

# The Water Tower

## New Perspectives

Design and Re-Purpose Competition  
Summer 2010

<http://watertowers.co.il>



Bezalel  
Academy of  
Arts and Design  
Jerusalem



# Then & Now

Photos by PhotoHouse, Allenby 30 Tel-Aviv  
Old: Rudi Weissenstein (Grandfather)  
New: Ben Peter (Grandson)



Ashdot Ya'akov  
1937 | 2010



Holon  
1936 | 2010



Nir David  
1939 | 2010



Nahalal  
1938 | 2010



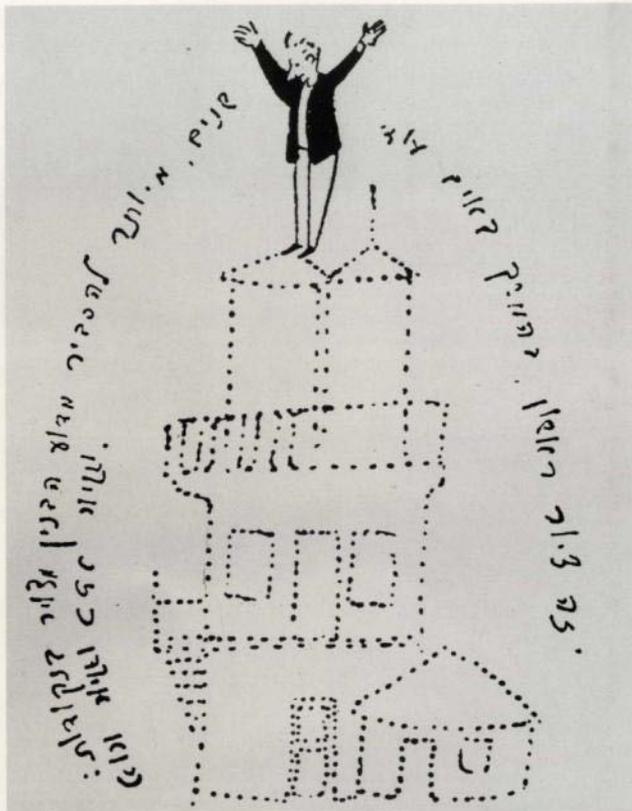
Givat Haim  
1939 | 2010



Hertzlia  
1939 | 2010



Ashdod  
1964 | 2010



“The Speech I Never Gave on the Water Tower that is No Longer There”

Nahum Guttman

1959

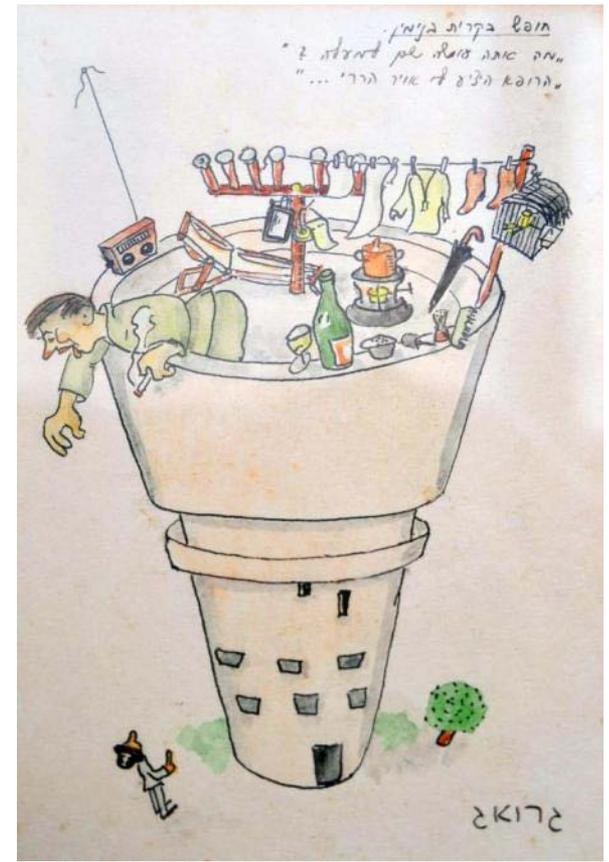
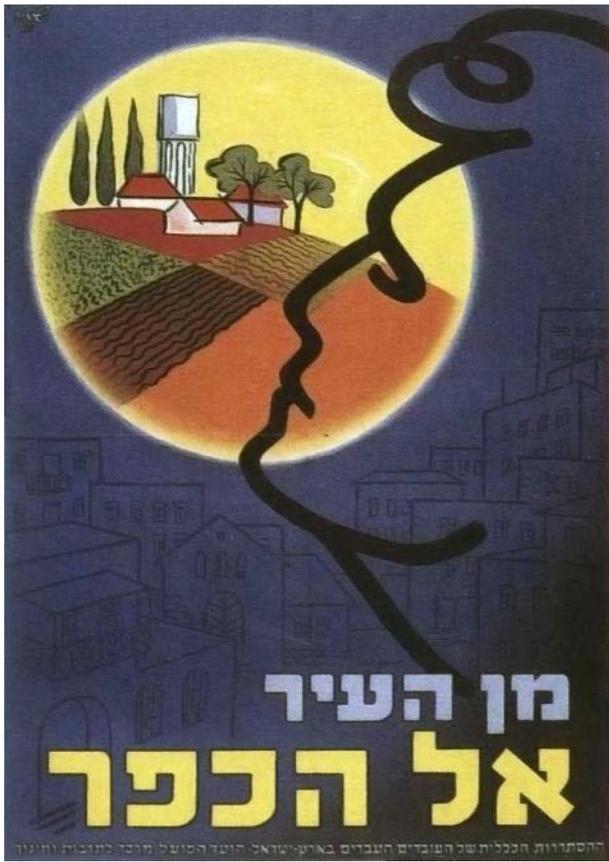


The first water tower of Tel-Aviv, on the roof of the first municipality building (Destroyed with the extension of Rothschild Blvd.)

1942



Poster, stamp and detail from alphabet teaching book,  
 First half of the 20<sup>th</sup> century. Courtesy of David Tartakover Collection, Tel-Aviv



Images from Israeli culture  
From: "Water Towers in Israel 1891-1993"

In the Future



# The Space Of Time

The Historic Water Tower Square in Givat Shmuel

Nitzan Bartov and Rita Zheleznyakov

## History

Givat Shmuel water tower is the first facility that provided water to the town. The tower was built with the establishment of the first settlement in 1944. Later on it became obsolete and the town authorities intend to destroy it. In 1992, the tower was recognized officially as a historical monument. It was restored and reinforced.

## New Tower

The public space that surrounds the tower today serves as a parking lot and a gathering place for the visitors of the synagogue nearby.

We propose to emphasize its value by turning the space into an intimate urban square defined through and by the tower. By placing outdoor furniture of a unique geometry derived from the shape of the tower, we aim to both create an urban space (where citizens can meet, rest and play) and maintain the symbolic value of the existing tower.

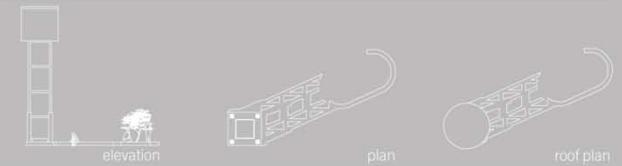


“Only a useless sign can be a monument, as it does nothing but signify”

Sharon Robarts, "Avraham Yasky, concrete Architecture"

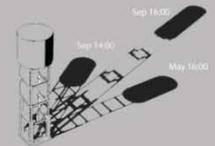
The position, dimension and narrative linked with the Israeli water tower turned it to a major symbol in every town. The local water tower is mostly characterized by lace-like tall and thin "legs", topped with the heavy mass of a water tank. The meeting point between the lightness of the lower part with the heaviness of the upper part, creates a unique sense of tension in the viewer. The dimensions of the structure, combined with its striking silhouette in the sky line, gives it an iconic quality, independent of the tower's historic context. The dominant vertical dimension that characterizing the building, creates another dimension - a horizontal one, that ties together time and space, the shadow-cast of the tower. The shadow cast by the tower echoes the tower itself and is characterized with length and thinness, that rivaling those of the tower. A shadow is always a trace of another object in a specific space and time. This trace has a life of its own. It is in a constant change, but also cyclic. It deforms the origin in a manner that reveals various aspects of it, and allows us to look at it in new perspectives.

## Structure



## Method

The method we have suggested is trying to link time, as reflected in the movement of the sun, with space, as reflected by the shadow on the ground. Initially, specific shadows of the tower are selected, then their shape is turned into a mass. This way the connection between time and space is revealed. The method can be applied to different places by choosing the shadow trace according to the needs of the specific place. In this case the resulting object is outdoor furniture, enabling various public and ornamental uses.



## Urban Context

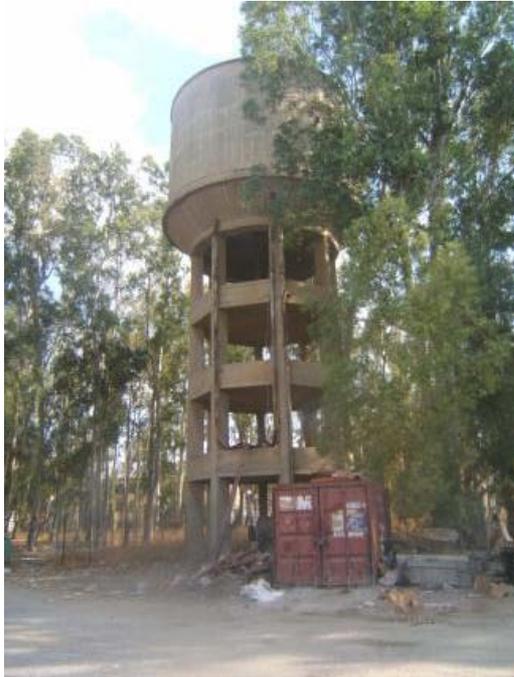


Since 1998 the city of Givat Shmuel doubled its built-up area in a way that created two main zones: new and old. It seems from a distance that the water tower is a landmark seen from both parts of the city. In reality the tower is located on a small street and the access to it is possible only through the older

neighborhoods. While taking into consideration the wider urban context, we have identified a possible route that links the older neighborhoods with the new ones. Our offer is to turn this axis into a pedestrian path that starts on the corner of Netanyahu Avenue and Menachem Begin Street, and ends at the exit to Zeyfim Street. Topographically, the tower is located on the highest point, and is at the peak of this path. At the feet of the tower an intimate square will be created.

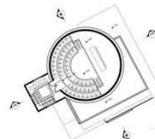
Public Park and Shaded Bench in Givat Shmuel  
Nitzan Bartov & Rita Zheleznyakov  
First Prize Winner (Students)





fountain - Ein Shokek

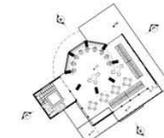
water tower



fifth floor, auditorium  
+15.00



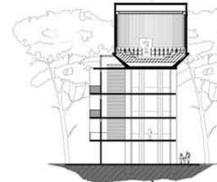
third floor, general library and toilets  
+7.00



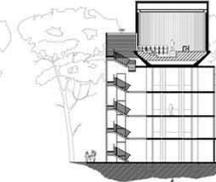
second floor, children's library  
+3.50



ground floor, adults' library section  
0.00



section A-A



section B-B

north of the "elyahu" suburban in beit she'an, there's a typical Israeli eucalyptus forest within the forest, there's an old, abandoned, water tower. this water tower is part of the story of the jewish settlement in the land of Israel. there are 2 water towers in beit - she'an, of which one selected by metro for the project purpose. according to nearby residents, it was built in the early '50 of the previous century. it was part of a national and municipal effort to build such water tower (by the "solei bone" consortium), in order to provide water to the local area, and to enhance the water flow of the local water pipes' system. this water tower (whose height is approximately 24 meters) gets the water from anatural fountain called "ein-shokek", south of the Nir-David kibbutz. the fountain is about 120 meters below sea level, same height as the top of the water tower itself. this enables the use of pascal's law of the linked vessels. this project deals with converting the existing water tower into a five - story building. the first four levels have been turned into a municipal library while the last and top-most floor has become an auditorium. the auditorium contain about 50 seats. the reason behind the idea was that the water tower is closely to residential area on the one hand, and it is also close to the municipal education complex. so, the conversion into alibrary will serve a two-fold purpose: on the hand it will serve the local nearby residents, and on the other hand, it will serve as (almost) part of the educational complex. the water tower was built with reinforced concrete, and based on simple calculation, it can hold a weight of up to 300 tons water. in designing the converted library, I "used" the following materials: concrete, steel, tin, wood and glass. these materials were chosen in an effort to emphasize the old versus the new structures, while respecting the old building, but to add on a modernized structure, built with up to date materials.



North Western facade



South Western facade



North Eastern facade



South east facade



Public Library in Beit She'an  
Assaf Chorin  
Second Prize Winner (Students)

20.10.2010

water tower converted into public library

water tower in Beit - She'an  
Asaf Chorin, Architecture student



# HIGHER LIGHT PROJECT

## Hachasmal st. water tower

The book "Tree of Life" by Rabbi Haim Vital opens with the phrase, "Know that before the noble became noble, and before the created were created, there was a simple and higher light that filled everything... that was the infinite light."

The need for "infinite light," something simple and fulfilling, is more relevant today than ever. Tel-Aviv is a city of contrasts: wealth and poverty, love and hate, beauty and ugliness, a city with it all but still yearning for something more.

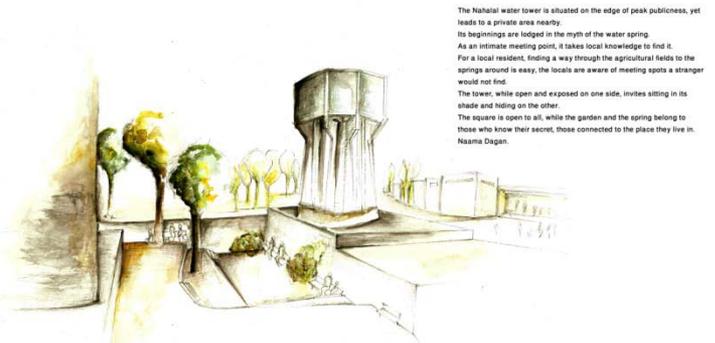
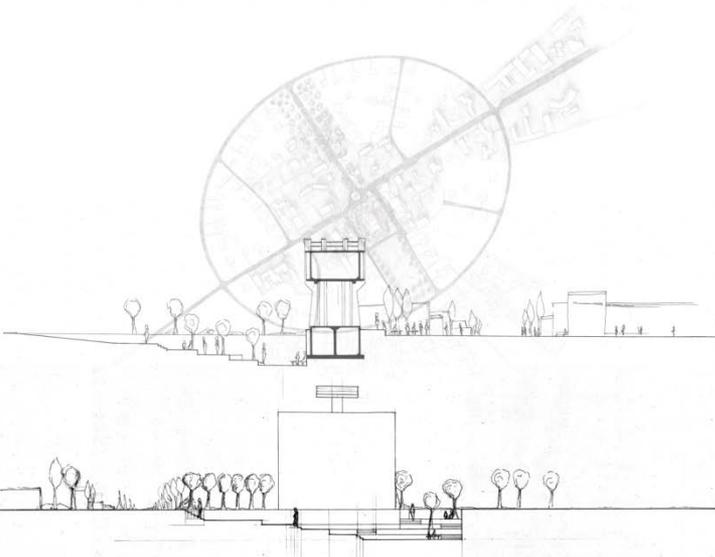
Used today as a synagogue, the water tower on Hachasmal Street has gone through many transformations. Over the years, the public has overlooked the tower's original purpose, and continued to adapt and utilize it for a variety of purposes, due to its unique design and structure. It is clear that the tower has more than purely functional qualities, its qualities come from a much more emotional and romantic place. Our design will be a synergy between the need to facilitate and maintain its current purpose with a desire to transform it into a romantic monument that will serve as a pilgrimage site for people from both near and far. We aim to turn this tower into a source of light that will instill life, spirit and joy in the people around it.

The lamp shade, with its typical conical shape, gives the water tower a new identity while still fulfilling its current purpose and bringing about our, new intended purpose for the tower. The giant semi-transparent shade will light up at dusk and into the following next few hours, providing an iconic point for people all over the city to see, gather, and get to know one another and even say a prayer under a simple, infinite, higher light.

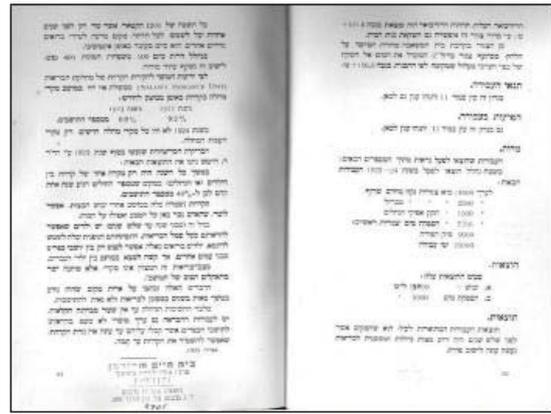
The use of a lamp shade icon gives the water tower a new fresh and lighter element that will bring a smile to visitors' faces. In a city where the division between its religious and secular inhabitants is stark, this structure will serve as a reminder of the positive, fulfilling, fascinating and relevant purpose of religion – creating a higher common ground that we can all walk on as equals.



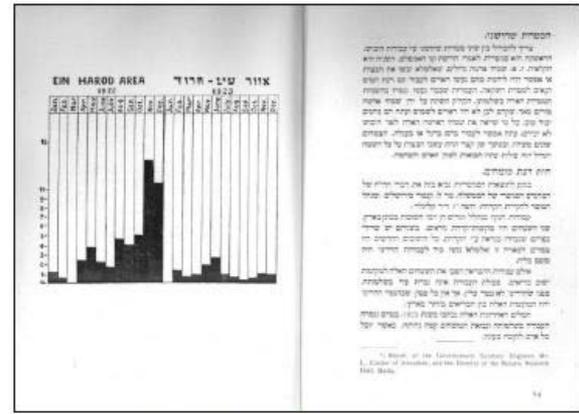
Urban Lighting in Tel-Aviv  
 Tal Yehud & Roy Drabkin  
 Third Prize Winner (Students)



The Nahalal water tower is situated on the edge of peak publicness, yet leads to a private area nearby.  
 Its beginnings are lodged in the myth of the water spring.  
 As an intimate meeting point, it takes local knowledge to find it.  
 For a local resident, finding a way through the agricultural fields to the springs around is easy, the locals are aware of meeting spots a stranger would not find.  
 The tower, white open and exposed on one side, invites sitting in its shade and hiding on the other.  
 The square is open to all, while the garden and the spring belong to those who know their secret, those connected to the place they live in.  
 Naama Dagan.



סיכום העבודות בההלל  
 מקור: יוסף ברוייר ושמשון אלק, "עבודות ההבראה בעמק זרעאל",  
 בארכיון בית שטרומן, 1923



סיכום העבודות בנוריס-מראה  
 מקור: יוסף ברוייר ושמשון אלק, "עבודות ההבראה בעמק זרעאל",  
 בארכיון בית שטרומן, 1923



ההלל- מגדל המים  
 מקור: יוסף ברוייר ושמשון אלק, "עבודות ההבראה בעמק זרעאל",  
 בארכיון בית שטרומן, 1923



נוריס-מראה עין חרוד לפני הייבוש  
 מקור: יוסף ברוייר ושמשון אלק, "עבודות ההבראה בעמק זרעאל",  
 בארכיון בית שטרומן, 1923

Water Tower in Nahalal  
 Naama Dagan  
 Remark for excellent documentation (Students)



Music Centre in Ajami, Jaffa  
Yossi Shushan & Roy Fabian  
First Prize Winner (Architects)

Merging the Creative Sphere with the Urban Realm

A New Architectural Experience as a Basis for an Art Event

Urban Monument    Monolith    reciprocity    Urban Peak

Creative Process Center | Ajami Watertower    <http://blip.tv/file/4273331>

Ajami Neighborhood | Tower View

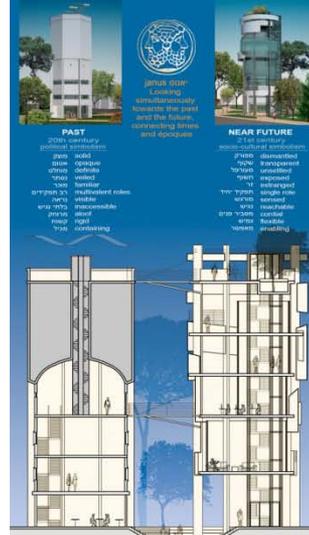
A Continued Sequence of Public Space From the Watertower to the Sea

Layering Level: Public Sphere of Ground Level  
 Artist Residence Studio - Community  
 Artist Residence Studio - Community  
 Small Stage & Outlook Terrace  
 Private Creativity Space - Artist Studio  
 Oculus: Merging the Creative Space with the Open Air

Private Event | Community Level

Public Event | Community Level

ARCHITECTS YOSSI SHUSHAN & ROY FABIAN, IN COLLABORATION WITH HAZZIMER STUDIO



**מגדל לכל**  
Tower to All

Einat Kalisch Rotem  
Architects –  
Dr. Arch. Einat  
Kalisch Rotem  
Ludmila Maximov  
Kfir Eliyahu  
Arch. Noa Sheck  
Studio Zamir –  
Lior Zamir

A building, a **locus**, that enabled life in the past and will continue to enable growth in the future

**LOCAL GLOBAL**

It connects the local human beings, activities, events

It connects the global world papers, magazines, communication, media

The project suggests **transforming** the records of water into a **receptacle of knowledge & information** offering easy access to the world, to people and to the community, which are all sources of growth in contemporary times

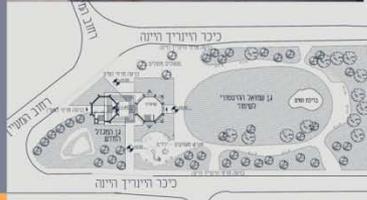
- Various youth organization, scouts inside the building and on the court beneath it
- Crowds of youngsters, classmates, holding their social gatherings on Friday nights
- Routine meetings of local committees and boards
- Public lectures on urban and communal issues, in an intimate atmosphere
- A computer support centre, especially for seniors
- Electronic information centre (e-encyclopaedia, e-papers, e-magazines, e-books)
- An entrepreneurship centre for communal projects on environmental issues (recycling, urban agriculture)
- Exhibition space displaying local artists who speak, exposure
- A meeting point for young parents and their children at the coffee shop and around the playground



**A library without books** – A computer and media centre, communication hub, digital library. This place will offer free internet, technical support, technical services for middle-income classes that cannot afford all computer appliances (scanners, plotters etc.) This centre will also support senior citizens who find computer world intimidating, in order to help them remain connected to our contemporary world.

**A community centre without rooms** – Spaces for informal gatherings of pensioners, adolescents, families, young parents, babies, baggencaring them all around the themes of knowledge, information, study and the promotion of local and remote vocates.

**An ageless public building applying to all people of all ages** – A building that does not specialize in specific activities or in serving one specific population strata, but is rather flexible in uses, residents and spaces.



The building was built in 1955, and was the first of its kind in Carmel Centre, Haifa. It was built as a water tower, but also as a community center. The building was built in 1955, and was the first of its kind in Carmel Centre, Haifa. It was built as a water tower, but also as a community center.

Community Center in Carmel Centre, Haifa  
Dr. Einat Kalisch Rotem, Noa Sheck, Ludmila Maximov, Kfir Eliyahu, Lior Zamir  
Second Prize Winner (Architects)

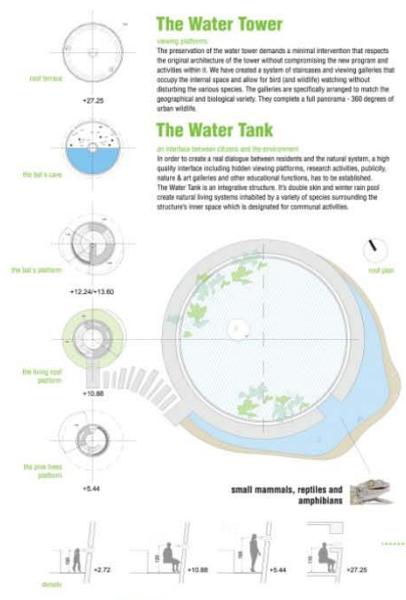


### The Water Tower

**Preservation**  
The preservation of the water tower demands a minimal intervention that respects the original architecture of the tower without compromising the new program and activities within it. We have created a system of terraces and viewing galleries that occupy the internal space and allow for bird (and wildlife) watching without disturbing the various species. The galleries are specifically arranged to match the geographical and biological variety. They complete a full panorama - 360 degrees of urban wildlife.

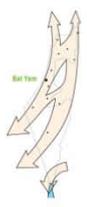
### The Water Tank

**An interface between citizens and the environment**  
In order to create a real dialogue between residents and the natural system, a high quality interface including hidden viewing platforms, research activities, publicly nature & art galleries and other educational functions, has to be established. The Water Tank is an integrative structure. It's double skin and water rain pool create natural living systems inhabited by a variety of species surrounding the structure's inner space which is designated for communal activities.



## The Water Tower & Urban Wildlife

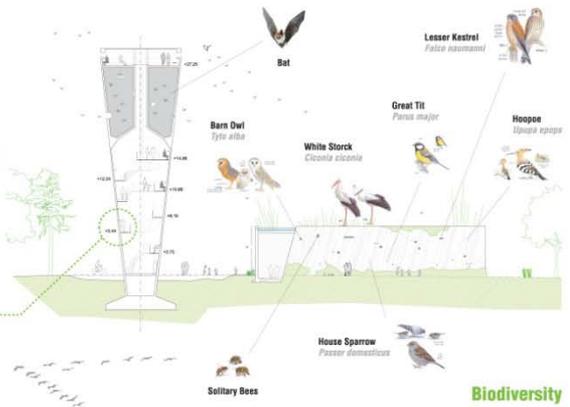
### Ramat HaNasiya, Bat-Yam



The old Water Towers will turn into a birdwatching and active viewing stations not along the Be'er Sheva Migration patterns in Israel.

**Ifat Finkelman, Ofer Bilik** (architects and biologists, The Associated Architects)  
We have identified the potential within the urban water towers - functioning and abandoned - with their height, unique structure and strategic locations, to act as an impetus for encouraging an urban wildlife. Their obvious characteristics as urban landmarks and meeting places suggests expanding their designated function as natural systems. Our design suggests defining and addressing this strategy to urban water towers in general, using the Ramat HaNasiya Tower in Bat Yam as a pilot to examine the physical and programmatic actions, methods and procedures necessary, main goals:

- 1 saving biodiversity
- 2 reintroducing species that previously existed in the region
- 3 water sources to attract migrating birds in the autumn
- 4 education, information : signage, explanations, viewing platforms, seasonal and daily activities, special events and guided tours, internet platforms for continuous updates
- 5 strengthening the sites presence and within the local community and specifically within the nearby school



### Biodiversity

Living buildings function as natural systems and keep a balanced equilibrium between the structure and its natural surroundings. According to its geographical location and the resources it "uses", the living structure needs to supply hidden areas, nesting spaces and food resources in order to strengthen the natural biological, ecological and visual systems. By locating and defining a variety of existing or potential animal and plants species in the area, we are able to create a series of openings and internal voids - each specifically sized and positioned to allow for a rich and varied range of animals - from fruit bats and song birds to small mammals, reptiles and amphibians.



Habitat for Urban Wildlife, Bat-Yam  
Ifat Finkelman & Ofer Bilik  
Third Prize Winner (Architects)

Location of the water tower and the settlement

Views of Jezreel Valley

Settlement Section

Schema development - construction of the addition

Materials of the addition

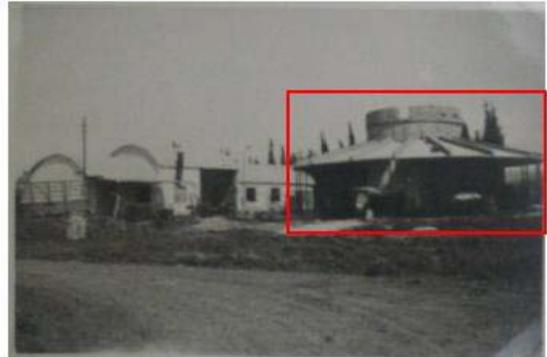
Presented by:  
Jonathan Letzter  
Center for familiarization with Jezreel Valley, Water Tower in Kibbutz Gvat

Water Tower  
New Views

The water tower is designed to be a landmark in the settlement and to provide a new view of the landscape. It is a circular structure with a central tower and a surrounding platform. The tower is made of concrete and the platform is made of brick. The tower is 11.50m high and the platform is 11.50m wide. The tower is located in the center of the settlement and the platform is located around it. The tower is a landmark in the settlement and it provides a new view of the landscape. It is a circular structure with a central tower and a surrounding platform. The tower is made of concrete and the platform is made of brick. The tower is 11.50m high and the platform is 11.50m wide. The tower is located in the center of the settlement and the platform is located around it. The tower is a landmark in the settlement and it provides a new view of the landscape.

Ground Plan

Roof Plan



Water Tower in Kibbutz Gvat  
Jonathan Letzter  
Remark for excellent documentation (Architects)

