

DESIGNING CITIES OF THE WORLD 2017

Sustainable Architecture and Landscape Design

POLITECNICO DI MILANO SEDE DI PIACENZA

FUNCTIONAL PROGRAM

The area's borders are well defined: it is totally surrounded by highways, resulting certain isolation. The tendency to isolation has preserved the area mostly unbuilt.

Half of the area is occupied by sport fields and a small park. The rest contains an out of rule electric power plant and free ground.

This peculiar constellation is in the origin of the functional program: a cemetery seems to demand a clear border definition, accurate relationship with the neighbours, and at the same time (interior) openness, clear accessibility to all of his parts, and by extension even permeability.

At the same time a cemetery usually brings together two complementing cityscapes: the built up tissue and the park or forest like pattern. In accordance with the plot's location at the border of the town, its close surrounding is composed by these two contrasted shapes, inviting to reflect on the continuity or discontinuity between the urban pre-existence and the new funeral facility. The wider surrounding includes an informal string of open spaces along the ring road (Ronda) that could/should include our area.

A third constellation makes the area even more feasible for burial purposes: it is encircled by three hospitals. This might sound somehow striking, but the fact is that nowadays most of the people die in a hospital. Therefore it is quite common to locate burial grounds in proximity to sanitary facilities.

The project will reflect on the different characters a cemetery can have. All typologies will be explored, always in relation with the existing environment, and always understanding that the place is open to other –respectful- leisure activities, like the ones that take place in an urban park, included productive ones (e.g. urban orchards).

Together with the burial grounds the cemetery offers all kind of directly related facilities and services: funeral home with farewell rooms, chapels, ceremonial halls, and a crematorium. Several shops offer funeral objects. Some of these objects are produced onsite: coffins, urns, monumental masonry and sculpture.

The cemetery aspires to be as sustainable as possible. (Part of) the required energy is produced by solar panels; vehicles moving around the burial grounds will be electrical. To guarantee a proper maintenance the cemetery counts with an own gardening center.

To enhance the hybridization of uses, several non-funeral-exclusive facilities are proposed: a museum, a library, a big restaurant, and a residential area including an elderly residential complex, a visitors' residence, and dwellings for the cemetery employees. The first two relate to the funeral topic, but can be visited with complete independence from the cemetery; the museum shows an important collection of funeral carriages, while the library is specialized on funeral issues and collaborates with the regional archive and register of burial places. The restaurant can serve meals both for mourners (some cultures include a meal to the funeral ceremonies) as for visitors and tourists. The residential area provides different residential options to older people. A visitors' residence will mainly host family members and acquaintances of the nearby-hospitalized patients and also of the deceased. Cemetery workers' housing supposes an added value to their labour conditions.

FUNCTIONAL PROGRAM

Site surface:	Total	225.000 m2 (including streets)
Nowadays divided in 5 areas:		38.000 m2
		80.000 m2
		24.000 m2
		24.000 m2
		57.000 m2 (excluding streets)
Max Facilities	≤	25.000 m2
Max Residential	≤	40.000 m2

Based on these indicative figures the proposal will count with a **minimum** of:

A OPEN SPACE	> 160.000 m2	(Burial) Park and Forest, with recreational-productive areas Open-air theatre Memorial site
B FACILITIES, SERVICES	17.000 m2	3.000 Functional – Cemetery services 5.000 Industrial / functional 2.000 Commercial (private) 7.000 Cultural
C HOUSING	38.000 m2	6.000 Visitors' residence 12.000 Elderly and students' residence 20.000 Workers housing
D PUBLIC SPACE	20.000 m2	Parking lots Internal streets, squares, etc.

Cemetery - (Burial) Park and Forest

Niches
Tombs
Columbarium
Pantheons (freestanding family mausoleum)
Ossuary
Ashes garden

Chapels

Memorial site: memorial(s), mausoleum, or similar

Open-air theatre (memorial ceremonies, others)

Recreational areas, urban orchards, etc.

Functional:

3.000 m2

Cemetery services:

Entrance hall, reception
Administration
Funeral home (morgue, mortuary)
Farewell rooms
Ceremonial halls
Tanatopraxia
Toilets
Workers' bathroom and dressing room
Storage
Technical installations

Crematorium

Industrial / functional services:**5.000 m2**

Gardening:	tools, machinery, material storage nursery greenhouse, shade house	
Burying:	tools, machinery, material storage	
Factories: (workshops)	coffins (carpentry) urns (metal, glass, ceramic, stone) monumental masonry	
Internal transport:	Internal bus	garage and charging station (electricity)
	Bike hire	garage and charging station (electricity)
	Service vehicles	garage and charging station (electricity)
Energy production:	Solar panels	
	Transformer substation	

Commercial:**2.000 m2****Cafeteria-restaurant**

Entrance
Open dining room
Private dining rooms
Kitchen
Storage
Technical installations

Private shops and services

Flowers
Candles
Gifts
Fruits

Coffins
Urns
Tombstones and sculptures

Museum of hearses and funeral carriages, Documentation center

Entrance hall, reception
Administration offices
Cloakroom
Exhibition rooms
Archive
Study rooms, offices
Bathrooms
Cafeteria
Shop
Storage
Technical installations

Library (specialized in funeral arts)

Attendance and administration
Office rooms
Meeting rooms
Book reading area (open shelf)
Media, video, show and music area
Research area with study rooms
Storage
Technical installations

**Regional Archive for burial heritage
Regional Register for burial sites and places**

Attendance and administration
Office rooms
Meeting rooms
Research area with study rooms
File Storage
Technical installations

C HOUSING**38.000 m2****Visitors' residence 6.000m2**

40 apartments for 1-2 inhabitants
48 single rooms

1 bathroom, living room with kitchenette and sleeping area
1 bathroom; 1 kitchen for every 4 rooms

Reception/administration

Shared rooms: TV, reading, study/working spaces, home gym, etc.

Laundry

Bike storage

General storage

Technical installations

Elderly and student's residence 12.000 m2

40 apartments for 1-2 inhabitants
32 double rooms
32 single rooms

1 bathroom, living room with kitchenette and sleeping area
1 bathroom; 1 kitchen for every 8 rooms
1 bathroom; 1 kitchen for every 8 rooms

Reception/administration

Dining room, kitchen

Shared rooms: TV, reading, home gym, etc.

Laundry

General storage

Technical installations

Workers' Housing 20.000 m2

20 family houses for 4 inhabitants
20 bungalows for 2 inhabitants
Bike storage
General storage
Technical installations

2 bathrooms, kitchen, living room, 3 separable rooms, garden
1 bathroom, kitchen, living room, 1 separable room, garden

D PUBLIC SPACE**20.000 m2**

Parking lots
uncovered and covered

Streets, paths, squares
inside the area