TÅSINGE PLADS

A green oasis in the climate resilient neighbourhood. A place where rainwater sets the scene for play and social interaction.

KLIMAKVARTER

TÅSINGE PLADS – THE FIRST CLIMATE-ADAPTED URBAN SPACE

Østerbro is the home of the City of Copenhagen's very first climate-adapted urban space.

Tåsinge Plads tells the story of a neighbourhood, where rain is welcome and where urban nature can be both seen and felt. It is the story of the logical water cycle: rain falls on the ground and follows the easiest path to the lowest point, where it either infiltrates through the ground or evaporates into the air.

Life in the City is also logical: we are drawn towards other people and seek spaces where there is life and activity. At the same time, we are also attracted to spaces which give us peace of mind. Tåsinge Plads combines the technical requirements of storm water management with the neighbourhood's desire for a green oasis and a local meeting space. Here we have created a green urban space, which combines the logics of human beings and the water cycle. A new environment, which supports social life and the soul and rhythm of the city.

CITIZEN-DRIVEN URBAN RENEWAL

Tåsinge Plads was created as a result of a close dialogue with the residents who live around the square ("Plads" is Danish for "square"). The approach involved more than just a series of public meetings. On one hand, a group of residents played an active role in the City's working group and they presented ideas and wishes for the project. On the other hand, the process has been characterised by a series of small and large projects, which have given neighbours the opportunity to become acquainted and talk about the future potentials of the square. Christmas markets, concerts, theatrical events and light installations by local artists have put Tåsinge Plads on the map, long before the new square was built. During the Building Festival in 2013, temporary urban furniture was designed and constructed. The furniture was installed on the square to test the effects of traffic, accessibility and social activities.
"Bølgen" (the Wave) was chosen as the best urban furniture for the square and is now installed on the square. This was a result of the residents' desire for alternatives to ordinary playground elements, so "Bølgen" is a piece of art that serves as an element for play and activity.

A GREEN SPACE IN VARIOUS WAYS

Tåsinge Plads has literally become much greener. More than 1000 m^2 of asphalt from Ourøgade has been transformed into a large, green area, which is now a part of the park square. Flowers and shrubs are not the only elements that greenify the square. The new square is also made of recycled materials. 625 m^2 granite tiles are surplus from Ørestad Boulevard, while 600 m^2 of paving stones and 625 m^2 of granite stones have been recycled for sidewalks and seating areas.

Beneath the square, there are two air-raid shelters (bunkers), which continue to serve as rehearsal rooms for musicians. The entrances to the bunkers have been renovated and now serve as small seating niches, while a new staircase northwest of the square serves as a pathway to the grassy slope of Solskrænten (the sun slope).

ICONS OF COPENHAGEN

The space is furnished with three distinctive and beloved Copenhagen icons:
The Copenhagen lamppost, the Copenhagen bench and the Copenhagen sidewalk.

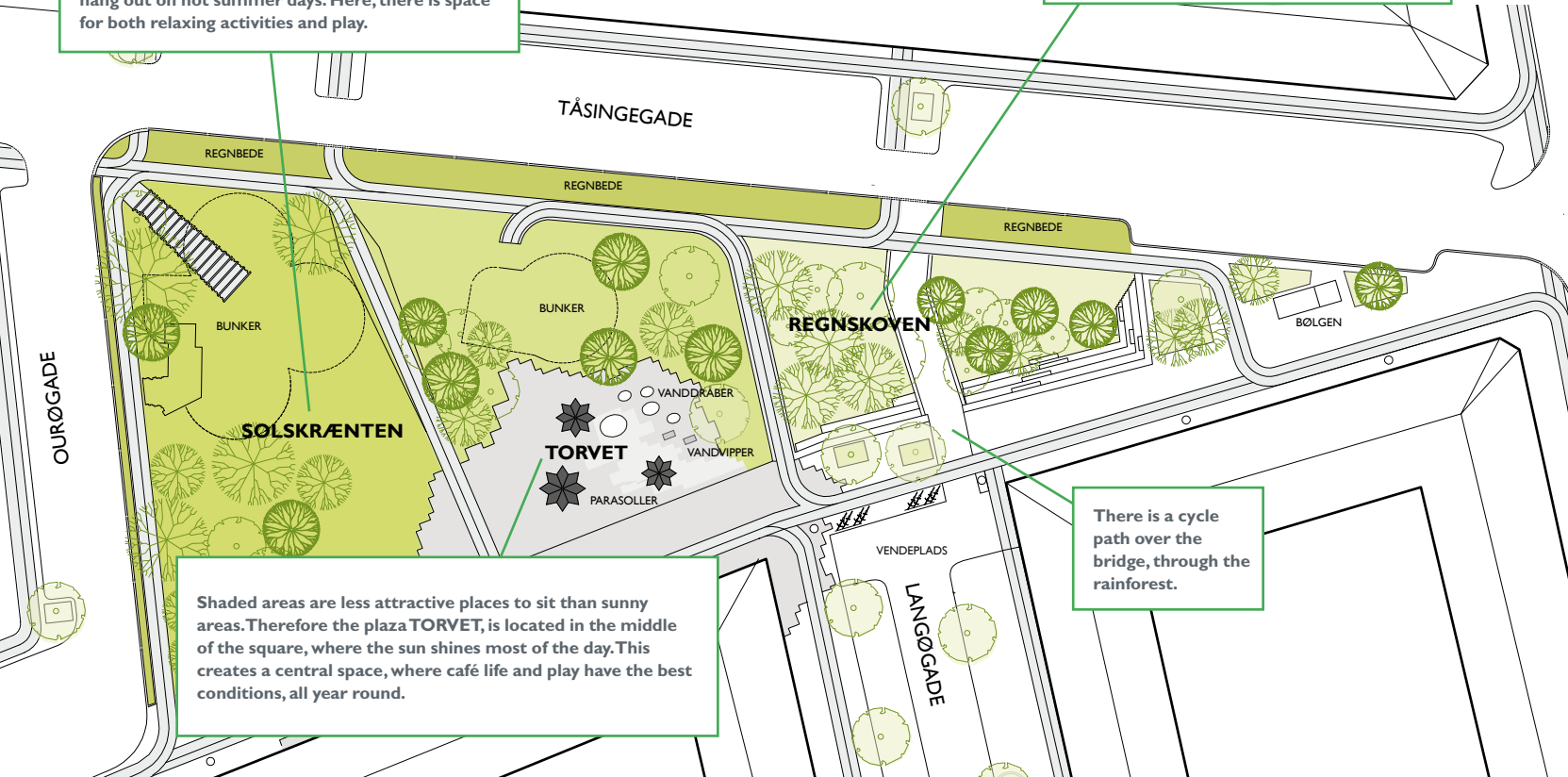
Each of these three features helps to contextualise the new square and make it part of the old town. Streetlights are installed along the facade of Ourøgade, while mood lighting has been installed in the green areas. Energy saving LED's have been installed along the pathways.

Where Tåsinge Plads meets its surroundings, the new sidewalks easily merge with the old existing sidewalks and link Tåsinge Plads to the rest of the city. The square manages to stand out, while fitting in at the same time.

THE SQUARE

The South-facing sloping surface, **SOLSKRÆNTEN** serves as a warm and inviting lawn where people can hang out on hot summer days. Here, there is space for both relaxing activities and play.

The lowest point of the square is the **RAINFOREST**, where lush vegetation dominates. Here it is also possible to play and to hang out.



There is a cycle path over the bridge, through the rainforest.

Shaded areas are less attractive places to sit than sunny areas. Therefore the plaza **TORVET**, is located in the middle of the square, where the sun shines most of the day. This creates a central space, where café life and play have the best conditions, all year round.

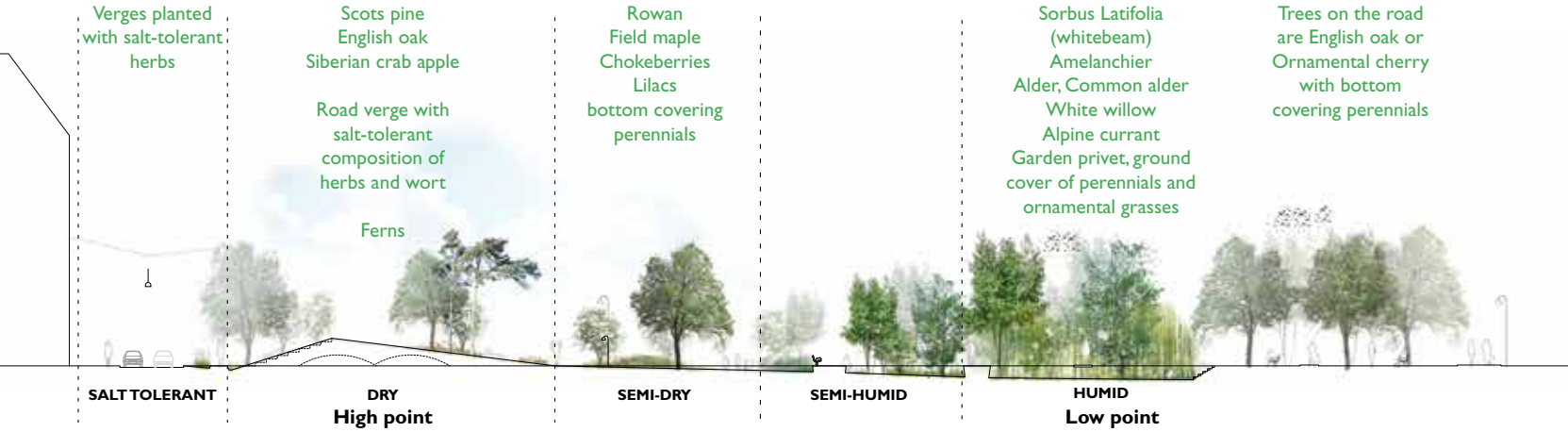
VEGETATION

Urban nature has come to stay and it is expressed through a number of green initiatives. The elevated area, Solskrænten, is mostly dry, with a predominance of trees and grasses, while the lower area, the Rainforest, features dense, lush vegetation. This is where the square illustrates the correlation between water and growth. Tåsinge Plads represents a cross-section of the Danish countryside, with plant biotopes extending from hillside to lakeside.

Food for birds and insects and a great seasonal diversity were emphasised in the selection of plants, which allows additional experiences and, which will accommodate a greater biodiversity and a more wild urban nature in the long run. Plants which can tolerate fluctuating humidity have been selected for the square's lowest area. Plant selections have been emphasised in relation to soil conditions, sunlight and shadow, so the vegetation has the best possible conditions.

On the square and along the streets English oaks or flowering wild cherry have been planted in a bed of geraniums, supplemented with spring-flowering bulbs.

During the winter season salt is used on the roads, therefore we have chosen a salt-tolerant mix of herbs and grasses in the beds along the streets.

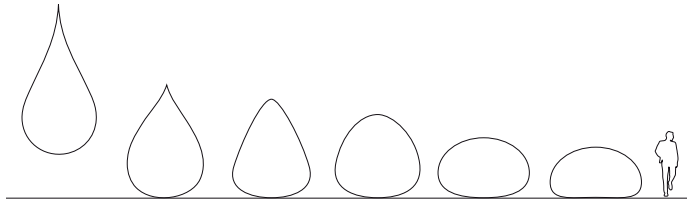


WATER FLOW

On the Plaza in the centre of the square, stand two sculptures, which clarify the presence of water on the square: Rain parasols and Water drops. The rain parasols collect the water and provide shelter from the rain. The Water drops reflect the sky and their surroundings, with their bright metallic surface and they invite people to touch and to climb them. Rainwater from the surrounding roof surfaces is collected and diverted to tanks beneath the big Water drops. By using two manual pumps, which are designed as playground equipment.

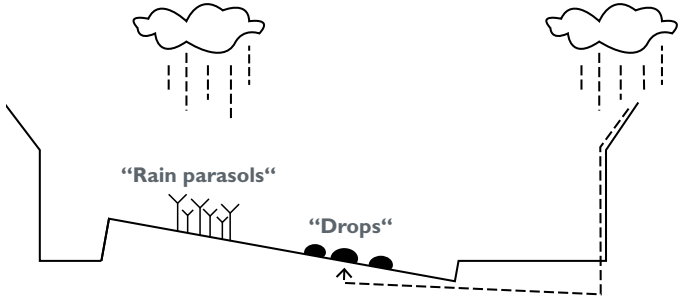
Water will be pumped out of the biggest Water drop, where it will flow on the surface and end in the raingarden (retention basin). The water running from the plaza to the raingarden meets obstacles on its way, this enables people to follow the water flow and in that way learn and play at the same time. Large tanks are installed below ground to collect the rainwater. These ensure that the water is visible on the square and can be used for water play, by pumping water under the shiny Water drops.

Rainwater is not just rainwater. What we can use it for varies, depending on whether it falls on the roofs or on roads. Most of the rainwater that falls on Tåsinge Plads is separated from the sewer system. Water from the roofs will be diverted to the reservoirs under the Raindrops, from where it will run from the plaza to the rain forest, where it will slowly infiltrate. Rainwater that falls on the square, will naturally run towards the square's lowest point, where it also slowly infiltrates.

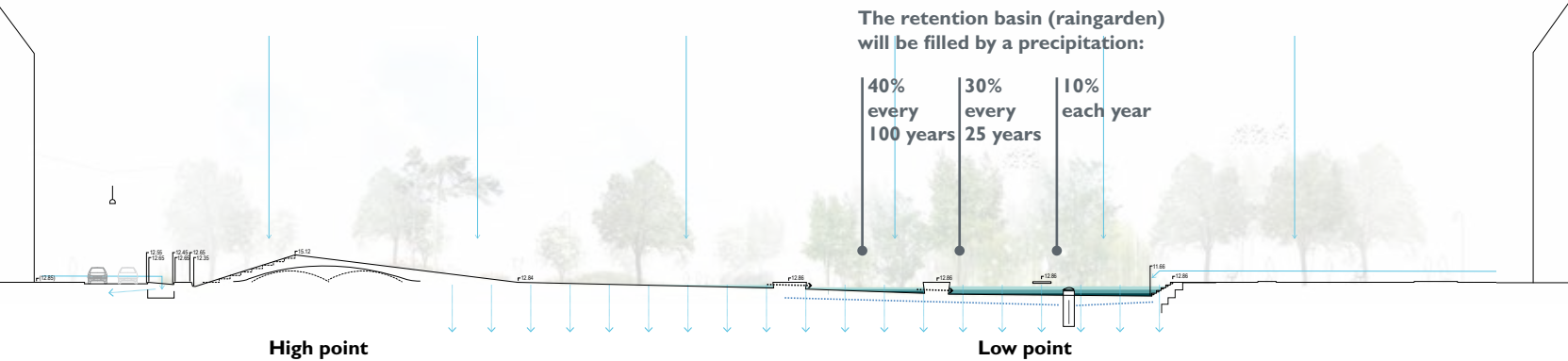


▲ **Large tanks are installed below ground to collect the rainwater. These ensure that the water is visible on the square and can be used for water play, by pumping water under the shiny Water drops.**

It is not possible to infiltrate water coming from road surfaces, into the local area, as it could be contaminated and may contain salt, which can affect the groundwater. Therefore, road water will flow into the roadside swales, where it infiltrates through a thin layer of filter earth. The filter earth filters contaminants, e.g. oil. The road swales contain infiltration trenches. On the long term the road verges will be connected to the cloudburst solution on Tåsingegade. From here, the water will be transported to the harbour, and salt concentration in the water will not pose a problem. In total, Tåsinge Plads separates more than 7000 m^2 rainwater from the sewers.



▲ **The rain falls on the ground, where it infiltrates. During heavy rain, water will run the easiest path to the lowest point.**

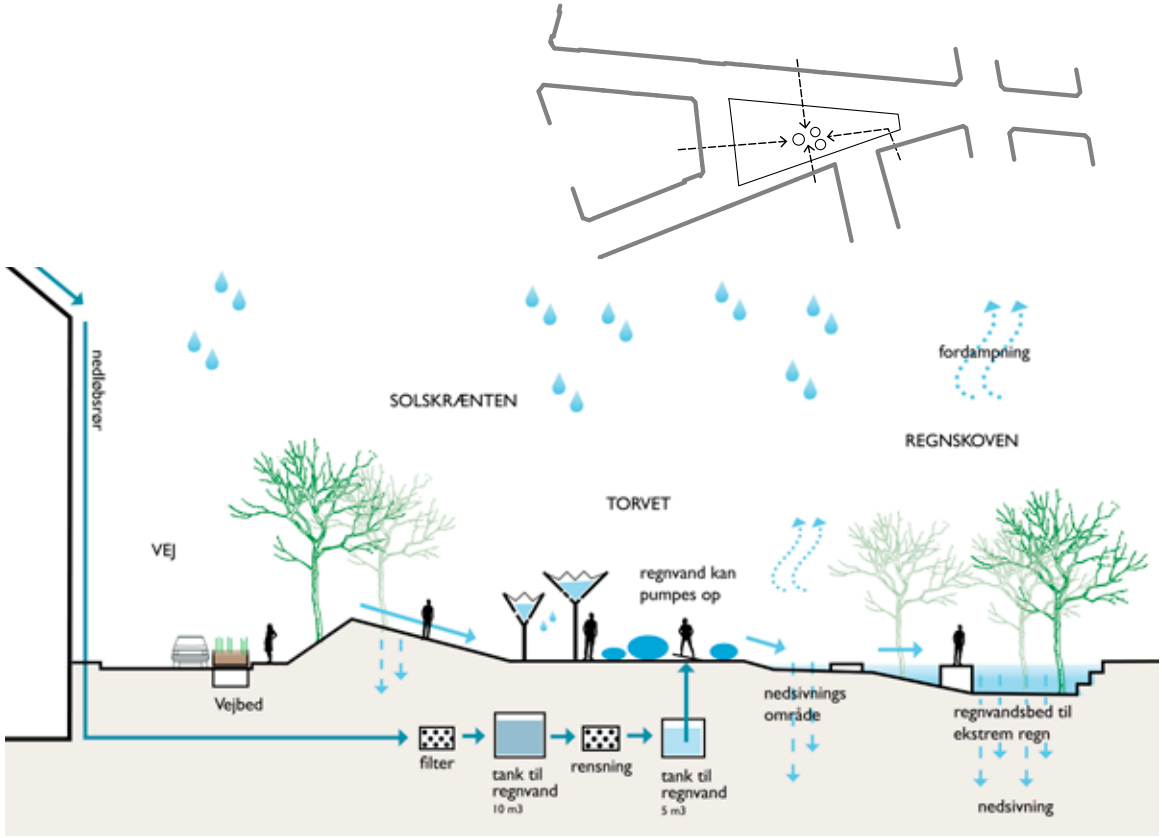


RAINWATER FROM THE ROOFS IS USED FOR WATER PLAY

When rain hits the surrounding roofs on Tåsinge Plads, the water is diverted through drain pipes and underneath the square into a big reservoir (tank). The rainwater has undergone multiple purification processes (swivel well and UV purification) before it reaches the tank. This means that it is clean enough to be used for water play on the square.

Water can be pumped up from the underground (tank) by stepping on a tilt plate (pump). In times of heavy rain the tanks will be totally filled up by rainwater. When this happens, water will by natural force be lifted to the square and flow towards the retention basin (raingarden).

▼ Rainwater from the surrounding roofs reaches a reservoir (water tank) below ground.



CLIMATE ADAPTATION

Tåsinge Plads can therefore receive large quantities of rainwater. The rain bed on the square will be filled up to 10% during rain events that occur once every year, 30% during rain events that occur once every 25 years and 40% in rain events that occur once every 100 years. The retention basin on Tåsinge Plads also takes extreme precipitation into account.

In situations of cloudbursts that occur once every 500 years the retention basin (raingarden) will be totally filled up. In such a situation, where the volume of water will over run the capacity, rainwater will run from Tåsinge Plads to the cloudburst street of Tåsingegade.

Once Tåsingegade is established as a cloudburst street, water will be transported into the flood sewage on Østerbrogade and into the harbour.

CONTACT

Residents around Tåsinge Plads have set up a committee for the urban square. The committee organises activities on the square and continues to develop the square. In this regard, Tåsinge Plads is not a finished project. It is a living urban space that is adapted to meet the changing needs for many years to come.

You can hear more about Tåsinge Plads in the urban renewal office of:

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The square is the result of a collaboration between the City of Copenhagen, HOFOR, Malmros a/s, Orbicon, Feld, Via Trafik and GHB landscape architects a/s

HOFOR

MALMOS
ANLÆGSGARTNERE

ORBICON

FELD

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CITY OF COPENHAGEN
The Technical and Environmental Administration