

Lookout-spots in the telescope

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Abstract: In the last decade the classical architectural expression of “watch-towers” transformed into a more complex landscape-related composition of “observation-spots, view-platforms or panoramic walkways”. This research focuses on 30 various examples of contemporary lookout- tower- platform design which are located in the open, natural, unbuilt landscape. The examples are compared according to 9 aspects (complexity of landscape experience; panoramic-views and close-up sensory experiences, reflection of local materials, fitting into the terrain of the site, the path-system to the site, fitting to the natural setting, metaphoric meaning and scale of intervention). In contrast with classical towers this selection highlights a more sensitive design approach of observing and experiencing the natural environment. Our goal is to find the most harmonious sites and the best compositional linkages in-between the open views/scenarios and the local landscape setting/site. The research concludes that there are five main category according to their ‘fitting’ forms of these scenic spots: A) classical lookout towers, B) modified viewing/observation towers, C) lookout platforms, terraces and decks, D) raised walkways, canopy walks, E) viewing gallery pathways; and the last one offers a much greater variety of experiences with harmonious linkage with the site.

Keywords: watchtower, lookout platform, walkway, scenic spot, landscape design, contemporary architecture.

1. Introduction – Catching the view

The experience of the *far-distance-views* and *landscape-vistas* have always been a crucial issue in the history of landscape architecture as well as in the garden art: Islamic *Miradors* are balconies of the small-scale garden courtyards; the *Ting*-pavilion symbolise the hut of the resting owner in Chinese poet’s garden, while the *Lou* (two storied pavilion) serves as a lookout point outwards the garden; renaissance *Belvedere* or *eye-catchers* of landscape parklands underlines the importance of inner and outer focus-points in the landscape-design. While landscape-gardeners of the 18-19th century had the possibility to gently modify the terrain of the site, the designers of today have limited tools to transform the *landscape-scenario* itself (in a natural park or protected site), but they can manipulate the experience of the *sights from the viewer’s perspective* by influencing the tourist-paths, lookout-spots and their scenery-types [1]. More and more emphasis is put on the site attachment and on the mimicry-design with sensitive and gentle landscaping. This research lists plenty of ways on how this *landscape-linkage* can be improved with contemporary architectural and landscaping compositions.

In the last decade the compositions of classical *lookout-towers* pass through significant changes. They are not anymore vertical towers with a single spiral-staircase and a platform to look-out, as former narrow minarets or concrete geodesic reference-columns (common in Eastern-Europe as alternative view-towers). The historical *castle tower-like objects* were followed in the middle of the 20th century by high *metal/concrete structures* combined with TV/Radio station-towers giving a rather industrial character to the landscape, acting as an aggressive giant foci. Although various *wooden structures* have been (re-)built lately, their “main

view-spot aim” remained traditional: a vertical gesture with only up/down orientations, looking-out only on the top, and references to the natural-habitat of the site which were untouched.

Since then, the millennium “creative viewing-experiencing-spot and walkway” remains one of beloved topic in contemporary architecture. The open landscape offers free ideas, unlimited size and forms for design: vertical & horizontal forms; static & dynamic circulations; rigid-rectangular & soft-ornamental forms; glass platforms, CorTen-steel or abstract wood formation... but the question remained: “*whether the building will be central or secondary element in its surrounding*” [2]. These spectacular architectural-sculptures underline the need for new, contemporary landscape architectural interventions, which must serve as a compositional link between “the sign/foci and the terrain of landscape”. The article intends to get closer to the complexity of embedding of these architectural forms into the landscape.

2. Evaluating method of the view-sites

In the first phase, were collected 30 random-examples of lookout-compositions, built in the last 15 years, mainly located in natural parks, around visitor centres or scenic mountain-, waterside zones varying in size, materials and in function. The aim of our research is to have a *better understanding* of this new landscape <+> architectural linkage, and to conclude compositional principles and better fitting criteria.

We raised the questions, as: *What kind of lookout-compositions are being built nowadays? > How can we categorise them (function, form)? > In what ways do these compositions fit in the original/natural landscape setting? > How can we define a “fitting”- criteria- system? > According to*

these principles, which one of these examples/types fulfil the “most harmonious linkage” with the site?

To formulate an ‘objective, measurable judgement’ of ‘subjective, artistic interventions’ we created a qualitative description of 30 examples. For a quantitative result a comparative analyse-table was created with 9 Yes/No questions. The questions discuss the complexity of the site: *materials, close-up views and open vistas, landform fitting, paths, metaphors*. All “Yes” answers refer to a better landscape-sensitive planning, to an approach which emphasises not only the building, but all design-equipment around it, which led to a complex, harmonious-landscape-reference. The evaluation Table contains the name, location, the surrounding LA-type in five categories according to our judgement.

The 9 research questions are:

- Does the view-spot allow a wider complexity of landscape-experience, besides the “look-out” experiences?
- Does it provide far-away-views, open panoramas into the aerial distances?
- Does it provide close-up sensory experiences (smell, taste, noise) of the site?
- Does it fit with its materials or forms to the local setting?
- Does it fit with its terrain-modelling, joining to the local setting, surface?
- Does the way/path fit in design-style with the spot?
- Does the “engineer-contractures” of the composition fit into the natural setting?
- Does it have a metaphoric/symbolic reference to the site?
- Does the scale (view shed, distance and size) of the view-spot fits to the scale of the surrounding landscape “unit”?

After summing-up the 9 answers, the final box refers to the main research question: How harmoniously the composition fit with its surroundings?

3. Results – describing the lookout-spots typology

In this long chapter the descriptions and the evaluation of view-spots are combined to allow a visual explanation and a typology-description at the same time for the reader. After each group there are listed the examples with picture.

3.1. Classical lookout towers

Usually, they are high, vertical features with strong up/down dynamic; the composition has a concentric symmetry; their goal is to be seen from far distance as an accentuated focus in the landscape; they act as a strong architectural signs.

The main goal is only to provide panoramic-look-out experience with large view shed (usually only from the top-level); from the top they are point-like feature without joining to a path network in design. No. 1–7.

1. Viewing Tower Lommel, Belgium

Arch.: Ateliereen Architecten, 2014-2015, Mat.: Steel structure, timber, ropes | The tower, 30m high, is situated into a scenic nature reserve next to a lake - distinctive of its sand dunes and pine trees. The aim was to join the viewing tower and scenic nature into one view, maintain the beauty and peace of the surroundings. The triangular structure, comprising the inner staircase and three platforms, is wrapped in a rope that reflects the lines formed by the dunes and desert-like landscape of the area. The built form, with its natural materials and color scheme blends perfectly into the surroundings and allows visitors to embrace the nature, observe and experience the views of the surrounding pine forests and lake [3].

2. Jübertower Hemer Landmark, North Rhine-Westphalia, Germany

Arch.: Birk + Heilmeyer and Knippers Helbig Advanced Eng., 2010, Mat.: wood, steel | The look-out tower is located on the forested hill Jüberg. The main goal was to design a landmark of the regional garden and flower festival, corresponding to the forest aisle. The tower has a hyperboloid structure comprising 240 straight timber batons, criss-crossing in two directions around the tower. This simplified static model, visible from far away, contains a steel stairs that lead to the observation deck at a height of 23.5 meters, which offers visitors a spectacular 360-degrees view [3].

3. Viewing tower at Vecht Riverbank, Dalfsen, The Netherlands

Arch.: Ateliereen Architecten, 2012, Mat. Steel structure and staircase, wooden slats | The tower, 20m height, is located on the edge of the forest in Dalfsen. The main goal was to provide a panoramic-look-out experience, a wide open view over the river and to provoke the curiosity of the visitors. The rectangular steel structure of the tower and staircase are covered with wooden slats, which at the lower part has bigger distance between the slats than on the upper part. Therefore, the footprint of the structure is transparent and fits perfectly in the forest, offering views of landscape from the top level as well as along the way through the gaps of the wood [3].



Fig. 1. The Lommel observation tower
[Source: <http://www.archdaily.com>]



Fig. 2. The Jübertower Hemer Landmark
[Source: <http://www.archdaily.com>]



Fig. 3. Viewing tower at Vecht Riverbank
[Source: <http://www.archdaily.com>]



Fig. 4. The Maule watchtower surrounded by vineyard
[Source: <http://www.archdaily.com>]

4. *Vigilante del Maule, Maule, Chile*

Arch.: Carlos Jarpa, 2011, Mat.: Pine strips, steel plates | The observation tower is located on the vineyards of Maule town. The aim was to create a tower to guard the fields. This wooden construction reaches towards the sky and offers picturesque views of the scenic Chilean landscape. The airy, open grid construction of the tower provides a visual lightness of the structure that blends well with the surrounding landscape [4].

5. *Timber observation tower, Hermanice, Czech R.*

Arch.: Mjölke Architekti, Mat.: Wood, steel | The tower, a strong architectural sign with 25 m height, is situated in an open landscape – a rural site along a Czech mountain range. This structure was designed before finding a site or a client, and then commissioned by the mayor of the town Hermanice. Built from larch, the tower has a straight shape with a curved top, which accommodates a rooftop viewing platform, looking out across the Czech woodland and on towards Germany and Poland [5].

6. *Kisfaludy Observation Tower, Hungary*

Arch.: Platinum Group Ltd, 2011, Mat.: Wood, steel | The tower is situated on Badacsony hill, on the northern shore of Lake Balaton. The aim was to replace the existing old observation tower with a new and higher that offers a wider views. The new structure, comprising a steel stairs that lead to the observation deck at a height of 18 meters, is covered with wooden slabs and provides visitors a great view of the surrounding hills [6].

7. *Angular seaside tower, Lincolnshire, England*

Arch.: Gruff and MSA, 2014, Mat.: Steel | This tower represents an inner chamber and rises above a man-made grass bank that extends along the top of the beach. The main goal was to develop structures along the coastline, to encourage greater public use and to make further connections to this unique landscape. This angular blue-painted form creates a vertical landmark on the flat coastline and provides a panoramic view of the sand that stretches towards the sea [5].

3.2. *Modified lookout/observation towers*

Usually they are also high compositions, but they discover other directions besides the vertical (asymmetric, round, spiral, and nest), therefore they have more view-levels, beginning from ground-close levels to the top. They are also focus-point in the landscape, with greater transparency of the volume and lightness of materials; the form is rather asymmetrical; the hiding/mimicry-character is stronger than the eye-catching role (bird-observation areas, strongly protected areas). No. 8–13.

TABLE 1

A table sheet of the lookout-composition according the 5 category-type [Source: created by author]

Nr. on the description sheet	NAME OF VIEW-SPOTS, LOOKOUT COMPOSITIONS	LANDSCAPE TYPE	CATEGORY-TYPE	1. Does the view-spot allow a wider complexity of landscape-experience, beside the "look-out experiences"?	2. Does it provide far-away-views, open-panoramas, aerial distances?	3. Does it provide close-up sensory experiences (smell, taste, noises)?	4. Does it fit with its materials to the local setting?	5. Does it fit with its terrain-modelling, joining to the local setting, surface?	6. Does the way/path to the view-spot fit in design-style with the spot?	7. Does the "built/engineer-structures" of the composition fit into the natural setting from all direction?	8. Does it have a metaphorical/symbolic reference to the site?	9. Does the scale (viewshed, distance, size) of the view-spot fits to the scale of the surrounding landscape "unit"?	How harmoniously fits in the composition with its surroundings?	Average of the category type
1	Viewing Tower Lommel, Belgium	Lakeside	Classical tower		✓		✓		✓	✓			5	3,3
2	Jübertower Hemer Landmark, Germany	Forest	Classical tower		✓		✓					✓	3	
3	Viewingtower at Vecht Riverbank, NL	Riverside	Classical tower		✓		✓			✓		✓	4	
4	Vigilante del Maule, Chile	Vineyard	Classical tower		✓		✓			✓		✓	4	
5	Timber observation tower, Czech Republic	Forest	Classical tower		✓		✓						2	
6	Kisfaludy Observation Tower, Hungary	Forest	Classical tower		✓						✓	✓	3	
7	Angular seaside tower, England	Seaside	Classical tower		✓	✓							2	
8	Observation Tower on the River Mur, Austria	Riverside	Modified tower	✓	✓				✓	✓	✓	✓	6	4,8
9	Viewing Tower, The Netherlands	Forest	Modified tower	✓	✓		✓			✓	✓	✓	6	
10	Kupla-Helsinki Zoo Lookout tower, Finland	Seaside	Modified tower	✓	✓		✓						3	
11	Observation Tower, Latvia	Forest	Modified tower	✓	✓		✓	✓	✓	✓		✓	7	
12	Bostoren Forest Tower, The Netherlands	Forest	Modified tower	✓	✓								2	
13	Bird observation tower, Germany	Seaside	Modified tower	✓	✓					✓	✓	✓	5	
14	Sohlbergplassen Viewpoint, Norway	Forest	Raised walkway	✓		✓		✓			✓		4	5,0
15	Tree Canopy Walk, USA	Forest	Raised walkway	✓		✓		✓	✓	✓		✓	6	
16	Lotterywest Federation Walkway, Australia	Forest	Raised walkway	✓	✓	✓		✓		✓		✓	6	
17	Top of Tyrol, Tyrol, Austria	Mountain	Platforms	✓	✓		✓	✓	✓	✓		✓	7	5,7
18	Aurland Lookout, Aurland, Norway	Fjord	Platforms		✓			✓		✓		✓	4	
19	Viewing platform Conn, Switzerland	Fjord	Platforms		✓		✓	✓	✓	✓	✓	✓	7	
20	Cardada Viewpoint, Switzerland	Mountain	Platforms		✓		✓	✓	✓	✓	✓	✓	7	
21	ALPSPIX viewing Platform, Germany	Mountain	Platforms		✓		✓		✓			✓	4	
22	Glacier Skywalk, Canada	Mountain	Platforms	✓	✓		✓	✓	✓	✓		✓	7	
23	Grand Canyon Skywalk, USA	Mountain	Platforms		✓		✓		✓		✓		4	
24	Trollstigen Route, Norway	Fjord	Viewing Gallery	✓	✓		✓	✓	✓	✓	✓	✓	8	7,3
25	Selvika, Norway	Seaside	Viewing Gallery	✓		✓	✓	✓	✓	✓		✓	7	
26	Viewpoint on Pedreira do Campo, Portugal	Seaside	Viewing Gallery	✓		✓	✓	✓	✓	✓		✓	8	
27	Seljord and the Legends, Norway	Lakeside	Viewing Gallery	✓		✓	✓	✓	✓	✓	✓	✓	8	
28	Observation platform and Pavilion, Latvia	Riverside	Viewing Gallery	✓		✓	✓	✓	✓	✓		✓	7	
29	Moses Bridge, The Netherlands	Moat	Viewing Gallery			✓	✓	✓		✓	✓	✓	6	
30	Limmat Footbridge and Promenade Lift, CH	Riverside	Viewing Gallery	✓	✓	✓	✓		✓	✓		✓	7	



Fig. 5. The observation tower shaped like "a cucumber"
[Source: <https://www.dezeen.com>]

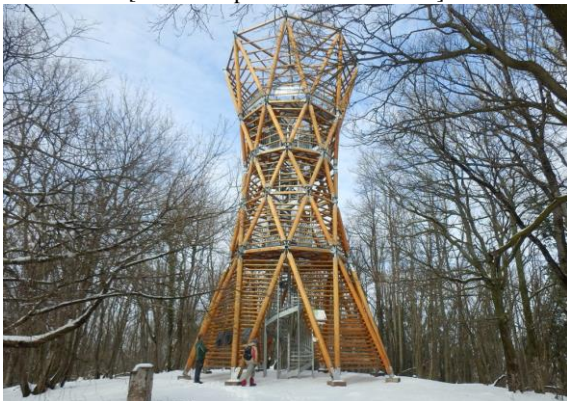


Fig. 6. The Kisfaludy Observation Tower, the tallest
observation tower of Lake Balaton
[Source: <http://balcsi.net/balatoni-kilatok/badacsony-kisfaludy-kilato#/>]



Fig. 7. The Angular seaside tower and coastal landscape
[Source: <http://inhabitat.com/skinny-observation-tower-amplifies-the-howls-and-whistles-of-coastal-wind/>]



Fig. 8. The observation tower on the River Mur
[Source: <http://www.archdaily.com>]

8. *Observation Tower on the River Mur, Styria, Austria*

Arch.: terrain:loenhart&mayr, 2009, Mat.: steel, aluminum | The structure, set amidst the landscape of the European habitat system "Green Belt", rises over the river Mur at the Austrian border with Slovenia. The aim was to design an observation tower to mark the European Green Belt. The architects were inspired by a historical double-spiral staircase, built around 1500 in the nearby Graz Castle and well known for the unique spatial atmosphere. The access and construction principle of the tower is based on the idea of a double helix that is perceived as a continuous path rising up through the trees. This architectural sculpture, 27 m height, fits into the landscape as naturally as a harmonic counterpoint, offers access to the ecology of the surrounding floodplain forest and lets visitors to experience the river catchment and scenic beauty from different heights. In a homage to this historical site, the Austrian poet, Erich Fried, wrote that "the double-spiral staircase connects space and time like a screw" [5].

9. *Viewing Tower, Reusel, The Netherlands*

Arch.: Ateliereen Architecten, 2008–2009, Mat.: Steel skeleton, wood | The tower, 25 m height, is located in an outdoor sports park. The aim was to design a landmark with sport facilities which would be the main attraction of the site. The structure which consists of six cubes with different positions, is made of halved logs, grown in the surrounding forest, which are slotted into the steel frames horizontally and vertically. It provides sport facilities like climbing and abseiling as well as allows people to enjoy a panorama view of the surrounding landscape. The use of wood makes the tower to fit in its setting [5].

10. *"Kupla"-Helsinki Zoo Lookout tower, Helsinki, Finland*

Architects: Avanto Architects Ltd, Building Start-End: 2002, Materials: Wood | The tower, 10 m height, is situated on the top of a prominent bedrock promontory on the western edge of Korkeasaari Zoo. The aim was to project a view tower out of timber for the Zoo. The bubble-like structure consists of two levels wrapped around with a wooden grid shell left open at the top. Here, the grid shell refers to the animal cage, while the bubble shape resembles and eye-a suitable symbol for viewing platform. Despite the contrast between the transparent structure, the ground-level arrangements and heavy rock base, the tower fits partly in its surroundings just due to its organic shape [2].



Fig. 9. The Viewing Tower and the surrounding forest
[Source: <http://www.archdaily.com>]



Fig. 10. The “Kupla”- a transparent landmark
[Source: <http://architecturelab.net>]



Fig. 11. The Jurmala Observation Tower-“The view over Latvia” [Source: Anna Eplényi, 2015.]



Fig. 12. Bostoren Forest Tower and the wooded landscape
[Source: <http://www.eikongraphia.com/?p=2777>]

11. Observation Tower, Jurmala, Latvia

Arch.: ARHIS Architects, 2010, Mat.: Metal, grids, wood | The structure, 38 m tall, is situated on a flat and forested site, in the heart of Dzintaru Mezaparks in the most famous recreation area. The main goal was to integrate the tower into its surroundings. The parallelepiped tower is made of metallic structure and covered by wooden elements. It comprises a metallic staircase that whirls around a squared structural core, an asymmetric platform at the very top and 12 randomly distributed balconies along the way. This tower allows visitors to experience the park from different heights as well as provides the view of the sea and the city of Jurmala. Surrounded by traditional wooden architecture and a park with Grcic-park-benches with mirrored containers used as cafés, the tower is perfectly fitted, almost not being visible through the trees around it [3].

12. Bostoren Forest Tower, Putten, Netherlands

Arch.: SeARCH Architects, 2004–2009, Mat.: Steel, wood, glass | The tower, 38 m height, sits in the heart of a forested Estate. The aim was to design an additional element to the Estate which allows views of surrounding trees. The built form, with a circular planted platform at the top of the tower, is rather a new piece of the forest than the expected look-out platform. The heavy structure mimics the colors of the forest in brown, green and copper with a spiraling stair and several cantilevered decks. These decks offer a view over the forest as well as different activities: peep-holes, a climbing net and a small performance space [7].

13. Bird observation tower, Heiligenhafen, Germany

Arch.: GMP Architecture, 2003–2005, Mat.: Wood | The asymmetric tower, 15 m high, is located on the peninsula Graswarder, in a natural bird-reserve. The aim was to erect a suitable observation tower, which allows observing birds without disturbing them. The structure, made of beams and ledgers with diagonal bracing, represents a stylized figure of a sitting bird that blend well with the surrounding natural environment and provides a good view of the entire area [8].

3.3. Raised walkways, canopy (tree top) walks

These are elevated walkways about 2–30 m above ground level; combined with towers to reach these heights. They are often hidden in natural setting (forest, canopy) with mimicry effects, so they are not visible in the open landscape so strongly, therefore they don't want to act as a focus-points. They are creeping- hanging- linear features; they provide a stronger, direct close-up nature-experience (smell, touch); here the function and the structure tend to be more important than the artistic sign of “being seen”. No. 14–16.



Fig. 13. The Bird observation tower
[Source: <http://architizer.com>]



Fig. 14. The Sohlbergplassen observation deck
[Source: <http://www.archdaily.com>]



Fig. 15. The observation platform of the Tree Canopy Walk
[Source: <http://www.worldarchitecturenews.com>]

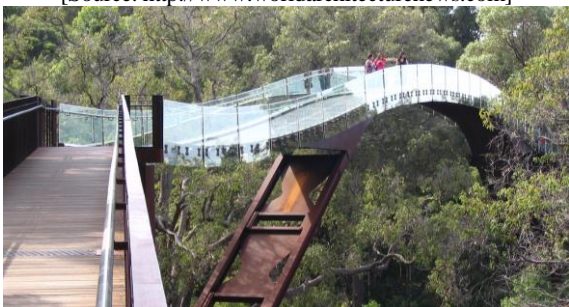


Fig. 16. A section of the L. Federation Walkway
[Source: <http://architectureau.com/articles/a-walk-in-kings-park/>]

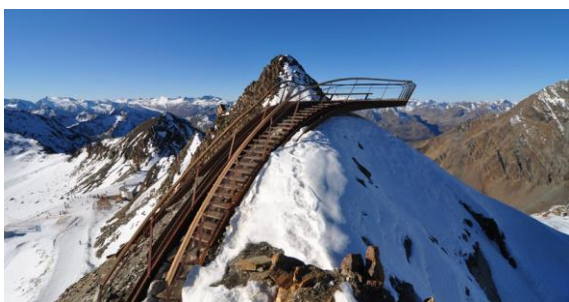


Fig. 17. The "Top of Tyrol" viewing platform
[Source: <http://www.aste-weissteiner.com>]

14. Sohlbergplassen Viewpoint, Stor-Elvdal, Norway

Arch.: Carl-Viggo Hølmebakk, Mat.: Concrete, steel | The view spot, inspired by a painting of Norwegian artist Harald Sohlberg, is located within the first Norwegian national park in Atnsjø. The aim was to find a constructive solution which adapts to existing trees and which doesn't affect the roots of these trees. The geometry and structure of the platform was inspired by the densely growing pine trees on the hill side and the distant mountains. In early stages of the project, the platform had a flexible construction made in steel, but after load tests on a 3D-model, the structure was changed to concrete. The heavy and elevated structure, affecting the terrain and roots as little as possible, offers to the visitors a breathtaking panoramic view [3].

15. Tree Canopy Walk, Philadelphia, USA

Arch.: Metcalfe Architecture & Design, 2009, Mat.: steel, wood, netting | The structure is situated in Morris Arboretum (Uni. of Pennsylvania). The aim was to design an attraction that celebrates the human experience using play and social interaction. The network of walkways (138m in length), suspended at 9 meters above the forest floor with the form guided by trees, contains five stations dedicated to different wildlife and natural exhibits and viewpoints. The structure is made mostly of recycled galvanized steel to avoid the competing with the trees [3].

16. Lotterywest Federation Walkway, Perth, Australia

Arch.: Donaldson + Warn Architects, 2003, Mat.: Steel, cast iron, glass | The structure is located in Kings Park, the most important recreational parkland in Western Australia. The goal was to design tourist attractions that would provide enjoyable and educational opportunities. This "viewing edge," comprising pathways, lookouts, raised walkways and a bridge, is a journey through the park's history in relation to Indigenous and European culture. The artwork and construction materials enhance the natural setting enabling visitors to appreciate the importance of conserving biodiversity, the cultural and natural heritage and the geographic features of the surrounding landscape [9].

3.4. Platforms: lookout platforms, terraces, decks

These compositions overhang the landscape-cliffs into the space/air. They are reaching out their arms in the distance to create an astonishing experience (glass floor, hanging platform). As a "horizontal-tower" they are more gentle focus-points. With their airy placing on the terrain they fit more moderately to the hillsides and become an integrated part of the view, also allowing the vistas. The platforms are joined with paths to the spot which creates a harmonious design. No. 17–23.



Fig. 18. The Aurland wooden platform
[Source: <http://www.saunders.no/work/item/98-aurland-lookout>]



Fig. 19. The triangular viewing platform "Conn"
[Source: <https://divisare.com>]



Fig. 20. A part of the Cardada project - The viewing platform.
[Source: http://jakem.ch/html/bruecken_en.php]



Fig. 21. The AlpspiX viewing platform
[Source: <http://aasarchitecture.com>]

17. Top of Tyrol, Stubai Glacier, Tyrol, Austria

Arch.: Astearchitecture, 2008–2009, Mat.: Steel, larch handrail, stainless steel net, grate | The platform cantilevers nine metres over a rock top of Great Isidor Mountain. The main aim was to create a spiritual place for to revival seasonal and summer tourism. The eye-catching platform, made of weather-resistant corten steel, expresses both a dynamic and static aspect and blends perfectly into the rock and ice of the glacier [10].

18. Aurland Lookout, Aurland, Norway

Arch.: Todd Saunders & Tommie Wilhelmsen, 2005, Mat.: Concrete, glass balustrade, steel, pine timber | The elevated walkway, surrounded by pine trees, extends over the fjord and offers visitors the illusion of falling into the landscape. The goal was to prioritize nature, maintain the beauty and peace of the surroundings with a minimum impact on the existing landscape and terrain. Built of structural steel, wood and glass, the construction seems to embrace nature. This minimalist structure, 30 m long, 4 m wide and 9 m tall at its peak, complements the splendid views of the surroundings [11].

19. Viewing platform Conn, Flims, Switzerland

Arch.: Corinna Menn, 2006, Mat.: Steel, larch wood, steel cables | The main goal was to design a viewing spots with a minimum impact on the existing landscape, providing to the visitors gorgeous views over the Rhine Gorge Ruinaulta, known as "Little Swiss Grand Canyon". Anchored to the outer edge of the forest, the transparent and fragile viewing platform allows amazing views of the site and provides unusual shocking experience [12].

20. Cardada Viewpoint, Cardada, Orselina, Switzerland

Arch.: Paolo Burgi, 2010, Mat.: Steel, titanium, local granite paving stones | Cardada landscape promontory is a platform which is located on the top of the mountain above Locarno. The goal was to integrate a functional project into a very particular landscape with minimal impact and to perceive the landscape as a horizon of history. Suspended in mid-air over the tops of the woods below, the platform displays a 180 degree window on the unforgettable views of the surrounding landscape [13].

21. ALPSPIX Viewing Platform, Alpspitze, Germany

Arch.: Dieter Wallmann, 2009–2010, Mat.: Steel ramps | The viewing platforms are located at the base of Alpspitze peak in the Wettersteingebirge Mountains in Bavaria. The aim was to design a new tourist attraction which lets the visitors to experience a spectacular alpine high. The two separate steel structures, that crisscross each other, are both 23m long with 13m of that length fully cantilevered, open to visitors the unmatched views [14].



Fig. 22. The cantilevered Glacier
[Source: <https://www.dezeen.com>]



Fig. 23. The Grand Canyon West and the famous Skywalk
[Source: <http://gatetoadventures.com>]

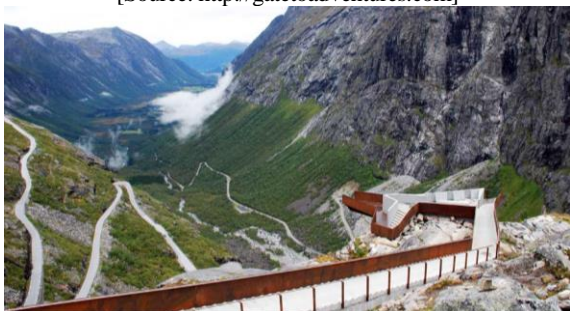


Fig. 24. The outlook plateau of the Trollstigen National
Tourist Route [Source: <http://www.e-architect.co.uk>]



Fig. 25. The Selvika rest stop [Source: <http://www.e-architect.co.uk/norway/selvika-havoeyssund>]



Fig. 26. The Walkway and viewpoint on Pedreira do Campo
[Source: <http://www.shapedscape.com>]

22. Glacier Skywalk, Jasper National Park, Canada

Arch.: Sturgess Architecture, 2013, Mat.: Corten steel, glass, stone, wood | The "glacier skywalk" structure is based on the concept of cropping out from the landscape, creating an experience of a natural extension of the land. The curved glass-floored structure, protruded some 30 m from the cliff's edge, encourages guests to experience this incredible landscape. The use of corten steel and glass makes the structure to blend well with its mountainous landscape [3].

23. Grand Canyon Skywalk, Arizona, USA

Arch.: M.R.J. Architects, 2004–2007, Mat.: Steel, glass | The Grand Canyon Skywalk cantilevers over the edge of a cliff on the Hualapai Indian Reservation, overlooking the western edge of the Grand Canyon. The goal was to design a tourist objective to deliver to the visitors an ultimate viewing experience. The glass-bottomed, horseshoe-shaped bridge allows visitors to walk beyond the canyon walls, providing an unparalleled view of this natural wonder [15].

3.5. Gallery: viewing gallery pathways

These landscape-design compositions are a combination of walkways, paths and other additional functional elements (roofed shelter, hut, platform, lift, or bridge) creating a long experiential-network. The path is close to the ground with various lookout compositions fitting in the terrain; more close-up experiences to landscape details; the path guides through an open-landscape, so the view is not always astounding, but the coherence and complexity of design led to a harmonious intervention. No. 23–30.

24. Trollstigen Route, Romsdalen - Geiranger Fjord, Norway

Arch.: Reiulf Ramstad Architects, 2004–2010, Mat.: Corten steel, wood, concrete, glass | Trollstigen is one of the most beautiful mountain roads in the world. The aim was to enhance the experience of the Trollstigen plateau's location and nature, underscore the site's temper and character. The zig-zagging pathways lead to viewing platforms which allow the visitors to observe nature from up high and enjoy the unique angle of view and the incredible scenery [3].

25. Selvika, Havøysund, Finnmark, Norway

Arch.: Reiulf Ramstad Architects, 2007–2012, Mat.: Concrete | The roadside stop is a part of the development of the National Tourist Route that follows the Arctic Ocean and meanders through a rugged landscape of cliffs and untamed nature. This architectural element, composed of different functions, invites the visitors to a slow wander in the beautiful, open and rough landscape. Made of light grey concrete, this meandering walkway sits gently in the terrain and fits well with its surrounding landscape [16].



Fig. 27. The elevated walking path and view tower
[Source: <http://www.landezine.com>]



Fig. 28. The Observation platform and Pavilion
[Source: <http://www.designboom.com>]



Fig. 29. The Moses Bridge - „Invisible Bridge”
[Source: <http://www.archdaily.com>]



Fig. 30. Limmat Footbridge and Promenade Lift
[Source: <http://www.archdaily.com>]

26. Viewpoint on Pedreira do Campo, Açores, Portugal

Arch.: M-arquitectos, 2012, Mat.: Wood | Walkway and viewpoint lie on a particular geological site, located in Vila do Porto, Santa Maria Island. The main goal was to design a solution that would preserve the landscape without compromising its identity. The organic walkway, with a fantastic viewpoint at the end, is perfectly integrated into its scenic environment and allows the visitors to explore the history and nature of the place [17].

27. Seljord observation tower, Telemark, Norway

Arch.: Rintala Eggertsson Architects, 2011, Mat.: Wood | "Seljord and the Legends" is a rural district development project that consists of several sub projects. The goal was to exhibit the landscape, associated with local tales and legends, by adding simple architectural constructions and pieces of art to it. The 15 m high tower, elevated walking path with designated stopping places and art installations are located in the middle and southeast sections of the lake. Made entirely of wood, the composition blends into its natural surroundings [18].

28. Observation platform and Pavilion, Koknese, Latvia

Arch.: Didzis Jaunzems, Laura Laudere, Jaunromans and Abele, 2013, Mat.: wood | The construction, comprising the view terrace and pavilion with varying levels of "openness," is situated on the coast of the Daugava River in "The Garden of Destiny" – a memorial park for all the souls that have been lost to Latvia in the last century. The main goal was to design a structure which will create a harmonious environment to discover special character of the site. Taking the site's topography and the existing features around the site into consideration, the architects designed a structure that is partly sunken into the ground. The sloping roof of the building provides an elevated deck that visitors can walk over, while the surrounding terrace concludes at a balcony that cantilevers out across the water. This structure provides visitors spectacular views over the River in all kind of weather conditions, and allows visitors to choose the level which suits them. Therefore, the built form, shaped in a way that preserves the most valuable trees on the site and made almost entirely from wood, blends perfectly into its natural surroundings. In 2012, it won the Prize of the Year in Latvian Architecture Best Works Award [5].

29. Moses Bridge, Halsteren, The Netherlands

Arch.: RO&AD Architecten, 2011, Mat.: Accoya Wood, Angelim Vermelho | This iconic Bridge is sunken in the moat of the Fort de Roovere. As part of a recent restoration project, the aim was to build the access to the line's Fort and to preserve the site's

aesthetic integrity with dramatic view. This bridge, which is almost invisible provides to the visitors an unusual sensory experience, allowing visitors to pass right through the water, disappearing into the abyss, without getting wet [16].

30. Limmat Footbridge and Promenade Lift, Ennetbaden, Switzerland

Arch.: Leuppi & Schafroth Architekten, 2007, Mat.: steel structure | The Limmat River winds around the town of Baden and forms a valley that naturally separates it from the neighboring village of Ennetbaden. The structure, composed of a horizontal bridge, a vertical elevator tower and a horizontal walkway, connects the two towns with direct access for pedestrians and bicyclists. Red-brown in color – varying in shade, depending on the light – this steel artifact complements its surroundings [3].

4. Conclusion

According to our quantitative analysis, the lowest scores were given to the classical towers (in average: 3,3 / 9), which are usually only architectural-focus-points without the compositional elements that could link them closer to the site. The modified towers have higher result (in average: 4,8 / 9), because the transparent, segregated structure allows more flexibility.

Platforms and raised walkways received higher scores (in average: 5,7 and 5 / 9), which suggest that they provide a more complex understanding of the landscape habitat with close-up sensory experiences, with linking pathways and with better connection to

the terrain. Especially, the platforms show a great compositional variety with astonishing solutions depending on the landform of the site.

Far the highest scores were given to the viewing galleries (in average: 7,3 / 9) and only this group contains 3 projects with the highest points (8: Trollstigen Route – Norway, Viewpoint on Pedreira do Campo – Portugal, Seljord and the Legends – Norway), which can emphasize that these lookout-interventions fulfil the most harmonious linkage with the landscape scenario. This is not (only) reached by a high, vertical focus object but rather with very gentle modification, with artistic land-fills, land-cuts and path-circulation matching with its materials to the local settings. They might look ‘simple’ but on the other hand it can be treated as a submissive, humble artistic interaction with the site. This approach is closer to landscaping attitude, then architectural.

The study underlines that in the last 20 years, due to the wish for ‘interactive design in landscape experience’, this simple architectural objects went through several development phases. Thanks to the new engineer-solutions, the former ‘tower’ changed its character in all directions (horizontal – platforms, linear raised pathways or gallery walkways) and the complex surrounding of the towers became also a target for artistic design. The architects discovered a new-beauty in these lookout compositions, which led to harmonious landscape-linkages and a more complex experience of the site.

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Kopsavilkums. Pēdējos gados arhitektūras jomā novērojama izpausme, kas tiek pasniegta dažādos veidos un risinājumos. Saistībā ar ainavu tiek veidoti jauni un moderni skatu torņi, kas ir atšķirīgi ar savu formu, materialitāti un citām iezīmēm. Daudzveidīgie skatu torņi ietver gan novērošanas vietas, platformas, celiņus un citus labiekārtojuma elementus, kas atbilstoši papildina un funkcionāli veido apkārtējo ainavtelpu. Veiktais pētījums koncentrējas uz 30 dažādiem mūsdienu skatu torņu piemēriem, kas atrodas atklātā un neapbūvētā ainavā. Konkrētie pētījumā analizētie piemēri ir salīdzināti pēc pētījumā izvirzītiem 9 aspektiem: ainavas sarežģītība; skatupunkti – panorāma, tuvplāni; vietējo materiālu atspoguļojums; reljefa iezīmes un ietekme; infrastruktūra; dabiskās vides iezīmes; objekta nozīme un mērogs. Pētījuma mērķis konstatēt un fiksēt harmoniskas vietas un objektus, kas iezīme racionālus kompozicionālos risinājumus, sasaisti ar ainavtelpu, kvalitatīvus skatupunktus un vietējās ainavas sasaisti ar objektu. Pētījumā secināts, ka pastāv 5 galvenās kategorijas: a) klasiskas formas skatu torņi; b) modificēti skatīšanās, novērošanas torņi; c) skatu torņi ar platformām, terasēm un klājiem; d) ar izvirzītiem celiņiem pastaigām; e) harmoniska sasaiste ar ainavtelpu.