opening of a railway line at the end of the 19th century (Jūrmala, n.d.). It attracted many visitors not only from other places in Latvia, but also foreigners, which lead to the growth of city's cultural life and development of various notable new public buildings and outdoor spaces (Jūrmala, n.d.).

Today resorts that provide basic spa and relaxation amenities and bear many similarities to other 'classical resorts' from the 19th and 20th century are still widely visited. Nevertheless, there are also many niche resorts that focus only on specific activities and interests, including particular sports (skiing, golf, water sports), lifestyles (eco, green, luxury), hobbies (shopping, gaming, culinary), and others. Resorts nowadays are accessible to all budgets, tastes and social classes and remain a significant part of the tourism industry.

RESORT CATEGORY QUALIFICATIONS		
Category Title	**Description**	**Property Examples**
Destination resort	Four signature or anchor amenities	Greenbrier, Mauna Lani Resort, Westin St. John Resort & Villas
	Fifteen or more distinctive secondary recreation, leisure, or entertainment	
	Three or more food and beverage outlets	
	Spa, health, or wellness amenities	
	Multiple shopping outlets	
	Varity of lodging options	
Intermediate resort	Two signature or anchor amenities	Abbey Resort, The Grand Hotel, Sandals Whitehouse, Corde Valle, The Sanderling
	Ten or more distinctive secondary recreation, leisure, or entertainment	
	Two or more food and beverage outlets	
Intermediate-access resort	Two signature or anchor amenities	Biltmore Hotel (Florida), Kahala Hotel & Resort, Hyatt Key West Resort and Spa, Marriott San Juan Resort & Stallaris Casino
	Ten or more unique secondary recreation, leisure, or entertainment experiences	
	Two or more food and beverage outlets	
	Providing direct access to external recreation or leisure experiences	
Specialized resort	One signature amenity or anchor attribute	Sanctuary Camelback, Blackberry Farm, San Ysidro Ranch, Willows Lodge, The Beach Boutique Resort
	Five disctinctive secondary recreation, leisure, or entertainment experiences	
	One full-service food and beverage outlet	
	Bad-base must include short-term or overnight lodging	
	Minimum of 25 rooms or other accomodations	
	Emphasize a leisure or retreat-environment experience	

DEFINITION AND CLASSIFICATION OF RESORTS

Although the concept of a resort is very familiar and different amenities have been around for centuries, the research findings suggest that there is not a single concrete definition of a resort. The definition by Eric T. Brey (2011, p.285), which defines resort as a "full-service lodging facility that provides access to or offers a range of amenities and recreation facilities to emphasize a leisure experience", stands out as the most applicable. Even though there are numerous types and specialities of resorts found today, Brey (2011, p.286) argues that all resorts must meet the following minimum qualities in order for the facilities to be recognized as a resort:

-" provide one signature amenity or anchor attribute;
-provide five secondary recreation, leisure, or entertainment experiences;
-provide one full-service food and beverage outlet;
-include short-term or overnight lodging in the bed-base;
-comprise a minimum of twenty-five rooms or other accommodations (exception to minimum are properties with two signature amenities or anchor attributes and ten recreation, leisure, or entertainment experiences); and
-emphasize a leisure or retreat-environment experience."

There also appears to be a lack of clarity when it comes to the classification of resorts. Some classification systems use a 5-star rating or Class systems, other systems distinguish resorts by their geographical location, physical properties and provided facilities (Meyer-Arendt, Sambrook, Kermath, 1992). Brey (2011) offers a classification system which takes into account the amount of amenities and the visitor experiences.

According to Brey's system, all resorts can be divided in four categories – Destination resorts, Intermediate resorts, Intermediate-access resorts, and Specialized resorts. Destination resorts are resorts in a classical sense. They serve as the main purpose for visiting a specific location, provide all necessary amenities and even offer the possibility to organize business-related events. Intermediate resorts are smaller in scale, with less amenities, and usually are located in rural areas. Often these resorts are also the primary motivation for visiting the place. Intermediate-access resorts are typically located in existing vacation destinations or otherwise populated areas. These resorts offer some recreation and entertainment options as a part of the amenities, but mainly they provide access to another nearby leisure attraction such as beach, which might be the main appeal for the visitors. Finally, specialized resorts concentrate mainly on one particular amenity. Such resorts can be significantly smaller in comparison to the other three types and they can either function as the main attraction of the specific location or be a part of the desired experience of the surrounding area.

REASONS FOR CHOOSING VACATION AT A RESORT

While going to a resort is not the ideal holiday scenario for absolutely everyone, such facilities are very appealing to many people for the following reasons:

-Little pre-trip planning required – all basic necessities (food, accommodation, recreational activities) and facilities can be found in one location;

-Emotional security – there is certainty about what to expect and what to find once the person will arrive at the resort;

-Physical security – for most of the time, the person will very likely remain within the resort which is typically a secured territory, which has CCTV cameras, staff and other visitors nearby;

-Staying within comfort zone – resorts can offer the possibility to be in the wilderness or take part in extreme sports/other unusual activities, without the need to campin, sleep in tents or cook food on a fire because the accommodation and catering is provided on the site;

-Staying in control over your environment – most resorts provide a variety of facilities and activities, therefore it is possible for the visitor to easily choose whether to spend their free time socializing, or find a quieter place to relax alone.

BENEFITS OF RECREATION IN NATURE

There are numerous scientific researches and findings that prove nature's beneficial influence on human health and explain why many people are drawn to resorts which are located in rural areas or provide interactions with nature. Selhub and Logan (2012) state that the lack of contact with nature weakens our body's natural ability to protect itself against stress and even negatively affects the immune system. People who participate in outdoor activities such as walking, cycling or gardening, often feel an increase in motivation, raise self-esteem and are able to reduce anxiety, depression and other mental-health related issues (CIRIA open space, 2019). Stress reduction theory explains this significant effect of nature's impact by analyzing nature's role in human life during the evolution of our species. This theory suggests that the sight of particular landscapes, including grasslands and trees, which our ancestors associated with gain and safety, activate the same parts in our brain, making people feel calm and unconsciously drawn towards such environments (Bratman, Daily, Levy, Gross, 2015).

Water is another element which has proven to have a therapeutic effect on physical and mental health. Some studies have concluded that the experience of being in a warm water or even just being near the water and seeing waves or listening to their crashing sounds is equal to meditation (Livni, 2018). Water contains negative ions which, upon entering bloodstream, create biochemical reactions that help to produce more serotonin which, in return, provides more energy during daytime (Mann, 2002). Other researches show that floating in water "reduces levels of the stress hormone cortisol, muscular tension, and cardiac rate, and improves emotional state" (Selhub and Logan, 2012, p.101).

CONCLUSIONS AND THE POTENTIAL OF A RESORT IN CĒSIS

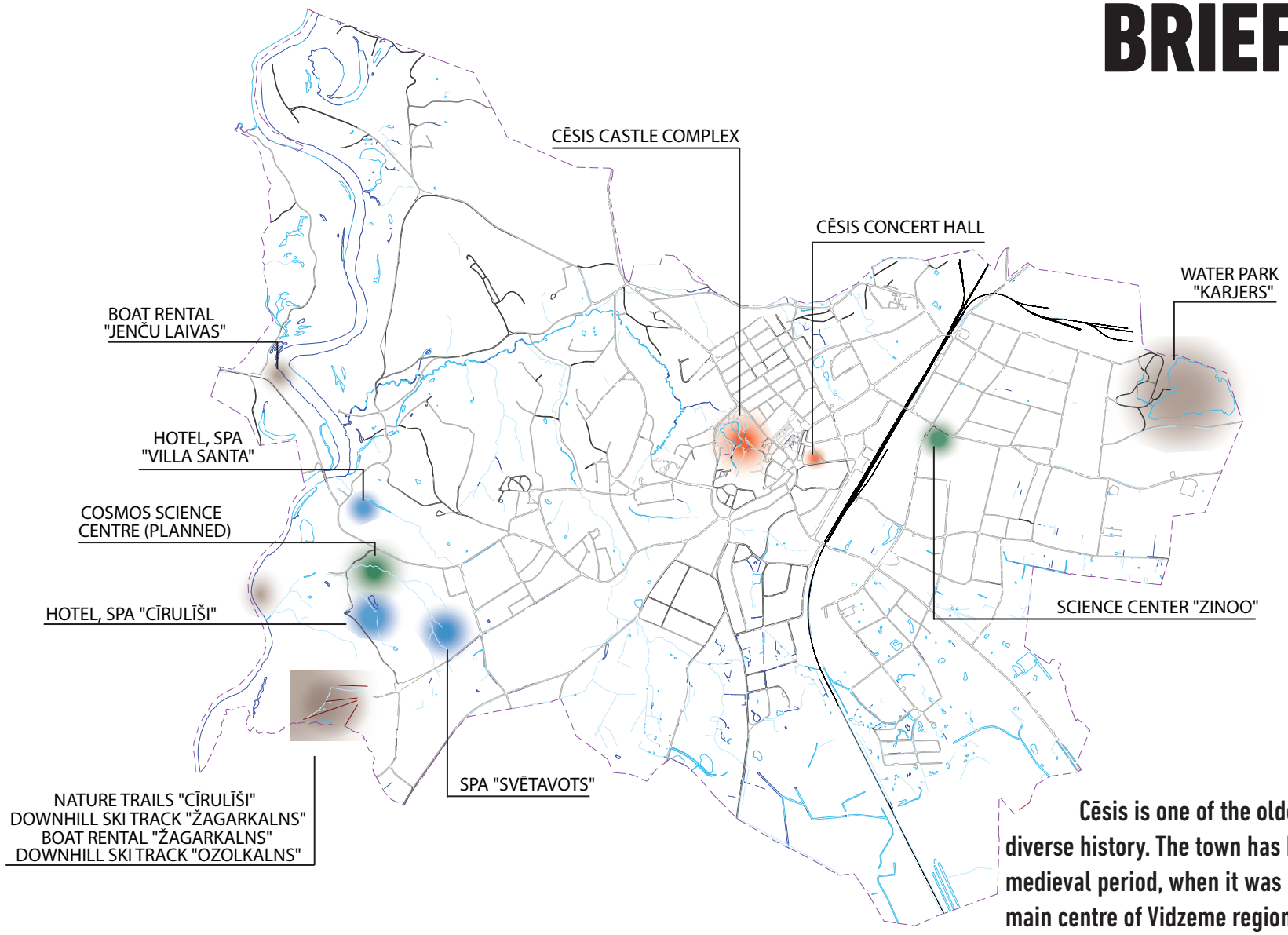
Resort is a full-service lodging facility that provides access to or offers a range of amenities and recreation facilities to emphasize a leisure experience. The concept of a resort has been known to people for centuries, beginning with the Roman Empire and became widely popular and accessible for everyone during the 19th century. In order to classify as a resort, the place must provide one signature amenity or anchor attribute, five secondary recreation, leisure, or entertainment experiences, one full-service food and beverage outlet, short-term or overnight lodging in the bed-base with the minimum of twenty-five rooms and emphasize a leisure or retreat-environment experience. All resorts can be divided in four categories - Destination resorts, Intermediate resorts, Intermediate-access resorts, and Specialized resorts. Some of the main reasons why people prefer to choose resorts as their holiday destination are the facts that little pre-trip planning is required, resorts provide emotional and physical security, the person remains in control over their environment and is able to enjoy specific recreational activities, while maintaining access to the comfort of all on-site inclusive beverage outlets and accommodation.

The town of Cēsis is located in a picturesque and unique location. Surrounded by landscapes of national importance and other small historical towns with distinct characters, Cēsis is a part of a region that is widely visited by many tourists every year. One of its main attractions is the balance between old and new, urban and rural, lively and peaceful. These are some of the qualities that are essential for establishing a resort and providing the environment in which the visitor can feel relaxed and removed from the mundane everyday-life, yet maintaining all familiar comforts.

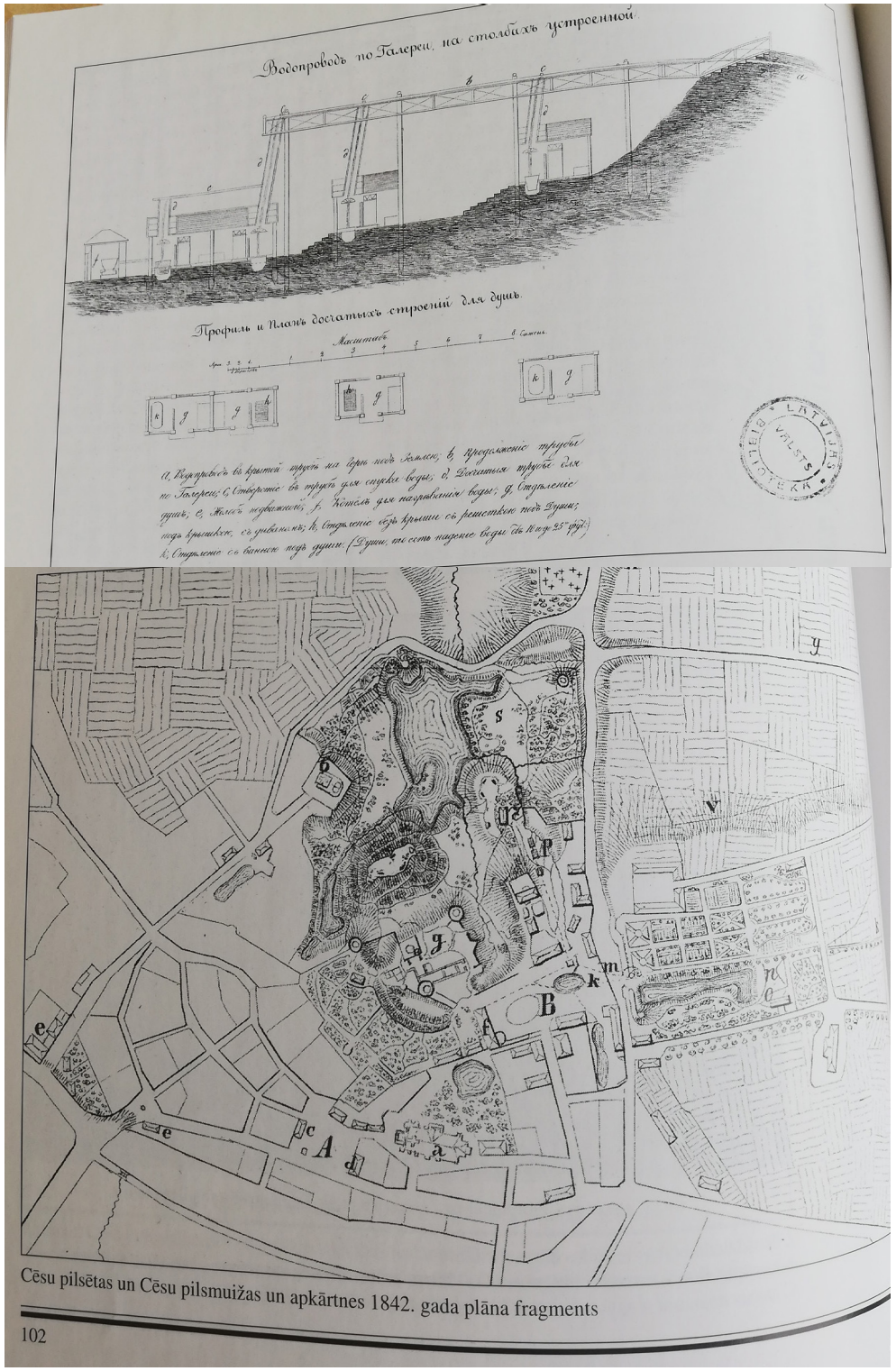
The town of Cēsis is not a particularly large settlement which is certainly one of its charms. At the same time, it can be easily reached by a train and a car or a bus, since there are roads of national and regional importance passing by. The National Park territory provides opportunities to be in the wild nature and restore health and energy, while the nearby urban areas may offer additional attractions, such as historical sights, cultural events, sports or shopping.
The combination of these properties and facilities create very suitable and favourable conditions for establishing a resort which would help to boost the existing local businesses and attract even more tourists due to its specific focus.

WATER RESORT IN CĒSIS

BRIEF OVERVIEW OF CĒSIS



Cēsis is one of the oldest towns in Latvia, with a more than 800-year-old diverse history. The town has had a significant importance already back in the medieval period, when it was proclaimed the capital of Livonia, as well as the main centre of Vidzeme region (Cēsu Tūrisma Informācijas centrs, n.d.). Today Cēsis is the second largest town in Vidzeme planning region with a strategically advantageous location, being only 87 km away from Rīga and having two roads of national importance passing through or close-by (Cēsu novada pašvaldība, 2015). Cēsis is mainly known for its annual cultural and art-related events, such as art festivals, concerts and Medieval celebrations. Almost half of the total area of Cēsis municipality is within the boundaries of Gauja National Park which adds an even higher value and uniqueness to the place.



Cēsu pilsētas un Cēsu pilsmuižas un apkārtnes 1842. gada plāna fragments

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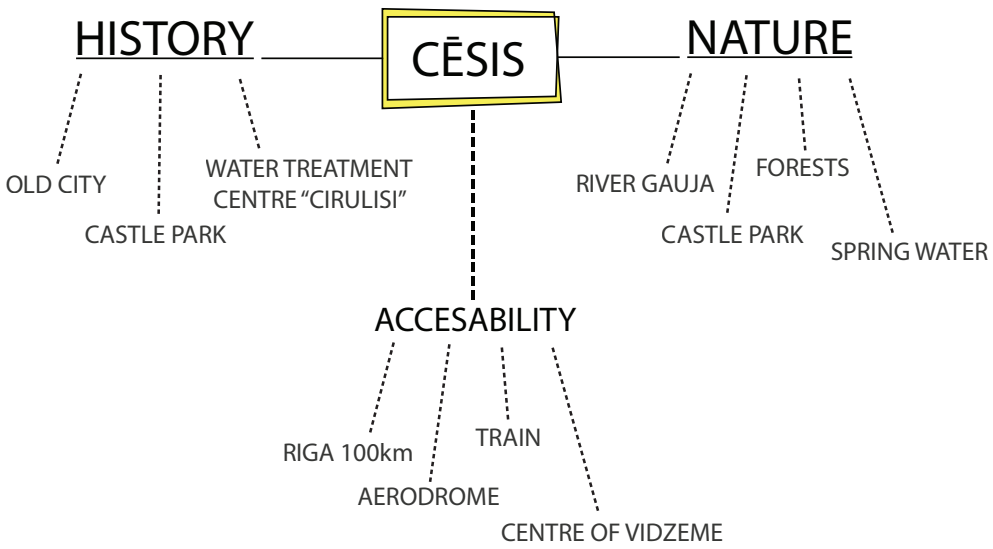
HISTORICAL DEVELOPMENT OF RESORTS IN CĒSIS

Nowadays there are many aspects of Cēsis which attract tourists every year, and these attractions include elements such as natural landscapes, architecture, cultural events, heritage and recreational opportunities. But it is not only recently that the name of Cēsis has been associated with a resort or similar recreational and natural healing facilities. Many of the 20th-century literature sources reveal that the parks within the Cēsis Castle Manor, which are still today enjoyed by locals and tourists, were a part of a unique water cure centre back in the 19th century (Vilka et al., 2005). The water cure centre, which is assumed to have been open for approximately a decade, consisted of a notable building complex and used only cold spring water for the procedures (Vilka et al., 2005).

WATER RESORT CONCEPT

The main aim of our proposed resort is to create a unique place which would allow its visitors to establish or restore harmony between physical body, mind and surrounding environment. Water is chosen as the main therapeutic element since it is an essential component in the human body and takes up more than 70% of it. In Japanese culture it is even believed that the presence of water makes people highly conscious of their emotions as it strongly resonates with our internal fluids. Any encounter with water is said to deepen all our senses – sight, hearing, smell, taste, and touch. Therefore the resort will provide different opportunities to interact with water, using each of these basic senses separately in order to help the person focus on healing specific emotional or physical issues one at the time. This will ensure that each visitor at the resort is able to establish a strong individual bond between the nature and especially water, which, in return, will help to extract stress or negative emotions and restore the inner balance.

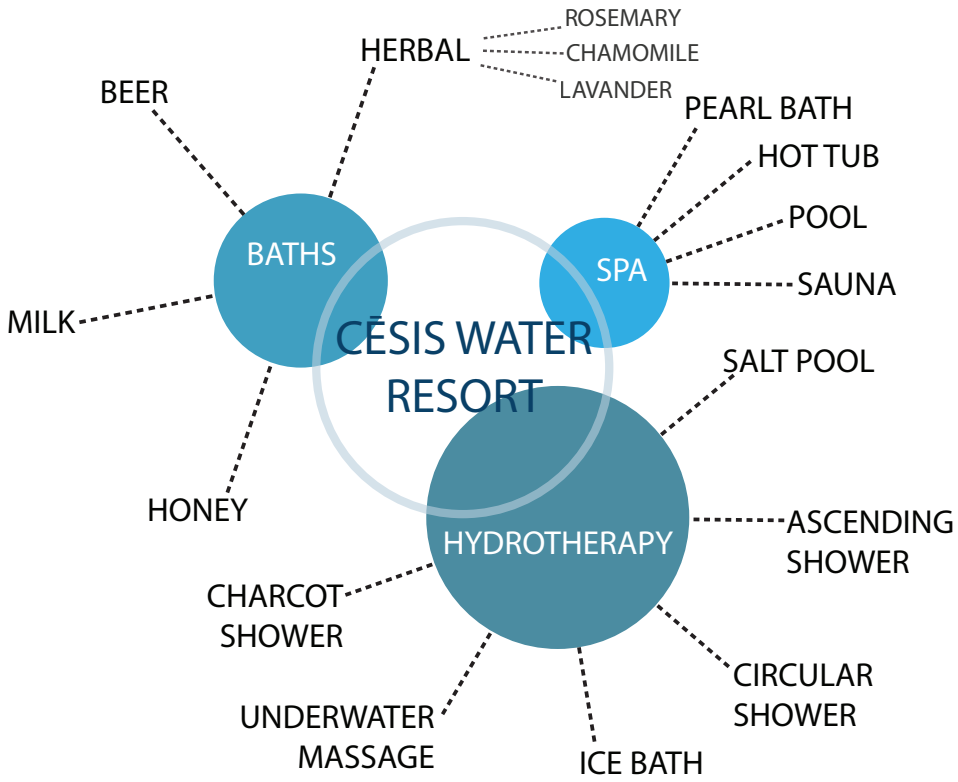


Particular location has been chosen exactly for the reason that it offers a quiet and undisturbed area which has not yet had a clear vision for future developments, but has the potential to attract many visitors for its unique atmosphere and additional function as a resort. Although the water resort will have a contemporary look and will include modern equipment and procedures, its concept strongly relates to the historical water cure centre of Cēsis and therefore strengthens the identity of the place.

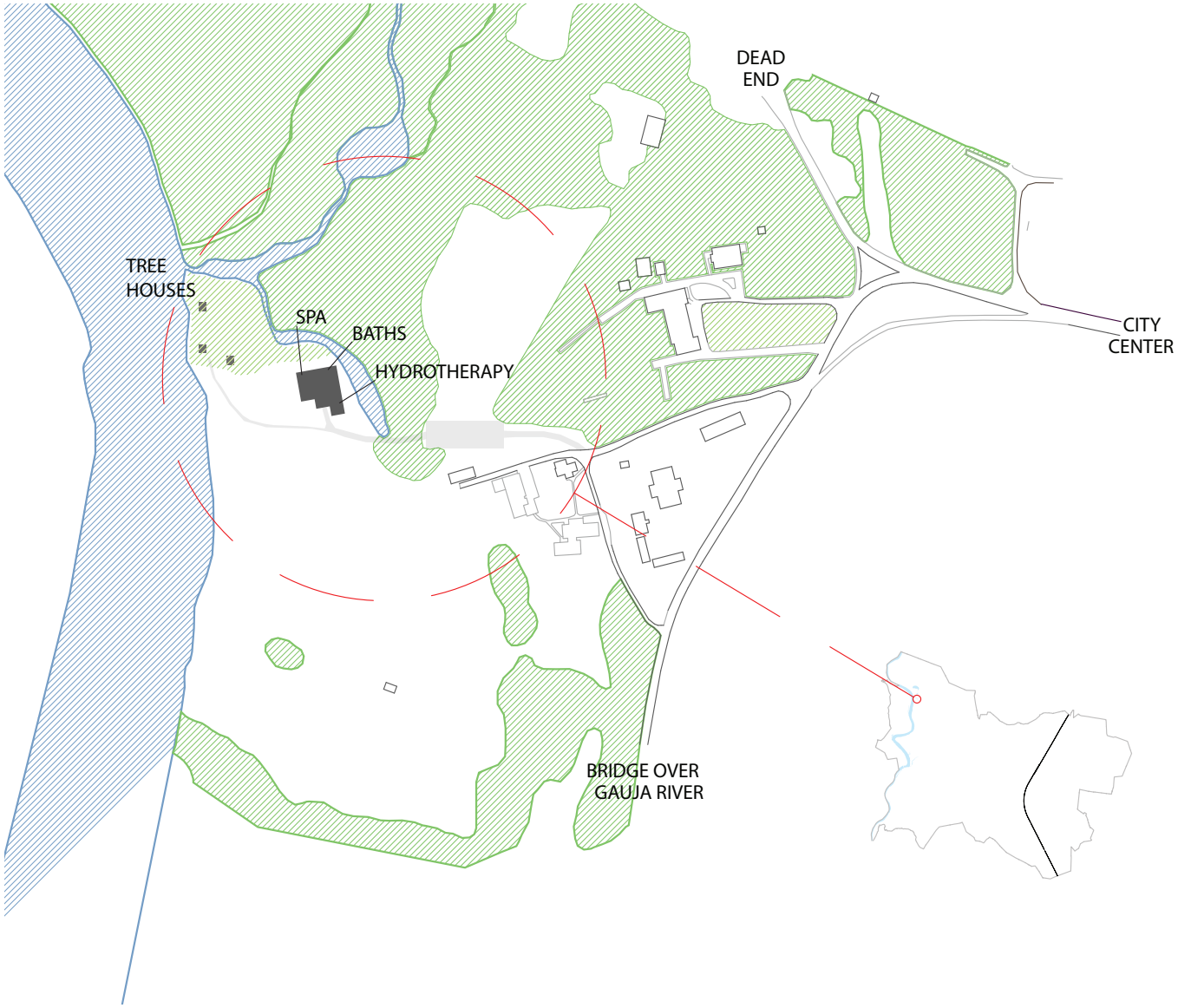
Although the water-based medical treatments and spa procedures play a significant role in the concept of the proposed facilities, the resort very much focuses also on the intangible emotional experiences. Water, being the central forming element of identity, memory and healing, helps the visitor to experience the greatness of the surrounding wilderness and to draw the energy from the encompassing ties with which the water has for centuries bound all living beings and shaped the planet.

The layout of the resort territory and facilities also imitates the idea of leaving the stressful city life behind and returning back to nature and its most basic elements. The resort is designed so that the busiest and noisiest public spaces, such as the car park, are located at the very entrance. Then, as the visitor continues to move further ahead into the resort, where the procedure and treatment rooms are located, the surrounding environment has become much more tranquil and opens up towards the view of the river. Following this point, comes the forest with small tree houses that function as short-term accommodations. Here the person begins to truly feel the presence of the wilderness and is physically and mentally transformed from the urban environment into the nature. Finally, behind the forest, there is river – located far from the hustle. Here the most powerful healing takes place since the visitor can be completely alone with the water and choose for himself what kind of interaction would be the best – swimming, meditating, listening to the waves, walking or something else.

PROGRAMME



The proposed water resort in Cēsis can be classified as a specialized resort. The on-site amenities include a shop/restaurant, short-term accommodation (25 tree houses) and various activities that are focused around water. Within the resort, there is a wide range of water-based procedures and facilities, which can be broadly divided into five categories - medical treatments (hydrotherapy), themed baths, classical spa, water sound therapy and outdoor activities next to the water, such as yoga and hiking. Since the resort focuses not only on physical healing and well-being, but also emotional experiences, there are options to either enjoy a certain treatment or activity alone or to share it with family, friends or other significant people. In this way the water functions as a mediator on another level – creating strong bonds not only directly with every person, but also indirectly bringing a group of people closer together through the interaction with water.



Themed baths

The resort provides various types of themed baths, such as honey, beer, herbal (chamomile, lavender, rosemary) and milk. Each bath is located in a separate room which gives the opportunity for all visitors to combine the relaxing and healing/energizing experience of the particular bath together with the possibility to spend time with their friends, loved ones or to organize a themed event (e.g. friends reunion, romantic date, bridal party).

Hydrotherapy

The medical water treatments focus mainly on the physical body and approach every person very individually. The offered procedures include: underwater massages, various types of showers (charcot, circular, ascending), ice bath and salt pool. Each of these treatments greatly help the body to recover from specific illnesses or injuries, while at the same time the calming properties of water subconsciously improve the overall state of the patient's well-being.

Spa and other activities

The resort also offers classic spa facilities, such as sauna, pool, hot tub and pearl bath. These amenities provide recreational options for visitors that prefer traditional experiences.

Outdoor activities – yoga and hiking, as well as water sound therapy, focus on the physical interactions with nature while being directly exposed to it. Such activities are especially suitable for people who suffer with high stress, anxiety or other mental disbalances as the outdoor experience awakens all senses. The visitor quickly forgets about the troubles of the outside world and focuses only on the present moment, being in the wilderness.

BINDING LEGISLATION

The proposed water resort is located in a unique territory, but that requires for a certain legislation to be taken in consideration. The chosen location belongs to the territory of Cēsis town, but a part of it is included also within the Gauja National Park and borders river Gauja. Therefore, requirements of the following legislation and documents must be considered for this specific case: Protection Zone Law (Aizsargjoslu likums), Individual protection and land-use regulations of Gauja National Park (Gaujas nacionālā parka individuālie aizsardzības un izmantošanas noteikumi) and Land-use and building regulations of Cēsis (Cēsu teritorijas izmantošanas un apbūves noteikumi). The protection and land-use regulations of Gauja National Park state that, with the approval of Nature Protection Board (Dabas aizsardzības pārvalde), certain types of construction within the territories of towns and villages are allowed, especially if the new developments are related to nature tourism, education, or sports and recreation. The Land-use and building regulations of Cēsis allow for the particular area construction of one-storey high facilities for tourism and recreation, as well as development of landscape elements for public outdoor spaces and parks after the approval of Cēsis Municipality. The Protection Zone Law specifies that no construction is allowed within 10 metres on both sides of an above-ground water body. All of these requirements have been considered in this proposal.

CONCLUSIONS

When thinking about the potential future development of Cēsis town and municipality, it is important to first acknowledge the strongest qualities of the area, which are certainly the natural landscapes and undeveloped green territories in combination with the existing local heritage.

In the case of Cēsis, scenario planning method can become a useful tool and could be implemented as a part of the creation of the upcoming "Development programme for the county of Cēsis" (Cēsu novada attīstības programma) versions. Scenario planning can be used to:
-identify the main current issues in Cēsis and understand their potential situation in future;
-acknowledge the need for any further data, statistics or research in order to fully explore an existing problem;
-explore possibilities (both desirable and realistic) for future development of the town itself;
-explore possibilities for future development of Cēsis in a wider context of the Vidzeme planning region and the nearby towns.

After analysing the existing and historical situation of the town of Cēsis, a conclusion was reached that there is a great potential for the establishment of a water resort, which would provide the opportunity for people to spend time in nature and offer specific place-unique water treatments, as well as spa procedures. The proposed water resort in Cēsis can be classified as a specialized resort as this is the most suitable type of resort development in the particular location. The on-site amenities include a shop/restaurant, short-term accommodation (25 tree houses) and various activities that are focused around water. Within the resort, there is a wide range of water-based procedures and facilities, which can be broadly divided into five categories - medical treatments (hydrotherapy), themed baths, classical spa, water sound therapy and outdoor activities next to the water, such as yoga and hiking.

High importance is also focused on the intangible emotional experiences. Water, being the central forming element of identity, memory and healing, helps the visitor to experience the greatness of the surrounding wilderness and to draw the energy from the encompassing ties with which the water has for centuries bound all living beings and shaped the planet.

The distinctive location of the resort (an area within Gauja National Park) and the already established qualities of the town of Cēsis with its strong character, historical environment and active cultural life, create a unique combination that has the potential to become the main recognition mark of Cēsis both nationally and globally. The binding legislation, although has a strict standpoint regarding the National Park areas, theoretically permits such a resort development, keeping in mind the focus on nature preservation and careful dealing with the construction and maintenance of the facilities. The resort would attract a number of tourists and visitors every year, which would greatly help to boost the existing local businesses and establish favourable conditions for new developments around Cēsis.

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