

Again"

Renzo Piano

"One Of The Great Beauties Of Architecture Is That Each Time, It Is Like Life Starting All Over

Chapter 1

Introduction

keywords:

Piacenza: Ambient, Worn-out Road SS725, regeneration, Urban Development, New Urbanism, TND Method, Agriculture Urbanism, Walkable City, GI, Medical Belt

From the old day expansion of the cities was something inviable and also problems that accrue with these expansions .there are many methods to stop this expansion and devastation they make to the environment, in our thesis we are working on creating new barrios.

our area of study is Piacenza which is a historic city and from the old days, they made barrio show city expansion limits.

in the first stage of the city, they build up a wall that limits the city from the agricultural lands sounding it and all the settlements built-up inside of the wall. The next stage was the expansion of casinos sounding the city on the main axis and new city blocks start to form and then slowly connect to the historic city .in the final stage they build up bypasses which suppose to be barrios for city expansion but it fails its purpose and also city extension broke the line and goes over the bypass and

build up one disconnected city block. the problems didn't end here when the small villages that made up the main axis of Piacenza to the mountain started to move toward the city too and slowly joined the city as there were not been independent areas before and dissolve in the city.

We used the idea of bypassing and using Agri urbanism and also TND to stop city devastation expansion but also create a better system of living for people to be in the situation that has services of the city and is also more environmentally friendly and it doesn't need to devour the agriculture to build up a new extension. With a combination of these elements, we added a new highway for the plan of Piacenza and turn the old bypass into inner-city roads, and changes its use to more local for expansion we allow the city to expand but with Agri urbanism, we dissolve the city blocks and we make new building blocks that contain agriculture and nature which is more pleasant for citizens these ideas are all applied to our study area and as an example, we dissolve the village to gain this goal.

Project Statement

Objectives

Project Narrative

Piacenza

"Piacenza " an origin from the Latin verb placere, "to please." In French, and occasionally in English, it is called Plaisance.

The name means a "pleasant abode", or as James Boswell reportedsome of the etymologists of his time to have translated it, "comely". This was a name "of good omen." As it is located at aajor crossroadat the intersection of via milia, via Postumia and via Francigenaconnecting Northern Europe to southern Europe and also the west to the east and worked as the abode in the ancient time. This guiet, provincial town, easy to live in and dedicated to thepleasures of good food, is also characterise bysmall treasures, and memories of a historically rich past, like its Cathedral .Not tomention the wonderful noble mansions, its several churches and the narrow streets of the centre. which, though appearing svere, hideunexpected surprises.

Location and Topography

Piacenza is the capital city of the eponymous province in the region of Emilia-Romagnia in northern Italy with the antiquity which goes back to pre-roman period.

Its geographical position, at the crossroads between Lombardy ,Piedmont , Liguria and Emilia, has always determined has made it an important motorway and railway junction. It is located in the Po Valley at an altitude of 61m, on the right bank of the Po,the longest river in Italy flowing from the western north to the eastern north, between the mouths of the Trebbia river to the west and the Nure stream to the east which made it a strategic point since roman times special in military destiny. In addition to having a strategic location in the Italian geographical context, as it is located at the center of the Po Valley and it is a crossroad of infrastructures, the city of Piacenza has until a few decades ago also played an important role in the

processes of structuring relationships and in the territory configuration. The city is in a relevant position along the main Italian north-south connection route, consolidated

since Roman times. Romans had identified in the city of Piacenza the beginning of the Via Emilia and a fundamental cornerstone of East- West communications on the ancient Via Postumia.

Along the East-West axis, Piacenza is also crossed by a naturalistic route of primary importance in the national geography, with respect to which the geography of the anthropic and settlement relations has always been of secondary importance. Therefore, until a few years ago Piacenza lay on the north-south route in a natural context, even if not defined, of a corridor where it was the main settlement, while on the east-west axis it was in a natural environment of great significance but characterized by an evident corridor of relations of secondary

importance.



From a geographical point of view, the strategic position of Piacenza and the network of different infrastructural systems serving the city and its territory led to the official recognition of the city by the Ministry of Transport and Infrastructure as a "Hub City Joint". In the past, for the same reasons, the city of Piacenza drew the attention also of the Ministry of D fense, which decided to install numerous military barracks and to build a military airport (Piacenza-San Damiano airport), now being dismantled. Even most of the military real estate assets constituted bythe barracks have been decommissioned as the need of military defence has ceased to exist.

The city is placed 61 meters above sea level with a drastically variable average temperatures. Considering humidity, temperatures feel cold for about half of the year and otherwise nice with a fair chance of precipitation about half of the year. Climate in this area is humid subtropical with no dry season, constantly moist. Summers are hot and sultry. The distance from the sea accentuates the continental characteristics of the Piacenza climate compared to the rest of the region.

consequently. The recorded winter lows are also lower than those of the nearby Lombard cities. The proximity of the city to the river Po leads as a consequence that, in all periods of the year, the climate is characterized by high humidity: in winter the phenomenon of fog, generated by thermal inversion, occurs very frequently, while in summer the weather conditions are often characterized by 'heat, generated by the high relative humidity in

The shape of the territory and spaces, both open and built, in the city of Piacenza and its surrounding are the result of long and evident stratification both from the anthropic point of view both natural, coming from countless transformations in which the plans and projects, especially those infrastructural, have assumed a relevant role, which over time have allowed the current urban characterization.

Enclosed within the circle of the Farnese ancient walls, of which some sections are still existing, the historic city of Piacenza is surrounded by the following system of roads:

Via Emilia -Viale Patrioti - Via XXIV Maggio - Via XXI Aprile. On this axis grafted the Via Emilia coming from Milan, determining a relevant node (Milano GatelPiazzale Milano), that continuing it connects with the other node of urban relevance of

Population

Piacenza was the capital city of the duchy until Ottavio Farnese. Duke of Parma moved to Parma. The city underwent some oits most difficult years during the rule of Odoardo Farnese, duke of Parma, when between 6000 and 13000 Piacentini out of the total population of 30000 died from famne and lague. The city and its countrysides were also ravaged by bandits and French soldiers. Austrian troops occupied Piacenza until 1860, a plebiscite marked the entrance of the city into the kingdom of Sardinia. The Piacentini enrolled en masse in the Garibaldi's army in the expedition of the thousand. Now, this city rank among the 50 most populous in Italy. The Municipality of Piacenza has 104.000 inhabitants (update to December 2020) In last years the demographic trend was positive: the resident population went from 95.500 inhabitants in 2002 to 104.000 inhabitants in 2020 with an increase of 9%.



Piacenza,1834

History And culture

exhibitions spaces are the Alberoni College, the Museum of Natural History, Antiquarium Santa Margherita and the Pinacoteca of Gazzola Institute. Piacenza and Cremona are founded as Romane colonies in 218 BC which is evident in the urban fabric of the historical part of the city. Since then the city has seen various dominions. Starting with Romans and continuing with French, Austrians and Farnesians.

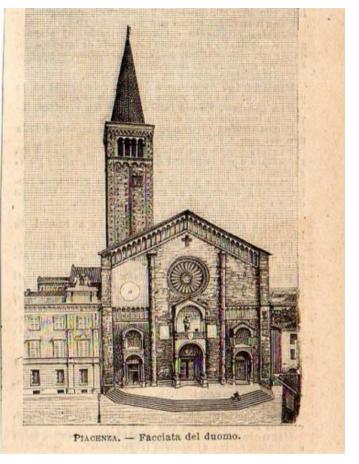
The city center is surrounded by historic walls. In the center of Piacenza there are several exhibition spaces, such as the Palazzo Farnese built by the Duchess of Parma and Piacenza, Margherita d'Austria (daughter of Charles V). It contains numerous collections (Archeology, Carriages, Picture Gallery ...). The Galleria Ricci Oddi preserves an important collection of modern art. Other important

In Piacenza there are two important university institutions, Politecnico di Milano and Universit Cattolica del Sacro Cuore. In the Politecnico site there is the Order of Architects, Planners, and Landscapists headquarter. Piacenza has other spaces dedicated to artistic and cultural manifestations, the main is the Municipal Theater together with other theatres (Teatro Filodrammatici, Teatro Gioia, Teatro SanMatteo) for concert seasons, prose and dance.



Status Of Ranuccio, 1865





Duomo Di Piacenza,1865

The city of Piacenza is crossed by several traffic flows that use the system of infrastructures with different modes and rhythms.it is served by the following high performance infrastructural net-

North-South connection route:motorway A1,former SS9 Via Emillia, railway line (conventional and high speed line,connection axis Mialno-Bologna-Firenze-Roma-Napoli)

East-West connection route:motorway A2,Torino-Brescia,former SS10 Via Postumia Inferiore,railway line(connection axis Genova/Torino-Piacenza-Cremona-Mantova)

In the node of Piacenza, these infrastructures form a multimodal corridor that crosses and partially surround the Northern side of the city, along the Po river ,determining enclaves and "islands" that makethe city a functional whole of easily interThe node of Piacenza is indeed linked through the station of Bologna, Milano and Alessandria, to the main cities affected from the passage of Trans-European corridors number I, V and of the TEN

On an urban level, the city is crossed by the by the conventional and electrified railway line with double track Milano-Bologna, while remains excluded by the accessibility of the high-speed and capacity line (AVIAC Milano-Bologna) that crosses the territory of Piacenza in the North-East of Le Mose, where is located the logistic park of Piacenza.

From the road system that surrounds the historic city of Piacenza, the roads that allow access to the main centers of the various Piacenza valleys branch out radially.

Being the center of the city of Piacenza of small size, by walk, it is possible to move from the East to the West borders in around thirty minutes, by car around 5 minutes. While for crossing the whole city from East to West it is needed around one hour and forty-five minutes on foot and approximatively fifteen minutes by car.

Train Station od Piacenza

Po River In Piacenza

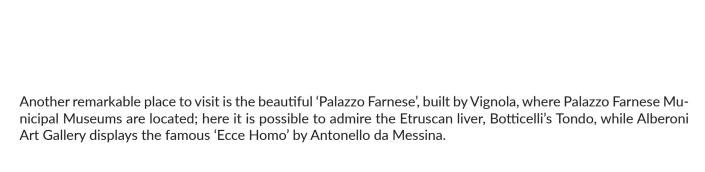
Well known

Piacenza plays an important role in the field of agriculture in Italywhich consists of a great percentage off the economy of the city; the same as most of the provinces in EmiliaRomagna and as a result being one of the main food producers; the province is known for the production of seasoned and salted pork products in addition to the production of cheese and tomatoes.

The hills surrounding Piacenza are known for their vineyards. Thewine produced in this area is qualified with a denominazione di origine. controllata called "Colli Piacentini".

The Romanesque 'Sant'Antonino ' Basilica, one of the pilgrims' stationsalong the Via Francigena, with its 'Porta del Paradiso' (Heaven'sGate), ' Santa Maria di Campagna' church which preserves, among others, frescoes by Pordenone, and San Savino Basilica with the 12th century mosaics representing the cycle of the months.

The city is well-known as the city of churches today. Undoubtedly, besides the two squares, 'Piazza Duomo' and 'Piazza Cavalli', the latter being the emblem of the city with the two equestrian statues by Mochi on the background of 'Palazzo Gotico', further sites are worth visiting



Roman Period

From 3500 BC

First settlements of the Bronze Age, then conquered by Celts and Ligurians.

218 BC

Roman Foundation of Placentia. Coinciding with that of Cremona and after that of Rimini, it was founded by the consuls Tiberio Sempronio Longo and Publio Cornelio Scipione as a military stronghold, and therefore equipped with its own army. Thanks to its territorial position, Piacenza assumes a role of primary importance in Roman politics, representing both the road junction and the most significant strategic point with the risk of invasion by the Nordic peoples from across the Alps.

The Castrum

The urban layout is defined by a grid oriented at 45 degrees, identifiable by two axes:

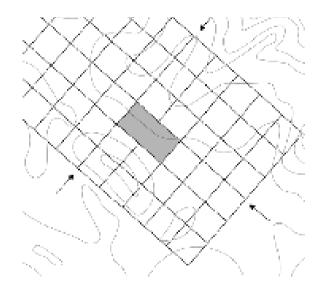
The thistle with a south-west / north-east orientation and the decumanus with a south-east / north-west orentation. The castrum is defined by an orderly road network organized in square blocks with sides of 80 meters. The original layout, consisting of ten blocks arranged on the long side of the castrum itself and six on the short side, at the time of its foundation, had a single public space overlooked by the main buildings, namely the forum, which was located at the point of confluence between the cardo and the decumanus maximus of the walls depends directly on the Via Emilia, while to the west it follows the slope of the land.



Mortier,1712

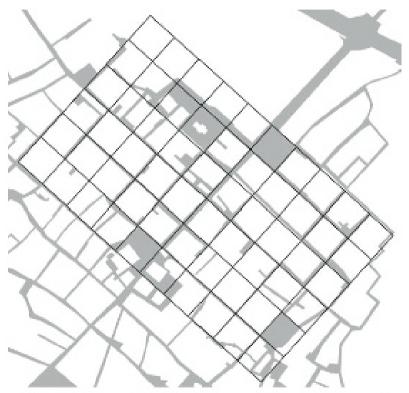
Theoretical Reconstruction of the Ancient System

The forum is in a central position tand occupies two blocks. The entrance roads to the city are indicated by arrows.



Initial city structure following the order of agricultural plots

By centuriatio we mean the organization of the agricultural of the territory by the Romans and characterized by the subdivision of the territory according to a regular grid. Indeed in order to make the land around the castrum measurable and privatizable, the Romans did imagine divided into agricultural plots of a shape approximating to the square, with the side corresponding to about 700 meters. As for orientation, the centuriatio adeast of the walls directly depends on the via Emilia, while to the west it follows the slope of the lands.



The maps show the substantial correspondence between the reconstructive scheme of the ancient system and the current urban fabric.

Middle Ages and Lordships

800

Dominion of the Franks, following years of conquests by the Goths.

962

Fall of the Roman Empire and affirmation of the Germanic Holy RomanEmpire. The feudal era is born, new social classes arise, including anenterprising merchant and artisan class, and rural feudal lords who

join the city government.

Around the year 1000

Demographic, civil and economic revival of Piacenza. Its strategic location, being located along the route of the Via Francigena, favors the passage of merchants and pilgrims.

1126

The city becomes a free municipality and takes the field with the Lombard League against Barbarossa. Mercantile activity intensifies, but agriculture and the economy also thrive. The city was enriched with churches, monasteries, and the new central square was built,

Piazza Cavalli.

from 1250

Frequent changes of supremacy by the following dominions: Scotti, Pallavicino, Scoto, Visconti and Sforza.

1336-1447

Visconti government.Reform of the legislative statute according to development of the city, applying the concept of urban decor.

City Expansion

The structure of the roman city is characterized by a very regular grid subdivision, blocks almost square, symmetrically arranged. This shape of urban design was originally a square corresponding to the north to via Benedettine, to the east with via Dogana, to the west via Cavalletto and via Sopramuro to the south. Later this wall limit was extended until via S. Eufemia and via San Sisto.



Roman Period Medievel Period Renaissance Period Map Of The City,1435

The new political organization, as well as the development of the Mendicant Orders within the city, determines its transformation as a function of new public spaces intended for popular participation in political and religious activities. The orders themselves, after acquiring ever greater power, propose an urban planning theory, thanks to the application of a geometric model based on a sort of cardo-dechuman system. This system places the population, divided into four teams orclasses, in as many city areas, characterized by their own meeting place for the various religious, political and administrative functions.

The redefinition given by the Mendicant Orders of the urban space allows the identification of the square as an important moment of aggregation.

Piazza Cavalli contains the governmental function, with the Gothic Palace, and the religious one, with the Basilica of San Francesco d'Assisi. Palazzo Gotico was built in 1281 as a new municipal building in the city for the holding of public assemblies, while the basilvvica of San Francesco d'Assisi was founded in 1122 to soon become a new reference place for the city's religiousness. Both monuments are built in Lombard Gothic style, with a preference for the use of brick on stone and for very robust perimeter walls, as if to recall the figurative nature of medieval fortresses.



Piacenza

Micro Analysis

The morphological description of a city is divided into four main systems

(built, open green, urban circulation, and connection) that allow you to describe the constituent characters of the city by evaluating the inherent hierarchy of urban space and its vicinity.

How these four systems work in a city can have positive or negative effects first on each of the elements and then on the urban fabric, and thus categorize them based on their effects.

Positive effects increase efficiency in the project formation process, and on the other hand, the project structure tries to reduce the negative impacts process in the city as much as possible and ultimately create a response that values the quality of life of the inhabitants of a city. Therefore, this stage has a fundamental value in the formation of the ossification of the project, which can not be seen in the table below the results obtained from these effects.

Data Type 1

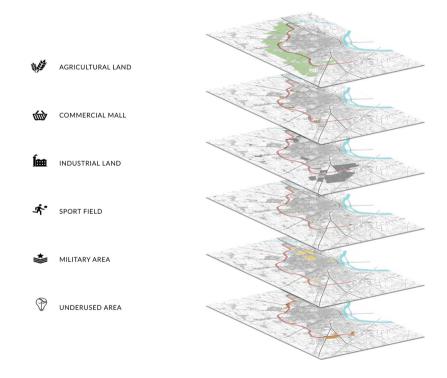
Municipality Analysis

HISTORICAL CITY PERI-URBAN CITY CONSOLIDATED CITY INDUSTRIAL CITY AGRICULTURAL CITY

This map shows that the study area (Tangenziale) is considered as a connection between Urban and Rural part of city. the proposal will also affect the the historical city of piacenza, Since Consolidated city with many roads connects them together.

Data Type 2

Google Earth



The map shows the diversity of landuse in study area which plays an important role when proposing new ideas for urban scale projects.



Population



Land Cover

These maps are related together. For example landcover shows how population reside on the land.



Strict nature reserve
 National Park

National Park
 Species Management area

Protected Landuse

Not Reported

Protected



HighLow

Protected area covers the global biodiversity and natural woodland area.

Global Biodiversity

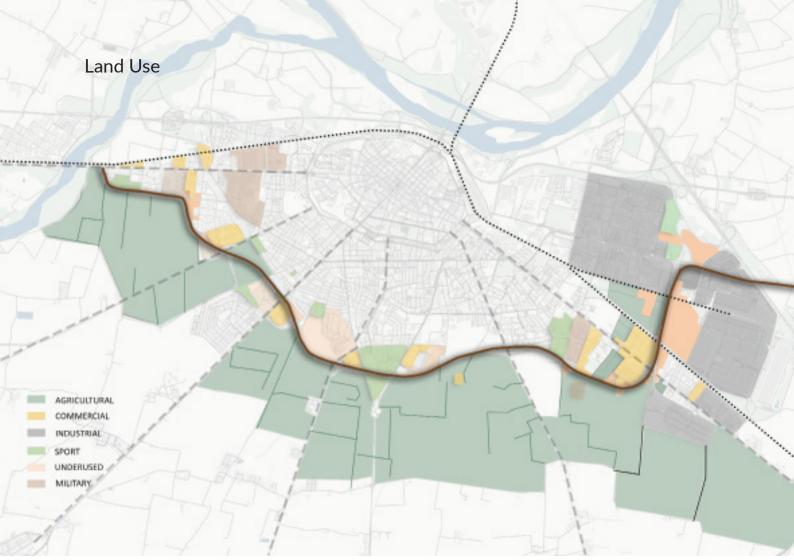


Tree Cover



Soil Carbon

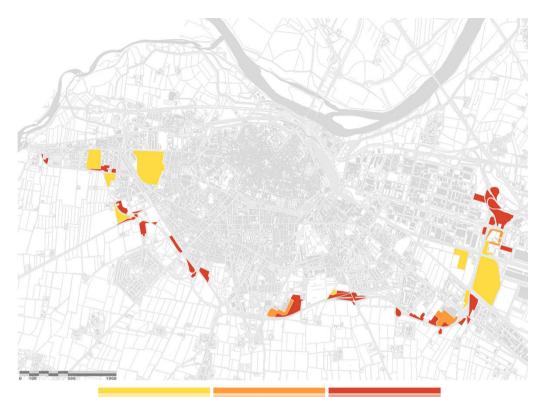
Soil carbon map idicate that in built area the amount of soil is much more than tree cover area.



Taxonomy

This map shows that most of the vacant spaces along the bypass are categorized in underused category which means that they may have function, but are not being used in a proper way.

what we understand from the result is that it is important to consider their current function and demand of surrounding area.



- Abandoned

Lands and places that have lost their former functions and now are not being used and left behind.

- Oversized

Spaces and infrastructures that are functioning periodly under the full potential. These infrastructures are mostly oversized.

- Underused

The large or small scale piece of lands that has been divided by infrastructure housing industrials and roads (bypass) which lost the potential are considered as underused these spaces can often get new function and host new activities.

Space Syntax

1: Choice

Choice means how busy a road is. In this map we see that the roads that are the busiest co tain most of the retail in the city. However in some parts we see that the width of the roads and the materialsused plus the monuments in those areasdefine the flow of the people just like the course of blood through our veins. People and their interactions are the source of life of a city.

2: Integeration

The integration demonstrates which part of the city is the center. As we can see with the growth of the city and its expansion the it's centrality has changed as well even though we can see retail footprints all over the new center people still tend to to move back and forth towards the old one. We have to take it as an opportunity to read between the lines and redefine our bypass road so that it stays forever.

3: Depth

Depth Distance is the most intuitive of the analysis methods. It explains the linear distance from the center point of each street segment to the center points of all the other segments. As we can see all the retails are in the most connected and low depth as possible.







Pre-Design Study

History of Piacenza urbanism back to the age of the first settlement of Piacenza with its historic center and the wall. From the geopolitical view, Piacenza is at the routs of turion bologna and Milano Bologna which was the strategic pathway, and also from the geological point of view, it is located near the Po river at the top and terbia river on the left side. because they need to secure the city they chose this location that is blocked by 2 rivers and one small river on the right side of the Piacenza . in the age of urban evolution of Piacenza the city expand to the right and left side to reach the rivers and at the top part, there was no expansion. Piacenza also is the main city of the Piacenza region so few main roads connect the city to the mountain and south part, the region is mostly agricultural other than Piacenza itself which is also industrial.

New Urbanism

New Urbanism is a planning and development approach based on the principles of how cities and towns had been built for the last several centuries: walkable blocks and streets, housing and shopping in close proximity, and accessible public spaces. In other words: New Urbanism focuses on human-scaled urban design.



New Urbanists want to see those human-scale neighborhoods return.

New Urbanists want to see those human-scale neighborhoods return. We create tools to reform zoning and street design and develop underutilized building types—like shopfront houses and court-yard units—that contribute to diverse neighborhoods. We advocate for villages, towns, and cities consisting of neighborhoods designed around a five-minute walk from center to edge. These ideas are fundamental to New Urbanist thinking

The principles, articulated in the Charter of the New Urbanism, were developed to offer alternatives to the sprawling, single-use, low-density patterns typical of post-WWII development, which have been shown to inflict negative economic, health, and environmental impacts on communities.

These design and development principles can be applied to new development, urban infill and revitalization, and preservation. They can be applied to all scales of development in the full range of places including rural Main Streets, booming suburban areas, urban neighborhoods, dense city centers, and even entire regions.

T.N.D

Traditional neighborhood development

Traditional neighborhoods developments (TNDs), inspired by historic neighborhoods, jump-started the New Urbanism in the 1980s and 1990s as alternatives to conventional master-planned communities. They were and are laboratories of ideas, creating pockets of community and urban space by overcoming legal and institutional barriers to holistic development.

TNDs revived long-neglected building types like accessory dwelling units, mixed-use and liner buildings, and brought back the front porch and rear garage. Walkable streets designed for slow-er-moving traffic were fought for and built. Many of the TND developers are now focusing on smaller infill projects, but new complete neighborhoods continue to be built in this market where financing allows and where sites call for large-scale transformation.



Benefits

- Encouraging economic diversity and vitality
- •Encouraging development into areas that can best accommodate it
- Using existing infrastructure
- Encouraging clustering
- Preserving and reusing structures of historical and/or architectural significance
- •Encouraging development patterns similar to traditional neighborhoods, including pedestrian scale
- Maintaining distinctions between rural/suburban/ urban areas
- Encouraging economic expansion, job creation and stability
- Insuring that municipal services and facilities are adequate to meet public needs, without subsidizing development
- Minimizing infrastructure costs
- Minimizing traffic congestion caused by new development

- Creates walkable neighborhoods
- Brings life to communities by allowing mixtures of uses
- Encourages transportation mode options
- Protects open space
 Preserves "village center" and public spaces concept
- Creates communities designed for live, work and play
- Reduces vehicle congestion

Pocket Praks

What IS Pocket Park?

A pocket park is a small outdoor space, usually no more than 1/4 of an acre, usually only a few house lots in size or smaller, most often located in an urban area surrounded by commercial buildings or houses on small lots with few places for people to gather, relax, or to enjoy the outdoors. They are also called vest pocket parks, a term first used in the 1960's. Pocket parks are urban open spaces on a small-scale and provide a safe and inviting environment for surrounding community members. They also meet a variety of needs and functions. including: small event space, play areas for children, spaces for relaxing or meeting friends, taking lunch breaks, etc.

Successful "pocket parks" have four key qualities: they are accessible; allow people to engage in activities; are comfortable spaces and have a good image; and finally, are sociable places: one where people meet each other and take people to when they come to visit.



Preceden

High Loop

A proposal for the renovation of Puji Road pedestrian bridge in Shanghai, the iconic bridge over the Suzhou Creek that connects the districts of Zhabei & Jing'an. Our proposal aims to transform the bridge into an eventful elevated park as urban landmark, crossing the city offering a unique urban journey. The design organizes the different circulations by colors, creating a hierarchy of different rhythms & paces. While a straight lane in electric lime defines the fast track for bicycles & motorbikes, a winding path in viscous magenta slows down the pedestrian circulation.

As background color, a soothing cyan blue defines the spaces to stop & stay, spaces to socialize, meet & gather. From viewing decks to picnic plazas, lounge areas or mini amphitheaters, all the contrasting yellow urban furniture & social functions are located here, allowing the loop to wind around them, encouraging the appearance of those pock



Puji Bridge, Suzhou Creek, Jing'an District, Shanghai, China





Jay Pritzker Pavilion / Gehry Partners

The Pavilion is a highly sculptural design element clad in stainless steel panels. The stage area is clad in Douglas Fir. The Pavilion is visible from surrounding city streets and is intended to act as a focal point for Millennium Park. The Pavilion features a series of portable risers that will accommodate an orchestra of up to 120 musicians, and a choral terrace with space for a choir of up to 150 members. Back stage areas are shared with the adjacent Harris Theater for Music and Dance. Large glass doors allow the Pavilion to be used during winter months for public functions including banquets, receptions, and lectures. A decorative lighting system enhances the Pavilion with colored light washes and projections during evening performances.

the Red Ribbon Bridge in Hongqiao Park

One of the great things about Shenzhen is that there are always new places opening up and new places to discover. The 4-kilometer red ribbon bridge in Hongqiao Park is one of these architectural gems. The project manager of this park is Spanish architect Ramón Cuesta who lives in Shenzhen.

It is great to see Shenzhen utilizing international talent for large city projects.





The park, located between Guangqiao Road and Dadingling Greenway, covers an area of about 402 hectares. It consists of three areas: the entrance area, the Bihu Lake area and the forest area stretching from west to east. The three areas are connected by a 4-kilometer-long red bridge. The bridge starts from Guangming New Town Park in the west, passes the Guangzhou-Shenzhen-Hong Kong High-speed Railway and Ganzhou-Shenzhen High-Speed Railway, and ends at the Dadingling Greenway in the east.





Gate Tower Building

The building has a double core construction, with a circular cross-section. The Umeda Exit of the Ikeda Route of the Hanshin Expressway system (when exiting the highway from the direction of Ikeda) passes between the fifth through seventh floors of this building. The highway is the tenant of those floors. The elevator passes through the floors without stopping, floor 4 being followed by floor 8. The floors through which the highway passes consist of elevators, stairways and machinery. The highway does not make contact with the building.[2][3] It passes through as a bridge, held up by supports next to the building. The highway is surrounded by a structure to protect the building from noise and vibration. The roof has a helipad.