

International
Competition



Description &
Challenges of the Site

Lausanne Jardins 2024

Entre l'eau et nous

Introduction

4

Landscape, Hydrological, Historical, and Prospective Analysis of the Site

1	The Lakefront in the Natural and Human History of Lausanne: Five Maps	7
2	The Major Landscape Units	
3	The Relationship Between Water and the City	
4	The Evolution of the Shoreline over Time	8
5	The Four Sequences and their Challenge	
	Topography Map	10
	Map of Uses and Stakeholders	12
	Hydrography Map	14
	History Map: Ancient times	16
	History Map: Classical Period	18
	History Map: 19 th century	20
	History Map: First half of the 20 th century	22
	History Map: Second half of the 20 th century	24
	History Map: Today	26
	Map of the Lausanne Jardins 2024 Project	28

Sequences, Areas of Reflection and Sites

A	Sequence Parc Bourget – Map	31
A1	Perimeter Chamberonne Renaturalised Prospective Challenge: Boundary Between Nature and Leisure	32
A2	Perimeter Water Cycle Prospective Challenge: The Water Cycle	34
	Archive Documents	36
	Historical Analysis: The Genesis of a Park	37
	Hydrological Analysis: Two Ecological Infrastructures	
B	Sequence Flon delta – Map	39
B1	Perimeter Fair Play Area Prospective Challenge: Sports for All	40
B2	Perimeter Below the Grass, the River Prospective Challenge: Sports and the River, Out of Monofunctional Spaces?	42
B3	Perimeter The Expo 64 Route Prospective Challenge: What Remains of Expo 64 Sixty Years Later	44
	Archive Documents	46
	Historical Analysis: Sports for All, and the National Exhibition	47
	Hydrological Analysis: The Flon Delta	

C	Sequence Vidy-Bellerive – Map	49
C1	Perimeter Theatre de Vidy Prospective Challenge: A Theatre for (Future) Audiences	50
C2	Perimeter Bellerive Swimming Pool Prospectives Challenges: Development of an Emblematic Building; Accessibility of Facilities& Spaces to the General Public	52
C3	Perimeter Bellerive Beach Prospective Challenge: Public Access to the Lakeshore	54
C4	Perimeter Quai du Vent-Blanc Prospective Challenge: Under the Asphalt, the Sponge City Awareness-raising Challenge: Water as a Productive Resource	56
	Archive Documents	58
	Historical Analysis: New Surfaces Reclaimed from the Lake for Leisure, Culture, and Logistics	59
	Hydrological Analysis: Towards a Sponge City for Bathing Water	
D	Sequence Ouchy-Vuachère – Map	61
D1	Perimeter Ouchy Prospective Challenge: Developing Access to Water	62
D2	Perimeter Denantou Prospective Challenges: Cohabitation of Means of Transport on the Quayside	64
D3	Perimeter Vuachère Prospective and Awareness-raising Challenges: Rewilding of the Vuachère Estuary	66
	Archive Documents	68
	Historical Analysis: The Development of a Merchant and Tourist Port	69
	Hydrological Analysis: From One River to Another, the Shoreline as Shared Urban Landscape	

Introduction

The key element of Lausanne Jardins, which also makes its originality compared to other landscape events, is the organisation of an international competition. Since its beginnings in the 1990s, Lausanne Jardins has laid the foundations of a clear concept: a new site and a theme for each event, as well as a competition open to all, where the best projects are selected and implemented.

Set up jointly by the City of Lausanne and Association Jardin Urbain, the competition is part of an overall concept that gives coherence to the whole event by putting specific issues and themes on the agenda. For 2024, these themes were defined throughout a collegial process including various political, scientific, academic, professional, and civil society stakeholders.

Beyond the specific issues linked to Lausanne's landscape, and to the uses and future transformations of the area, a cross-disciplinary theme structures and federates the whole project. For 2024, this is the theme of water in all its forms, considered as an element that shapes the landscape. In a context of climate change, the evolution of our relationship with water can open up perspectives for urban and landscape regeneration.

The chosen site is one of the major components of Lausanne's urban landscape: the lakeside, so dear to the inhabitants. This site is also in perpetual evolution: the shoreline has developed and acquired a temporal and spatial dimension. Transformed into a large park in the 1960s, part of the natural and artificial banks meet the needs of local relaxation and leisure areas, while at the same time fulfilling ecological, social, economic, and aesthetic functions for a population basin that goes well beyond that of the city of Lausanne.

The shores of the lake are an integral part of the city and are constantly changing. Bordered by the two rivers that mark the city's limits, the Chamberonne to the west and the Vuachère to the east, the park is limited to the north by a major road, the extension of the A1 motorway carrying an average of some 40,000 vehicles a day. Moreover, the park is full of car parks, even in the nature reserve, leading to an incessant flow of cars. Consideration is being given to improving pedestrian access and green transport. Finally, these banks are the place where the city's water is discharged once it has been cleaned up, and a place where a very large number of inhabitants go to swim.

Placing Lausanne Jardins 24 in this large metropolitan park thus allows for a critical re-reading of this figure that emerged in the 20th century as one of the main types of contemporary urban

landscape art, in order to offer an update in the light of current issues. In 2024, the former Expo 64 site undeniably represents an asset for the City of Lausanne, providing the greatest number of people public access to Lake Geneva and its sublime landscape, while hosting a variety of events essential to the well-being of its inhabitants.

However, over the past half-century, the succession of natural disasters and the deepening environmental crisis have led to the emergence of new concerns about climate, biodiversity, urban metabolism, and transport. Similarly, the recent health crisis has abruptly revealed the need to adapt social practices in order to promote multiple uses of the outdoors. These contemporary challenges meet the population's expectations of new forms of relationships between the city, water, and nature. They raise many topical questions: how can we now rethink the relationship that the city has with water in all its forms, perceived as a threat as much as a resource and a support for metabolic cycles, in the context of the large park, viewed both as an ecological infrastructure and an extended biotope? How can we rethink transport and physical, social, and cultural practices in the large park today? What new forms of gathering for a show can be imagined, which preserve the coolness and distances necessary for leisure activities, depending on whether it is used as a green theatre or as an extended health trail?

These reflections, which have already begun, are continuing with the teams participating in the international competition. They are invited to offer a project by choosing a site for their project and by responding to thematic issues. Indeed, all along the lake shore, twelve areas of urban landscape have been defined. They correspond to as many areas of reflection with their own issues and are offered as sites for the competitors to choose from.

In order to help the teams participating in the competition to design original and relevant projects relating to the challenges of the site and the theme, we provide them with a series of analyses developed by experts in hydrology, biology, history, and in forecasting the future transformations of this urban landscape. This expert work is illustrated by a set of graphic documents gathered or drawn for the occasion: maps and 3D modelling, archives, photos, videos, etc. During the development of the general concept of LJ 24, this investigative work has made it possible in particular to trace the material and sensitive history of the transformation of this lakeside landscape by

water and humans. Due to climate change, this story "between water and us" is now taking a new turn. The field survey has thus made it possible to understand and question the site in its various spatial and functional dimensions, in order to identify the sites of a possible transformation.

The "playground" of LJ 24 is a vast 6 km-long territory. The project is structured around several spatial ensembles, comprising four interlocking scales:

- the line of the shore which, in the form of a route, explores not only the length of the lakeshore but also its spatial and temporal dimension, linking historical remains with present-day places of activities through the gardens;
- the four sequences interspersed along the route with atmospheres that vary from the most vegetal in the west to the most mineral in the east according to specific themes that correspond to the scale of the park: ecological infrastructures, sports for all, culture and representation, green transport;
- the twelve areas of reflection which represent, within the sequences, coherent landscape units, in which the distribution of the gardens, much like the practice of dibbling, will help tackle specific themes relating to our relationship with water;
- the suggested (but not imposed) sites, more specifically within each of the twelve areas of reflection, which identify a prospective challenge: where a need for action is felt.

Landscape, Hydrological, Historical, and Prospective Analysis of the Site

1 The Lakefront in the Natural and Human History of Lausanne

Lausanne Jardins 2024 offers the opportunity to approach Lausanne's lakeshore from the angle of the processes that have shaped and will continue to shape this urban landscape. The history of the links between the city and water traces a geomorphology as much as it bears witness to the living environment that is now being disrupted by environmental changes. The lakefront is thus shown through five maps that put this natural and human history into perspective:

- 1 Topography Map
- 2 Map of Uses and Stakeholders
- 3 Hydrography Map
- 4 History Map
- 5 Map of the Lausanne Jardins 2024 Project

2 The Major Landscape Units

The Lausanne shoreline stretches between the two rivers that border the city, from La Vuachère in the east to the Chamberonne in the west. This shoreline has progressively advanced towards the lake, under the effect of water and humans, thus gaining in depth. Although this shoreline constitutes a landscape and bioclimatic continuum, it offers several faces depending on its appropriation for different uses.

Four shores follow one another in turn. At the western end, under the generous canopy of the former alluvial cone of the Chamberonne, lies the most natural shore with its dry grasslands, and wetlands. It extends to the east towards the bank of the former Flon Delta, whose thalweg gave rise to the Flon Valley. Here, the microtopography was remodelled for Expo 64 and more recently to accommodate sports fields. Then comes the shoreline that is more open to the lake and culture. Théâtre de Vidy, the Bellerive swimming pool and beach, and the Belle Époque boats, witnesses of a rich and international past, intersect with the activities of the lake's sand mining and the shipyard. In Ouchy, the old port and Quai de Belgique constitute the last sequence that is very well designed, where one can admire the flow of multiple means of transport.

3 The Relationship Between Water and the City

The lake bottoms of Lake Geneva and particularly Vidy Bay have been shaped by subaqueous valleys formed by the rivers that flow into them. We are not aware of this topography when we observe the mirror of the lake surface. This deceptively calm lake actually hides intense currents and is shaped by a

winter mixing that is gradually disappearing as a result of climate change.

On this lake shore, the relationship between the city and water has always been ambiguous. On the one hand, water is an essential resource for life; on the other, it can be a threat in the event of heavy rainfall or a vector of disease. Protecting people from nature, protecting nature from people: water management is a good example of the basic principles on which our legislation is based.

Since Roman times, when it was particularly well developed, water management has been a constant preoccupation for the shoreline inhabitants. For a long time, waste water was considered essentially as a vector of disease; it was drained, collected, channelled, and discharged into the lake. Rainwater was also channelled and discharged as quickly as possible into the lake. Water thus disappeared from our sight, deep underground. Nowadays, the water we see is not only the water that flows from the tap and quenches our thirst, but also the rainwater that runs off the roads, causing damage during heavy rains. The lack of water is particularly noticeable during heat waves. Suddenly, the coolness carried by water through evapotranspiration disappears, making it very difficult to irrigate the fields and gardens that produce our food.

Lausanne Jardins 2024 aims to change the perception of water in the city and to reintegrate it into our everyday vision. Indeed, water is an essential element of urban quality that shapes our cities and brings much added value. It can play a key role in addressing climate change through specific developments. By illustrating and transforming our relationship with water in the city, Lausanne Jardins 2024 seeks to highlight this resource hidden under our feet and the many services it provides: not only drinking water but also water as a means of transport, a place for recreation and cooling, a biotope rich in biodiversity, a source of energy, etc. Through an intelligent approach to water in the city, synergies between these functions can emerge.

Throughout the different sequences of Lausanne Jardins 2024, water will be highlighted and the benefits it can bring to the urban environment will be demonstrated in a sensitive manner. The "sponge city" approach illustrates, for example, how water can play a key role in the face of climate change, while at the same time improving the living environment, urban biodiversity, and the well-being of inhabitants. This concept also questions the link between the city, its urban rivers, and its lake.

4 The Evolution of the Shoreline Over Time

The first traces of human occupation on the land of present-day Lausanne date back to the end of the Mesolithic period and can be found on the lakeshore at Vidy and on the hill of La Cité, two sites that were occupied at the same time until the end of the Roman era. The Gallo-Roman *vicus* of Lousonna developed on the banks of Lake Geneva between the Flon and the Chamberonne from 15 BC and reached its peak at the end of the 1st century. At the time of the first invasions at the end of the 3rd century, the inhabitants gradually left the *vicus* to take refuge on the top of the hill of La Cité, which was easier to defend. It was also for security reasons that Bishop Marius (Saint Maire) transferred his seat from Avenches to Lausanne at the end of the 6th century, which then became the episcopal city. From then on, the town grew around La Cité and on the adjacent hills, some 2 km from the shore.

After the ancient city was abandoned, a new port was developed at Ouchy, which benefitted from a small bay and was closer to the city. The hamlet was then the property of the bishops of Lausanne, who were concerned with ensuring its defence, the lake being the most convenient and economical route for transporting goods. A first tower was built by Bishop Landry de Durnes in the middle of the 12th century. However, in the Middle Ages, as under the Ancien Régime, the port of Ouchy did not undergo major developments, because, unlike the ports of Villeneuve, Geneva, and Morges, it did not enjoy a favourable situation in terms of load breaking. In the 18th century, some of Lausanne's leading families built country houses on the slopes between the city and the lake and in the immediate vicinity of the lake, where they welcomed foreign guests. The people of Lausanne did not generally frequent the shores of the lake, except for professional purposes.

Indeed, Lake Geneva has always had a utilitarian character for its residents. Washerwomen, fishermen, and boatmen who transported materials, in particular stone from the Meillerie quarries, earned their living from the lake and lived for the most part in the hamlet of Ouchy. From the beginning of the 19th century, a new perception of the lake area gradually emerged. Characterised by a veneration of the landscape and its contemplation, it originated in the return to nature advocated by romantic artists, soon to be followed by the first tourists in search of picturesque and sublime panoramas. And the towns that until then had turned their backs on the lake gradually saw

their shores developed and lined with buildings, a phenomenon that can also be linked to the advent of steam transport around 1825.

From the middle of the 19th century onwards, the hamlet of Ouchy and its surroundings underwent profound transformations in terms of both buildings and infrastructures, with the creation of quays and promenades to enjoy the panorama and to encourage tourists to stay. From 1877 onwards, the Lausanne-Ouchy funicular linked the centre of the city to the station and to Ouchy. It was designed to transport both passengers and goods by lake and fostered the development of buildings between the station and the shore, so that by the turn of the 19th century, Ouchy was no longer a hamlet, but a district of the city. The funicular and the castle marked the boundary between a tourist sector to the east and an industrial and craft sector to the west – where, in addition to the merchant port, there was a gas factory since 1848 – the former constantly seeking to expand towards the latter.

From the First World War onwards, the lake's utilitarian and contemplative roles were supplemented by sanitary and recreational functions. These aspects were linked to the development of hygienism, which considered bathing and sunbathing as the best means of preventing tuberculosis, and to its corollary, the development of sport. From the inter-war period, bathing and sports facilities were built in Bellerive and Vidy, primarily for the people of Lausanne.

Expo 64 took place on both sides of the mouth of the Flon, on vast plots of land partially reclaimed from the lake by embankments. Sometimes monumental, the developments carried out on this occasion completed the transformation of the Lausanne coastline initiated in the mid-1900s. The reconversion of the site after the exhibition definitively established the leisure vocation of the shores, which is now part of the city's urban planning: some of the architectural and landscaping features of Expo 64 were perpetuated as public spaces, while others were dismantled, with some construction waste being buried on site.

5 The Four Sequences and their Challenges

On the site of Lausanne Jardins 2024, at the interface of the City of Lausanne and Lake Geneva, from one river to the other, four sequences follow one another to form a linear route. These sequences structure the route and revisit historical, unusual, or little-known places, by linking together the main existing landscape areas on

the site (meadows, coves, etc.). Partially superimposed, these sequences combine contrasting situations, sometimes antagonistic at first sight, in order to reveal possible synergies. By closely involving different stakeholders, they form the basis for thematic developments and specific programming that prefigure the future evolution of Lausanne's shoreline.

From the Chamberonne to the Vuachère, the four sequences offer a thematic reading linked to the challenges of the future agglomeration park. Each of the sequences links the "road" limit to the lake shore, crossing the future agglomeration park and the different sites where the gardens of the international competition are grouped together:

A Bourget Sequence (Nature)

Linking the future Chamberonne rewilding site to the wastewater treatment plant, this sequence takes the form of an extended biotope questioning the various technical and ecological methods of water purification in the city. This route through the heart of the vegetation crosses in particular Parc Louis-Bourget, the wetland nature reserve, and the site of the stele in memory of Major Davel.

B Maladière Sequence (Sport & Health)

Linking Vallée de la Jeunesse to Les Pyramides, via Esplanade des Cantons, this sequence takes the form of an extended health trail questioning the new forms of physical activity (sports, green transport, etc.) in landscaped and urban spaces. This route through the heart of the areas, initially developed for Expo 64 crosses in particular Espace des Inventions, Rond-point de la Maladière, and the sports areas adjacent to Stade de Coubertin.

C Vidy-Bellerive Sequence (Culture)

From the esplanade of Théâtre de Vidy to the Bellerive car park, which regularly hosts the big top and caravans of a circus and other large fairground events, this sequence takes the form of an extended open-air theatre questioning the manifestations of art and community in the cityscape. This route, through areas that are at times very mineral and not very accessible, will prefigure new pedestrian promenades, in particular through Bellerive Beach, the harbour jetty, and the Sagrave exploitation site.

D Ouchy Sequence (Transport)

From the port of Ouchy to the Haldimand Tower, along the quays, passing through the former site of the baths, this sequence questions the place of motorised transport (car, boat) in relation to that of eco-friendly leisure activities

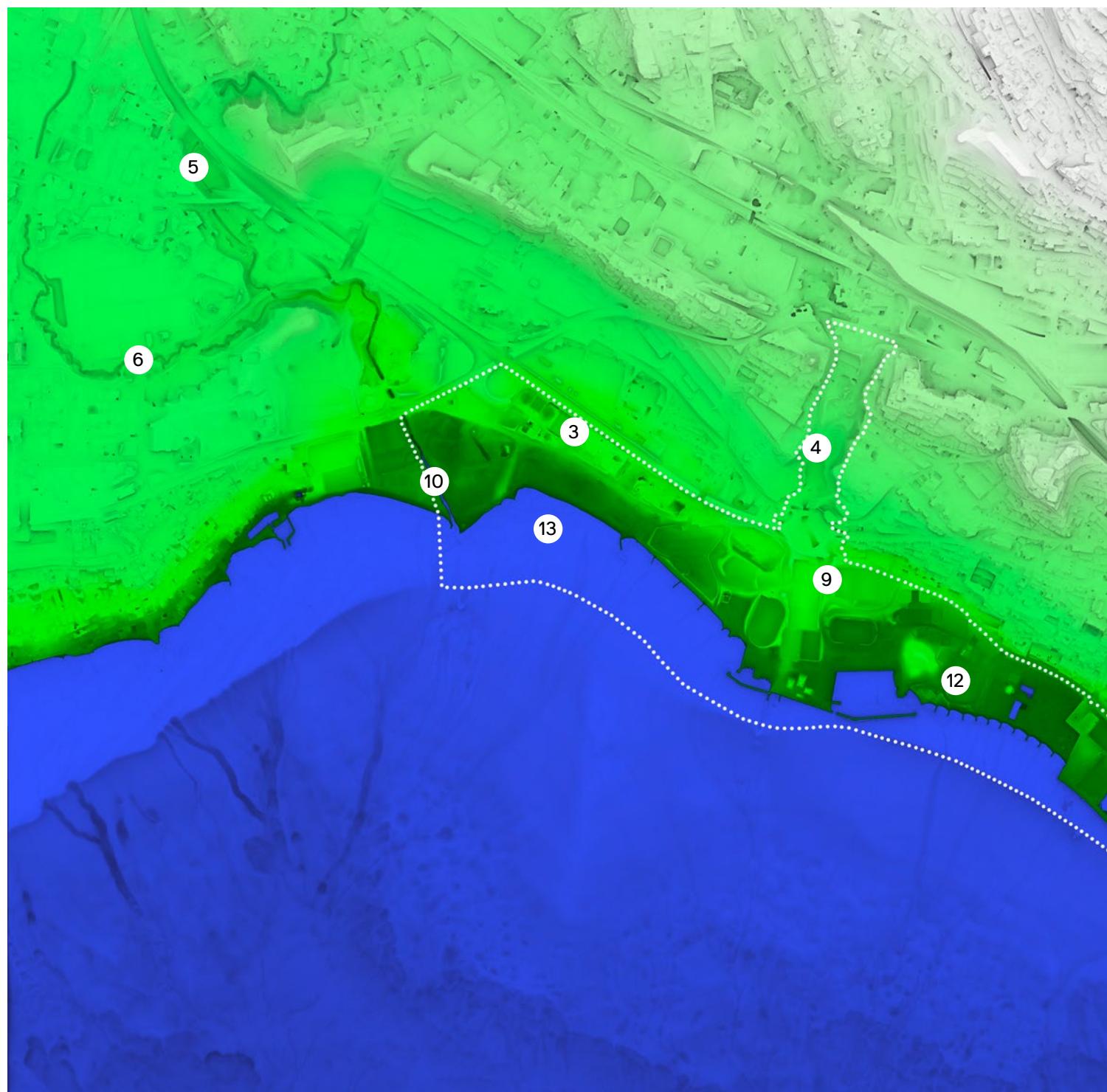
(walking, swimming). This route through the heart of a long pedestrian, animated area along the lake will be the object of an original and contemporary approach to the art of gardening and vegetation, the idea being to update the practice of *Gartenschau* – albeit on a more modest scale. The route also questions the development and qualification of the road layout, particularly through temporary installations, as well as tactical urban planning measures.

1 Topography Map

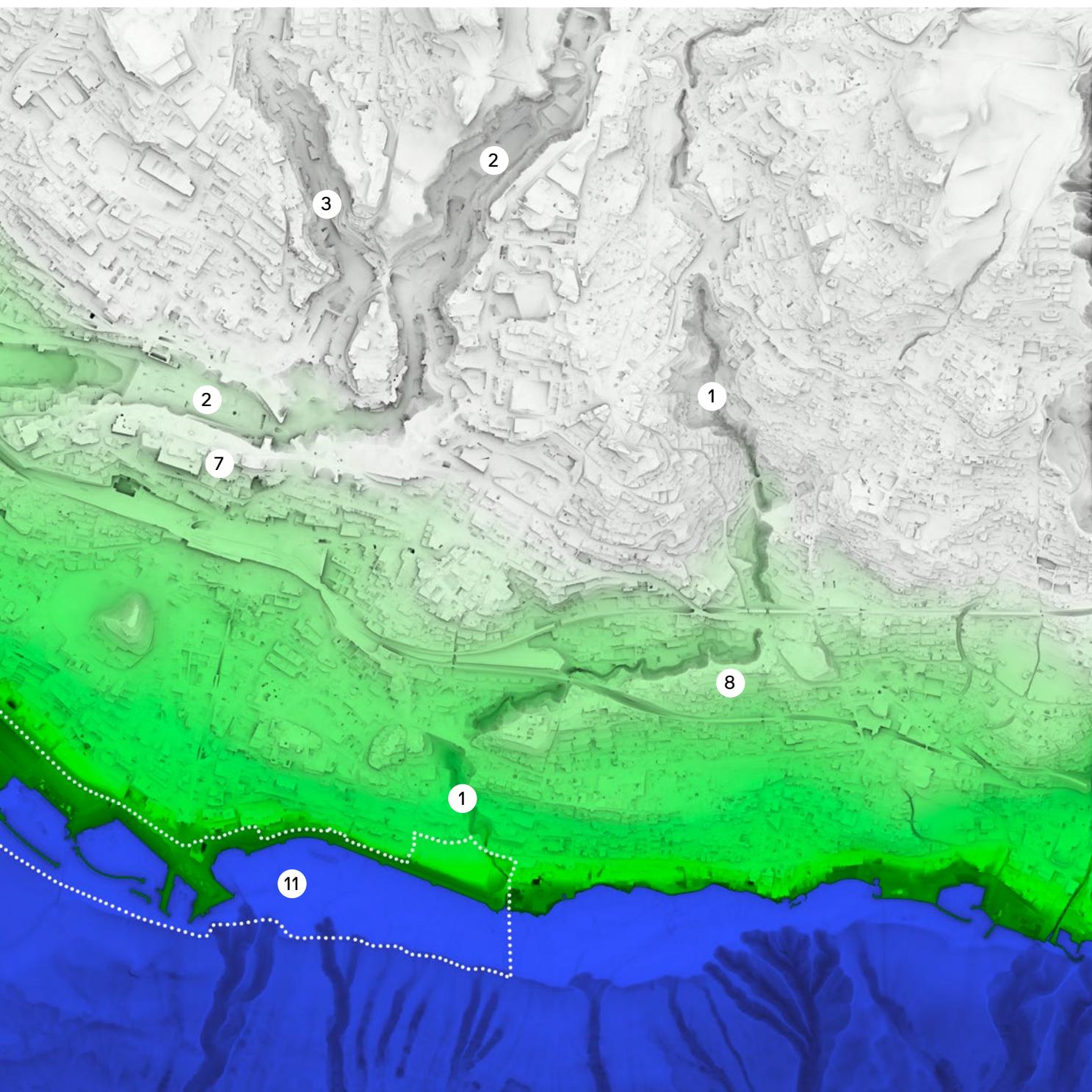
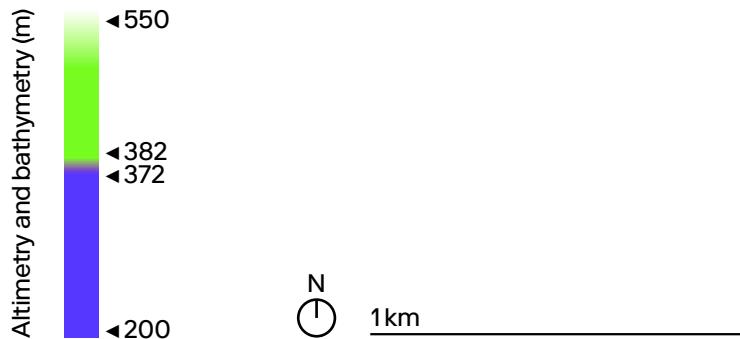
This map shows the variations of the terrain according to the altitude, from the lightest (for the highest) to the darkest (for the lowest). This topography has been shaped by the gravitational action of water – that of the Rhone glacier and the lake, which have carved out the Lake Geneva trough lined with moraines and terraces – and

SOURCE: Topographie extraite de la classification du relevé Lidar aérien en 2019 de l'Office fédéral de Topographie, et colorée en vert en gradient d'altitude et en ombrage gris par simulation d'occlusion ambiante (lien: www.swisstopo.admin.ch/fr/connaissances-faits/geoinformation/donnees-lidar.html). Batimétrie 2014 : Données basées sur les grilles MNT de la bathymétrie du lac Léman, résolution de 2m, colorée en bleu et en ombrage gris par simulation d'occlusion ambiante (lien: www.swisstopo.admin.ch/fr/geodata/height/bathy3d.html). Projection: Swissgrid CH1903+LV95, Niveau de référence (Nf02) moyen du lac à St-Prix (station OFEV): 372.05m

then by that of the numerous rivers, with their valleys, thalweg, and alluvial fans alternating with the bays on the shore. Often the darkest parts of the map also correspond to the most recent soils, reclaimed from the lake by the sedimentation of river mouths and then by human fill. Between the lake and the hillside, the microtopography of the shoreline defines entirely reworked horizontal surfaces which bear witness to the multiple uses of water in the city.



- 1 Vuachère Valley
- 2 Flon Valley
- 3 Louve Valley
- 4 Flon Valley / "Vallée de la Jeunesse"
- 5 Mèbre Valley
- 6 Sorge Valley
- 7 Moraine of Montbenon
- 8 Moraine of Château-sec
- 9 Old Flon delta
- 10 Chamberonne estuary
- 11 Ouchy Bay (shoals)
- 12 Former Vidy Bay – Embankments
- 13 Dorigny Bay (shoals)



2 Map of Uses and Stakeholders

This map shows with a high degree of accuracy the impervious surfaces in white, the buildings in grey, and the plant cover in green. It describes the different landscape ensembles and their respective management methods, as well as the many sports, recreational, cultural, economic, logistical,

and health infrastructures and facilities. It shows how the metropolitan and multifunctional park, itself made up of innumerable gardens like so many microcosms, is linked to the landscape grid and the urban framework of Lausanne's hillsides.

SOURCE: Relevé Lidar aérien en 2019 de l'Office fédéral de Topographie, coloré par intensité de retour du signal (réflectance de la surface) et par classification (bâti en dégradé de gris, végétation en dégradé de vert foncé, sol en dégradé blanc-gris-vert) (lien: www.swisstopo.admin.ch/fr/connaissances-faits/geoinformation/donnees-lidar.html), classification sols perméables et imperméables basée sur le relevé Lidar aérien 2012 (lien: viageo.ch), Batimétrie 2014; Données basées sur les grilles MNT de la bathymétrie du lac Léman, résolution de 2m, colorée en bleu et en ombrage gris par simulation d'occlusion ambiante (lien: www.swisstopo.admin.ch/fr/geodata/height/bathy3d.html). Projection: Swissgrid CH1903+LV95, Niveau de référence (NFO2) moyen du lac à St-Prix (station OFEV): 372.05m



- | | | |
|------------------------------------|--|---|
| 1 Tour Haldimand | 14 Campagne des Cèdres | 26 Espace des inventions |
| 2 Parc du Denanton | 15 Parking de Bellerive –
Aire d'accueil forain | 27 Ruines romaines de Vidy |
| 3 Grand quai d'Ouchy | 16 Piscine de Bellerive | 28 Camping de Vidy |
| 4 Ancien bains d'Ouchy | 17 Plage de Bellerive | 29 Comité International Olympique |
| 5 Port d'Ouchy | 18 Théâtre de Vidy | 30 Plage de Vidy-Bourget |
| 6 Métro M2 | 19 Port de Vidy | 31 Parc Louis Bourget |
| 7 Débarcadère CGN – Jetée d'Osches | 20 Esplanade des Cantons-Pyramides | 32 Station d'épuration
des eaux usées (STEP) |
| 8 Place de la Navigation | 21 Stade Samaranch | 33 Centre sportif universitaire |
| 9 Chantier naval | 22 Stade de Coubertin | |
| 10 Sagrave | 23 Espace Fair-play | |
| 11 Dépôt CGN | 24 Giratoire de la Maladière | |
| 12 Quai du Vent Blanc | 25 Vallée de la Jeunesse | |
| 13 Jetée de la Compagnie | | |



1km



3 Hydrography Map

This map represents some of the most important components of the urban water cycle: the lake and open-air waterways, the main drains, potential run-off, and permeable soils. This map is drawn from

SOURCE: Topographie 2019 : extraite de la classification du relevé Lidar aérien de l'Office fédéral de Topographie et colorée en vert en gradient d'altitude et en ombrage gris par occlusion ambiante (lien: www.swisstopo.admin.ch/fr/connaissances-faits/geoinformation/donnees-lidar.html). Sols perméables selon la classification du relevé Lidar aérien 2012 (représentés en vert, lien: [viagéo.ch](http://viageo.ch)). Carte de l'aléa ruissellement modélisée sur ordinateur (www.bafu.admin.ch/bafu/fr/home/themes/dangers-naturels/info-specialistes/donnees-de-base-et-utilisation-du-territoire/donnees-de-base-sur-les-dangers/alea-ruissellement.html), projetée orthogonalement sur la topographie du Lidar 2019. Les géodonnées des collecteurs d'eau sont fournies par la Ville de Lausanne : Plan Général d'évacuation des Eaux (PGEE). Batiométrie 2014 : Données basées sur les grilles MNT de la bathymétrie du lac Léman, résolution de 2m, colorée en bleu et en ombrage gris par simulation d'occlusion ambiante (lien: www.swisstopo.admin.ch/fr/geodata/height/bathy3d.html). Projection : Swissgrid CH1903+LV95, Niveau de référence (NFO2) moyen du lac à St-Prex (station OFEV) : 3/2.05m

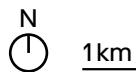
scientific data obtained through sophisticated remote sensing and modelling techniques. Yet it is somewhat utopian: water is present everywhere. The modified waterways are complemented by the underground network of pipes, showing the entire urban landscape as an ecological infrastructure. During a storm, run-off transforms streets into torrents, mineral squares into small lakes or marshes, prefiguring the new biotopes of a city more resilient to climate change. The continuum of open



soils appears like a sponge that insinuates itself into the city to filter and store water, then restore it in the form of freshness through the evapotranspiration of plants.

■ Lake and open-air waterways
■ Main drains
■ Permeable soils

Potential run-off
■ Run-off (m) $0 < h \leq 0.1$
■ Run-off (m) $0.1 < h \leq 0.25$
■ Run-off (m) $0.25 < h$

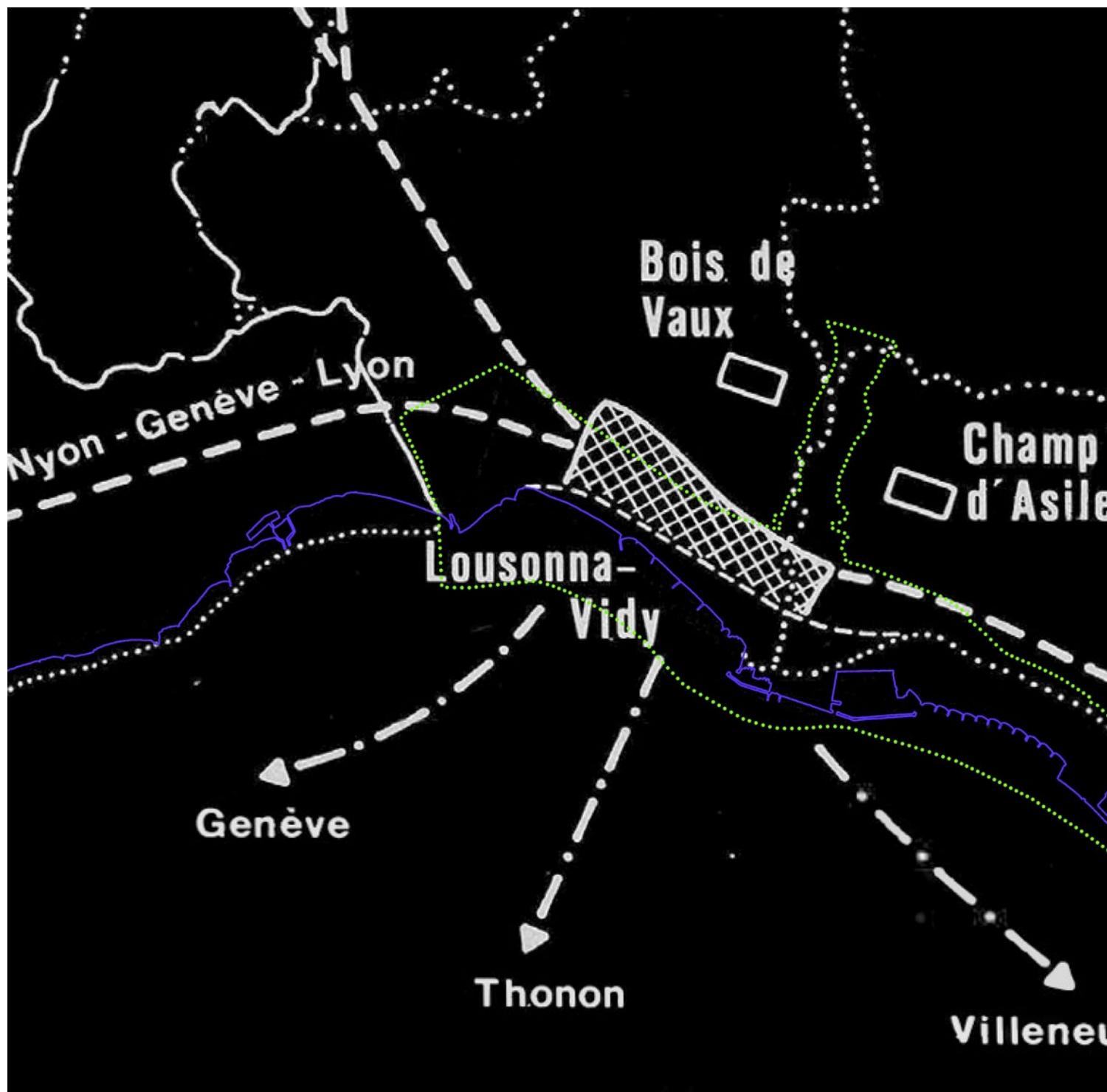


4.1 History Map Ancient times: Map of human settlements in Roman times

This series of ancient documents, georeferenced according to the same marker, shows not only the evolution of the shoreline in time and space, but also the successive appropriations of the lake-front, in turn used, disused and then reinvested by the populations of Lausanne. In ancient times, several localised settlements bore witness to the strategic role of water for transport, trade,

sanitation, and defence. In classical times, the natural shoreline, as it still appears in the plan engraved by the surveyor Berney in the middle of the 18th century, extended over the water at the mouths of the rivers. At that time, a bucolic landscape of middle-class countryside, market gardens, pastures, and marshes could be clearly seen. In the 19th century, the water was put at a distance by the construction of a large quay, whose activities of tourism, trade, and logistics

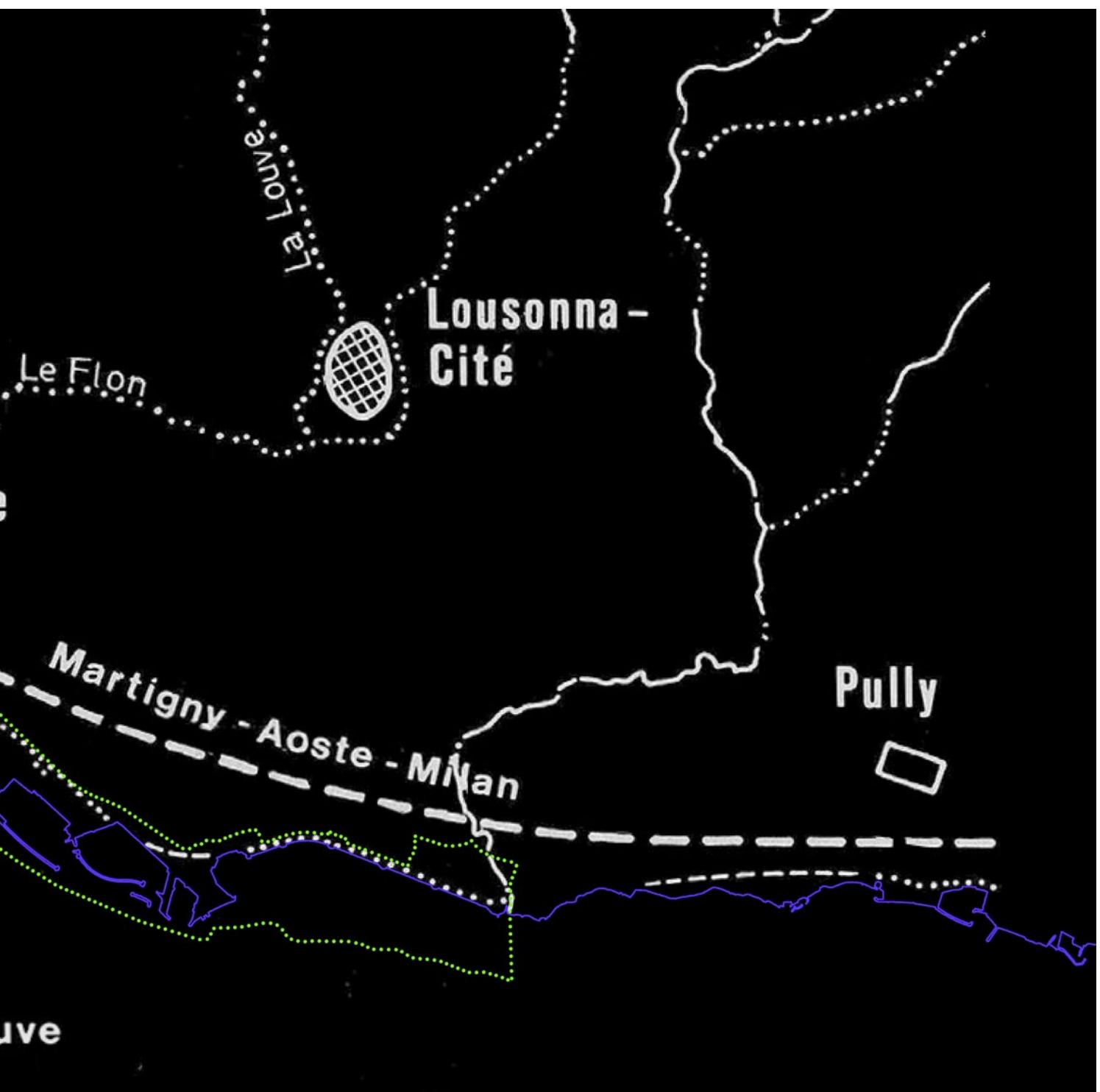
SOURCE: D'après la carte établie par D. Paunier (Dessin: B. A. Apothéloz), reproduite dans J. C. Biaudet, 1982, *Histoire de Lausanne*, Lausanne: Éditions Payot



are visible in an aerial photographic campaign dating from 1933. Hygienic concerns in the first half of the 20th century led to the development of Bellerive beach, which appears in its original context on aerial photographs from 1952. The major upheavals of the second half of the 20th century are illustrated by the considerable land movements visible in 1963, during the filling of the Flon valley and Vidy bay, which were intended to host Expo 64.

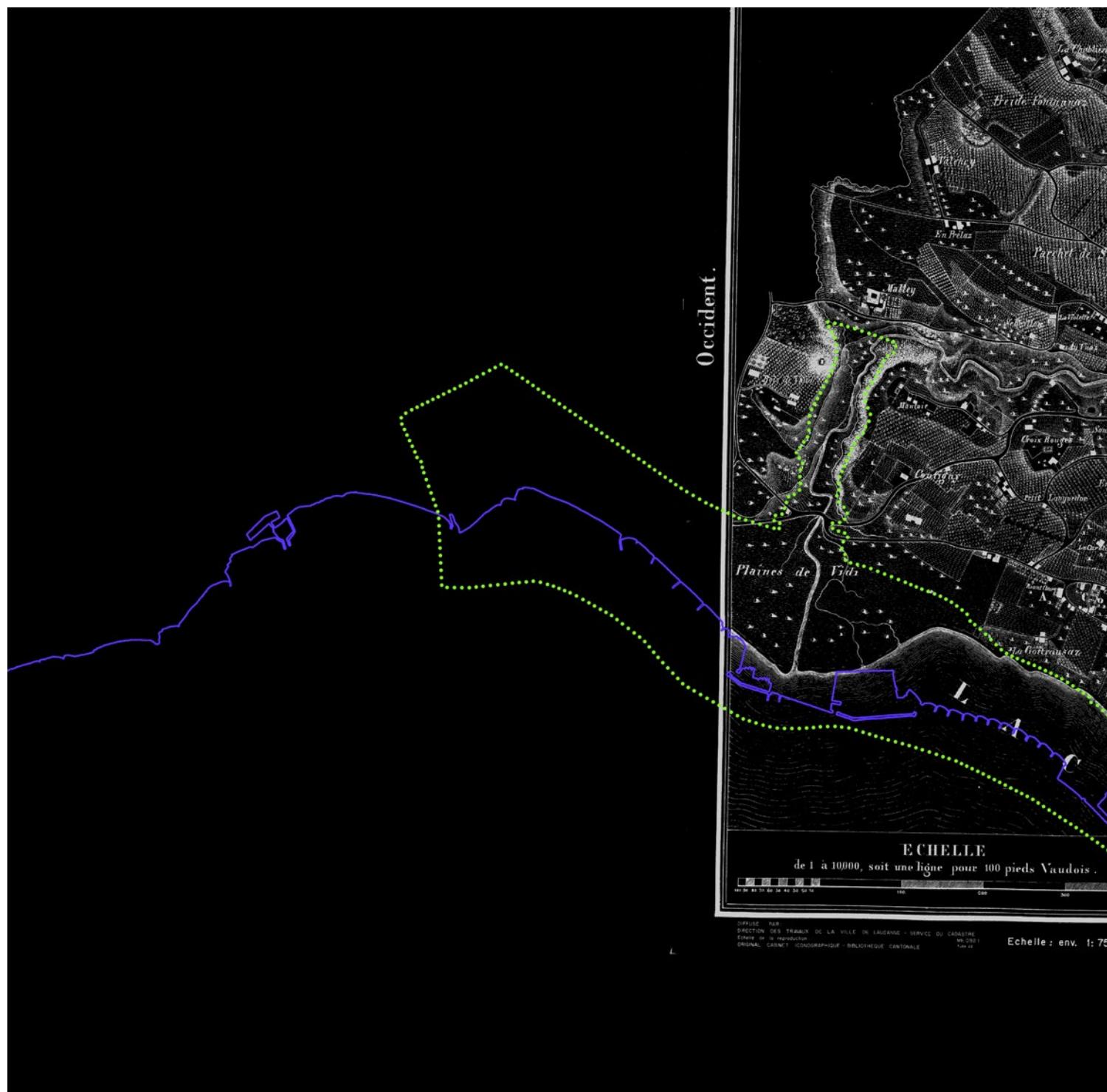
□ Current shoreline

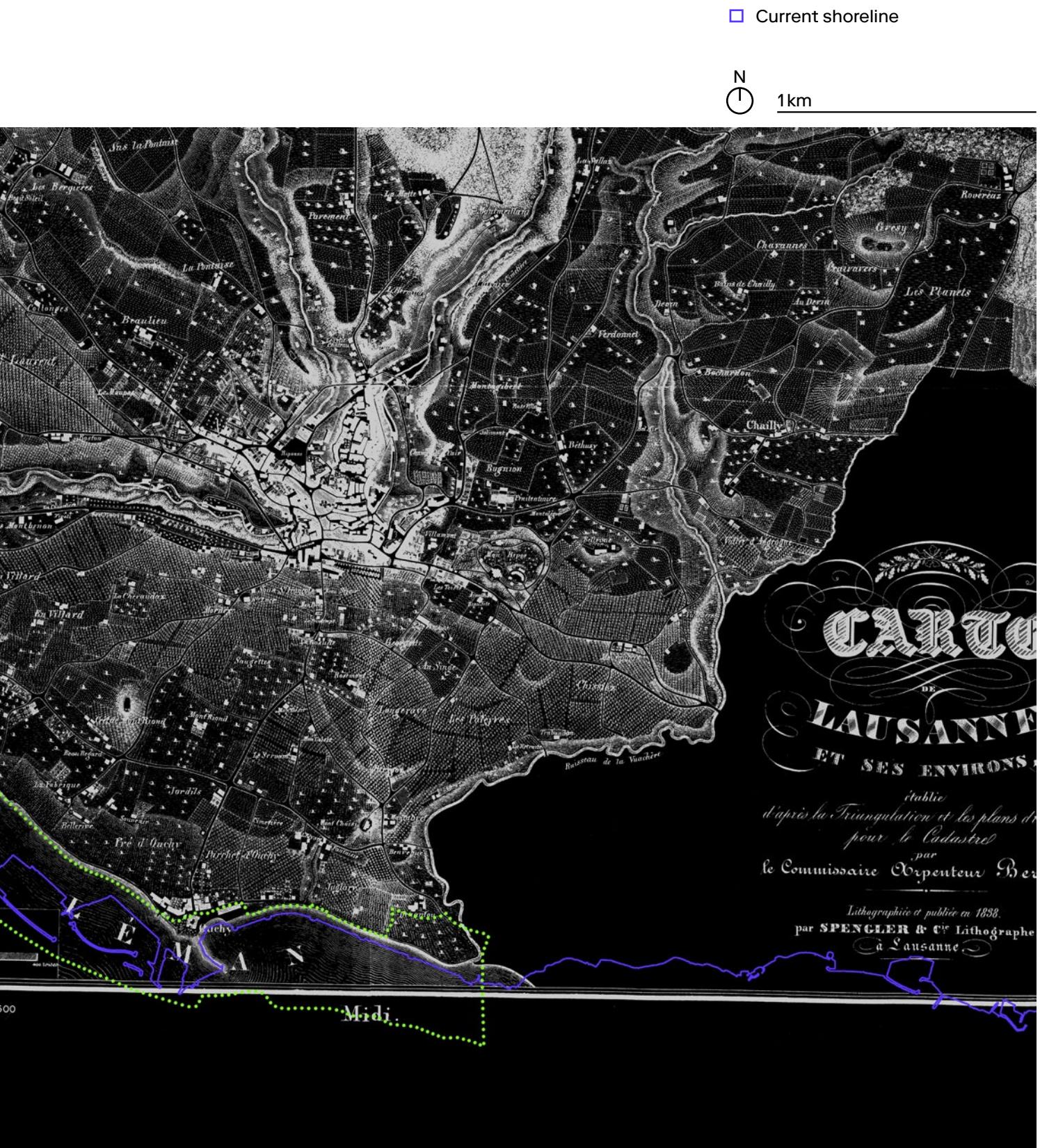
N
1km



4.2 History Map Classical Period: Berney Plan, 1838

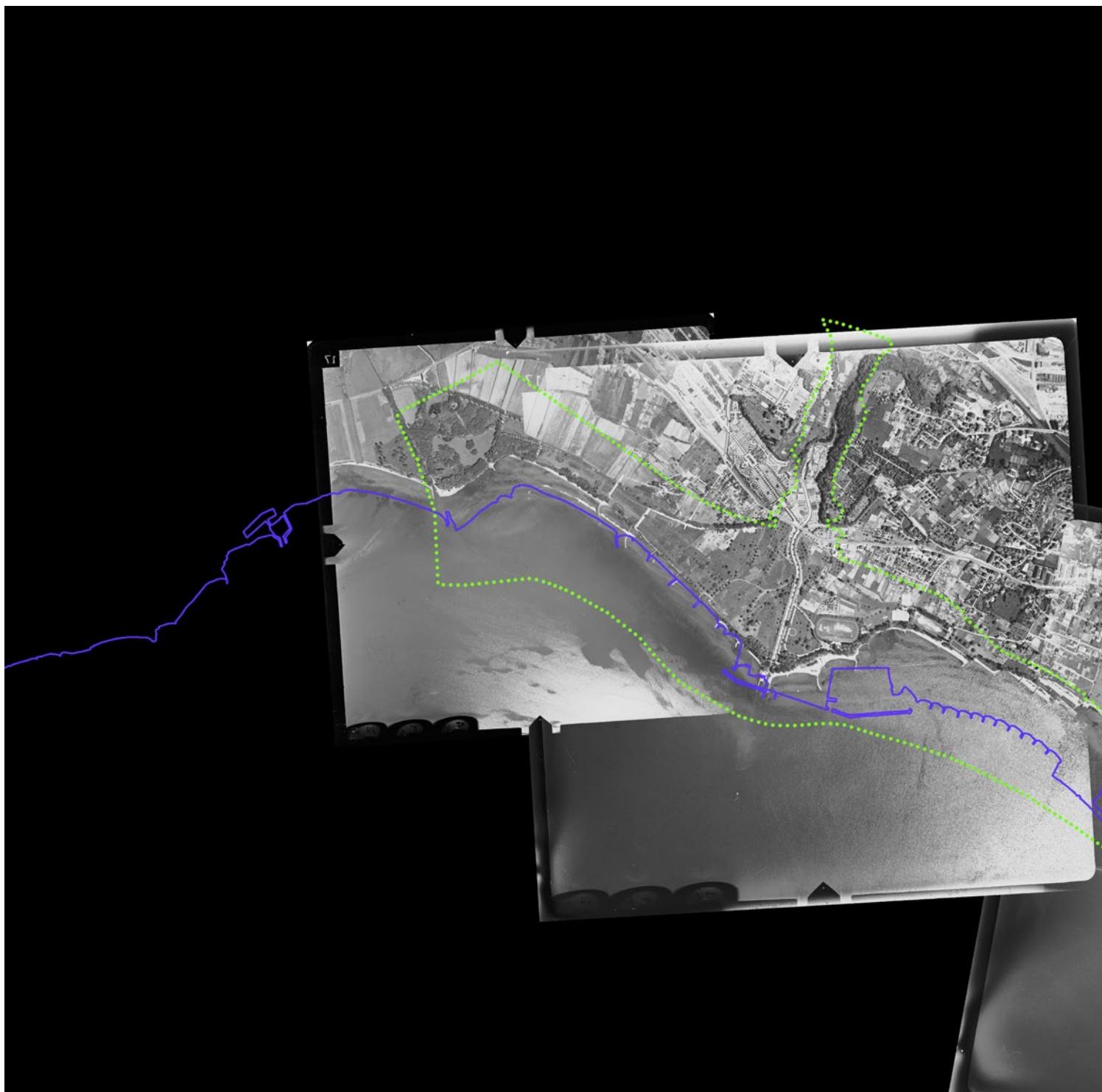
SOURCE: ©Service du cadastre de la Commune de Lausanne, Plan Berney, 1838

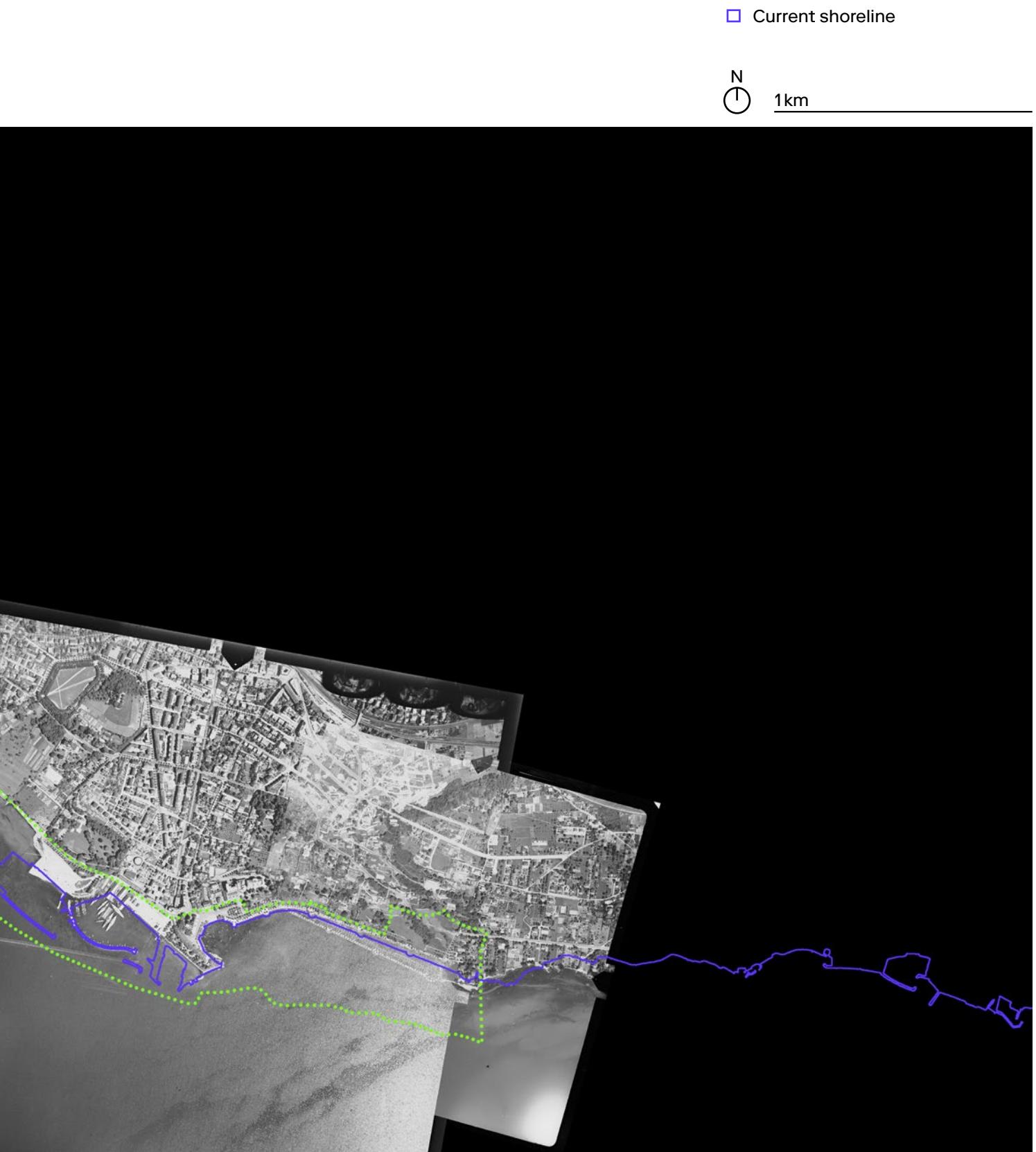




4.3 History Map 19th century: Aerial orthophotography, 1933

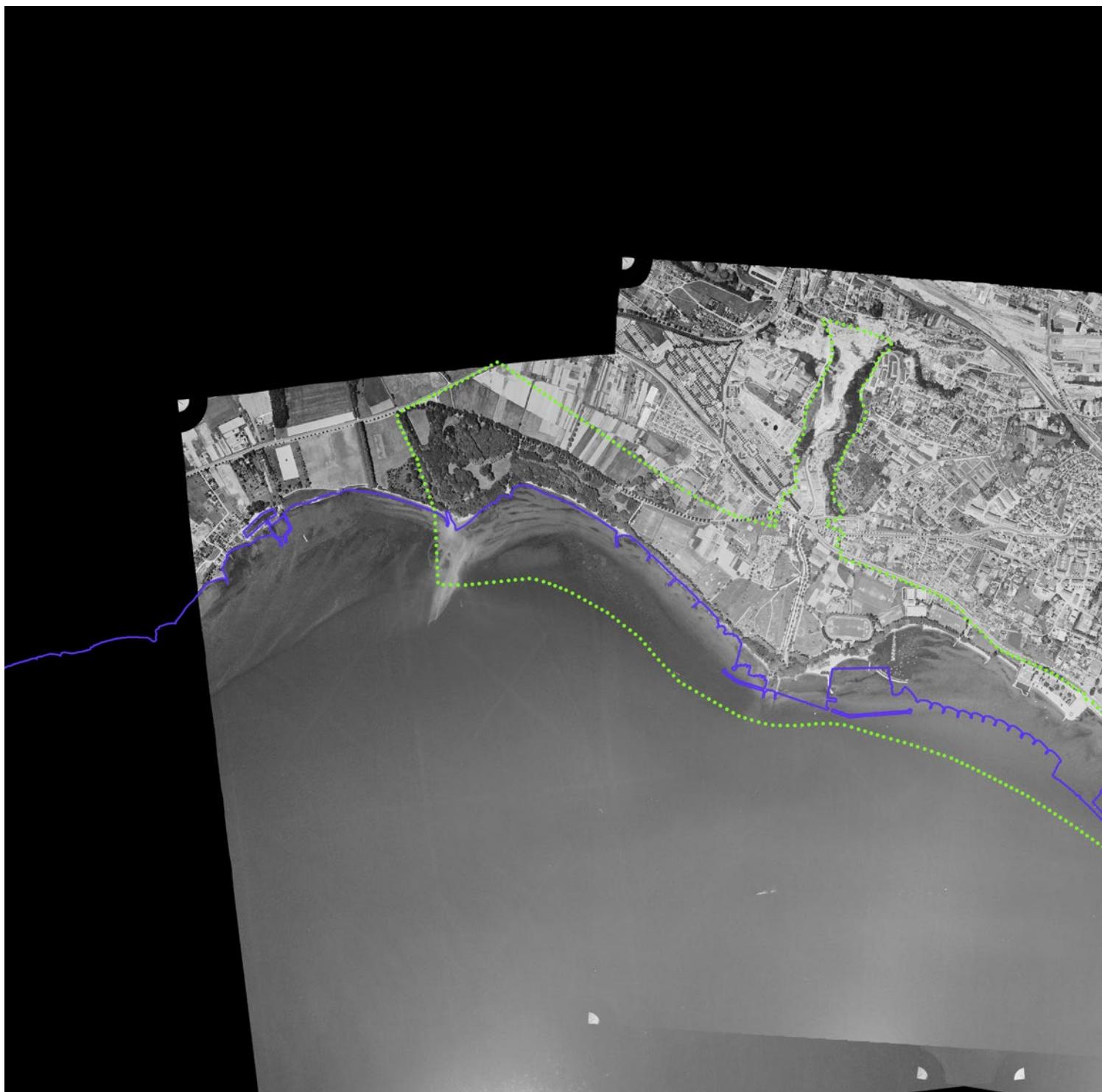
SOURCE: Federal Office of Topography / Office fédéral de Topographie, @Swisstopo, Vues aériennes de 1932,
Images n° 19330450080432; 19330280110112; 19330280160119 et 19330450030443

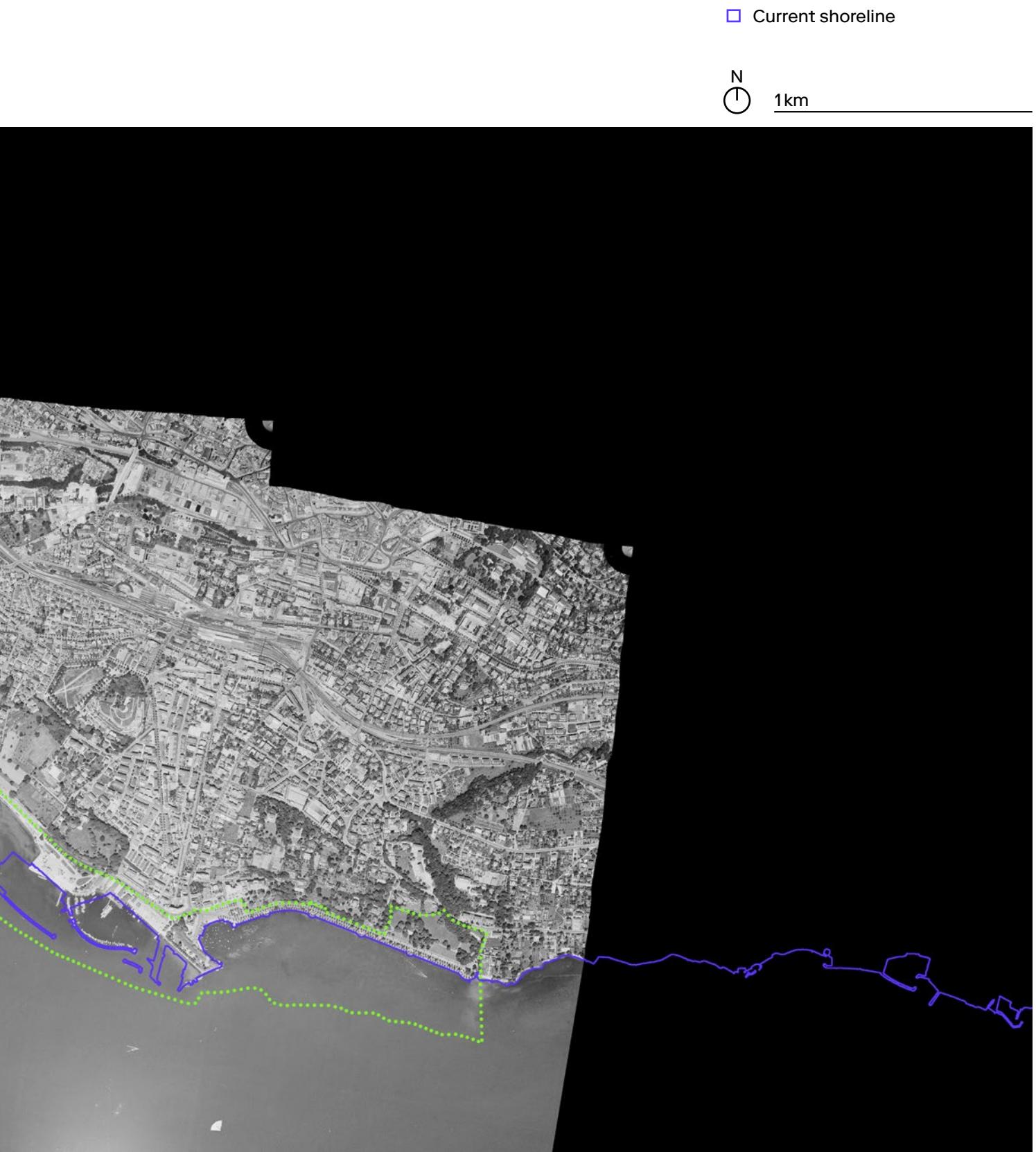




4.4 History Map First half of the 20th century: Aerial orthophotography, 1952

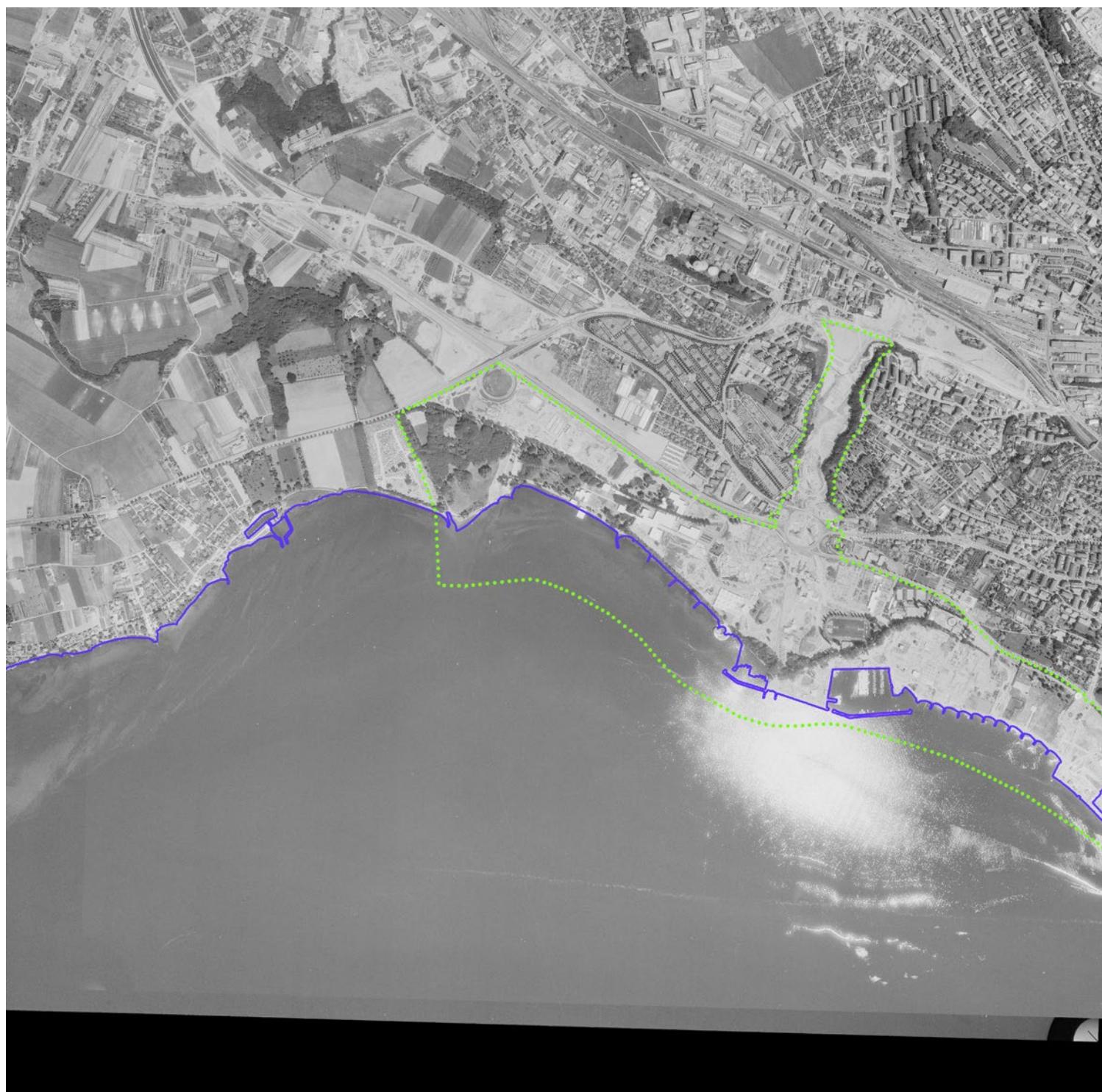
SOURCE: Federal Office of Topography / Office fédéral de Topographie, @Swisstopo, Vues aériennes de 1952,
Images n° 19521510015352; 19521510015353 et 19521510015354

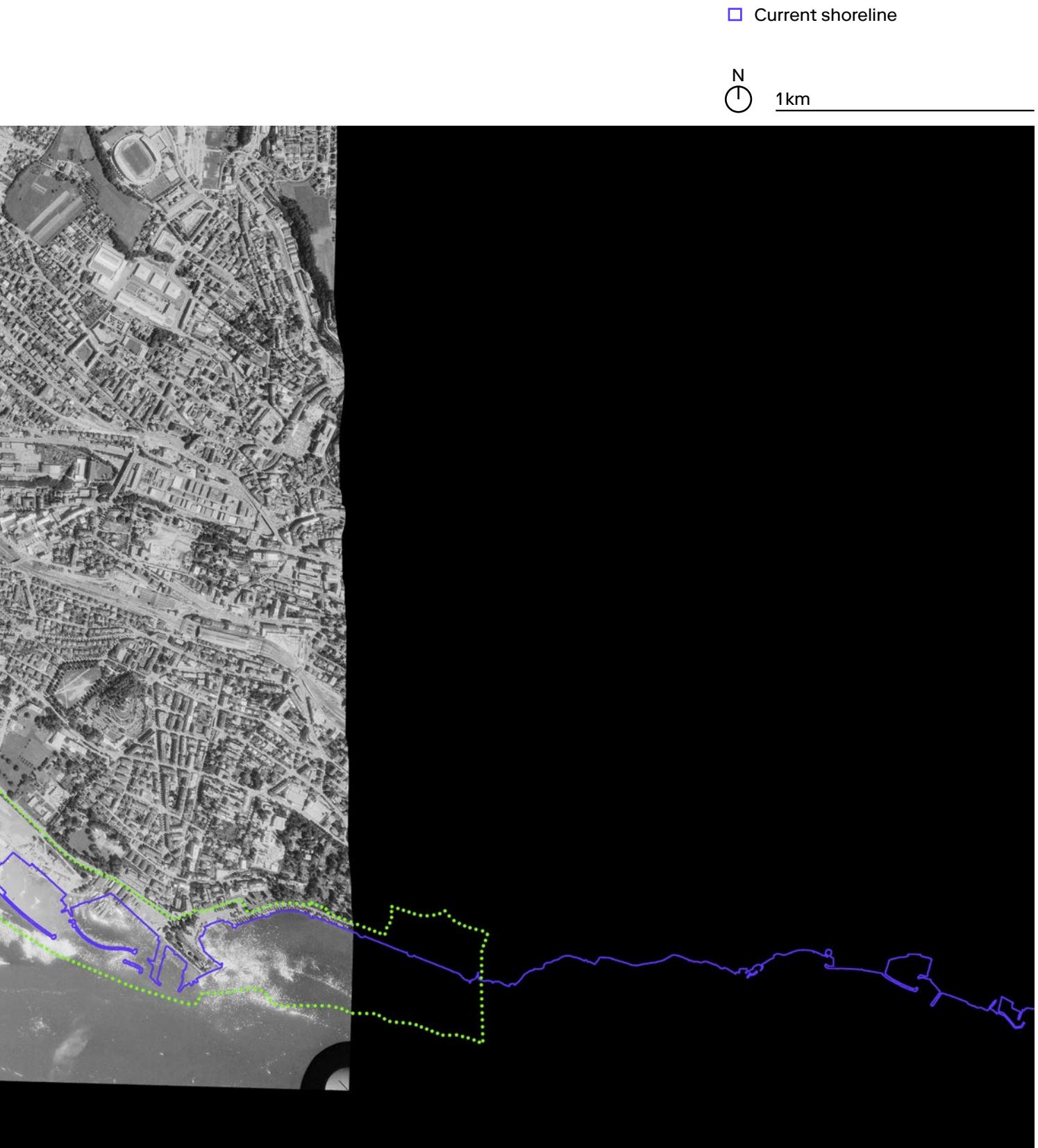




4.5 History Map Second half of the 20th century: Aerial orthophotography, 1963

SOURCE: Federal Office of Topography / Office fédéral de la Topographie, @Swisstopo, Vues aériennes de 1963,
Images n° 19631530010369 et 19631530010368

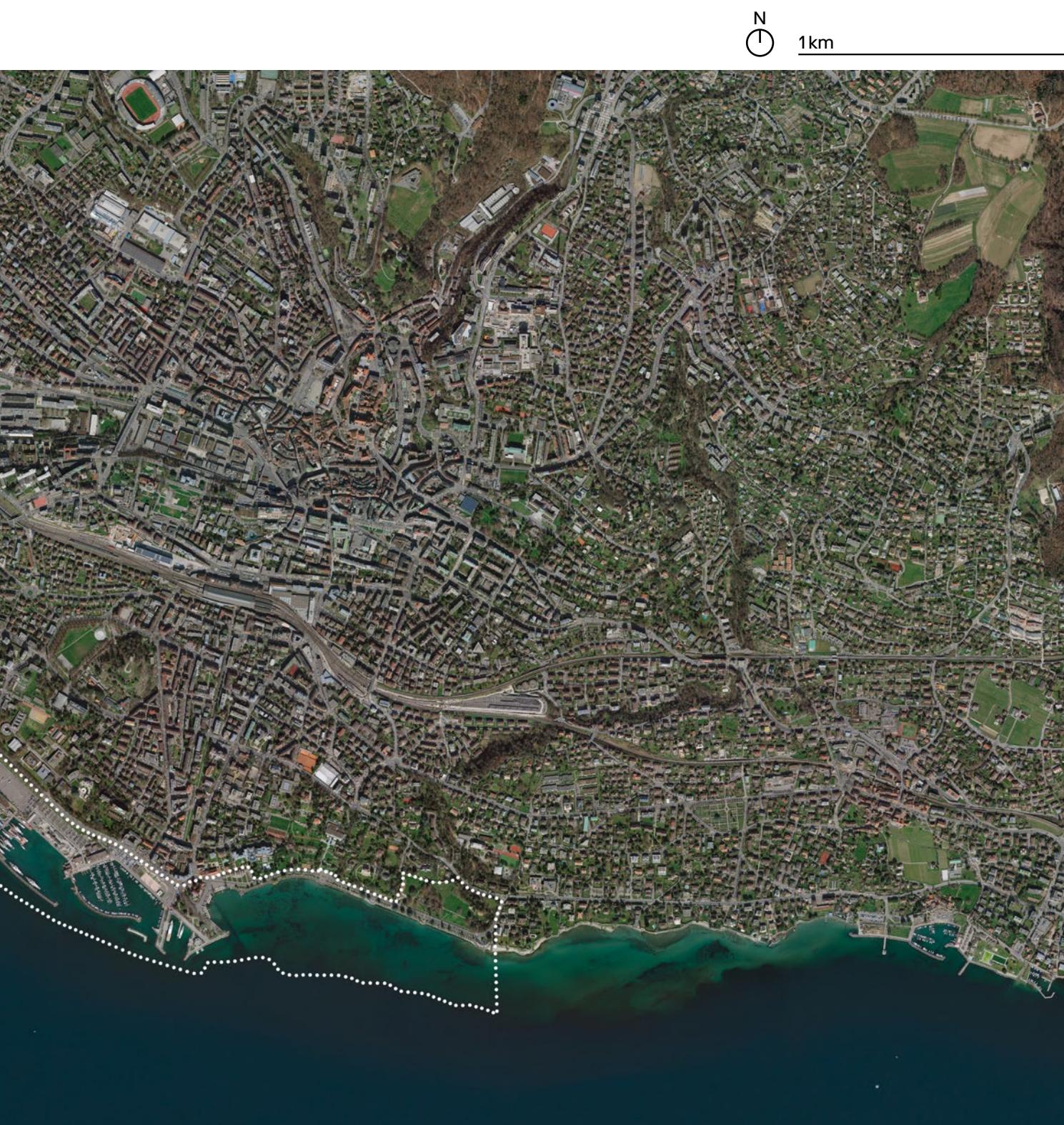




4.6 History Map Today: Aerial orthophotography

SOURCE: Federal Office of Topography / Office fédéral de Topographie, @Swisstopo, orthophoto 2020 (résolution 10 cm) (lien: www.swisstopo.admin.ch/de/geodata/images/ortho/swissimage10.html)





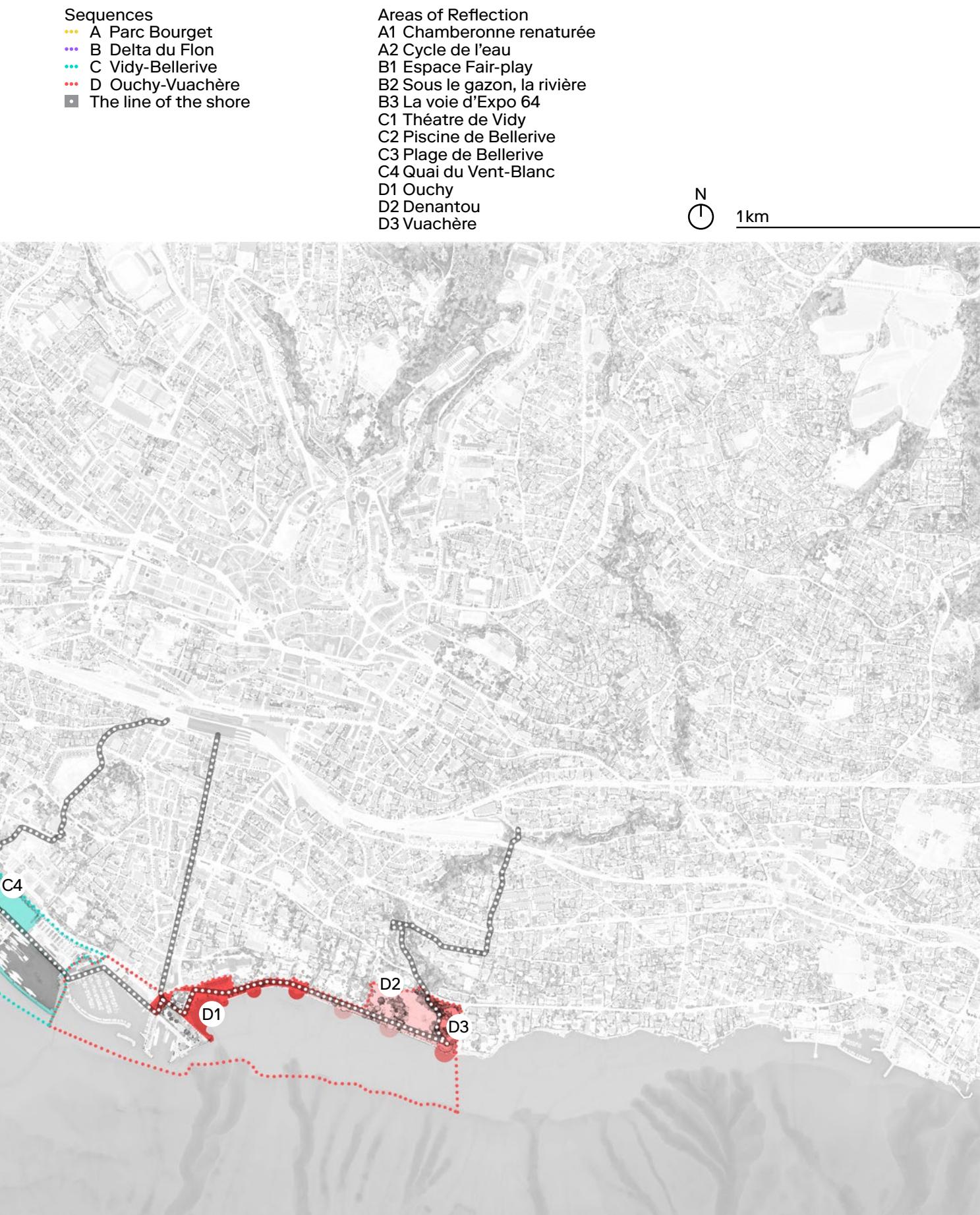
5 Map of the Lausanne Jardins 2024 Project

This map will evolve to include the future gardens resulting from the international competition. It is crossed by the shorelines trail which runs through the whole project. Weaving through the temporal and spatial dimensions of the shore, the definitive route will be reworked to link the different gardens. The areas of reflection define the contours of the pieces of landscape that will have to

be progressively redeveloped to better respond to the challenges of climate change and the adaptation of our relationship with water. They draw mouths, deltas, beaches, and grasslands, embankment surfaces or linear quays which often advance into the water, no longer to push it back, but on the contrary to better integrate it into the city.

SOURCE : Lausanne Jardins 24. Fond de carte produit sur la base du relevé Lidar aérien de l'Office fédéral de Topographie et sous-échantillonné par la simulation d'occlusion ambiante (lien : www.swisstopo.admin.ch/fr/connaissances-faits/geoinformation/donnees-lidar.html).



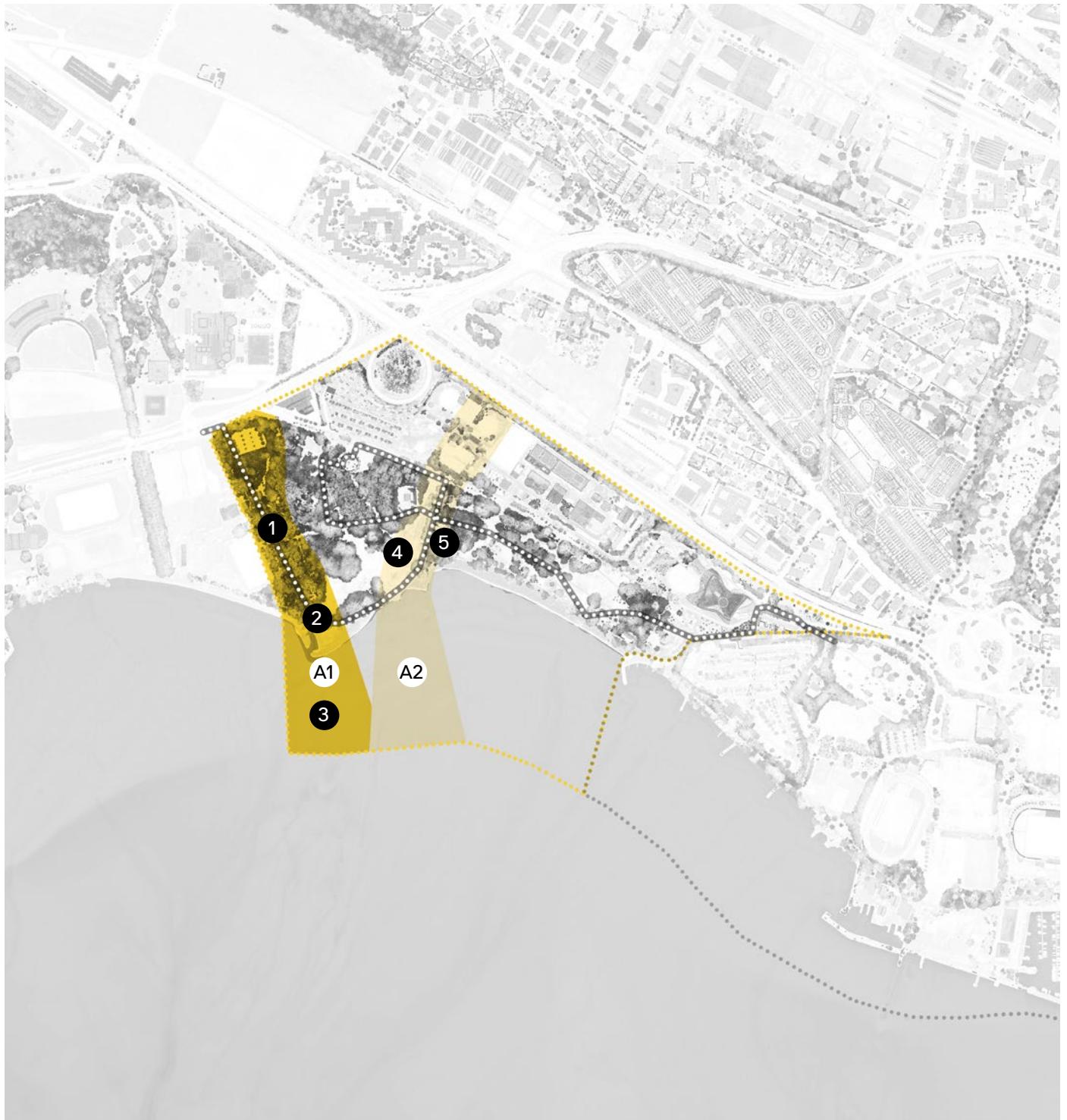


Sequences, Areas of Reflection, and Sites

A. Sequence Parc Bourget

Areas of Reflection
A1 Chamberonne Renaturalised
A2 Water Cycle

- Suggested Sites
- 1 Wooded avenue along the Chamberonne
 - 2 Mouthpiece
 - 3 Shoal (lake)
 - 4 Grassed pipe mound
 - 5 Car park



A1 Perimeter Chamberonne Renaturalised

Description & Uses

Today, the waters of the Chamberonne (p.31•1) which are heavily channelled, flow gently towards the mouth to flow into the lake in the shade of a canopy where old hornbeams still stand, and wild garlic grows in spring. Its bed, which smells of humus and humidity, still bears the trace of the humans who have tried to tame the water. They use it, in turn, as a device for draining the neighbouring run-off water or for supplying water to the wetland biotope. At the top of the left-hand dike, a transverse walkway is built close to the water, linking the park entrance to the lake shore and opening up the view to the French Alps. At the mouth (p.31•2), the sands and sediments of the river bank mix with those of the shores of Lake Geneva, offering a young and very specific environment, which is home to a number of birds less well known than the duck or the swan. In the years to come, the Chamberonne is destined to become an area of projects: land restoration will give back to the river its meanders and will welcome even younger and renewed vegetation as the floods come and go. There, a new footbridge will allow the crossing of the delta and its wetland, which can be flooded during periods of high water. Offshore, a new artificial island for migratory birds (p.31•3) could become a place of observation and awareness-raising of these fragile, yet biodiversity-rich environments, much like the site in neighbouring Préverenges.

Prospective Challenge: Boundary Between Nature and Leisure

How to define areas of relaxation and traffic while respecting the areas developed for biodiversity. Can we reconcile nature with human activities (pressure of use, noise, littering)? What cohabitation is possible with wildlife in an urban park?

Suggested Sites (p. 31)

- 1 Wooded avenue along the Chamberonne
- 2 Mouthpiece
- 3 Shoal (lake)

- Wooded avenue bordering the Chamberonne (p.31•1)
- Mouth of the Chamberonne (p.31•2) and shoal (p.31•3)



A2 Perimeter Water Cycle

Description & Uses

The water treatment plant (WWTP), which collects water from the Lausanne region, was built on the foundations of the former natural shoreline. The contaminated water converges there to be purified, before being expelled, 300 metres off shore. Buried under earth added to ensure its proper hydraulic operation, the spillway and the water pipe have shaped the landscape, giving rise to a grassy hill overlooking the lake (p.31•4). In the summer months, it is crowded with people and covered with towels and barbecues. However, at the edges, passers-by can see the wild grass of the unmown meadow swaying in the wind. This grassland is also the edge of the still very wild Bourget forest. It is here that every June, at night-fall, the forest gives way to a wood enchanted by the nuptial round of fireflies, even if, a few steps away, the headlights of cars leaving the car park break the spell (p.31•5). It should be noted that the car park will be revoked in the near future under the city's transport plans.

Awareness-raising Challenge: The Water Cycle

How can the water cycle (catchment, pumping, purification, discharge, pollution, etc.) be thematised and made visible for visitors?

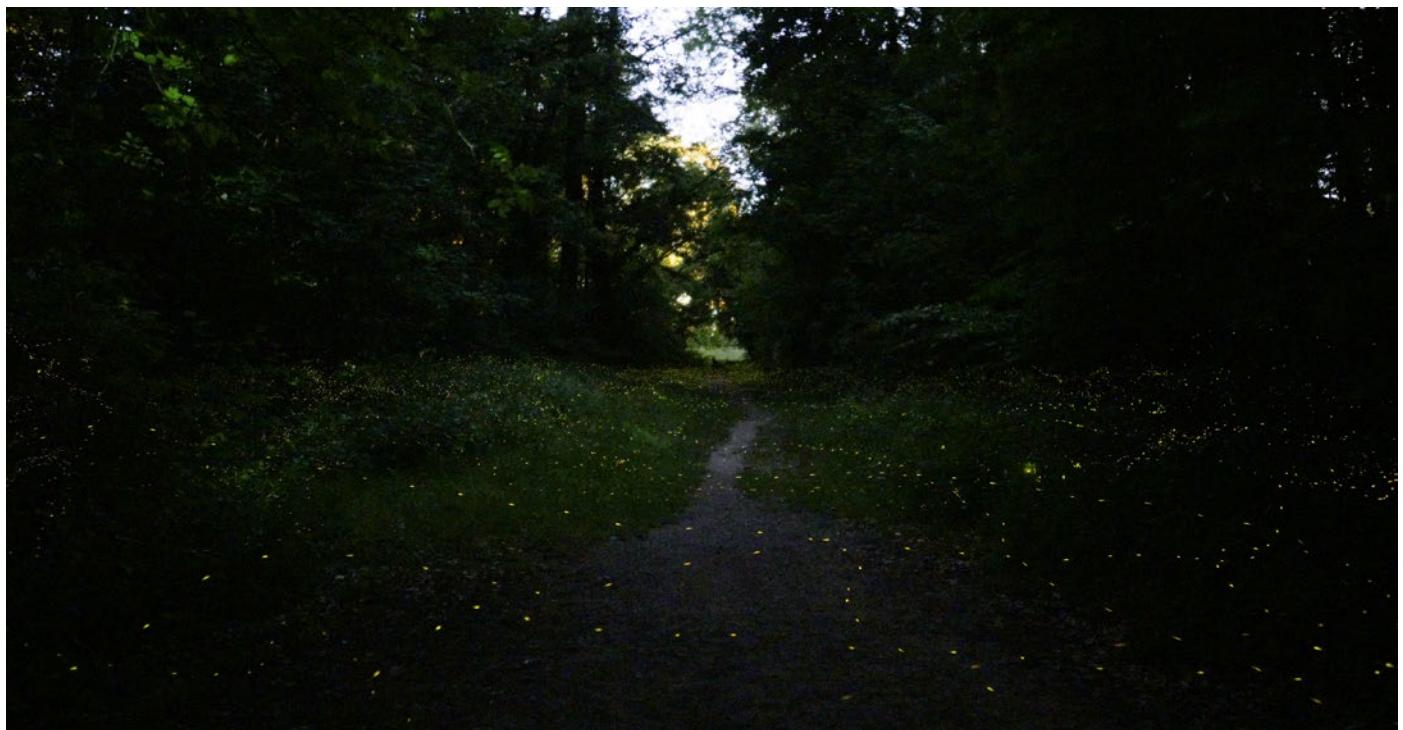
The WWTP is a sanitation device and a societal indicator: traces of viruses, hormones, drugs, etc. in wastewater tell us a lot about our consumption patterns.

How can we preserve water quality, knowing that everything we consume is discharged into it (synthetic products, medicines, microplastics, mineral oils, etc.)?

Suggested Sites (p. 31)

- 4 Grassed pipe mound
- 5 Car park

- Grassed sewer mound (p.31•4)
- Fireflies in Bourget Park in June near the car park (p.31•5)



- Parc Bourget on 10 August 1959 after a violent hurricane.
[Anonymous photo. Coll. Musée Historique Lausanne]



- The Wastewater Treatment Plant in May 1965.
[Photo Comet AG. ETH-Bibliothek Zürich, Bildarchiv, Com_F65-05225 / CC BY-SA 4.0]



Historical Analysis: The Genesis of a Park

The western end of the communal shoreline is occupied by Parc Louis-Bourget, the development of which began in 1915. This was the site of the Lausanne gallows where Major Davel, who tried to free the Vaud region from Bernese domination, was beheaded in 1723. To the north of the site, a monument – an erratic block in the form of a head-stone – inaugurated in 1899, recalls the event.

At the beginning of the First World War, the local authorities proceeded to clean up the marshy plains of Vidy, which were used as a dumping ground for household waste or sludge. Although this project had been envisaged for a long time, it was carried out in 1915 as part of a winter work camp to occupy unemployed workers and consisted of filling in the land and developing it for market gardening. At the instigation of Dr Louis Bourget, a doctor and ornithologist, it was decided to leave the western part bordering the Chamberonne in its natural state because of the aesthetic and wild quality of the place, where hikers like to walk. The shoreline, the curtain of trees along the lake, and the coppice to the east of the Davel monument were preserved. In this marshy area, it was planned in 1906 to dig ditches and to bring in rubbish, which was eventually piled up to form a hill to the south of the monument, which it was then proposed to remove.

However, thanks to the legacy of Dr Bourget, the area was gradually transformed into a park, the pond was created, and the beach developed. In 1941, part of the park was officially classified as an ornithological reserve. Following two hurricanes, including one in the summer of 1959 which uprooted or broke a third of the trees, the park was remodelled between 1960 and 1962: more than 2000 trees were planted, the embankments were levelled to create flat lawns and car parks were created. The Swiss National Exhibition of 1964 did not include the park, which was developed afterwards.

To the north of the park lies the Waste Water Treatment Plant (WWTP), a project that dates back to the early 1960s when most of the waste water was discharged into the lake without treatment. With the increase in population, comfort, and hygiene, the self-regulating power of the lake was no longer sufficient and pollution along the shores increased, even though in the 1930s the authorities had installed "divers," i.e., water evacuation pipes extending up to 200 or 300 metres offshore. The installations were designed to treat not only the water of Lausanne, but also that of ten neighbouring towns and villages.

The chosen location, between Parc Louis-Bourget and the motorway then under construction, was the one with the fewest disadvantages. It allowed a large part of the wastewater to be brought in by gravity, particularly from the towns and villages of western Lausanne, and reduced the number of pumping stations. Work began in 1962 and the WWTP was gradually brought into service in 1964-1965. It was expanded and modernised several times.

To the north-east of the park, Château de Vidy houses the headquarters of the International Olympic Committee. The building is the result of the enlargement, at the end of the 18th century, of a pre-existing building. Acquired by the City of Lausanne in the 1960s, it has housed the IOC since 1968. Over time, it was supplemented by annexes which have disappeared in favour of the imposing Olympic House, to the east, which was inaugurated in 2019 and which overlooks the fountain on Place de Granit, a remnant of Expo 64.

Hydrological Analysis: Two Ecological Infrastructures

This sequence is a particularly good example of ecosystem services related to water management. Two "infrastructures" offer an identical function, i.e., the purification of water but each according to a very different rhythm. On one side, the Chamberonne drains the vast watershed of the towns and villages of western Lausanne and brings together two rivers: the Mèbre and the Sorge. On the other, the Vidy Wastewater Treatment Plant (WWTP) treats the pollutants from the Lausanne agglomeration. These two systems have in common the purification of water and an identical receiving environment: Lake Geneva. All this in a green setting formed by Parc Bourget, a place of leisure and bathing. This sequence thus highlights four essential elements in water management: a river, a wastewater treatment plant, an urban park, and a lake. It also illustrates the conflicts of interest that can arise and offers solutions to limit conflicts.

The urban development around the Chamberonne is an emblematic example of the changing relationship between the city and water. This stream and its tributaries were channelled from the end of the 19th century to the 1970s in order to free up land for urban development. The sharp increase in impervious surfaces in the catchment area, coupled with climate change marked by more intense rainfall, has complicated flood management. The rewilding of the river between the University of Lausanne and Lake Geneva is therefore planned; it aims to increase flood management

capacity and also increase the biodiversity of the redeveloped section, in particular by encouraging exchanges between the river and the lake. A biotope is envisaged for migratory birds at the mouth of the Chamberonne on Lake Geneva, where an island would be created for them.

This sequence includes Parc Bourget, which is a valuable and protected ecosystem surrounded by urban areas. It is used intensively as a place of relaxation and recreation, especially in summer, which contradicts its function as a nature reserve for flora and fauna. The beaches are very busy. A sign indicating the sometimes-poor quality of the water limits the enthusiasm of bathers. Indeed, the site is close to the outlet of the sometimes-polluted waters of the river, but it still offers a breathtaking view.

It is not the nearby WWTP that is causing the problem: the plant discharges its water far and deep. It does, however, have an undeniable impact on Lake Geneva since it discharges treated water into this body of water, a few kilometres from where drinking water is extracted by St-Sulpice pumping station.

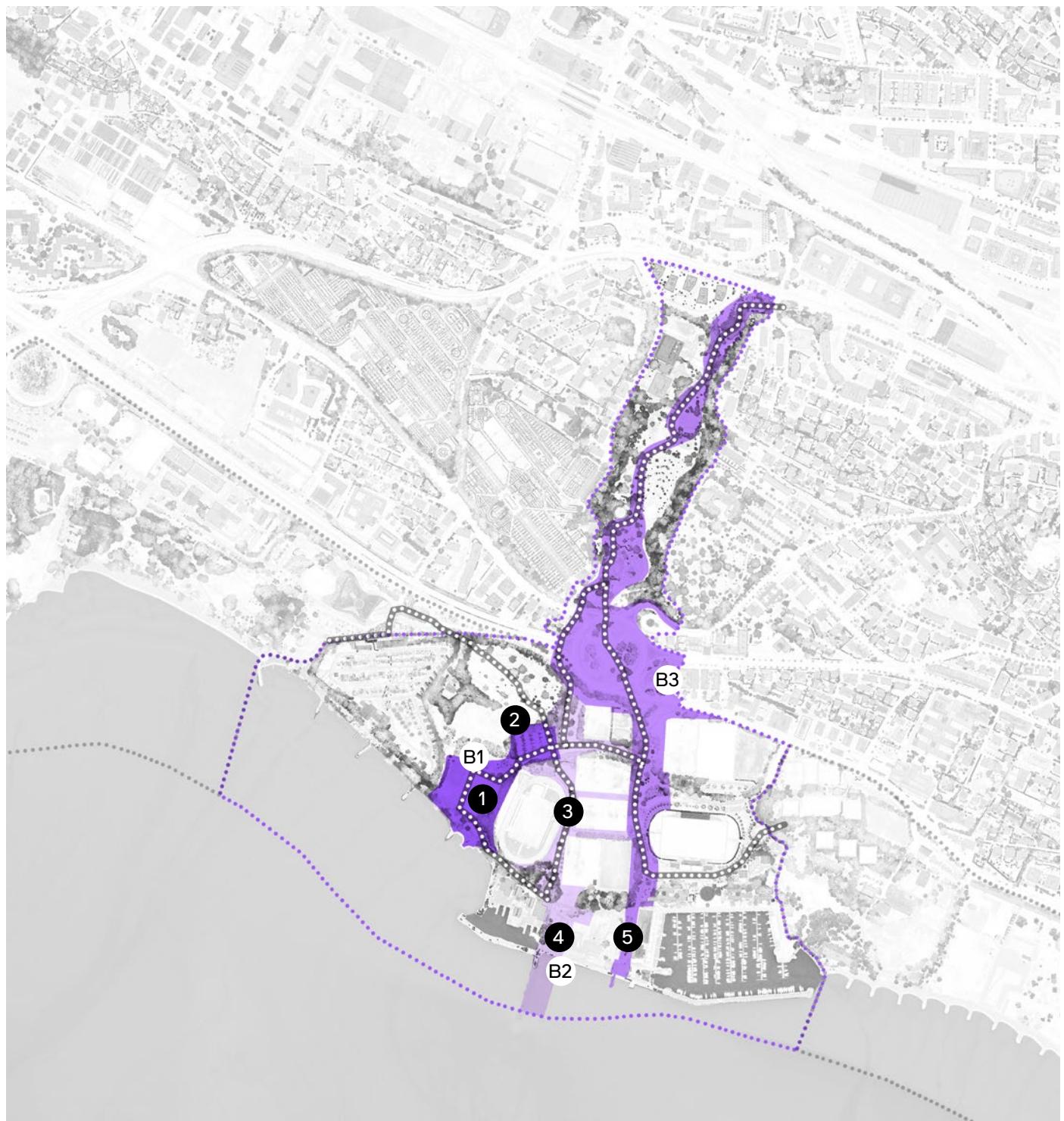
The WWTP treats the wastewater and thus preserves the quality of the lake water. At the same time, it is a societal indicator, because the wastewater contains evidence of everything that is consumed and used (drugs, chemicals, Covid-19 virus, etc.). Not all the substances discharged can be treated by the WWTP nowadays. Some of them accumulate in the lake, which is hardly compatible with the use of lake water as a source of drinking water. The planned installation of an additional micropollutant treatment facility will reduce this conflict, without eliminating it completely. This point raises questions about our behaviour: all the products we consume will end up in the lake at some point. The treatment at the WWTP is not only limited in terms of quality, but also in terms of quantity. During heavy rainfall, some of the water entering the WWTP is directly discharged into Lake Geneva without treatment (see more details in the Maladière sequence).

B. Sequence Flon delta

Suggested Sites

- 1 The Espace Play Area
- 2 Coubertin Stadium car park
- 3 Interstices between sports fields
- 4 Esplanade des Cantons
- 5 Traffic route (historical axis of Expo 64)

Areas of Reflection
B1 Fair Play Area
B2 Below the Grass, the River
B3 The Expo 64 Route



B1 Perimeter Fair Play Area

Description & Uses

At the Espace Fair-Play (p.39 •1), the shoreline is largely paved, to the delight of many sportspersons: you have to pay to play against the beach volleyball players on the manicured sand court; skateboarders challenge rollerbladers in the bowl, creating a buzz on the ramp; further on, the basketball courts, freed from the traditional white lines, become a place for colourful artistic expression on the ground and sound systems in the air. And yet, despite this mix of genres, there is a lack of quieter places for younger children and beginners, places that are more permeable and shaded and that would link all these facilities to the Coubertin car park, the largest of the courts where only cars take up space, lying under the sun in the summer (p.39 •2). Lausanne Jardins 2024 offers the opportunity to think about these new sports practices beyond the limits of conventional fields, to transform them into gardens, and to think about their accessibility other than on the scale of motorised individuals.

Prospective Challenge: Sports for All

How can we reclaim public spaces for outdoor physical activity? How can we promote inclusion and give access to sports facilities to everyone, across all ages, genders, and abilities?

Prefiguration of the Espace Fair Play as part of the “Sports for All” campaign run by the City of Lausanne. (see Fund for the development of physical activity and sports for all)

Suggested Sites (p. 39)

- 1 The Espace Play Area
- 2 Coubertin Stadium car park

- Espace Fair-Play (p.39 •1), Bowl de Vidy, basketball and beach volleyball courts
- Coubertin stadium car park (p.39 •2) and remains of the Lousonna *vicus*



B2 Perimeter Below the Grass, the River

Description & Uses

The flow of the Flon River that once swept through the alluvial cone, which developed naturally beyond the first settlement of the Roman *vicus* of Lousonna, has disappeared underground. The cone has been reshaped by humans to create large, flat areas of uniform, monospecific green grass, and a conventionally orange running track. The fill has been pushed to the sides and now forms embankments (p.39•3) that separate the playgrounds from each other. It is in these gaps, between the fences of the football pitches of the Coubertin stadium, that a continuum of dry grasslands with a high biodiversity potential is developing, sometimes accompanied by more confidential passages. One can finally feel the freshness of the Flon from the sunken wells on the median strip located between the training grounds and the riverbank. It is only at the end of the Esplanade des Cantons (p.39•4), which was paved and inaugurated during Expo 64, that the Flon discreetly emerges from the ground in an outlet that does little to highlight the water that has carved out the furrow of Vallée de la Jeunesse.

Prospective Challenge: Sports and the River, Out of Monofunctional Spaces?

What about the interstices between sports facilities and sports practices? What are the alternatives to large stadiums and monofunctional surfaces? How can the potential of the interstices (i.e., the mounds between the fields) be exploited to promote sports activities and pedestrian permeability through new paths while preserving and enhancing the ecological potential of these interstices?

Sports fields: places of water storage or places of infiltration and permeability?

What remains of the Flon River, the emblematic river that has shaped Lausanne, once an important alluvial cone, now a sealed embankment? Piped and buried sewers or open-air waterways: what place is there for urban rivers?

Suggested Sites (p. 39)

- 3 Interstices between sports fields
- 4 Esplanade des Cantons

- Grassed football pitches at Vidy and its wooded banks (p.39 •3)
- Esplanade des Cantons (p.39 •4), Coubertin stadium and sports fields



B3 Perimeter The Expo 64 Route

Description & Uses

Vallée de la Jeunesse is a valley that was carved out by the Flon. Today, its thalweg, which constitutes one of the main north-south green thoroughfares, is home to the concrete shell of the Espace des Inventions and the rose garden. During Expo 64, this valley was filled in right up to the banks, accompanied by the construction of an imposing road infrastructure giving access to the entire exhibition site. In these modern times, access to and with the car was at the centre of innovation with, as a demonstration infrastructure, the imposing Maladière roundabout which today cuts off Vallée de la Jeunesse from the banks dedicated to joggers, walkers, and bikers. It is in this logic of modernity that this main pedestrian entrance passes under the road leading to Ouchy. Today, the main avenue of Expo 64, which was designed at the time of its construction as a pedestrian access route to the event, is heavily subjected to the footprint of cars (p.39 •5). It has become an access road for traffic to the sports, leisure, and parking areas, and has lost its connection with the marginal tree planting that has developed over the 60 years since Expo 64. The potential for dewatering and planting is huge and invites the reappropriation of the area. During the summer, at the end of the pier and a stone's throw from the pyramids, this is where "Lausanne sur Mer" takes up residence, offering water sports activities – most of which are free of charge – to teenagers and the general public.

Prospective Challenge: What Remains of Expo 64 Sixty Years Later?

Is the Esplanade des Cantons an outdated symbol? What about the futuristic and modernist vision of 1964? How is today's avant-garde defined?

How can we reappropriate these oversized routes and activate pedestrian links? What can be done for green transport and public health? How can the natural, pedestrian character of this road, an extension of the thalweg and the gateway to a city park, be restored?

- Maladière roundabout (p.39 •5)
- Talweg of the Vallée de la Jeunesse



- The Vidy beach around 1910.
[Photo Paul Rosset. Coll. Musée Historique Lausanne]
- Bathing at Vidy, ca. 1915.
[Postcard Éditions Art. Perrochet Matile. Coll. Musée Historique Lausanne. © Editions Perrochet / Archives de la construction moderne – EPFL]
- Vidy stadium, now the Juan Antonio Samaranch stadium, with the Vidy campsite in the background, around 1955.
[Photo Würgler. Coll. Musée Historique Lausanne]

- The Flon Delta and, in the background, the filling site in April 1962
[Photo Aéroport de Lausanne. Archives de la Ville de Lausanne, C16 routes et mobilité_carton provisoire 387]
- The construction site of Expo 64 in 1963.
[Photo Comet AG. ETH-Bibliothek Zürich, Bildarchiv / Com_F63-00473/CC BY-SA 4.0]
- L'Expo 64.
[Photo Comet AG. ETH-Bibliothek Zürich, Bildarchiv / Com_BC25-004-004/CC BY-SA 4.0]



Historical Analysis: Sports for All and the National Exhibition

In the 19th century, people bathed in closed, paying establishments – reserved for tourists – or in very specific sectors; elsewhere, it was forbidden. Hence, until the beginning of the 20th century, few inhabitants of Lausanne frequented the shores of the lake at Vidy. However, with the rise of the hygienist movement, which advocated fresh air and sunshine to prevent and cure tuberculosis in particular, interest in swimming and outdoor activities developed. In 1915, two doctors from Lausanne founded the Œuvre de Vidy-Plage, which offered children a treatment based on sunshine and gymnastics, by or in the water. At the same time, several practitioners, convinced of the benefits of bathing in the lake and of sunshine, encouraged the authorities to open the Vidy beaches to free bathing, and won their case. From then on, the people of Lausanne began to indulge in the pleasures of bathing in large numbers.

At the end of 1917, faced with the development of sports and outdoor activities and the recognition of these practices for the prevention of illness, the authorities decided to create an *ad hoc* site. To this end, it acquired a property on the lake-front where gymnastics facilities already existed, and made it available to the Cercle des Sports, the future Stade-Lausanne, which soon wanted a real stadium. The latter was established near the Flon on land provided by the municipality. It was laid out parallel to the lake and was built in 1921 by unemployed people and members of the Cercle des Sports. It was completed in 1923 with a building housing changing rooms, a grandstand, and an alcohol-free restaurant. A real sports area was created around it. The wooden shelters for bathers built in 1891 were rebuilt in concrete in 1922, while tennis courts, training grounds, and a pavilion for the Œuvre de Vidy-Plage were built. The whole area was planted with trees, including poplars around the stadium. In 1951, a campsite was created on the right bank of the Flon.

In 1956, Lausanne was chosen to host the 1964 Swiss National Exhibition. Among the sites considered, the Vidy site was chosen by the organising committee on 20 March 1959. The event covered an area of almost 600,000 m², including Vidy Plain between Parc Bourget and Bellerive-Plage and, between the Lausanne-Geneva railway line and the future Maladière roundabout, which marked the end of the Lausanne-Geneva motorway then under construction and the Flon Valley, a former open-air dump that was gradually filled in. The land

was partly reclaimed from the lake thanks to the filling in undertaken by the City between Ouchy and Vidy from May 1959. Protected by dikes, artificial banks, and jetties, the embankment was 1700 metres long. Near the mouth of the Flon, the small-scale inland waterway port built in the 1940s had to be filled in, and a new, larger port was built.

Under the direction of chief architect Alberto Camenzind, Expo 64 opened on 30 April 1964 for a period of six months. Its central axis followed the course of the Flon, which had been channelled: it included Vallée de la Jeunesse to the north of the Maladière roundabout and, to the south, of the Voie Suisse, which constituted the general part of the exhibition, and which led to the Esplanade des Cantons and its pyramids facing the lake. On either side of this axis, along the shoreline, the pavilions of the sectors, whose implementation was entrusted to different architects, were scattered. The constructions were temporary and were dismantled at the end of the event.

From the outset, it was understood that after the event, the land would be devoted to greenery, sports, relaxation, and walking. The general development plan drawn up in 1965 took advantage of the plantations and paths, the hills and mounds – sometimes modifying them – that had been created for Expo 64 and that had compartmentalised the land. The pre-existing sports facilities were restored and completed in stages; thus, between 1975 and 1977, a rowing centre was built, and the current Pierre-de-Coubertin stadium was developed to host international competitions. The campsite, which had been moved to Saint-Sulpice during the exhibition, was relocated to the east of Parc Bourget. The Flon Valley became a park dedicated to young people and was named *Vallée de la Jeunesse*; a large rose garden was planted there.

Some buildings were finally kept, such as the Nestlé day-care centre or the hill-shaped beer cellar which housed the changing rooms of the Pierre-de-Coubertin stadium. Place de Granit, the Copper Fountain, and the sculpture *Oath of the Rütli* were also preserved. Finally, the ruins of the *vicus* of Lousonna, which were mainly uncovered during the construction of the motorway in the early 1960s and during Expo 64, were developed into an archaeological park between 1971 and 1976; a water feature symbolising the layout of the shoreline in Roman times.

Hydrological Analysis: The Flon Delta

Several areas in this sequence illustrate the problems of current rainwater management. In the

course of the evolution of urban drainage and the development of the city, three waterways have been completely reconfigured: the Flon, the Louve, and the Galicien. These waterways have been transformed into underground sewers and are currently used for the evacuation of wastewater and run-off in rainy weather. During heavy rainfall, the WWTP cannot treat all the water collected from the urban areas. A safety structure, called a storm overflow, protects the infrastructure of the WWTP during these rainy events. The Capelard spillway, at the bottom of Vallée de la Jeunesse, is particularly important: it is certainly the largest structure of this type in Switzerland. But it is also a link where urban hydroelectricity is produced. Indeed, the river water of the Louve is collected upstream of the city in a small retention lake. This water is transported through the City's "Déchodus" and the old Flon gallery to this structure where it is used by a turbine. The energy aspect of water is thus perfectly illustrated by this particularly original project in an urban environment. The use of lake water as an energy source for heating/cooling is also a key theme.

The Maladière roundabout raises the issue of run-off water pollution from motorised traffic. Road water contains numerous pollutants, notably from the abrasion of brakes, tyres, and the road itself. Road water is known to be the main source of microplastic contamination in receiving environments. The significance of the input of pollutants in water was only understood towards the end of the 20th century, which is why the majority of Swiss roads, built before that time, are not equipped with water treatment systems. The City of Lausanne has implemented run-off treatment systems – an opportunity in this sequence to make the link between motorised transport and water pollution. Treatment systems by infiltration through specifically designed planted soil beds are becoming more and more common.

These aspects of water management and pollution explain why the Vidy bay is the most contaminated place on Lake Geneva. The Capelard spillway discharges into the bay, as well as road run-off from the lake shore, not to mention the wastewater treatment plant, whose purified water is discharged deep into the lake. All these discharges generate conflicts of use with the recreational activities that take place on the shores of the lake, a recreational area *par excellence*. Numerous nautical activities take place on Lake Geneva directly in the vicinity of the Vidy Pyramids: sailing, paddling, rowing, pedal boats,

swimming, etc. The fact is that, despite potential pollution during rain events, the quality of the water can be considered good in the vicinity of this sequence. This is an opportunity to inform the population about pollution and its consequences for health, to talk about the bacteriological quality of the beaches, the proliferation of algae, duck fleas, etc.

C. Sequence Vidy-Bellerive

Suggested Sites

- 1 Meadow between the theatre and the beach
- 2 Roof of the Bellerive swimming pool
- 3 Sports area of the Bellerive swimming pool
- 4 Lake (shoal off Bellerive beach)
- 5 Car park / Circus Square
- 6 Terre-plein du Vent-Blanc
- 7 End of Quai de la Sagrave

Areas of Reflection
C1 Theatre de Vidy
C2 Bellerive Swimming Pool
C3 Bellerive Beach
C4 Quai du Vent-Blanc



C1 Perimeter Theatre de Vidy

Description & Uses

The Théâtre de Vidy, the jewel in the crown of architect Max Bill's work, was built in a green setting with the lake as its most beautiful backdrop. Thanks to its success, the theatre has added annexes and outbuildings which are now reorganised around a semi-open courtyard. At the back of the site, the remains of the Expo 64 construction walls can still be seen and have been converted into a playground. In summer, the meadow (p.49 •1) comes alive. The groves are decorated with garlands to celebrate birthdays, weddings, and the many spontaneous celebrations of the communities in the Lausanne region. Young people, old people, and teenagers mix together to the rhythm of the music. On the lakefront, these parties often come with delicious-smelling aromas from the many, multicultural barbecues. To cool off, the beach is not far away, with its waterfront restaurants, mini-golf, and ladies' baths. Access to the water remains public. There is plenty of room for culture here!

Prospective Challenge: A Theatre for (Future) Audiences

A cultural institution meets the landscape, the shores, and its users. How can we weave links between the theatre and the public of the beach through a reappropriation of this natural and built environment? How can we offer a space for performance and expression outside the walls to a wide audience? How do the uninitiated appropriate the performing arts?

Suggested Site (p. 49)

- 1 Meadow between the theatre and the beach

- Théâtre de Vidy, meadow (p.49 •1) and beach
- Meadow (p.49 •1) with opening onto the landscape



C2 Perimeter Bellerive Swimming Pool

Description & Uses

Set against Avenue de Rhodanie, the Bellerive swimming pool, another jewel of modern architecture, stretches across the width of a beautiful, impeccably mown lawn, facing due south towards the lake. This emblematic building from the 1930s, extended in the 1960s, offers a spectacular view of the great landscape from the changing rooms and the panoramic terrace (p.49 •2), which is not used enough today compared to the other parts of the shoreline that are literally overrun in the summer. Here you can enjoy a bird's eye view of the lake without having to experience the dizzying sensations from the diving boards. The pergola provides shade for this former solarium, which is just waiting to be reactivated for a summer.

Below, the western part of the swimming pool is dedicated to field sports. This green space (p.49 •3), which is also underused – in striking contrast, in summer, to the density of use of the meadow in front of the theatre – is still in the process of being developed and could accommodate an ephemeral garden as well as new beach volleyball courts.

Recently, an effort to bring biodiversity has been made to enrich this large green space. Copses of pines, willows, and other tall, pruned trees have been planted on small mounds, often less mown than elsewhere. They provide the shade and coolness sought after by many regulars.

Prospective Challenge 1: Development of an Emblematic Building

How can the roof terrace of the Bellerive swimming pool, an emblematic building from the 1930s, enlarged in the 1960s, which offers a spectacular view of the landscape, be enhanced and filled with life?

Suggested Site (p. 49)

2 Roof of the Bellerive swimming pool

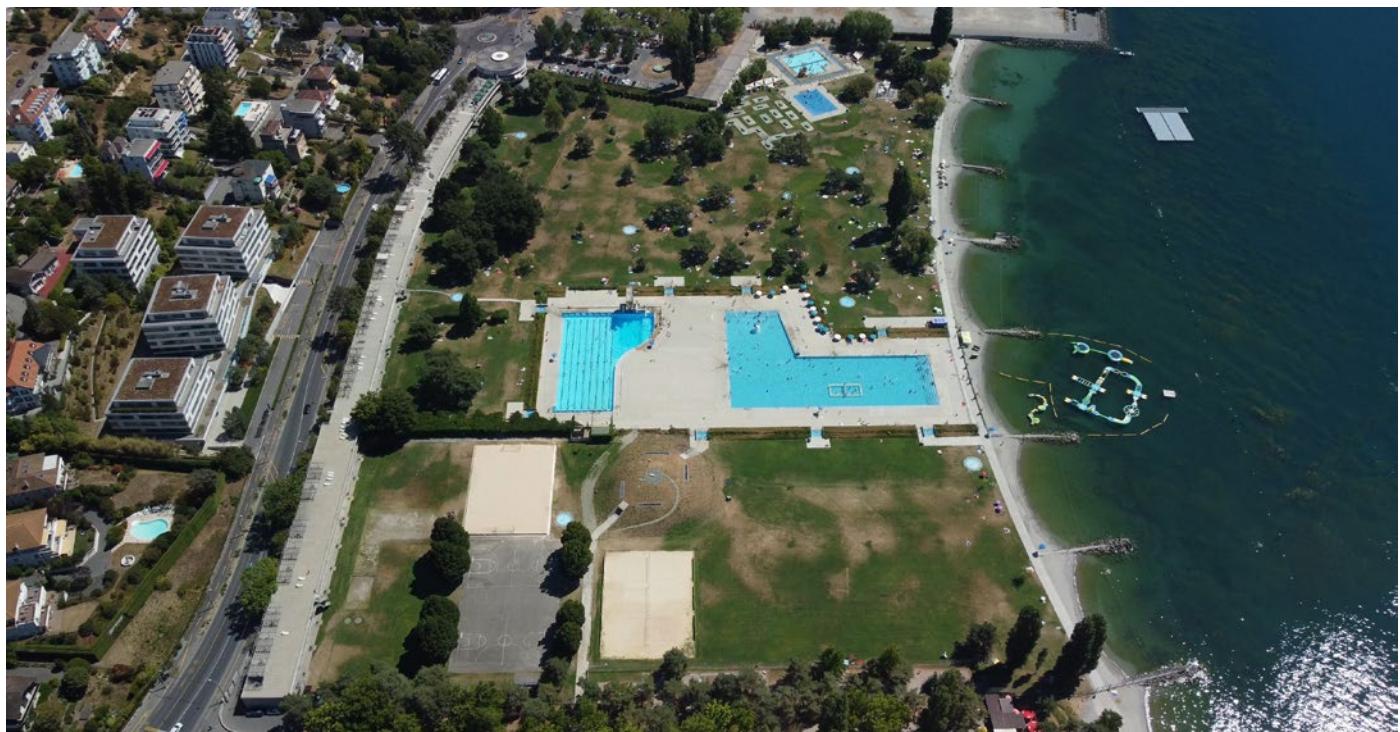
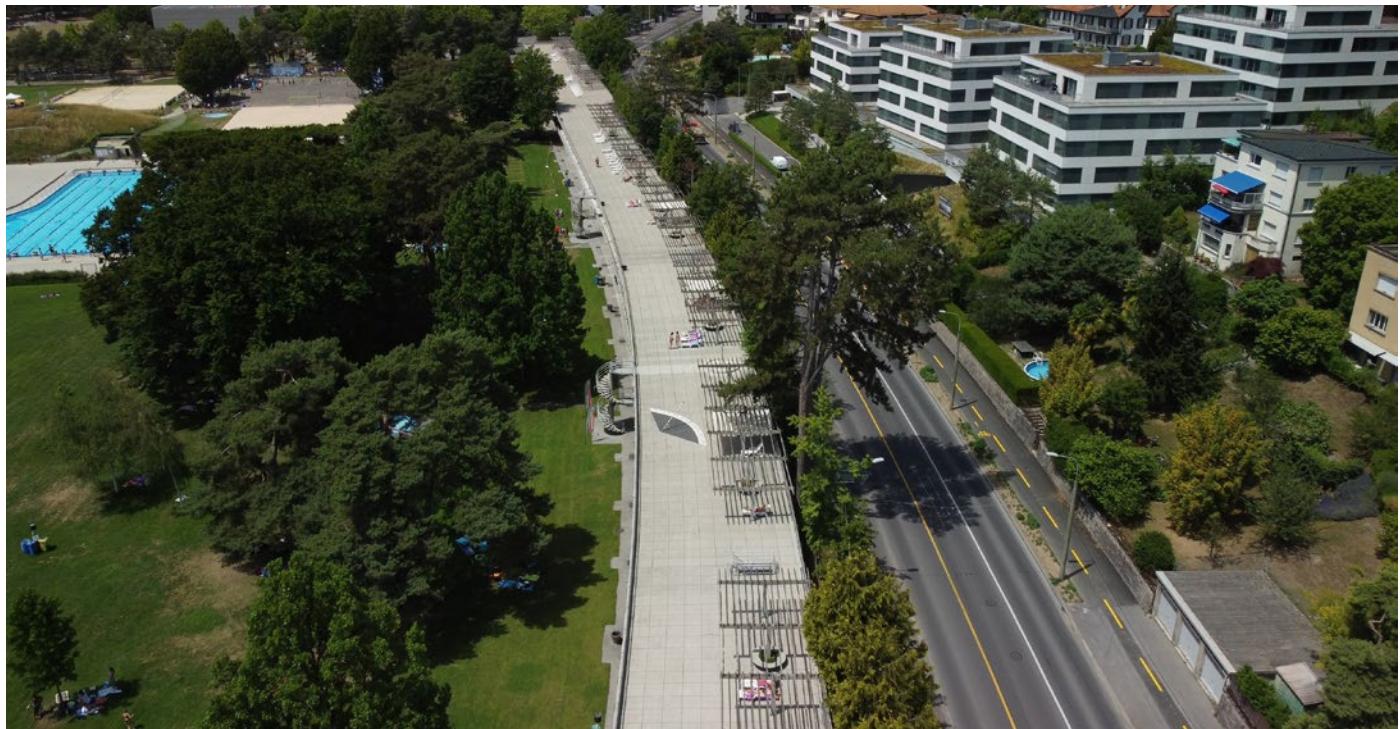
Prospective Challenge 2: Accessibility of Infrastructures and Spaces to the General Public

How can we intensify the use of the facilities, particularly for sports, within the Bellerive swimming pool, which are underused in view of the overuse of the surrounding areas (Vidy and Jetée de la Compagnie)?

Suggested Site (p. 49)

3 Sports area of the Bellerive swimming pool

- Roof terrace of the Bellerive-Plage swimming pool (p.49 •3)
- Bellerive swimming pool and its sports area (foreground) (p.49 •3)



C3 Perimeter Bellerive Beach

Description & Uses

Bellerive is not just about chlorinated water held in blue pools... the site also features more than 600 m of sandy beach, half of which is closed to free access in the summer to ensure the safety of water sports activities and the supervision of bathers in the lake. This beach (p.49 •4) goes beyond the scale of the swimming pool and forms a unique and coherent landscape unit between La Voile d'Or and Quai du Vent-Blanc. Here the sand is held back along the entire length by coated breakwaters forming small artificial creeks. In winter, visitors can walk along this beach on a concrete path that serves as a solarium when the pool is closed. At the end of this walkway, a ramp used to lead not only walkers but also the elephants of the Knie circus into the water, in a ceremony that attracted many passers-by. The water belonged to the elephants for a swim, but who does it belong to now?

Prospective Challenge: Public Access to the Lakeshore

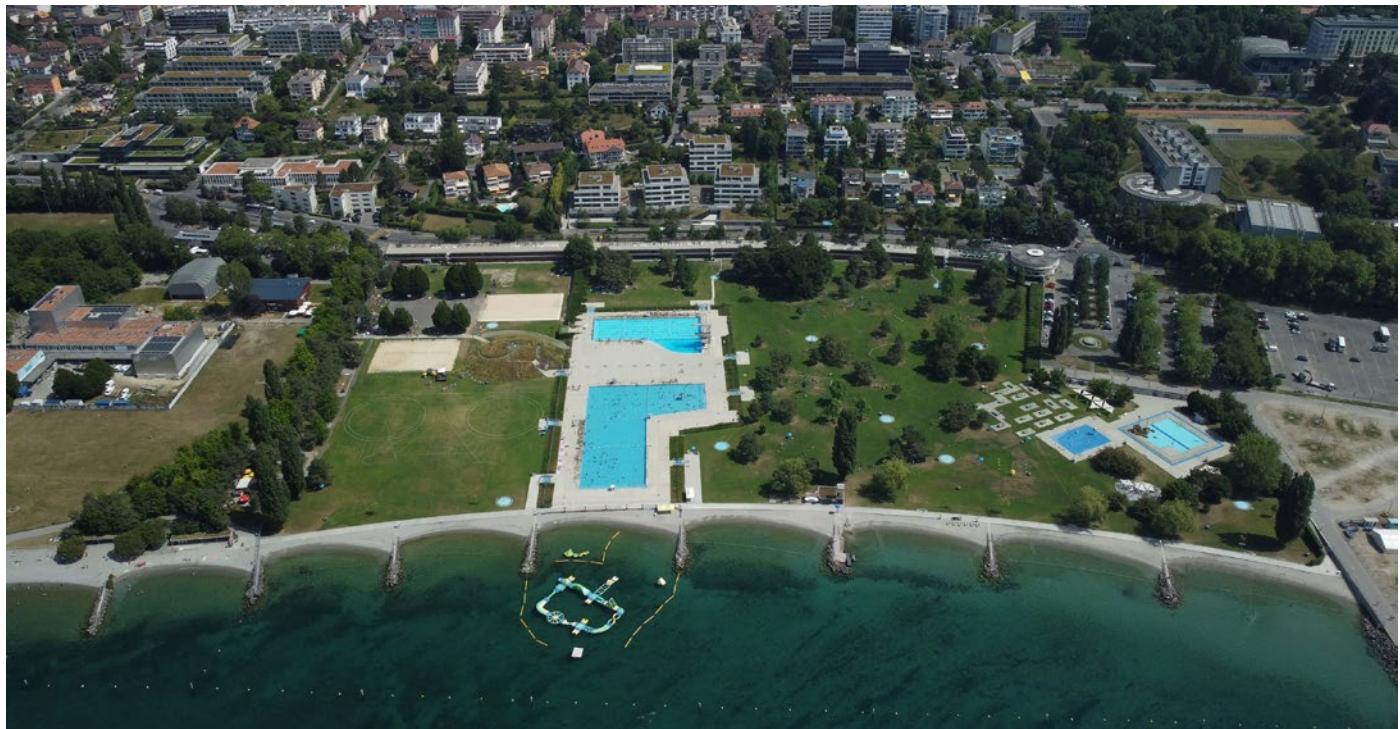
What solution can be found to keep the Bellerive beach open to the public and guarantee free circulation along the shoreline, so as to avoid detours behind the swimming pool? Is it still possible to privatise local beaches?

What might be put in place to encourage aquatic sports and changing bathing practices, such as cold-water winter bathing, etc.?

Suggested Site (p. 49)

4 Lake (shoal off Bellerive beach)

- The swimming area (p.49 •4) between the Bellerive beach between the Voile d'Or and the Quai du Vent-Blanc
- Access to the beach closed in summer from the Quai du Vent-Blanc



C4 Perimeter Quai du Vent-Blanc

Description & Uses

It is hard to believe today: instead of the tarmac (p.49 • 5) that now accommodates parked cars and a few fairground events that consume a lot of logistical space, the waters of the lake once lapped upon the old Vent-Blanc quays. In the last century, the quays were filled in with huge embankments, forming an impermeable basin where there is no longer any place for life. Once you pass the avenue of majestic plane trees that line the quays, there is no more shade and no more vegetation! This filling in has emptied of its function the beautiful promontory that once extended Rue des Bains down to the water to magnify the entrance to the swimming pool. The elegant oblong and concave shape remains, as does its plant cover, but it is now drowned in the complex micro-topography of the more recent fills.

Wedged between the quays, the circus square, and the promontory, a mineral but relatively porous lime median (p.49 • 6) welcomed the circus performers and their trailers while the circus was in town. This is also where the open-air cinema was held. Before the projections, the audience could watch the sunset over the lake and the Alps or get a taste of summer storms! Nowadays, the refreshment stands along the Compagnie pier perpetuate the nightlife that used to take place there, offering alternative places to swim from the rip-rap, and food trucks to eat.

The jetty enjoys an exceptional location and is doubly oriented: towards the lake, of course, but also towards the slipway, which serves as a port with multiple activities (p.49 • 7). The shipyard, the CGN boat depot, the Ouchy fishery, and the Sagrave sand and gravel plant – a company that mines the lake – come to life during the week. One can see an almost perpetual cycle of cranes and trucks building and destroying mounds of gravel of different granulometry. Against the harrows that protect passers-by from this titanic work, the metal traps of professional fishermen dry.

Prospective Challenge: Under the Asphalt, the Sponge City

From festive/fairground to multifunctionality: how can we transform a circus and fairground square that is only in use a few days per year? What other uses are there for an oversized car park? A new meeting place for the public that is both multifunctional and porous?

Sponge city and infiltration: how can we prefigure the surface unsealing of the car park, by thematising surface water run-off and the filtration of pollutants? How can we create a “rain area”? How can we return to an ecological infrastructure (hydrocarbon separator, micropollutant filtration, etc.) under the asphalt, under the ground?

What is the place of water in the city of the future (water games, climate kiosks, water walls)?

Suggested Sites (p. 49)

- 5 Car park/Circus Square
- 6 Terre-plein du Vent-Blanc

Awareness-raising Challenge: Water as a Productive Resource

In addition to recreation, the lake is also a resource for activities such as fishing, material transport (Sagrave), urban agriculture, energy production, etc.

Suggested Sites (p. 49)

- 5 Car park/Circus Square
- 6 Terre-plein du Vent-Blanc
- 7 End of Quai de la Sagrave

- Quai du Vent-Blanc (p.49 •6)
- Bellerive car park and Place du Cirque (p.49 •5), Sagrave site and quays (in the background) (p.49 •7)



- Bellerive-Plage in August 1946.
[Photo Werner Friedli. ETH-Bibliothek Zürich, Bildarchiv / LBS_H1-009324 / CC BY-SA 4.0]
- The shoreline between Vidy and Ouchy in August 1959 at the very beginning of the filling work.
[Photo Aéroport de Lausanne. Archives de la Ville de Lausanne, C16 routes et mobilité_carton provisoire 387]
- The filling site between Ouchy and Bellerive in February 1960.
[Photo Aéroport de Lausanne. Archives de la Ville de Lausanne, C16 routes et mobilité_carton provisoire 387]



- The merchant port and the filling site in October 1960.
[Photo Aéroport de Lausanne. Archives de la Ville de Lausanne, C16 routes et mobilité_carton provisoire 387]
- The filling site between Vidy and Bellerive in March 1961.
[Photo Aéroport de Lausanne. Archives de la Ville de Lausanne, C16 routes et mobilité_carton provisoire 387]
- The merchant port and the filling site in April 1962.
[Photo Aéroport de Lausanne. Archives de la Ville de Lausanne, C16 routes et mobilité_carton provisoire 387]



Historical Analysis: New Surfaces Reclaimed from the Lake for Leisure, Culture, and Logistics

Between Ouchy and Vidy, in the hamlet of Cour, the first paying baths were built in 1884, with one part reserved for women and another for men, separated by a partition that went into the lake. They were rebuilt in 1925 on the same principle. On the Ouchy side, to the west of the Compagnie Générale de Navigation (CGN) shipyard and the merchant port built from 1887 onwards, the lake was filled in several stages from 1893. In 1912, a promenade was even built on part of the embankment. After the First World War, the Lausanne authorities undertook to double the width of this embankment in order to create a merchant quay, intended above all for the storage of materials – ballast, sand, gravel – transported by lake.

In the 1930s, the left-wing authorities, which were elected in 1933, implemented the construction of a new bathing establishment, a project that was part of its electoral programme in the fight against unemployment. In 1934, it organised a competition won by the architect Marc Piccard. Bellerive-Plage was inaugurated in 1937. While the buildings were built on the original shoreline, the lawns and the shoreline were reclaimed from the lake, as was the esplanade that bordered it to the east.

Several plans for the development of the area between the CGN and Bellerive-Plage followed but were constantly postponed for financial reasons. The major issues in all these projects were the creation of a small new boat harbour – the existing one was too small – and the relocation of the merchant port and the CGN workshops, which in the past were outlying and paralysed the development of tourism in Ouchy.

In 1958, the authorities presented an overall project which provided for a large-scale filling in of the lake, allowing a surface area of 220,000 to 250,000 m² to be gained, which would also have the advantage of cleaning up the Vidy-Cour gulf, where silt and aquatic plants were proliferating, making the shoreline unhealthy and smelly. The lawn of Bellerive-Plage was then multiplied by four and the embankment was bordered by a more than 1000-metre-long artificial shoreline. A variant of the project placed the CGN shipyard and the new merchant port at Bellerive, while the old one was transformed to accommodate small-scale shipping. The variant that was accepted placed it at the mouth of the Flon. However, when the site of Vidy was chosen the following year to host Expo 64, this solution was no longer suitable

because the merchant port would be located at the mouth of the Voie Suisse, the main axis of the exhibition. The project was once again revised and in January 1961 a new project was adopted that could be implemented before the opening of the event. It consisted of building a marina at Vidy, filling in a 34,000 m² esplanade at Bellerive, on which the shipyard would be built, and creating a basin in front of the existing merchant quay that the ballast companies would continue to use, and where eight barges could be unloaded simultaneously.

At the eastern entrance to Expo 64, in the immediate vicinity of Bellerive-Plage, whose infrastructure was expanded, was the “Art of Living” sector, including the pavilion of the “Educate and Create” half-sector by architect Max Bill, which housed the theatre, among other things, and constituted the real cultural sector of the exhibition. Together with the “Hotel Centre” on the east side of the harbour, which was intended to be permanent from the outset, and the kindergarten in Vallée de la Jeunesse, the theatre is the only remaining part of the Expo 64 pavilions. Although it should have been dismantled, it was kept thanks to Charles Apothéloz, then artistic director of the drama department at the Théâtre Municipal. Supported by various stakeholders, he proposed during the exhibition keeping the whole “Educate and Create” sector and to turn it into a cultural centre, but the project was refused. Apothéloz and his supporters then appealed to the syndic Georges-André Chevallaz, who was in favour of buying the theatre and the adjoining offices, an acquisition that was accepted by the City Council in May 1965. In 1972, it became the home of the Centre Dramatique de Lausanne. The building is currently being renovated from top to bottom.

Finally, the area between Bellerive-Plage and the CGN facilities, which was used for parking more than 2000 vehicles during Expo 64, was redeveloped after the event. The parking function remained, trees were planted, but a large part of the area was left free to accommodate the fairground attractions that had previously been housed in Place de Milan.

Hydrological Analysis: Towards a Sponge City for Bathing Water

This journey through the heart of areas that are sometimes very mineral, along shores that are not very accessible, raises questions about two aspects of the city's relationship with water, i.e., the use of land and swimming.

In this sequence, particular attention is paid to the mineral surfaces of several car parks. Sporadically used by circuses and fairground activities such as Luna Park, they are hardly suitable for leisure and relaxation at other times. In addition, these impermeable surfaces create a barrier in the natural water cycle and promote the appearance of heat islands through overheating. Instead of infiltrating, rainwater runs off quickly, reducing the availability of water as a resource for groundwater replenishment and evapotranspiration by plants. These surfaces lend themselves well to a reflection on land use and water management, in order to optimise its use for humans for a “sponge city.”

Why can't these surfaces have multiple uses? Dewatering and greening these areas would contribute to the creation of a “rain area” which would absorb the sometimes-torrential runoff and slowly return it to its environment, creating a high-quality living environment in the city. The objectives of a sponge city strategy are multifunctional and synergistic but require negotiation on the use and sharing of the available space. Several examples of this type of development already exist, for example Zollhaldenplatz in Freiburg im Breisgau, Vulkanplatz in Zurich, Bentemplein in Rotterdam, Parc des Gandines and Place du Lavoir in Essarts-le-roi, etc.).

Such multifunctionality is also possible for roofs, especially flat roofs such as that of the Bellerive swimming pool. These roofs, whose sole role is too often limited to keeping the building dry, have enormous potential for synergy, e.g., they can be used as a rainwater retention surface, a plant biotope for biodiversity, a solar energy production surface, a place for people to relax, or an air-conditioning system for the building and the surrounding area, etc. The greening of roofs is strongly encouraged by the City of Lausanne.

The Bellerive swimming pool also questions the relationship between humans and the lake: why swim in an artificial pool when it is located just a few metres from the gigantic natural pool that is Lake Geneva? For a long time, the lake has been perceived as a polluted environment, not recommended for swimming. The construction of embankments and an open swimming pool right at the edge of the lake still materialises the artificial barrier built by man to keep the lake at a distance.

This situation encourages the renewal of the link between the city and the lake by reinforcing the services that the lake provides as a retention basin in the event of floods, a drinking water resource, a source of biodiversity, and a climate

regulator. The success of the seasonal refreshment stands recently set up on the water's edge is evidence of the population's desire to reappropriate the shores of the lake. Similarly, these initiatives are part of a long Swiss tradition of urban bathing practised not only by the whole population in the lakes, but also in the still clean waters of the Rhone, the Rhine, the Aar or the Limmat, and even in secondary rivers. These places of recreation, physical exercise, and refreshment, often open to the public or under public management, have almost disappeared in Lausanne. They allow the city to be closely associated with its entire hydrographic system by giving rise to remarkable landscape architecture.

D. Sequence Ouchy-Vuachère

Suggested Sites

- 1 Old port
- 2 Site of the former Ouchy baths (off the Olympic Museum)
- 3 The quayside area: the southern boundary of Parc Denantou, the motorised, cycle, and pedestrian routes on the quays and the access points to the water
- 4 South-eastern end of Parc Denantou, Vuachère riverbed and SPADOM composting and disposal site
- 5 Renaturalised Vuachère estuar

Areas of Reflection

- D1 Ouchy
- D2 Denantou
- D3 Vuachère



D1 Perimeter Ouchy

Description & Uses

Welcome to Ouchy, whether by water, arriving by boat to join the marina or to dock at the CGN landing stage, or by land, coming from the station by metro or on foot along *Promenade de la Ficelle!* The latter links the terminus to the city centre in a few minutes, while the landing stage takes you to the sublime landscapes of Lavaux or to France, on the other side of Lake Geneva. A merry-go-round and a large playground, a stone's throw from the metro entrance, keep the children entertained. On Sundays, it is market day in the shade of the tree-lined park of the old port, the only piece of vegetation that puts Quai des Savoyards at a distance from the city's façade, which is thriving with restaurants and souvenir shops. At weekends in the summer, walkers stroll along the port and quays and along the large esplanade which sometimes hosts important events. As they stroll along, they eat an ice cream on the gently sloping glacis behind the Château d'Ouchy, where the old port originally stood (p.61•1), and continue their journey along Quai de Belgique, traditionally flowered with perennials. Meanwhile, others rent pedal boats in the old port, in the cove facing the Grammont, one of the peaks of the Valais and Chablais mountain ranges. In Ouchy, it is difficult to bathe anywhere other than in the fountain on Esplanade de la Navigation, which, in hot weather, is used as a paddling pool for toddlers and children. However, if you look at the clear waters from the belvedere, you will still make out the traces of the old public baths on stilts (p.61•2) which were located at the level of the park of the Olympic Museum.

Prospective Challenge: Developing Access to Water

How can bathing possibilities be strengthened on the site of the first baths of the city? What type of infrastructure might facilitate access to the water and encourage bathing?

Suggested Sites (p. 61)

- 1 Old port (1)
- 2 Site of the former Ouchy baths
(off the Olympic Museum)

- Old port of Ouchy (p.61•1) with its castle and port square
- Swimming tolerated since recently from the quays (p.61•2)



D2 Perimeter Denantou

Description & Uses

The construction of Quai de Belgique (p.61•3) has put the parks of the Beau Rivage Hotel and the beautiful mansion houses of the Olympic Museum, the former Musée de l'Elysée and the International Volleyball Foundation, as well as the former bourgeois countryside of Denantou, with its Thai pavilion, at a distance from the shore. The construction of the quays has, however, ensured public access to the shore. Their size makes them difficult to cross: the pavement and the flowered shoreline promenade, interspersed with 4 semi-circular belvederes opening onto the lake, are separated by more than 10 metres of roadway. Cars therefore retain the lion's share of the space, whereas one could imagine this space being occupied quite differently if the segregation of means of transport were to be erased for a summer. On the quays, the comings and goings of buses and cars echoes those of pedestrians and rollerbladers at the water's edge, particularly on Sundays. There, sailing boats and motorboats mingle with pedal boats and can reach the mouth of the Vuachère, the easternmost border of the Lausanne shore, by water. The belvedere of the Haldimand tower marks the end of this urban shoreline walk and the beginning of several wilder paths reserved for hikers: the Renard path, which follows the cool, shady course of the Vuachère towards the heights to the east of the city, and the lakeshore path, on the lands of Pully. To access the latter, simply take the footbridge over the Vuachère and you will find yourself in another world, that of the banks of the lakeside villas.

Prospective Challenges: Cohabitation of Means of Transport on the Quayside

How can Parc Denantou be extended and connected to the shoreline (as was historically the case before the construction of the quay)? How can the plant structure be reinforced and adapted to bioclimatic issues?

Questioning the use and multiplication of dedicated lanes: how can we encourage cohabitation and give more space to vegetation? Possible closure of the road to individual motorised transport and transformation of part of the traffic lanes into garden streets.

A place for walks and tourist activities: how can the attractiveness of the historic quays be enhanced by activities along the promenade (fountains, kiosks, plant structures, refreshment areas, etc.)?

Suggested Site (p. 61)

- 3 The quayside area: the southern boundary of Parc Denantou, the motorised, cycle, and pedestrian routes on the quays and the access points to the water

- Quai de Belgique and its flowerbeds (p.61•3)
- Southern limit of the Denantou Park and the traffic lanes of the Quai d'Ouchy (p.61•3)



D3 Perimeter Vuachère

Description & Uses

The Vuachère, like the Chamberonne, constitutes a geomorphological boundary: it separates the areas of Lausanne and Pully. Humus from the wooded bed of the Vuachère and the composting site of the Department of Parks and Gardens of the City of Lausanne (p.61•4) are located nearby. Their soil is thus fertilised, either through a natural cycle of transformation linked to the ecological environment of the river, or by human action during the degradation of plant waste from the maintenance of the City's parks and gardens. The mouth of the Vuachère also marks the meeting point of the Quai de Belgique promenade, the Lake path, and the Renard path, which follows the flow of water from the river to its mouth (p.61•5) in Lake Geneva. In 2018, heavy rains, followed by high water, broke the bridge over the mouth of the Vuachère. Since then, the question has arisen as to the possible rewilding of this highly anthropised and historic site. The project to restore the Vuachère to its natural outlet, no longer to the east but to the west of the Haldimand tower, also includes the recreation, offshore, of another bird island which would thus echo that of the Chamberonne.

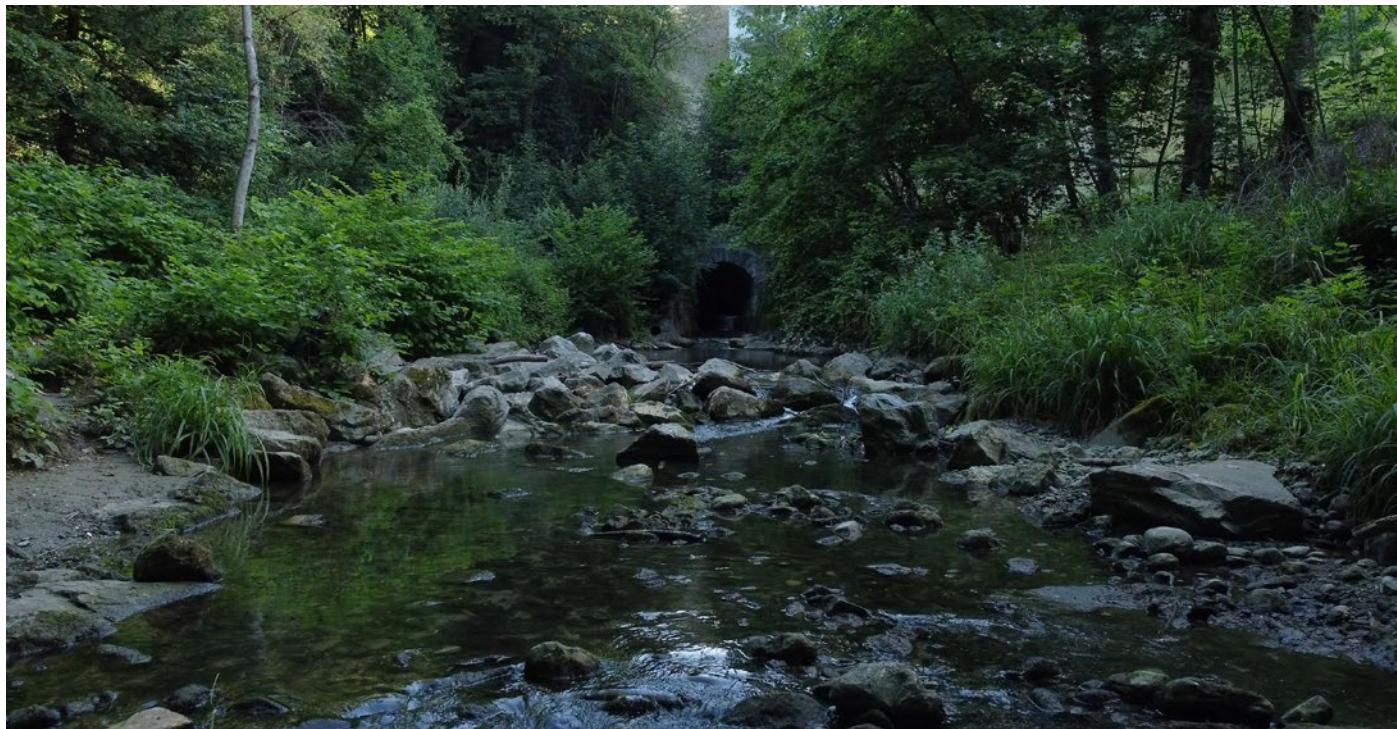
*Prospective and Awareness-raising Challenge:
Rewilding of the Vuachère Estuary*

What place should be given to rivers and the forces of nature in the city? How can ecological corridors be strengthened, and biodiversity be promoted? How can we raise awareness of the importance of river mouths – essential sites for fauna and flora?

Suggested Sites (p. 61)

- 4 South-eastern end of Parc Denantou, Vuachère riverbed and SPADOM composting and disposal site
- 5 Renaturalised Vuachère estuary

- Bed of the Vuachère upstream of its canalization (p.61•4)
- Mouth of the Vuachère (p.61•5) and Haldimand Tower



- The promenade, now Place du Général-Henri-Guisan, the Beau-Rivage Hotel and the landing stage around 1870. [Anonymous photo from *Souvenir du Lac de Genève*, ca. 1870, Geneva, ed. Vve A. Garin. ETH-Bibliothek Zürich, Bildarchiv / Ans_15306-03-AL / Public Domain Mark]
- The port of Ouchy and, in the background, the Beau-Rivage Hotel in 1875. [Photo Francis Frith. Coll. Musée Historique Lausanne]
- Quai Marchand, now Place de la Navigation, and the Château d'Ouchy around 1880. [Anonymous photo. Coll. Musée Historique Lausanne]
- A boat loaded with Meillerie stones in the port of Ouchy and, in the background, the Beau-Rivage Hotel, around 1885. [Photo Auguste Garcin. Coll. Musée Historique Lausanne]
- The present-day Place du Port, the promenade, the Beau-Rivage Hotel and the large quay, now Quai de Belgique, around 1902. [Photo Wehrli AG. ETH-Bibliothek Zürich, Bildarchiv / Ans_14378 / Public Domain Mark]
- The large quay, now Quai de Belgique, in September 1916. [Photo Frédéric Mayor. Coll. Musée Historique Lausanne]



Historical Analysis: The Development of a Merchant and Tourist Port

At the end of the 18th century, the modest fishermen's hamlet of Ouchy was embellished by the construction of Logis d'Ouchy, the future Hôtel d'Angleterre, and then, to the east of it, an elegant mansion – buildings that introduced a change of scale. The port, which was not protected by any works, was closed in 1791-1793 by a jetty to the south-east of the castle, which did not prevent the port basin from silting up.

With the introduction of the first steamboats in 1823 and 1826, the hamlet became one of the gateways to the capital of Vaud. Until the installation of the first landing stage in 1853, it was the "radeleurs" (boatmen) who ferried the increasing number of travellers and disembarked them in a harbour cluttered with construction materials, beached boats, chains and mooring ropes of all kinds, cloths, and nets. The elected representatives of Ouchy kept asking for improvements, but their requests went unheeded.

In 1853, the citizens of Ouchy met in an assembly and listed their grievances. In particular, they wanted the bay to be dredged and the shoreline to be cleared of material. They feared that tourists would prefer Montreux to Lausanne and that the planned railway would harm lake transport. The City and the Canton – owner of the castle – had difficulty reaching an agreement, so a private company, Société Immobilière d'Ouchy (SIO), made up of notables and financiers, took over from the public authorities to carry out the requested improvements. The SIO's project consisted of filling in the lake to the south and west of the castle in order to create a "merchant" quay where everything that disrupted the port's surroundings would be stored. The latter would have its basin deepened and be surrounded by a quay; a promenade would be laid out on the site of the customs building that used to occupy the north shore of the port. These public works were intended to ensure the success of the second and most important aspect of the project: the construction of a first-class hotel, the future Beau-Rivage Hotel, to the east of the hamlet. They were built between 1857 and 1861, the date of the hotel's opening. A bathing establishment housed in a chalet on stilts, which allowed bathing out of sight, was then built to the east of the hotel.

After the funicular of the Lausanne-Ouchy Company was put into service in 1877, which had a considerable impact on the development of the hamlet, an English garden that was partly

reclaimed from Lake Geneva was laid out to the south of the castle and the pier. The landing stage was then installed at its end.

In the mid-1880s, the Compagnie Générale de Navigation (CGN) sought to move its workshops from Morges to Lausanne. To facilitate this project, the Lausanne authorities agreed in 1887 to build a large jetty and dykes to form a port in front of the "merchant" quay and granted the company land to build its shipyard.

With the conversion of the castle into a hotel in 1889-1893, the tourist character of the hamlet was strengthened and the project for a large quay between the Beau-Rivage hotel and the mouth of the Vuachère took shape. The plan, drawn up on the initiative of the tourist community, envisaged a 29-metre-wide quay, formed of two straight segments, entirely reclaimed from the lake. The neighbouring owners opposed it with a more modest 12-metre-wide structure following the shoreline. Two urbanistic conceptions, one favouring perspectival effects and monumentality, the other the picturesque, clashed. The former won for financial reasons. As it was straight, it could benefit from the status of a cantonal road and consequently from state subsidies; it was inaugurated in 1901.

At the beginning of the 20th century, the Beau-Rivage Hotel was enlarged, and more modest hotels were opened. The banks to the west of the castle were progressively restructured: a first embankment beyond the shipyard and the port was built between 1893 and 1912, then greatly increased after the First World War. However, it was the question of the marina or small harbour that occupied people's minds for more than 50 years. There was a lack of mooring places. Several projects came and went before and after the Second World War, which only came to an end in the early 1960s, in connection with Expo 64. The merchant port, the CGN, and the sand and gravel suppliers were moved to the west, the merchant port was transformed into a marina and the lake station was created to the south of the English garden. Finally, Place de la Navigation, which occupies the site of the first merchant quay, was redeveloped in 1992-1997; the fountain which adorns it marks the limit of the original bank.

Hydrological Analysis: From One River to Another, the Shoreline as Shared Urban Landscape

Quai de Belgique and Quai d'Ouchy lead to the mouth of the Vuachère. This route addresses the issue of motorised and impermeable surfaces, the cause of run-off, and takes up the problem

of floods, as they occur at the mouth of the river, whose small bridge was washed away a few years ago and for which land restoration is also planned.

The floral display of the flowerbeds also evokes a second potential source of water pollution: the use of phytosanitary products to combat insects, fungi, weeds, and other unwanted infestations of plants and gardens. It helps make a connection with the first sequence, that of the Chamberonne and the WWTP at the other end of the Lausanne banks. The problem of the increase in water pollution due to the rising use of chemical products in society can be partially treated at the WWTP, but a good part of the products never arrive there; in rainy weather, they run directly into the waterways and the lake. The city of Lausanne no longer uses biocides in its parks. This is an opportunity to make the population aware of this source of water contamination. The proximity of the promenades and the lake also raises another problem: littering. Cigarette butts, street litter, etc. are often thrown into the sewer grates without imagining that this waste will inevitably end up in the lake.

This sequence also provides an opportunity to address another essential function of the lake: the transport of people and consumer goods. Historically, the "Ficelle" in Ouchy carried goods that had arrived by boat all the way to the centre of Lausanne. The current activities of the CGN are focused on passenger transport, with a high proportion of cross-border workers. The transport of goods has lost its importance on the lake. At the time, a seaplane line was even envisaged in the vicinity of the current quays. This sequence therefore also invites us to look at water as a means of transport, both for tourism and for work. However, local recreational activities – pedal boats, swimming, stand-up paddleboarding, sailing boats, water skiing, etc. – sometimes conflict with these activities, which can also affect the quality of the lake water through the pollutants they generate: boat paint, petrol, etc.

The recent installation of pontoons for swimming in Ouchy and at the Olympic Museum also bears witness to a desire to reappropriate the shores of the lake. The closure of the quays to traffic in summer, during the weekends, helps eliminate the cutting-off effect of the road. The connection between the magnificent surrounding parks, such as those of the Denantou and the Olympic Museum, is facilitated, but this traffic remains limited by the perception of the road as an obstacle.

Publishing

Monique Keller, LJ24 commissioner
and Antoine Vialle, curatorial assistant

Texts*Introduction*

Monique Keller and Antoine Vialle

Topographical and morphological analysis

Antoine Vialle, urban architect

Historical analysis, archive documents

Joëlle Neuenschwander Feihl,
architectural historian

Hydrological analysis

Luca Rossi, engineer specialised in urban
hydrology and Silvia Oppiger, environmental
engineer, Swiss Association of Water
protection professionals (VSA)

Landscape analysis

Julie Imholz, landscape architect, paysagegestion

Urban and prospective analysis

Monique Keller, Antoine Vialle

Illustrations*Maps*

Philipp RW Urech, architect, Topostudio
editing of the maps: Antoine Vialle

Photographs

Michael Hartwell, architect and video maker

Archives

Joëlle Neuenschwander Feihl

Graphic design

Notter+Vigne