

Giorgio Risicaris



HRC



HISTORICAL RIVER CENTRES



Comune di Firenze

NO8DO
AYUNTAMIENTO DE SEVILLA
URBANISMO



Strasbourg
Communauté Urbaine
de Strasbourg

Giorgio Risicaris

and contributions by

Comune di Firenze

Communauté Urbaine de Strasbourg

Ayuntamiento de Sevilla

historical river centres

HRC

Historical River Centres

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Index

Introduction

The HRC Strasbourg Memorandum of Understanding	6
The HRC Culture 2000 partners' working teams and contacts	8

First part

A challenging perspective for European Historical River Centres (HRC)	13
Activities and findings. 12 months reporting aiming to define and promote Historical River Centres (HRC)	17

Second part

Historical Researches and Pilot Projects Presentation of the three Culture 2000 HRC deliverables	
• Firenze	35
• Strasbourg	61
• Sevilla	83

Attachments

• Sheets for 17 real HRC squares in Florence, 5 green areas and an Arno river Museum	108
• Strasbourg, HRC site presentation	120
• Strasbourg and water	126
• HRC Bibliography	
- Firenze	131
- Sevilla	137

<i>Abstracts</i>	142
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Strasbourg Memorandum of Understanding

**Between Firenze Sevilla Strasbourg, cities partner
of HRC Culture 2000 project**

We, the representatives of the HRC Culture 2000 project cities, met in Strasbourg on 16-17 Juin 2005, hereby sign the following common Memorandum of Understanding, stating our interest to deepen our cooperation and exchange of experiences in the fields of the project challenges, studying and promoting the heritage of European Historical Rivers Centres.

In this view, we consider that:

Our Cities are collaborating from 2004 upon the Historical River Centres project for the promotion of the historical central urban areas developed along rivers, obtaining the financial support of the European Commission in the framework of the Programme Culture 2000.

Such European level acknowledgment confirms the importance of the issue tackled by the project that stresses the cultural value of rivers crossing historical centres, the fragility of the urban and environmental historical river system, the social and economic significance of the river in the future development of historical centres, the actuality of a need for appropriate specific safeguard policy and opportunity for a major integration of the river excellency in historical centre planning acts.

Within this project our cities wish:

- to intensificate studies of the "Historical River Centre" for a better comprehension of its history and evolution, social and cultural features linking it to the historical centre and for the promotion of the consolidated urban fabric along river as a new category of cultural heritage to define and disseminate in Europe;
- to promote historical researches able to strengthen cultural awareness for the "Historical River Centres";

- to develop dissemination and awaring activities for a larger share of the projects' objectives;
- to elaborate pilot studies in order to define a framework tool able to originate an innovative and coherent approach as to the cultural, social and economic significance of the "Historical River Centre" for the city.

On behalf of the results of the project, expected for September 2005, we are looking forward to evaluate the oportunity to sign a common Declaration, during the closing conference in Florence, scheduled for September 2005, promoting further eventual initiatives and shared actions in Europe.

Strasbourg, 17 Juin 2005

Signatures

The Mayor of Firenze

The President of the Communauté Urbaine de Strasbourg

The Mayor of Sevilla

HRC project Culture 2000 Partners



Comune di Firenze

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STRASBOURG





FIRENZE



SEVILLA

HRC activities and findings

A challenging perspective for European Historical River Centres (HRC)

Rational

The architectural heritage safeguard and protection issue crossed a long period of theoretical evolution, starting from the Chart of Athens, on 1931, that launched a specific framework perspective, making a fundamental step ahead from the considerations of the 19th century's for archaeological findings. The definition of the architectural monument to protect has been radically further developed starting with the Chart of Venice, introducing the principle of the site and of the architectural complex to protect.

The historical centre as a specific heritage for safeguard not only for single monumental values, but principally as unique ensemble of minor architecture values, has been rapidly extended after the UNESCO's classification of the historical centre of Florence, as a hole, in the World Heritage list, and other historical centres followed. On the other hand safeguard policies and planning tools specifying the means for an integrated protection of historical centres had been elaborated, defined and largely used.

This framework is strongly matured and internationally accepted, able to support further thematic specifications, strengthening efficiency and correspondence of policies to higher quality needs, more detailed fields and perspectives for historical centres.

This is a process already in development, clustering historical centres according to specific approaches and needs for safeguard related to development according to the Krakovia announced guidelines. This process enables knowledge, historical study and safeguard of new internal heading categories of the historical centres, looking forward to targeted cluster developments. This perspective will permit to better address existing policies and tools adapting them to thematic exploitations in historical centres.

Rediscovering Historical Centres upon rivers

The heritage related to historical urban spaces along rivers crossing towns, is among the most significant and rich monumental sites of our cities. A large majority of cities in Europe were founded and developed aside rivers. Social, economic and cultural life of these cities have been strongly and reciprocally influenced and conditioned by the relationships developed with the river.

Urban rivers have been motors of flourishing economic activities, of social wealthy and cultural activities. The same rivers have been in the centuries also a danger and a fear for citizens because of floods. The major historical centres in Europe are twinned with their rivers and form an insoluble system with strong peculiarities and historical condensed values. The physical containment of waters and flow, the connections between sides, the urban banks, the urban longitudinal elevations, the relationship between open and built spaces, the architectural decorating members, the dialectic report with monuments, urban perspectives and views, are highlighted between the emerging elements defining this architectural site.

These water mirrors of historical cities are able to witness historical memories, since could be ideally considered as the water city square, in the middle of the city, social life and historical events. As a matter of fact it is very usual to meet references to the river in cities' primary historic sources and documents.

On the other hand, such distinguished cultural heritage, lacks of systematic vision, coherent cultural definition and approaching tool. Only indirect and improper approaches are actually available, using either the historical centre general cultural concept or the more limited single monumental access tool.

This cultural handicap produces weaknesses, on operational level and risks, in a perspective of site restoration interventions and developments.

Several cities are in our days facing the challenge of rediscovering the

potentialities offered by crossing rivers and especially along their historical axes. Consequently it becomes more and more essential define the framework and the context of such sensitive historical cultural sites and establish protocols for a correct and coherent safeguard.

It is essential to promote international awareness for the definition of this new heritage category that, aside and complementary to the historical centre general principle, is accepted and classified as an autonomous value to protect and a dynamic framework to develop.

The European Commission co financed the City of Florence in network with the Cities of Strasbourg and Sevilla, three of the most important historical European cities developed upon rivers, which aimed to make a first step in this direction.

This book is the result of one year activities, September 2004-September 2005, developed on theoretical and experimental levels, looking forward to constitute a basic work for further dissemination and awareness initiatives.



HRC kick-off Meeting in the Town Planning Department of the City of Florence



HRC kick-off Meeting in Palazzo Vecchio of Florence

Activities and findings

12 months reporting aiming to define and promote Historical River Centres (HRC)

This HRC Culture 2000 project aimed to give a distinguished first contribution to define a new heritage category for the cultural site of historical cities upon rivers.

In order to achieve this purpose, a pilot joint action has been developed by a limited but excellently highlighted and representative partnership between three European historical centres with rivers, Firenze, Sevilla and Strasbourg and through a complex of common activities dealing with historical researches, pilot experimental studies and codification assessing operations.

The project is also radically oriented to create in the future a larger European resonance and networking, through distinguished dissemination and awareness activities converging to the HRC web Portal, that will keep running after the Culture 2000 project end.

The challenge of this project has been to achieve political agreements between the three partner Cities enabling to address high standing organisations and a large number of European historical cities upon rivers, for a Charter upon HRC perspectives supposed to constitute the departure basis for post Culture 2000 activities.

Synthesis of the objectives pursuit by this project

General objectives

- Develop knowledge and awareness about the integrated cultural value of the tangible and intangible heritage along rivers crossing historical centres.
- Promote European awareness and enhancement of the specific heritage category.
- Connect urban social and economic development perspectives with new potentialities of this cultural site innovating framework.

Specific objectives

- Produce documentation and elaborate definition of the integrated character and of the supporting logical concept of the heritage category promoted.
- Develop historic studies and analysis of the three partner cases.
- Examine European best practices dealing with the topic.
- Develop pilot basic designs for cultural parks of the partner sites involved.
- Edit a portfolio and create a web portal spreading information and strengthening the project challenges.
- Build a framework of relationships between a large number of similar sites in Europe.
- Sign an agreement between partners at political level strengthening HRC challenges and launching future perspectives.

Synthesis of developed activities

Three workshops took place in the partner sites. Each one was the occasion to focus on local HRC cultural site challenges and perspectives and to promote a local debate on it.

One closing event took place in Firenze for the results exhibition and launching post Culture 2000 activities.

A portfolio is published including the new heritage category definition, local cultural sites analysed and HRC cultural parks designed.

A web portal has been the project vector and the resonance tool for dissemination and promotion.

Partners elaborated basic pilot designs for cultural parks condensing the projects' must. Such safeguard and development simulations addressed visibility, visitability, social and economic compatible activities, innovative options for an integrated safeguard, through an action programme of perspectives.

First HRC Workshop in Florence

The first workshop was held in Florence on 30 September and 1 October 2004. In this workshop participated:

Gianni Biagi, *Florence City councilor for Town Planning.*

Francisco Javier Pando Sastre, *City of Sevilla, Gerencia de Urbanismo.*

Maria Luisa Diaz Borrego, *City of Sevilla, Gerencia de Urbanismo.*

Dominique Cassaz, *Communauté Urbaine de Strasbourg*

Gaetano Di Benedetto, *City of Florence, Director of Urbanism department.*

Silvia Scarsela, *City of Florence, Urbanism department*

Giorgio Risicari, *City of Florence EU projects consultant.*

Mr Biagi opened the HRC Culture 2000 project works addressing the participants on behalf of the Giunta Comunale of the City of Florence that has been formally informed about the HRC project kick-off and activities the the 28th September 2004 session.

He suggested to evaluate synergies with the world association of cities "Water cities" and to assess the best practice of Saragossa offering an interesting plan for the river in the city.

Introduction of the coordinator, Gaetano Di Benedetto

The historical part of the river Arno in the "Strategic Planning" and the "Structural Town Plan" of Florence.

Mr Di Benedetto outlined the urban development of the city of Florence and pointed out the running local experiences for town planning and development. There is a combination choice between the "Strategic Plan" and the "Structural Plan" of Florence both paying strong attention to the river Arno.

After the seventies the industrial character of Florence changed from a multi disciplinarity to an "instinctive" reconversion in the economic areas of culture, university, professional skill, archives and libraries.

The river in the ancient city framework was strictly connected to the economic and social activities. Along the historical area, three river ports for wood, wool and sandpits activities existed until the 19th century and today are completely dismissed.

City life is in our days detached from the river, that turned to be rather a "disturbing" element, not any more functionally related to citizens' activities.

The programming perspectives of the City are to launch future actions to conquest the river as the largest square of the city, where develop common cities' life.

Outline of the historical river centers heritage sites of the partners.

In order to start defining a common language and compare local existing frameworks, HRC partners exposed physical descriptions, planning operations and future visions for each one of the HRC sites. The papers presented in the kick-off meeting used a large approach covering introduction purposes and general knowledge of the historical centers and the specific heritage sites HRC in Florence, Strasbourg and Sevilla. Partners decided to assess these presentations into a consolidated sheet obtaining a condensed deliverable able to be compared together with the historical researches and the cultural parks pilot projects.

During this first phase the partnership shared and detailed the project objectives and fine-tuned the operational timing. Starting from this kick-off meeting and following the presentations made of local heritages, emerged the opportunity to understand and go deeper upon similarities and differences that appear both very strong and relevant.

The similarities.

1. As a matter of fact it was immediately evidenced that the HRC heritage concerned lacks of a specific approach in all partner sites, there is an absence of dedicated operational tools and appropriate intervention coherence. Cities are dealing with the historical heritage that we called "historical river centre" through the overlapping of several horizontal and sector operational means, corresponding to different decision making levels, different institutions or separated offices.
2. In all partners sites the river is a coagulating element for economic activities in the historical centers and an accelerator for enterprise development. The flood risks are heavily influencing developments.

3. The cultural elements composing the HRC heritage system, to codify and promote, are not identified as a group, missing to target added values opportunities on both cultural and socio economic levels.

The differences.

1. The multiple juridical framework regulating safeguard and development of each site is and should remain different corresponding to the distinguished juridical national systems.
2. The three rivers under examination correspond to three different physical types: In Florence Arno is a torrential river, in Strasbourg is a canal system connected to the principal river and in Sevilla the Guadalquivir Darsena is the original river course, bypassed with a large extra urban canal, realized to control high tides.
3. The dimensions of the rivers are very different between them. Sevilla is the largest one, Florence is radically less large and Strasbourg is the narrower one being a canal system. The water level is also a differentiating major element. In the cases of Strasbourg and Sevilla, the water level is under hydraulic control and remains constant under normal conditions. In the case of Florence the water level is never stable and presents important seasonal differences.
4. The urban free spaces facing the river are also very different: In Sevilla there are large free areas along the sides. In Florence and Strasbourg the river is strictly compressed by the city fabric.

Both similarities and differences can contribute to define a common framework and shared perspective:

- The confirmed common lack of a systematic vision for the HRC heritages confirmed the opportunity of this Culture 2000 project and targeted HRC activities and objectives to local challenges.
- The differences evidenced will permit thematic approaches of pilot projects, targeting European cities varying cases.

On behalf of these considerations partners started after the kick-off meeting elaborating Historical Researches aiming to analyze the elements and the dynamics composing each HRC heritage considered, tendering to a specific heritage definition.

Second HRC Workshop in Sevilla

The second HRC Workshop took place in Sevilla on 13 and 14 January 2005. At this meeting participated:

Emilio Carillo Benito, *Teniente de Alcalde Delegado de Urbanismo, Ayuntamiento de Sevilla.*

Francisco Javier Pando Sastre, *Ayuntamiento de Sevilla, Gerencia de Urbanismo.*

Maria Luisa Diaz Borrego, *Ayuntamiento de Sevilla, Gerencia de Urbanismo.*

Dominique Cassaz, *Communauté Urbaine de Strasbourg.*

Giovanni Malin, *Direttore Ambiente, Comune di Firenze.*

Giorgio Risicarì, *City Factory, Comune di Firenze EU projects consultant.*



During the HRC Sevilla Workshop, the experts with Emilio Carillo Benito



HRC Second Workshop in Sevilla, Town Planning Department

A specific section of the meeting was dedicated to introduce together with the Deputy Mayor for Urban Affairs, Mr. Emilio Carrillo Benito, the HRC perspectives and challenges, sharing common visions and receiving from him inputs and suggestions.

The HRC integration in the local debate for the redevelopment of the Guadalquivir River and the surrounding historical urban areas, is directly dealing with a framework of existing or programmed initiatives. The HRC project is able to create in Sevilla an added value and be an accelerating process, offering an innovative and integrated approach through the Historical River Centres Cultural Park issue.

A specific mention is made to involve local actors related to the project such as, the fine arts bureau, the Municipal Culture department, the Regional Culture department, the University, the Tourism City Office, Directors of Cultural institutions (museums, libraries), Commercial associations etc.

Gerencia de Urbanismo de Sevilla dispatched an HRC press release for local newspapers.

Remarks over HRC project challenges and perspectives

This second HRC meeting closed the introducing and analytical activities, bringing partners into the design purposes for the three HRC Cultural Park pilot projects.

A general overview of the coordinator tackled the first phase findings and connected the historical researches results to the next pilot project phase, pointing out the need for a rational continuity between them. During this meeting partners assessed the interrelation between analysis and pilot projects, within the strategic vision of the project and corresponding to local potentialities and endogenous strengths and needs.

A sharing of the advancement process and verification of the timing and deliverables, permitted to the partners to better address the forthcoming actions, improve comprehension and update local operational process to the global schedule.

A specific mention was made for the HRC Charter perspective. Partners decided to proceed with a mid term signature at high standing political level of a Memorandum of Understanding, supposed to be shared by the three Cities partners and then signed

by the heads of the boards during the Strasbourg meeting. This is a principle general declaration of the common interest to study, promote and further develop the HRC heritage as a new cultural value, integrated in the visions for safeguard and development of the historical centres of Firenze, Strasbourg and Sevilla. This Memorandum of Understanding is also a first step towards the HRC Charter perspective.

Closing the HRC Historical research.

Partners exposed the results of the first phase activities, related to the study of the history, the collection of documents, literature and information upon the three HRC heritages. This work had been addressed and supported by the lead partner, producing a common sheet with recommendations and index grid.

The relevant deliverables are a general presentation sheet of each HRC site, a basic literature dedicated to the history of the historical centre and the river and a synthetic historic chronology of events concerning urban development and the river.

Such basic documentation is aiming both to share definition of the HRC site and to support local HRC cultural parks designs.

Florence presented the poster exhibition of the research, the literature collected and the chronology. Strasbourg presented the comparison of several historical maps supporting the definition of the local HRC development history.

Launching the HRC cultural parks pilot projects

The activities for designing the HRC cultural parks pilot projects start right after the Sevilla meeting. Partners agreed that the areas to be involved in the cultural HRC parks should be defined now, in order to better proceed into the design phase. Consequently partners presented the existing local frameworks and a discussion permitted to fix them as follows:

Florence will develop a park project along the river area of the historical centre from the San Nicolò Bridge to the Victoria Bridge, including a linear but not uniform historical urban fabric sector in both river sides.

Strasbourg will involve the Barrage Vauban area of the historical centre, together with the 19th century canal Heyritz-Vauban area

where extensions of the historical centre water activities are now planned.

Sevilla will develop a cultural park project along the river areas along the historical centre, including Triana and San Bernardo historical neighbourhoods.

During an exhaustive discussion partners shared the method and fine-tuned the common approach for the pilot projects.

These projects should be rather a programme framework, including some specific technical designs, for the coordination of existing development perspectives, new opportunities and challenges, innovative ideas and promotional actions, for a homogeneous tackling of the HRC heritage safeguard and development. Synergies between public authorities, development agencies, planning tools and economic actors should be pointed out and promoted.

The specific output should be a description of the existing corpus of plans and projects, of the principal idea supporting the local HRC cultural park pilot project, of the measures proposed, of the performing framework, of the strategy to follow in order to obtain the objectives. Plans and designs should be attached to the descriptions permitting a physical comprehension of the proposed measures and planning choices. Proposals should principally come out from the results of the targeted historical researches and the fields' state of the art recognition.

Such cultural parks pilot projects for the three HRC sites, are supposed to experiment and assess the approach, aiming to verify if the park tool is a suitable one to correspond to HRC sites developments, worthy to disseminate and promote it as a key issue for European HRC sites.

Third HRC Workshop in Strasbourg

The third HRC meeting took place in Strasbourg the 16 and 17 June 2005. In this meeting participated:

Anne Lautier, *Communauté Urbaine de Strasbourg*

Dominique Cassaz, *Communauté Urbaine de Strasbourg*

Sergio Goretti, *Director of Culture Department, Comune di Firenze*

Francisco Javier Pando Sastre, *Ayuntamiento de Sevilla Gerencia de Urbanismo*

Maria Luisa Diaz Borego, *Ayuntamiento de Sevilla Gerencia de Urbanismo*

Giorgio Risicaris, *City Factory (consultant)*



HRC Third Workshop in Strasbourg, Urban projects department

The Strasbourg HRC meeting has been a fundamental step for this project, closing the pilot project experimental activities and opening the last stage dealing with deliverables and international resonance activities. During this meeting the three Culture 2000 partner Cities assessed the obtained results of activities, signing the HRC Memorandum of Understanding. The City of Florence and the City of Sevilla decided to sign it according to specific board decisions and Strasbourg is also looking forward to adopt it.

According to the Strasbourg HRC Memorandum of Understanding the three cities evaluated positively the HRC project results and are looking forward to intensify collaboration towards the HRC Charter,

HRC issue dissemination and promotion and further European activities.

Such high standing agreement should be considered as a milestone, able to generate further steps for the international awareness and acceptance of the HRC heritage.

Dissemination Activities

The Strasbourg HRC meeting included three major dissemination public events.

The conference: "La Ville historique et l'eau" that was held in the CUS Salle de conférences, niveau 1 Centre Administratif, 1 parc de l'Etoile, on 16 June 2005 at 15:00.



During the conference: « La Ville historique et l'eau » in Strasbourg

During this event HRC partners presented the results of the historical researches, based on the literatures and chronologies and distinguished scholars of Strasbourg exposed studies on the local HRC site.

Giorgio Risicaris, "Defining a new heritage category, the case of the Historical River Centre of Florence".

Francisco Javier Pando Sastre, "The Guadalquivir river and the historical centre of Sevilla".

Thierry Hatt, "The canals in Strasbourg".

Bénédicte Herbage, "A port in Petite France round 1900".

Marie Hélène David, "Building of the connection canal, the basins of hospital and Austerlitz".

Michel Hau, "The economic rule of the canals in Strasbourg".

Following presentations a round table discussion was moderated by Georges Bischoff and Jean-Jasques Schwien.

The second event was the HRC exhibition opening, "Three cities, Florence, Sevilla, Strasbourg" 16 June-15 July 2005, hosted in the CUS Ground floor space. Partners together with conference speakers and public participated to official opening of the HRC exhibition by the President of the Communauté Urbaine de Strasbourg, Mr Robert Grossman.

The third event was the "HRC Pilot Projects for cultural parks presentations", that took place on 17 June 2005, at 09:00, in the CUS Salle de conférences, niveau 1 Centre Administratif, 1 parc de l'Etoile.

This was a work meeting open to the public. Representatives of the Culture, International Relations, Urban Projects and Port Autonome, departments of the Communauté Urbaine de Strasbourg assisted bringing specific contributions.

HRC Florence pilot project "A cultural park in the hart of Florence. How a historic city returns to its river".



HRC exhibition in Strasbourg

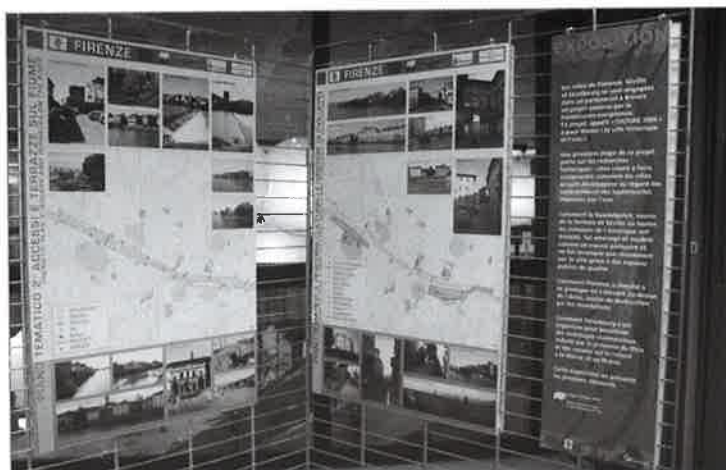
HRC Sevilla pilot project "The Guadalquivir river, big free space in the city"

HRC Strasbourg pilot project:

"The museum of ice-making" Michel Girard and Jean-Pierre Rieb

"The public environment Heyeritz-Vauban" Jean-Yves Meunier

"Vision of two visual artists Anne Godet and Dorothee Sadowsky".



HRC exhibition in Strasbourg



HRC exhibition in Strasbourg

Assessing findings and results.

After twelve months of activities partners achieved a consistent step ahead towards the definition of the new HRC heritage category and the elaboration of fundamental outputs able to support a dissemination effort starting from the HRC Charter activity.

Concerning fall down

The aim of this project is to elaborate methods and proposals addressing the historical centres citizens' social and economic life, improving their interface with their river, creating a friendly and dynamic new qualified framework of relationships and means of frequency and utilisation. The pilot designs for cultural parks on the other hand are supposed to improve integration of the river element in the urban social and economic life, promoting new enterprise and job creation, and linking general town planning and programming to the cluster specific development perspectives.

The HRC project is definitively oriented to promote a virtuous linking to our day's city life of the tangible and intangible HRC heritage, through innovative and inedited actions and initiatives.

New information technologies should be used within the cultural park perspectives for communication purposes and for information dissemination, as well as for addressing opinions and influence decision makers.

Concerning long term results

The project is by its nature a long perspective operation, looking forward to promote and develop a stable European network of cities with historical centres upon rivers. The long term vision is to improve the heritage protecting it from alterations and improper developments and activities. The first step on this direction will be done within this programme schedule, establishing also a dialogue

with ICOMOS for official statement of the new heritage category. The project makes available for the partners and for all interested cities planning methodology methods and tools for HRC heritage protection and promotion.

Concerning added value

The principal added value is be the definition of a new category of heritage, for the first time considered as an autonomous topic, filling up a sector of the cultural debate for historical centres and contributing to an integrated cluster protection perspective.

But also the project is looking forward to open minds for coherent and dynamic evolution of a sensitive heritage common to the large majority of European cities, opening new horizons for targeted and creative maintenance and conservation, aiming to a better exploitation of potentialities. This is particularly suitable for perspectives related to the new member states as well as for the third European countries supposed to activate developments and rehabilitations as a result of recent economic trends for investments.

Concerning beneficiaries

Participating organisations directly benefited by means of moving intelligence, new knowledge creation, and innovative application tools realisation. Citizens are supposed to strongly benefit as users of a tangentially upgraded and friendly interface with the cultural site concerned. Citizens will also profit from a qualified action able to better connect historical values with innovative future social and economic activities. Educational institutions' involvement has been achieved during local meetings through a shared action and a mobility of professionals has been addressed through the workshops and the technical multilateral visits on HRC sites.

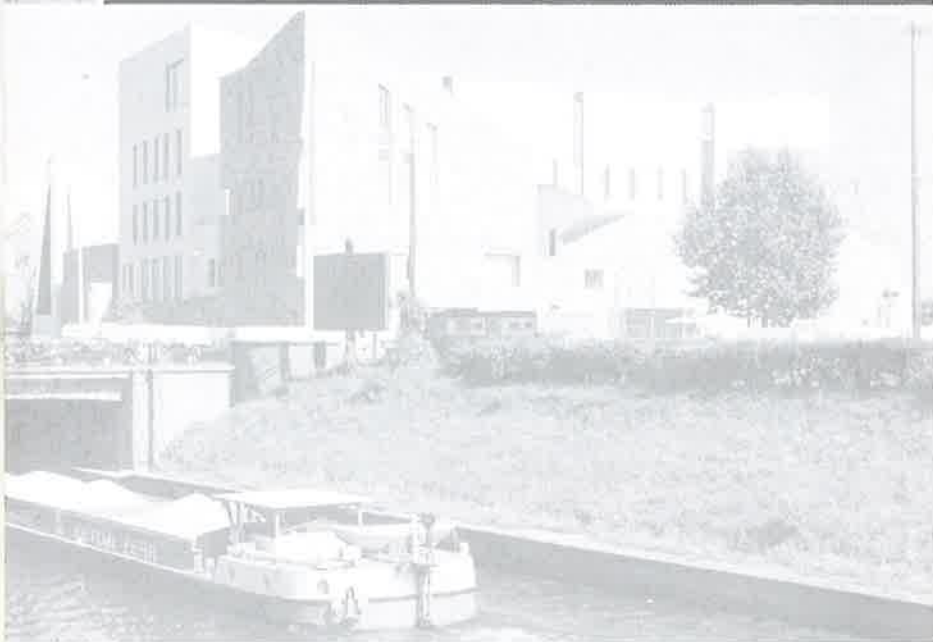


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HRC deliverables



Ponte Vecchio



Ponte Santa Trinita



Ponte San Niccolò

Historical Research

1. River and the city: the bridges

1st century: The first bridge on the Arno river is built, approximately where today is the Ponte Vecchio.

9th century: This first bridge, destroyed during the struggles between Goats and Byzantines, is rebuilt in stone piles and with a wooden platform.

1177: The bridge is once again rebuilt after a flood.

1220: As a consequence of the commercial interests developed in the area of Ognissanti, is built a second bridge on the Arno river, called the New Bridge (actually named Carraia).

1237: A third bridge is realized connecting the two zones of S. Croce and S. Niccolò. Its name "alle Grazie" is due to existence of a Mother picture.

Half of the 13th century: On Ponte Vecchio numerous workshops are built and become the central point of the city life. In the same period, Lamberto Frescobaldi decided to build a new bridge connecting the zone of S. Trinita to houses of the family Frescobaldi (Bridge S. Trinita).

1259: Bridge S. Trinita, built in wood, was destroyed during a celebration and is rebuilt in stone.

1269: A flood destroys the Carraia bridge, rapidly rebuilt, because of commercial interests, using the same materials (wood for the roadway and stone for the piles).

1333: A terrible flood hits Carraia Bridge, Ponte Vecchio and bridge S. Trinita. It is provided immediately to the reconstruction and the last to be finished is be the bridge S. Trinita (1415).

1557: Bridge S. Trinita is again destroyed by a flood and its reconstruction is entrusted to Bartolomeo Ammannati.

1835: Two new suspended bridges are built: bridge San Ferdinando, east way, and bridge S. Leopoldo, west way. The construction is entrusted to the enterprise of brothers Seguin that realize the works adopting the new technology of the suspended bridges with structure in steel.

1866: The 14th century houses of the bridge alle Grazie are demolished in order to build iron protections and new pavement.

1890: Bridge San Ferdinando is replaced by a structure of iron able

to support the tramway of the Chianti.

1925: A competition is launched for the substitution of the bridge S. Leopoldo with a new bridge, the Vittoria Bridge, in masonry covered by stone according to the winner's B. Railroad project.

1944: All bridges are undermined and destroyed excepting Ponte Vecchio, where surroundings are destroyed instead of it.

1946: Reconstruction starts from Vittoria Bridge on a project of N. Baroni.

1949: Bridge San Ferdinando, now called San Niccolò, is rebuilt in masonry on a project of Morandi. A Bailey iron bridge is built on the location of the present bridge A. Vespucci.

1954: The Bailey bridge is replaced by a bridge with three arches in concrete covered by stone, designed by Nelli, Gori and Morandi.

1955: The Carraia bridge is rebuilt with a Fagnoli's project.

1957: Alle Grazie Bridge is rebuilt by Michelucci and Guizdulich.

1958: Inauguration of the new bridge S Trinita, rebuilt "in the same form and same place" by Guizdulich and Brizzi.



Lungarno Acciaiuoli



Lungarno Guicciardini

2. River and the city: the docks

In the **13th century**, with the construction of the Carraia Bridge the first two dock streets (lungarni) Corsini and Guicciardini were also built. During the second half of the same century existed also a free space between Ponte Vecchio and Santa Trinita bridges. Later along the river a street was realised (actually named Acciaiuoli dock) as continuity to the existing one.

At the **beginning of 14th century** was built the convent of Benedictine on the Lungarno Soderini, attached to the Tower of Santa Rosa. In **1371** the Alberti family built the Oratorio of Santa Maria delle Grazie on the Rubaconte bridge, just near to their property, including in 1354 the de' Benci street leading to lungarno (actually known as Lungarno Generale Diaz).

In the **15th century** the Lungarno Corsini was enriched with important architectures strengthening its promenade character. Also in the **16th**



Lungarno Serristori



Lungarno Vespucci

century the Lungarno Acciaiuoli was enriched with the Acciaiuoli palace, constructed by the mid century. In **1529**, due to the imminent attack of Charles's 5th imperial troops was decided to demolish all what could shelter the enemy. Therefore, along Lungarno Soderini and Lungarno Santa Rosa, are demolished several convents. In **1546** Cosimo 1st creates a street between Palazzo Vecchio and Arno river (currently the Lungarno Archibusieri). Next year he transferred the Umiliati monks and transformed the land along the river (in the area that corresponds actually to Lungarno Vespucci) in a large garden called Vagaloggia that, later on, during Ferdinand 1st, became public. During the **19th century** starts demolition of the river mills as well as of the tiratoi (river washing buildings) and dismiss of public baths on the gravel bed of the river (including the Bath of the Renai in order to realise Lungarno Serristori). In the area between Alle Grazie Bridge and Cavalleggeri square (Lungarno Alle Grazie) houses and palaces are strongly transformed since this street, called via Lungo l'Arno, from a service road became an elegant promenade. They are also realized the Lungarno della Zecca and the Lungarno Pecori-Giraldi, as extension of the already existing Lungarno delle Grazie. In **1865**, according to the plan of widening of the city to adapt Florence to its new role of Italia's capital, was constructed the New Lungarno (the actual Lungarno Vespucci): in the area between the Vittoria bridge and the bridge Carraia, new palaces and hotels were constructed in nineteenth-century style for the upper classes. In **1866** the Lungarno Cellini according to the Poggi's Plan of widening was realized. In the meantime also the adjacent area occupied until then by the millcourse of the Mulina dei Renai was transformed in the new Lungarno Serristori. Together with these two dock streets it was arranged also the area between Alle Grazie Bridge and S. Maria Sopr'Arno square, the today's Lungarno Torrigiani.

In the 20th century, during the Second World War, all Arno bridges were bombed excepting Ponte Vecchio and, in alternative to its elimination, surrounding urban areas were demolished. Lungarno Acciaiuoli, Por Santa Maria street, Borgo S. Iacopo street, de' Bardi street and Guicciardini street are totally demolished. Later on, will all be rebuilt using traditional materials and reproducing the previous fabric volumes. In the 50's it is completed the new area outside walls of Santa Rosa with the realization of the Lungarno Santa Rosa and its connection with the Lungarno Soderini through an arch opened in the ancient walls.

3. River and the city: the architectural masterpieces

The docks are also characterized by several monuments which give an interesting view of the architectural masterpieces in Florence (such as public, religious and aristocratic buildings and control towers) and become memory of the historical development of the city along the centuries.



Ognissanti Church



Santa Rosa tower



National Library



Judges' Palace



Corsini Palace



Uffizi

4. River and the citizens

With the inclusion inside the 5th city walls of the south neighbourhoods on the opposite side of the river Arno became an internal infrastructure of the city, playing, between the 13th and the 14th century, a fundamental role for the development and the wellness of Florence offering a communication road until the sea, and space for specific industrial development. The river produced energy for tanners and leather artisans and along the banks used to work rope makers and sandpit workers.

They had been raised the first dams (the dam of San Niccolò, still existing, built in the 13th century) an obstacle to boating but useful to create water barriers and build mill courses bringing water to the mills. The port and the adjacent zones were very crowded and frequented by all people working to the different concentrated activities and, in the 13th century became, in modern terms, a real "industrial zone" composed by the drying tissues buildings, the port, the warehouses, and the soap laboratories, the carbon laboratories and carpenters. Further more, down to the river staircases the washers use to wash the cloths and, down to the ramps, the animals used to be conducted drinking water.

Since the 14th century the river between Santa Trinita Bridge and Carraia Bridge was the only one where built docks were phasing each other, creating a sort of amphitheatre around the water.

For this reason and until the half of the 19th century along this area took principally place fireworks, night celebrations with songs and music, banquets and regattas. For such occasions, temporary stairs



Dam of San Niccolò



Motor ship



Swimming competition



Swimming establishment

for the spectators were realised along docks and endorsed to the buildings permitting a better visual for participants. Between the end of the 19th century and the beginning of the 20th, a floating platform was anchored in the middle to the river, almost in front of Corsini palace, with the purpose of to offer a pleasant stay in a musical bar. In the 30's a motor ship named Fiorenza was transported in Arno, it was a floating dancing travelling along the still navigable central part of river. Until the first years of the twentieth century Arno was considered by Florentines as their town sea side. On 1865 in the city area they had been built 5 swimming establishments.

Besides, before the sport associations like Rari Nantes, the first Florentine society of swimming (1904), were provided with swimming pools for competitions and trainings, the river was used for this purpose as well as for sport boating of the Canottieri association.

5. River and the city today

Last years a growing interest for Arno is translated into specific town planning rules of the City Government, aiming to define a new strait relationship between river and city. A first important step in this direction is the exhibition "The city and the river" organized on 1987 in Forte Belvedere.

Between several plans and proposals for upgrading and re qualification of Arno, the project of R. Rogers, C. Cantella and E.



The Racing of the Navicelli



Theatre spectacle

Bougleux "Arno: an idea crossing the city" was the most impressive. This project proposed the realization of a linear park along the river sides as a connection of surroundings to the river city centre. Today the interest of the City Government in producing again a strait relationship with the river crossing the city, is well established and expressed in the Strategic Plan and in the Structural Plan, both recently elaborated. In fact, the Strategic Plan of Florence Metropolitan area, approved on July 2002, is foreseeing through its objective "Improving the environmental quality" the full upgrading and re qualification of Arno as a connecting system of several parks composing together the "network of metropolitan parks". At the same time, during the elaboration of the Structural Plan of Florence, the primer rule of Arno river is established as city's principal environment reference and specific plans are supposed to define it: following the classification of environmental systems the environmental system of Arno is called as an independent one, assumed as a natural corridor connecting other municipal environmental systems and parks of the Florentine plain.

After years of harmonious cohabitation, the river became for Florentines nearly a stranger. The reasons of this evolution are imputable not only to the damaging flood of 1966, but also to the loss of the working and productive activities and of the leisure activities that they were carried out on the river sides at the beginning of the 20th century and that they tied every day's life of Florentines to the river.

However some historical groups, like the Canottieri association, keep carrying out their activities along the river sides of Arno and today, thanks to a renewed attention towards the river, other new initiatives

begin to bring life to the river. Between the most important ones are: a tourist boating tour using the old boats of the Renaioli, visiting the Uffizi, the Ponte Vecchio and the Santa Trinita Bridge from an unusual point of view; theatre spectacles on boats such as the itinerant rehearsal of the Zauberteatro, during summertime; the Ponte Vecchio Challenge, a golf contest that it is carried out on floating greens, already organized for four years; the Racing of the Navicelli, a contest of historical boats dressed with the four colours of the four historical neighbourhoods of Florence, than animates the river sides of Arno each year on 24 June, in occasion of the celebrations for the City's Saint.

Pilot Project

43

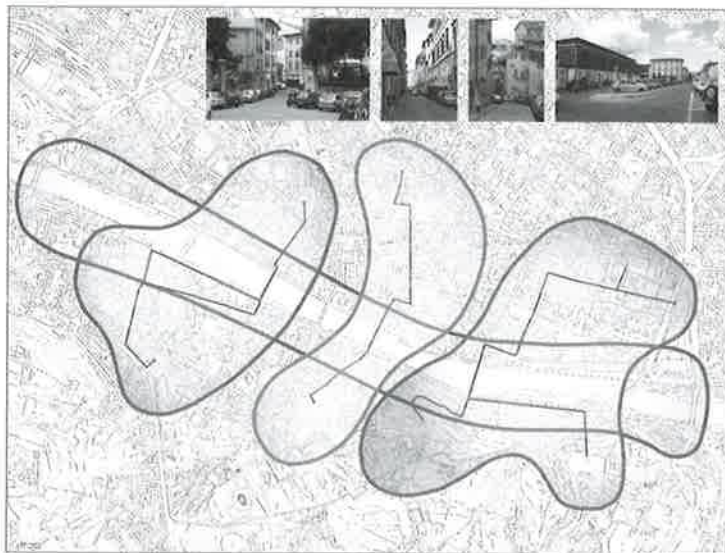
1. Plan's inspiration concept

The Historical River Centres Cultural Park of Florence is aiming to evaluate the perspectives for a sustainable development of the consolidated historical urban fabric and natural environment along the very central river side area of the historical centre.

The objective is to balance the existing trends and introduce new visions for further exploitation of potentials and values in order to create a friendly framework for new economic activities, redistribute intensive uses, develop attractiveness of the river values, discover new cultural values, strengthen the city-river interface, upgrade the historical river neighbourhoods and enrich residence.

Cultural Park is considered as a tool able to promote a soft and sensitive integrated vision for the future and to merge heritage excellencies, safeguard policies, economic and social life in a comprehensive and viable action programme.

The Park is inspired by the basic concept to delocalise or extend polarised functions from the heart historical area into the less developed surroundings, using river oriented systems as functional



connector. The heavily developed roman segment of Arno is in the critical condition of an over sized, heavy and unsustainable use, procuring damages to the urban fabric and perspective risks for economic activities. On the other hand, surrounding east and west historical river segments, suffer of unequal exploitation and lack of rational and synergic development vision of endogenous potential and values.

The key issue of the cultural park vision is to harmonise these three historical river segments, redistributing activities, launching innovative and alternative linking functions along the river, promoting a balanced development of two new attractive poles in the east and west terminals of the historic river sides. On the other hand proposals are looking forward to consider lessons learned by the past central segment unsustainable development and avoid repeating errors. In this last perspective, core question is to merge hyper topical uses with the ones related to every day life of citizens, in order to defend and strengthen residential characters and services.

2. Plan for a Cultural Park along historical river centre

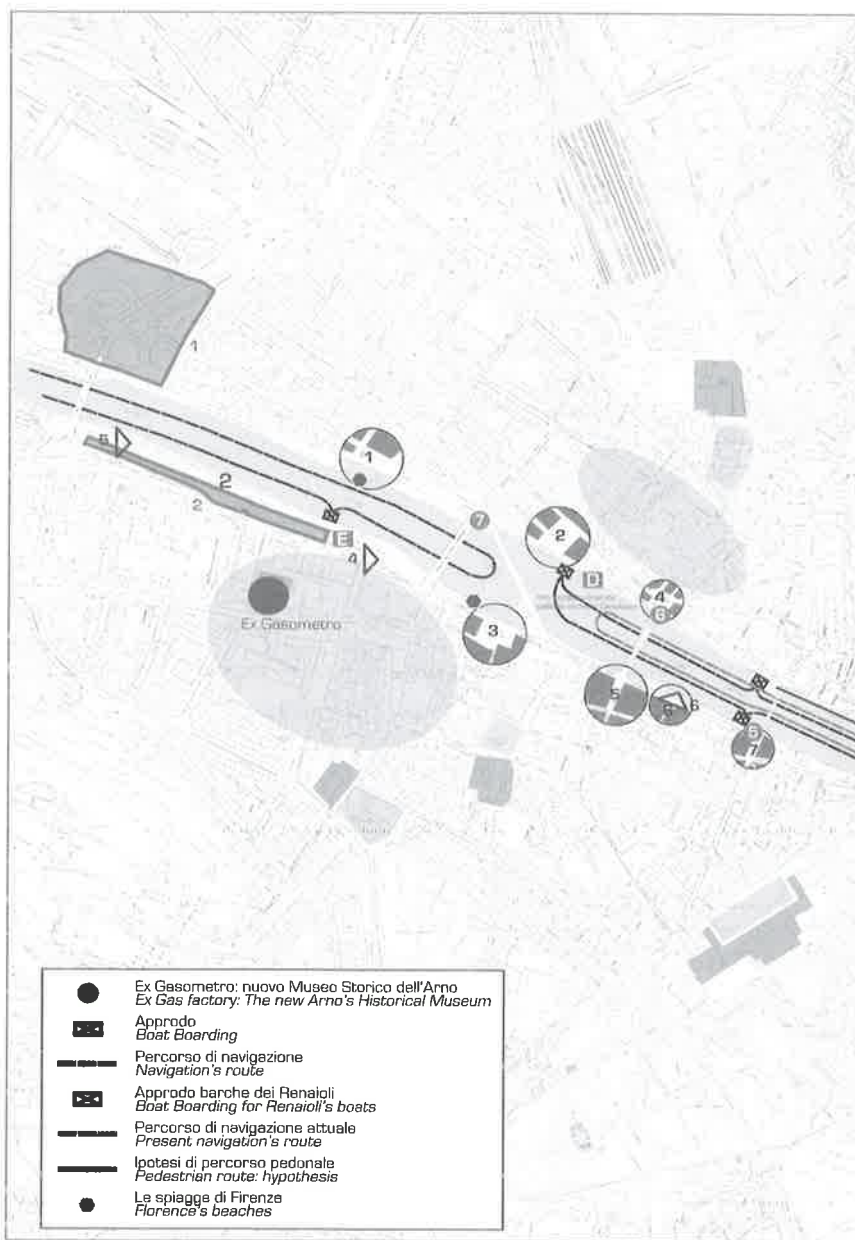
The Plan is covering the riversides of the historical centre of Florence, from San Nicolò bridge to Vittoria bridge. The depth extension of this area is variable including parts of the historical centre that are directly related to the river, such as popular neighborhoods, touristic areas, monumental buildings, squares, and streets bringing to the bridges. This area can be considered as the missing central link of the larger Arno River Park territories, connecting all natural and green areas along the river valley and its hydrographic bassins.

Principal characteristic of this Plan is the aim to merge together natural and environmental values with cultural landscape values and architectural and urban buildings and sites heritage, composing an homogeneous system to be defined, documented and assessed as the Historical River Centre of Florence.

In the framework of this Culture 2000 project the Cultural Park is rather a programme framework of perspectives and opportunities, a cluster manifesto to be used for awareness, dissemination and acceptance between decision makers, opinion leaders and citizens. This Plan is developed in accordance with the Strategic and Structural Plans of Florence that both consider the river as leading element for development. All options included in these two planning and programming tools are supposed to be considered and detailed in this Cultural Park Plan, orienting and guiding specific proposals and suggestions.

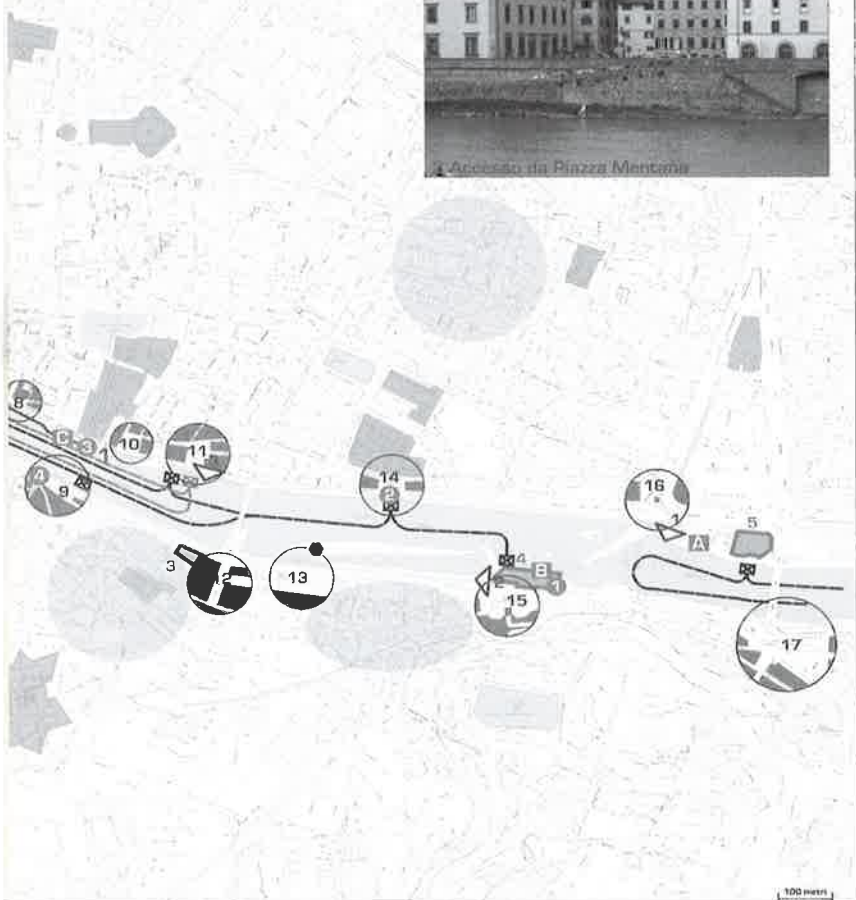
The basic concept of the Park is to redesign the exploitation of the historical centre river interface, without physical modifications, guarantying environmental and cultural safeguard and social and economic redevelopment. The Park should be the regulating framework of a systemic use and of a tendential scenario in the years to come, tailored to the citizens' defence and new sustainable enterprise and job creation. The crucial turistic sector is considered as an accompanying opportunity rather than a monopolistic development option, to be balanced in the larger historical central area. The residential characteres, the citizens' services and economic activities, connected or not to the turisme, are supposed to be principally considered linking the city to the river and shaping new interfaces.

The Park is designed through three Thematic Plans, consisting in three action fields that can be independently tackled according to consecutif





Accesso da Piazza Mentana



FIRENZE

timings or in inter dependency according to areas development. All these thematics are coming directly out from the historic analysis results, bringing in actuality former uses and activities and proposing in a historical continuity, sustainable and compatible new options.

3. Thematic Plan1: 17 real squares

The Park is supposed to have a strong, urban scale, basement using the existing 17 squares aside the river sides, considered as a linking system. This is a basic element able to strengthen and qualify other proposals and suggestions of the park. These 17 squares have important historical and monumental values, supporting important buildings or facades and in the past all of them were connected to specific social and economic activities. Now their large majority is used as car surface parking or traffic node.

The quality redevelopment and bringing of new activities in these 17 squares is able to change radically the life quality and to be the structural network of the park.

The squares have been all documented in sheets and should



Hypotesis for a new pedestrian route



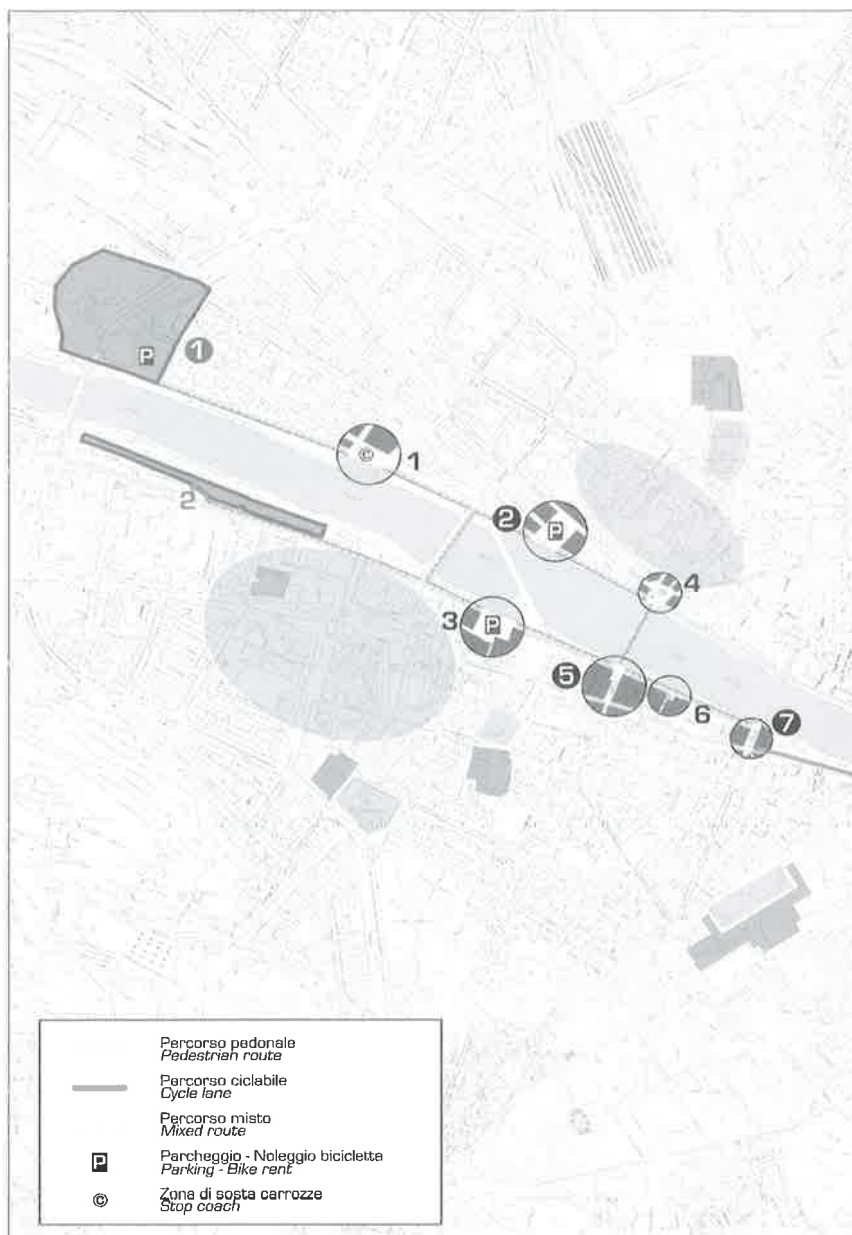
Cestello Square



Torrigiani dock

be object of architectural designs under the aesthetic principle of less is more, traffic limitation measures and pedestrian areas extension. The cost of such interventions is radically lower compared to the important added values that will be obtained for the social and economic life and the scale economies obtained in a synergic development perspective.

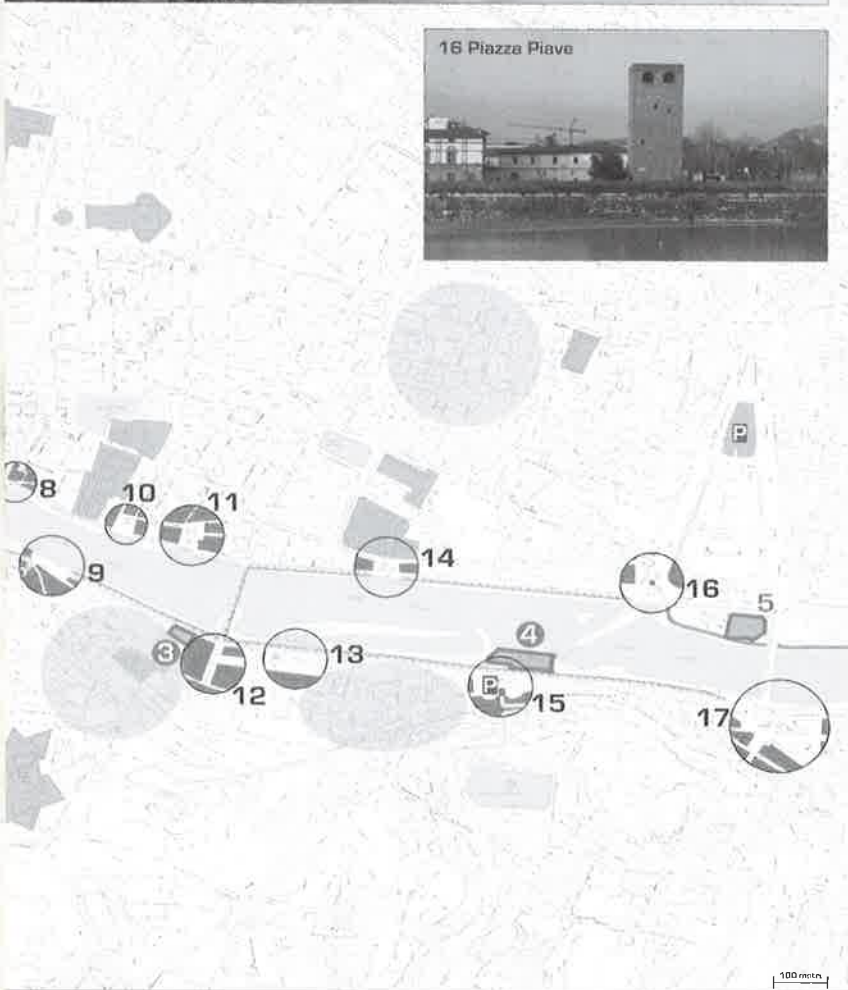
Pilot Project



13 Piazza Demidoff



16 Piazza Piave



4. Thematic Plan2: access and terraces on the river

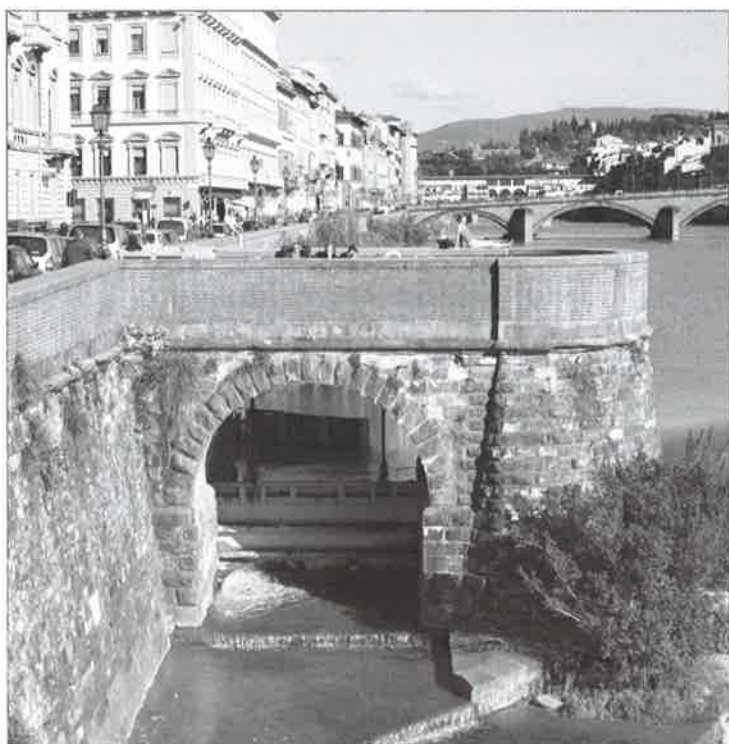
Major strategic element, together with the squares system perspective, is the fundamental physical linking to the river.

The park design individuated, through the historic research and the field research, a surprising number of potential accesses historically recognized and actually abandoned.

All of them should be carefully verified under the security regulations for public access and flood protection. Such accesses can permit direct contact to the banks and to the water, according to the seasonal water levels.

Accesses should be synergic to river and water activities, to pedestrian cultural and natural networks and to river promenades.



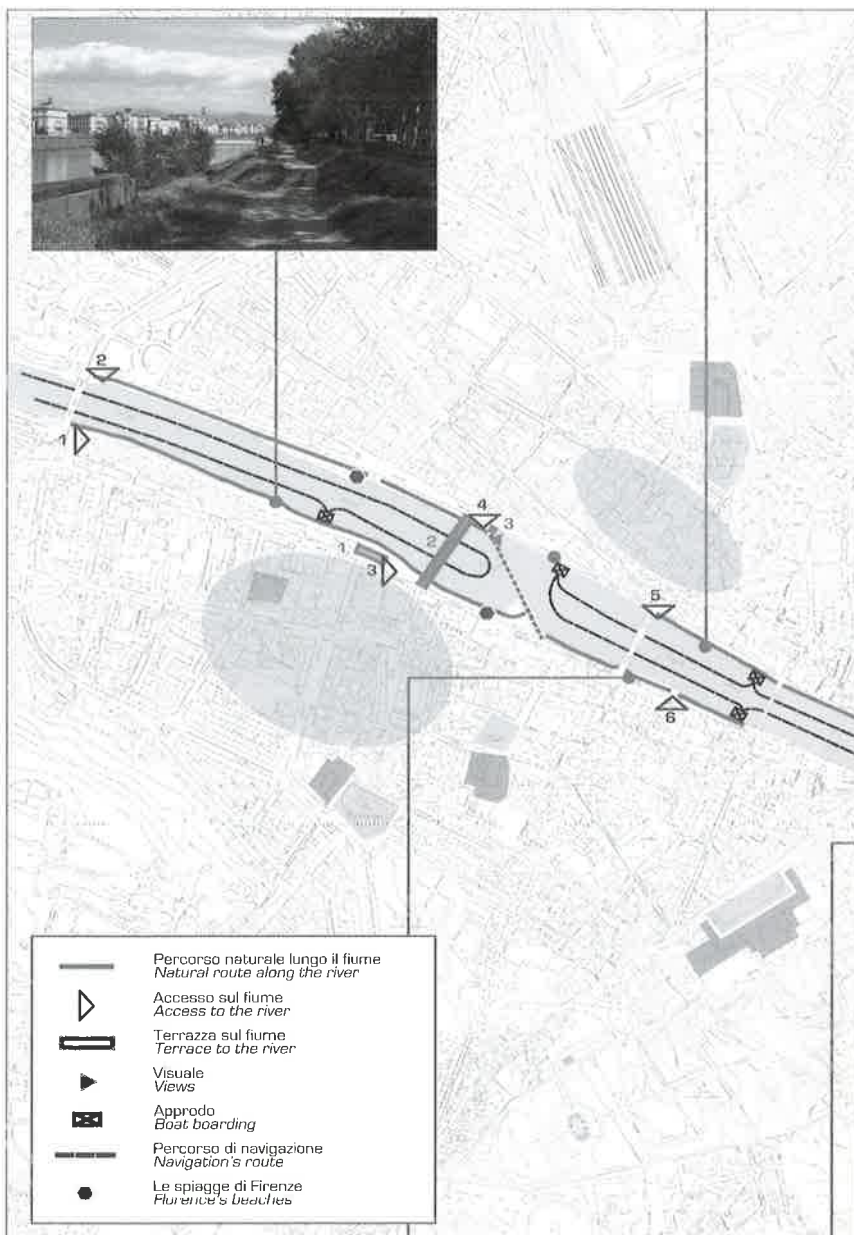


Ognissanti terrace

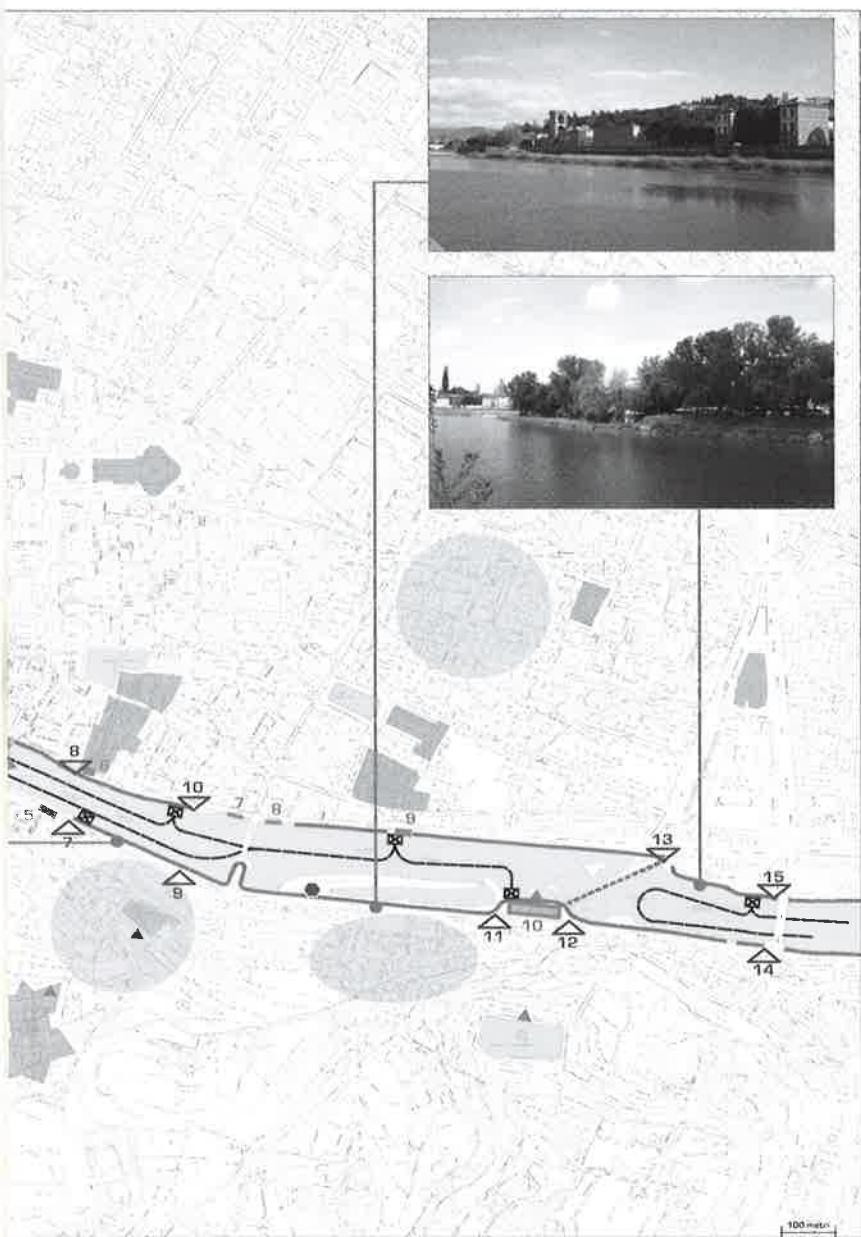


Access from Mentana Square

Pilot Project

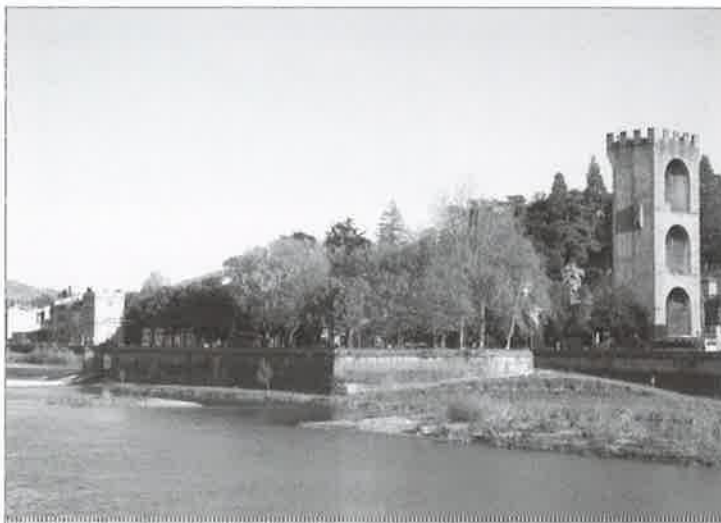


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5. Thematic Plan3: new cultural routes and synergies of development

Merging perspectives of thematic plans 1 and 2, produces new urban systems in linear or punctual definition. Such systems can be cultural, pedestrian, boating and naturalistic longitudinal river axes for crossing and for development, knot areas for pocket developments, niches able to be cradles for new enterprising.



New attraction Pole near Piazza Poggi



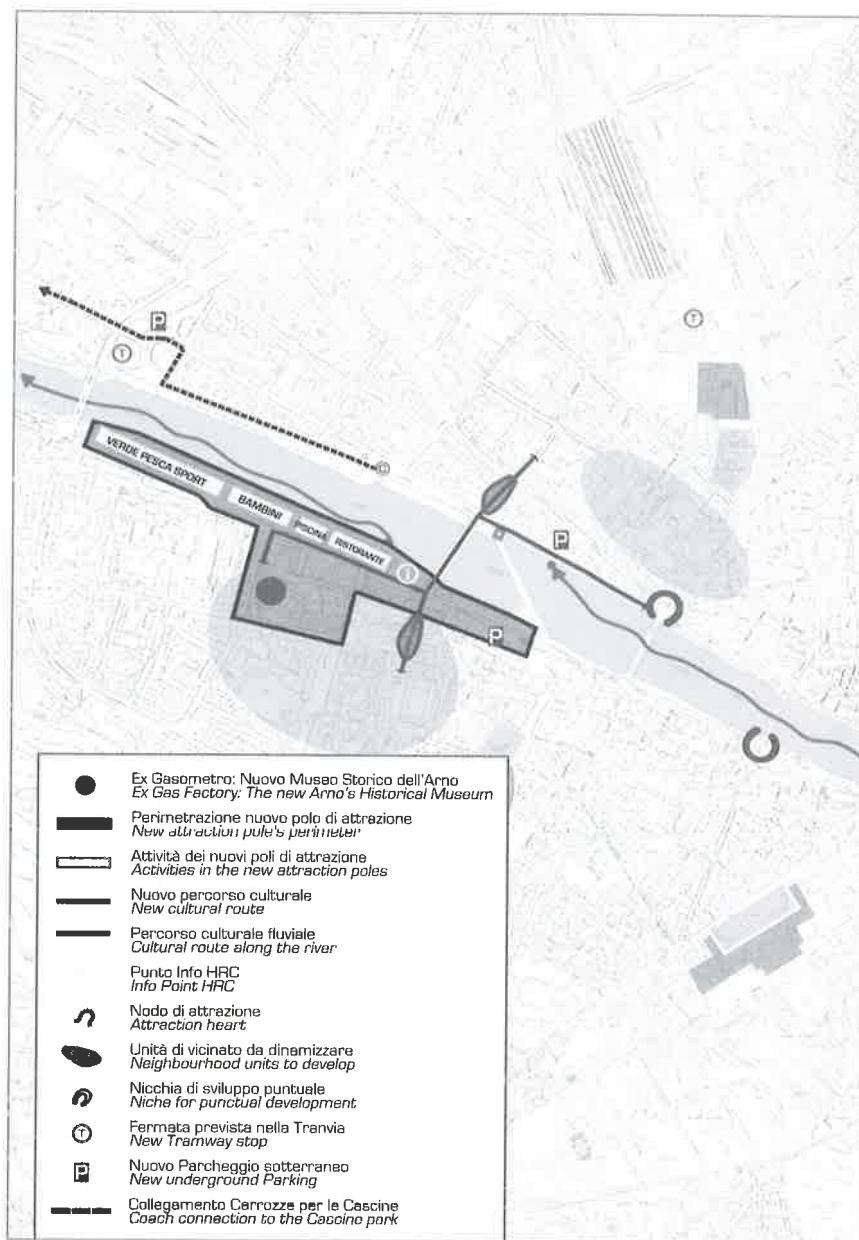
New attraction Pole near Santa Rosa

Both longitudinal and the punctual developments are synergic to neighbourhoods' cohesion and defence as well as to transversal connections between the two sides.

Two decentralized poles for integrated development are proposed in the east and west and of the historical centre, corresponding to the riverside barycentre of the two internal peripheries of the historical centre, the San Frediano – Santa Maria Novella system and the Santa Croce – San Nicolò system.



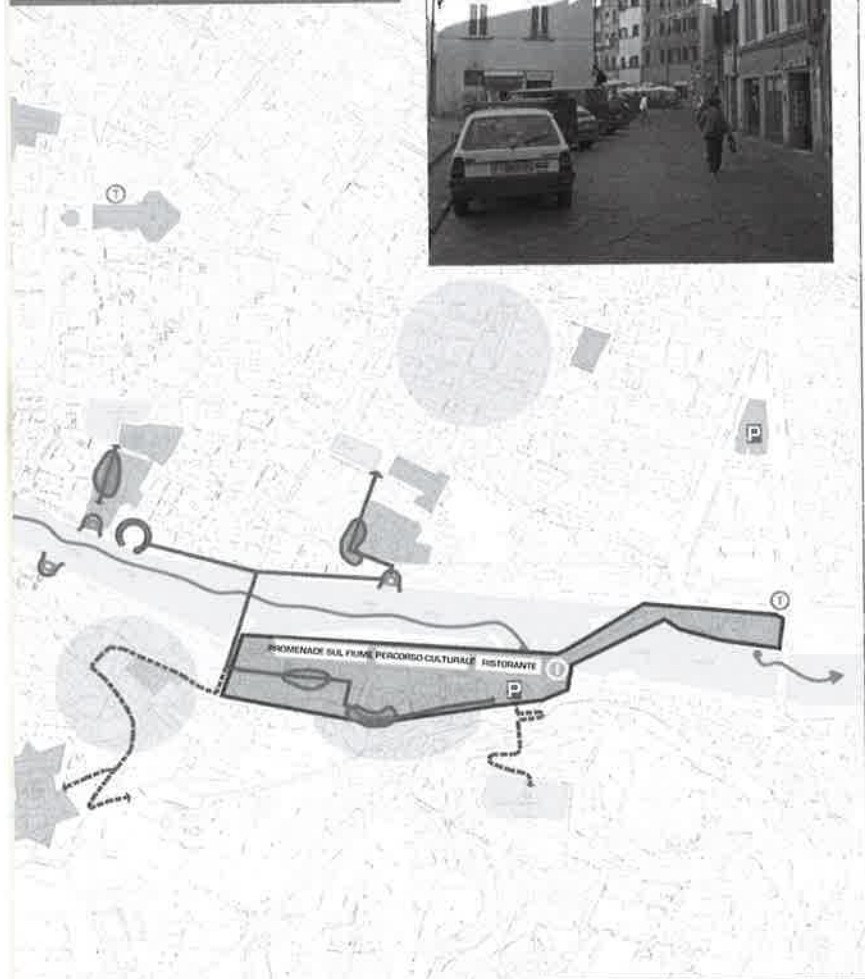
Ex Gas Factory: the new Arno's Historical Museum

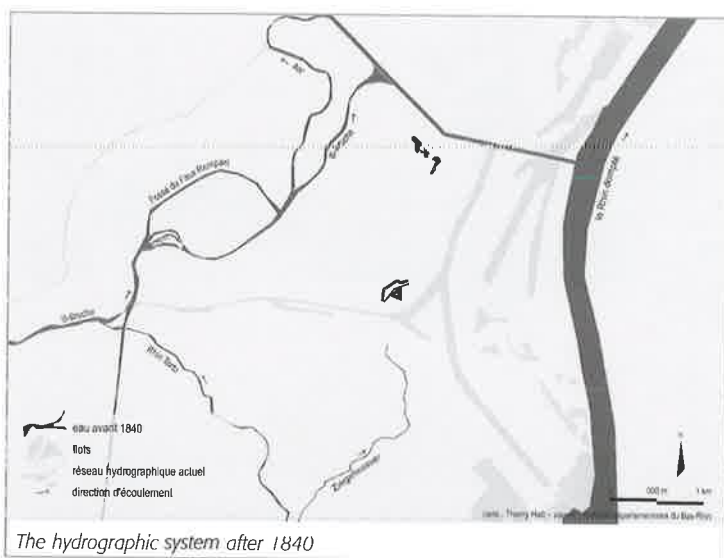
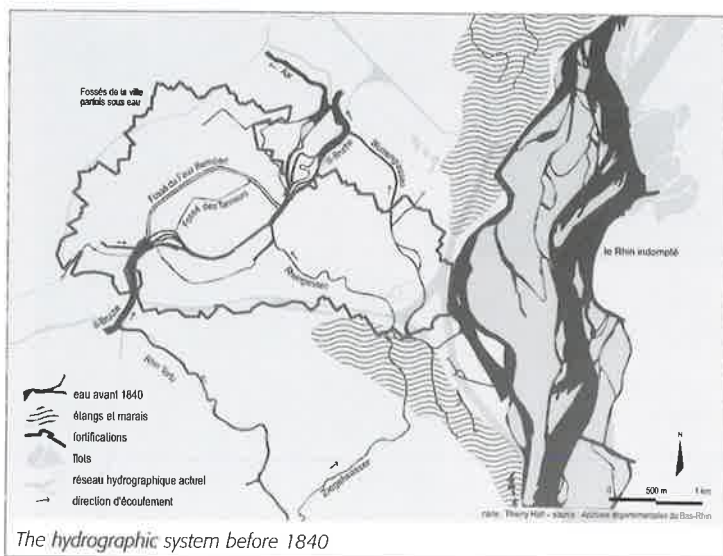


Quartiere S. Niccolò



Quartiere S. Niccolò





Historical Research

1. Water in Strasbourg from 1548 to 2004

from Thierry Hatt, Geography Professor

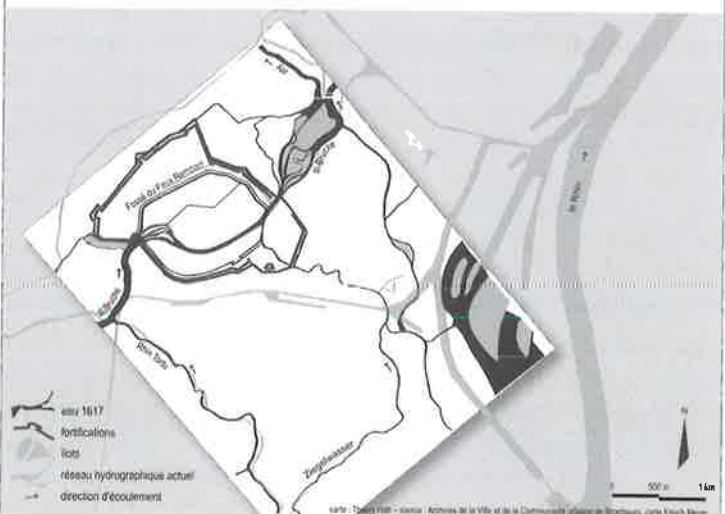
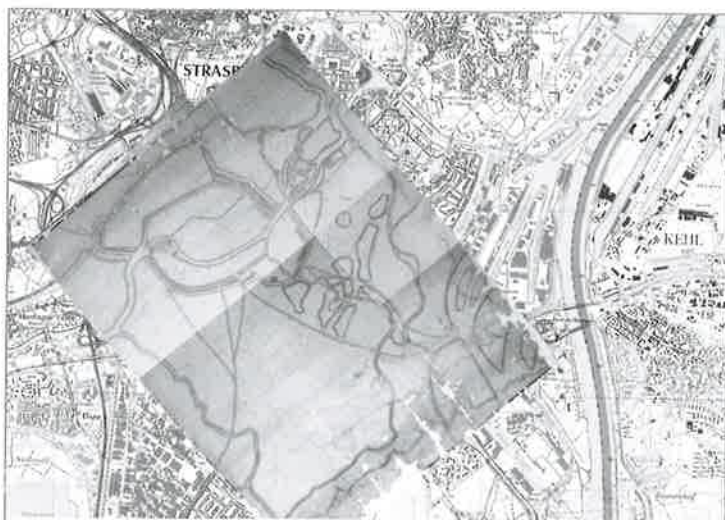
The historical maps give us information about the evolution of the city. When analyzing these maps it is possible to visualize the way, water has structured and contributed to the evolution of urban development. The first maps of notable planimetric quality are those of the city's military architect, Daniel Specklin (1536-1589) and Enoch Meyer (1598-1620?). The military character was preponderant from the 16th to the 18th century, for this reason water, the fundamental element of defence, was well represented. General maps, the purposes of which are of civilian nature, were not to be found before the 19th century.

The permanency of the hydrographic system before 1840

Strasbourg is located at the edge of both, the Ill and the Bruche, and takes profit of this situation in terms of defence, economy and circulation. These advantages are refuted by serious inconveniences, flooding, marshes and related diseases, humidity and frequent mist caused by a hydrographic network which is complicated and not always reliable. The Rhine is up to 1500 metres wide, it has several communicating fairways the remains of which are the Rheingiessen and the Rhine Tortu, it goes over the edges regularly and destroys roads and bridges. Nature is not completely out of control as proved by the system of fortification ditches, the ditch against flooding in the south of the city.

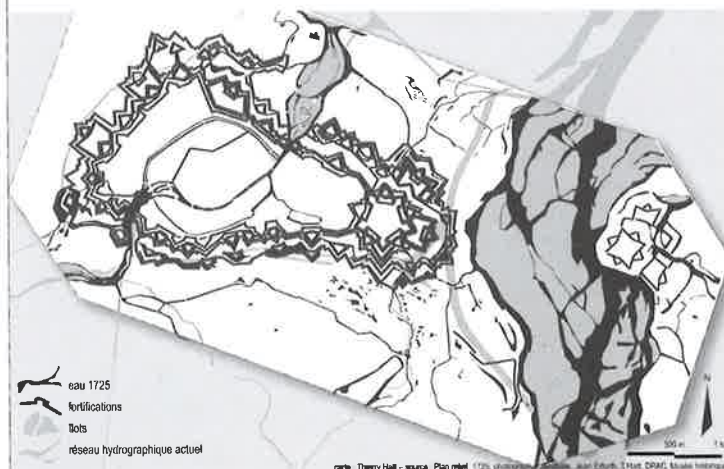
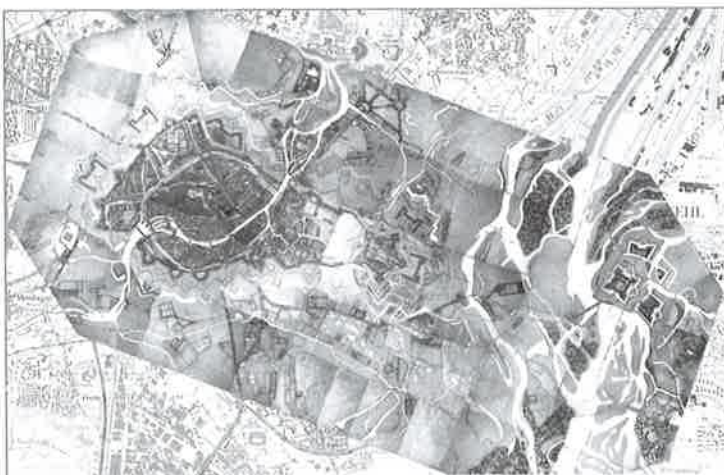
After 1840

The undergone simplification of the hydrographic system, which is typical for the second half of the 19th century, after the Industrial Revolution. The important works of canalization, the "Marne au Rhin" ["Marne to the Rhine"] and the "Rhône au Rhin" ["Rhône to the Rhine"] canals, the regularization and damming of the river, the construction of the harbour, docks in the east of the city and the Rhine harbour in the south along the Rhine led to the entire disappearance of the marshes and the Rhine's forest, to the burying and the disappearance of several canals inside the city and of a great number of uncertain rivers in the flat country.



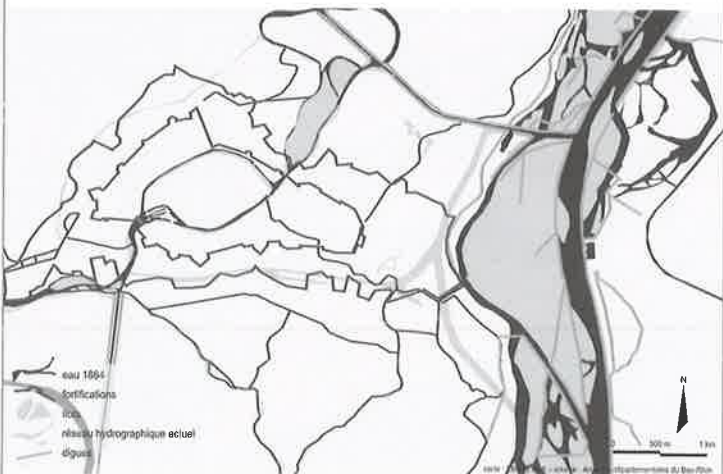
Map of Johann Enoch Meyer, military architect, 1617

This map is the first good quality representation of the water network surrounding the city. The simplicity of the system of defence ditches in front of the rectilinear walls appears very well. The Ill, the Aar, the Rhine Tortu and the Ziegelwasser have the same path they have today. The flooding ditch in the south doesn't exist any more. The ramified Rhine is full of islets.



Zenithal photograph of the relief map of 1725

A map on this scale (1/600) is a unique document for this period of time. Its following remarkable aspects are to be noticed: Entanglement of ponds and marshes in the east between city and Rhine, the marshier character of the southern part of town, the development of the Rhine's fairways, the nearby citadel of the "bras Mobile" ["Marble arm"] the name of which became "petit Rhin" ["small Rhine"] later on and which wasn't sealed definitely before the 1970s. The complicated organization of the ditches also needs to be underlined given the fact that the commercial navigation on the Rheingiessen was condemned to a long and incredibly complex journey between the city and the Rhine.



1864

The map on scale 1/20 000 published by the printer Berger Levrault shows the recent achievements of the Industrial Revolution. Thanks to several years of work it appears to be a real breaking off in Strasbourg's waterway history: the regularization of the Rhine by multiple dyking up after Tulla's projects of 1812, only realized around 1840, the canals of the "Marne au Rhin" ["Marne to the Rhine"] (1853) and of the "Rhône au Rhin" ["Rhône to the Rhine"] (1834), the cleaning up inside the city by covering the "Fossé des Tanneurs" ["Ditch of the Tanners"]. The system appears even more complex in the plain: the flooding ditch in the south of the city is maintained as well as the Rheingießessen the "canal des Français" ["canal of the French"].

2. A harbour in the "Petite France" ["Little France"] (1870-1918) from Benedicte Herbage, History specialist

The quarter of the "Petite France" ["Little France"], delta at the entry of the historical part of the city, was privileged for the setting up of harbour activities since the building of the Vauban barrage. The development of industrial activities along the canals and water falls started after 1870.

One canal was used for shipping, the three others were closed with the erection of the mills. Along the canal of the so-called "Spitzmühle" mill (a pointed mill on a dock with a dead end) a dock used for unloading served the Neff's warehouse (wood and coal), the Peppler's warehouse (paints and mastic), the tanneries "Dreyfus et Fils" ["Dreyfus and Sons"]. Along the canal, near the so-called "Dünzenmühle" mill, the dock named "quai du Woerthel" ["Woerthel dock"] was used for the storage of sand and coal. Mechanical workshops and laundries were working along the mill race of the Zorn mill.

In the 1900's the paddle wheels of the three mills of the area were replaced by turbines with higher performance in order to pull the engines of the ice factory "Glacières", of the installations for the tanners and in 1920 of the chocolate factory "Schaal".

Laundries, wash-sheds and baths occupied spare room.



Neff's warehouse and barge under the snow, Strasbourg, Cabinet des estampes

3. A major lock to defend Strasbourg: the vauban barrage

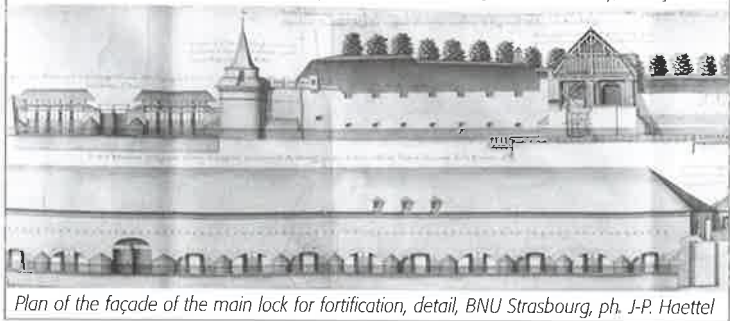
from Jean-Paul Haettel

This work designed by Vauban, general intendant for the fortifications of Louis XIV (1633-1707), was built to heel the weak points detected in Strasbourg's defence system. It was possible to pull down the portcullisses in order to prevent anybody from entering the town by water. But the principal purpose of the barrage was to allow the flooding in front of the ramparts. The gates only needed to be closed and the water of the Ill was dammed. In 1870 this artificial flooding was used as a means of defence. Downgraded in 1957 and belonging to the city of Strasbourg since 1963, the barrage currently serves as a means to cross the Ill and as a "belvedere" which offers a picturesque aspect of the "Petite France" ["Little France"]. This unique place in the city is still waiting for a project revealing its identity and its exceptional character.

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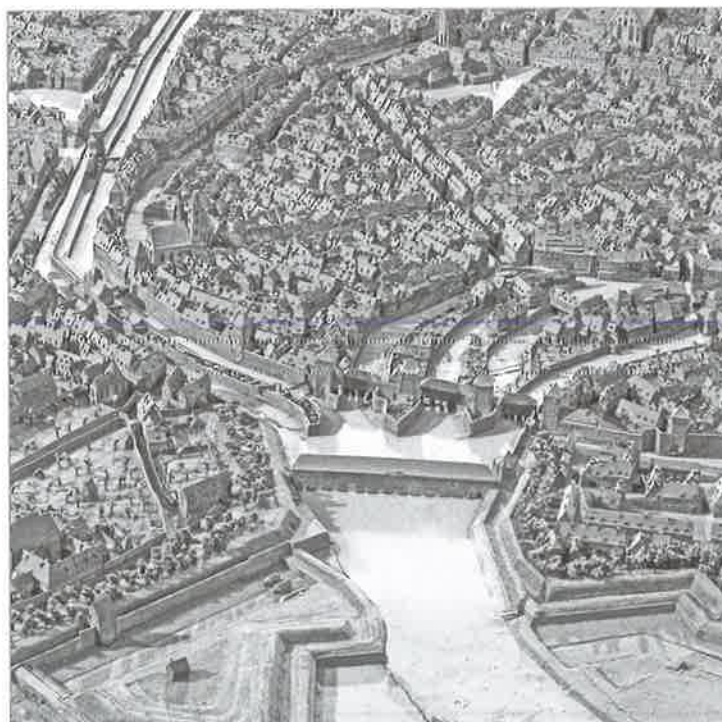
Map dating from 1684 (?), Bibliothèque Nationale, Paris [National Library, Paris]



Plan of the façade of the main lock for fortification, detail, BNU Strasbourg, ph. J-P. Haettel



Lithographie de A. Maugendre, extraite de "Chemins de Fer de l'Est", 1865, Cab. des estampes

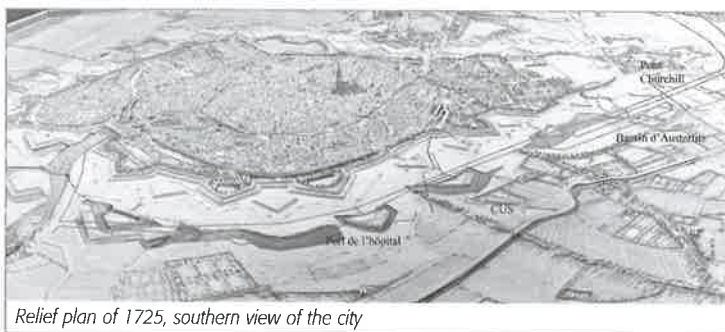


1725, detail of the relief plan, the Ponts Couverts ["Covered Bridges"], ph. Thierry Hatt

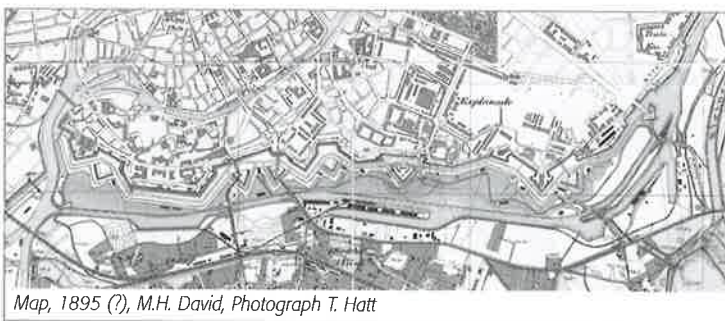
4. The beginnings of the modern harbour

from Marie Helene David, former President of the AMURE

In 1882 the German administration built at its own cost the junction canal (Umleitungskanal or Verbindungskanal) in order to facilitate the passage between the "canal du Rhône au Rhin" ["canal of the Rhine to the Rhône"] and the "canal de la Marne au Rhin" ["canal of the Marne to the Rhine"]. But the first dock of the "Porte de l'Hôpital" ["the Hospital's Gate"] was only conceived for river barges and the city, thus separated from the Rhine's important economic movements, kept depending on the Baden railways which maintained the transfer to the Mannheim harbour. To solve this problem the city decided ten years later to build the Metzgerterhafen or "Port de la Porte des Bouchers" ["harbour of the butchers gate"] (the current Austerlitz dock). As soon as the harbour was opened it welcomed the new steam boats which had become powerful enough to go back up the "Rhin corrigé ["corrected Rhine"]. The construction of the modern harbour had begun.



Relief plan of 1725, southern view of the city



Map, 1895 (?), M.H. David, Photograph T. Hatt

The construction of the current buildings by the "Port Autonome de Strasbourg" ["Strasbourg's Independent Harbour"] started after the fire in 1928.

In the very east the building grouping together the company warehouse and offices was the first one to be erected. It has been used from 1932 onwards. In the middle the silo was finished in 1934. In the west, in front of the dock, the Austerlitz warehouses served both as warehouse and silo.



Side view, around 1948, Divisch's Collection, Photograph "Port Autonome"



Austerlitz dock, 1937, view to the east, Photograph "Port Autonome"

Pilot Project

1. Strasbourg's project of the ice factory museum

The ice factory museum of Strasbourg held by the association "Les anciennes Glacières de Strasbourg" ["Strasbourg's former ice company"] will give the opportunity to present one of the quarter's industrial activities: the production of ice bars from hydraulic energy. By offering a complementary vision of the city, this museum will permit to focus on a rather unknown period. Placed in a very popular area among tourists it could be a way to create a tourist's and cultural meeting point in the quarter.

The ice company in the city

The quarter of "Petite France" ["Little France"] is one of the city's most popular ones among tourists. It is visited for its architecture and its specific urbanism. However, there is no specific meeting point for tourists inside the quarter. Place of museum like exhibition such as the ice factory could be a structuring element for tourism by offering a key to the understanding of the quarter. It would be a further advantage for the city by offering a cultural entertainment and an original dynamic.

History of the technical settings

The factory was built in 1897 by brewers and pork butchers in order to cope with the growing demand of the food industry. The hydraulic energy was used by three big turbines and transformed into cryogenic energy and electric energy.

This almost autarkical production system was shrewd. It allowed a transformation without cost and pollution: the cryogenic installations worked on the principle of the compression-reduction in pressure with gas in a closed circuit. Four enormous compressors with cast-iron flights of a four metres diameter made sure the dynamic of this circle through a complex network of pipes and manometers. The compressed gas was used after the reduction in pressure for the production of the cold.



The Quire compressor, ph. Jean Pierre Rieb



The Brown and Boveri alternator



Schneider-Jacquet Turbine



The room of the ponds, before demolition

The drinking water, transformed into ice, was directly pumped in ground water and the produced energy also helped two alternators producing a three-phase current to turn. One of the alternators, built by Brown and Boveri in 1897, is an archaeological piece of rare value.

In the middle of the 20th century the factory produced up to 200 tons of ice bars per day, most of them delivered to individuals and the surplus of the electric power was sold to "Electricité de Strasbourg" ["Electricity of Strasbourg"]. Threatened by private refrigerators, the factory closed down on Mai 31, 1990.

The museum project

Since 1991 the association "Les Anciennes Glacières de Strasbourg" ["Strasbourg's former ice company"] has been involved in the protection of the place which is under the protection of the department of historic buildings (buildings and machines). As a



General view of the room, covered machines



The current facades in 1991

very seldom phenomenon, the installations are almost entirely preserved. For this reason they represent a rare testimony of a 19th century factory with the whole authenticity of its monumental installations.

The project aims at the offering of a light museum-like place which will be opened to the public. The association currently tries to inter into a lease with the current owner of the place.

2. Urban walk around the docks

The Heyritz Vauban sector, currently under works, is connected to the city by the Ill, the docks of the former harbour of the Hospital Gate, the Austerlitz and Dusuzeau docks. This project offers the possibility to use water as a central element of urban conception. The new network of public places must allow to create accesses and walks and it must favour the perspective setting of the major programmed equipments. They are an integral part of the stakes in the remodelling of this huge territory of the city.

The canal space in the heart of the territory to be organized

Beyond the rivers and the crossings, the actual space of the canal and its hold have been integrated in the dynamic of the valorisation. A new relationship between the inhabitants and water is currently created. Water, the support of industrial activities, becomes a vector of the principal values of urban quality, today. The quietness, the calming character of the aquatic element, its aesthetic qualities linked to colour, light and mirror effects, the



The Great library, project management CUS, architects Ibas et Vitart, image Pixium

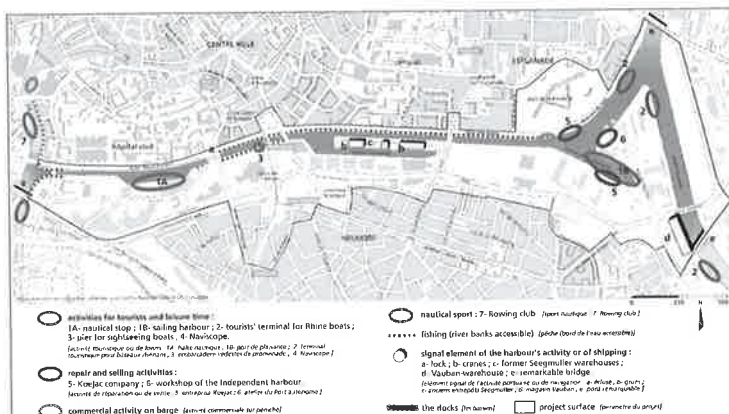
convivial aspect encouraging walking or leisure activities linked to the presence of the natural element in the heart of the building sites: all these elements contribute to make water really attractive for citizens.

At the same time, the community and different partners are called up on the question of the use of the docks. Indeed, while the industrial activity is marginal today, a series of other activities has been set up more or less spontaneously: fishing, nautical sports, sailing, boats for living, entertainment boats (restaurants, discos). These activities participate in a new relationship with waterways and its adjoining space. The project consists in planning the development of each activity by coordinating possible contradictions in the use of water.

Through this organisation the good articulation of the different use and the promotion of new functions (vaporetto and boat-bus), a new and strong image of waterways could appear.

A new network of public places: a structuring link between sites and the promotion of new relationships between quarters being now closer to each other

The creation of new public places along the canals will create a new route in the city. It will fulfill a structuring role between sites in full transformation. Each of these sites has its own identity, so that the continuity of the walk along the water will be the referring point. The



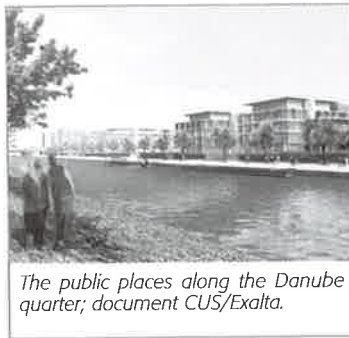
Current situation and future use as well as activities linked to water, document CUS, Urban programming and conception, 2005



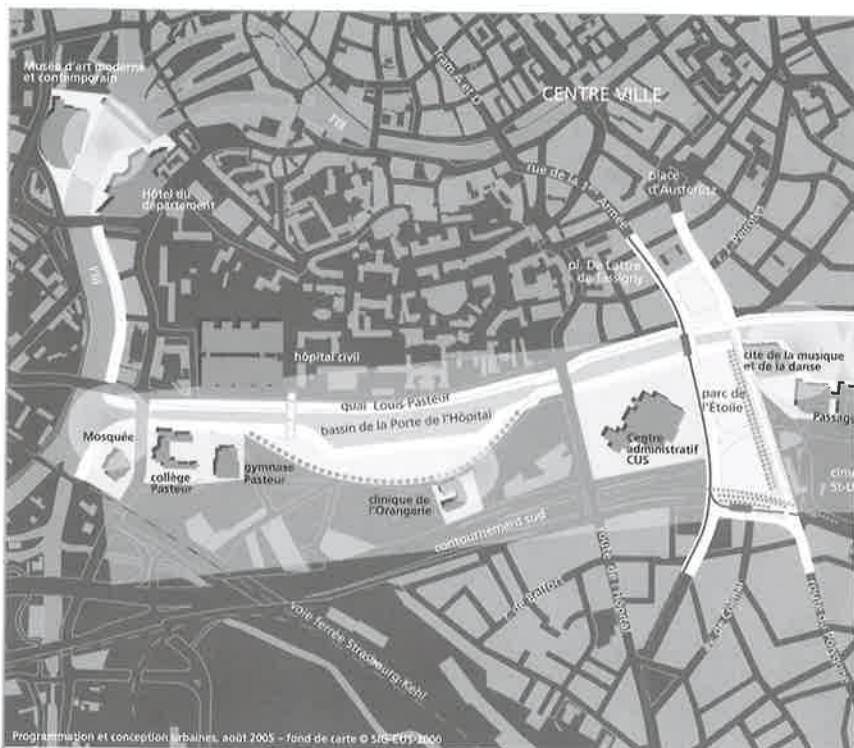
The new civil Hospital, project management: HUS; architect and illustration: Claude Vasconi



Music and dance academy, project management: City of Strasbourg; architect: Henry Gaudin, photograph D. Cassaz.



The public places along the Danube quarter; document CUS/Exalta.



sequence

Heyritz parc urbain Étoile

atmosphere

dominant grow plants *[dominante végétale ordonnée]*



the walk around the docks and the links with the city
[les promenades des bassins et les liens avec la ville]



the equipments, t
/les équipements, leur

Urban walk, the guiding principles, doc. CUS, Urban programming and conception, 2005

creation of these public places integrates the necessity to realize new crossings this time with a North-South orientation. The priority is given to the setting up of more direct and more numerous connections because the quarters are separated (by canal and a temporarily inactive industrial area) and badly connected today (current viaduct out of scale).



Public places linked to major public equipments

One of the stakes linked to the creation of new public places depends on the closeness of major equipments being realized or under construction. Music and dance academy, main library, cinema complex, shopping malls will drain an important public. These public places have to help the insertion and valorisation of these equipments in the environment as well as their functioning.



"Les passages de l'étoile" ["the passes of the Star"] (behind the former Austerlitz harbour), project management: SNC Passages de l'Etoile, SERS, Weller; architect: BIK,



The Danube quarter, document CUS/Exalta

Squares still have to be defined, in connection with the principal buildings and their most important visitors' flood.

The creation processes: the definition of contrasting atmospheres

For the described stakes the conception of the project of these public places requires special processes.

These rely on the principles of conception of the whole given to an architect-landscape painter (Catherine Linder) who has defined the general principles to respect for the site and a cutting-up of three contrasting sequences.

For the realization, a project manager is nominated for each sector and works out a project on his own level. This gives the opportunity to ensure the principal of a conception of the whole and to introduce flexibility corresponding to the conditions of the project's effective realization.

3. Water identities

An artist's approach to jog the remembrance of the city's waters

Real Venice of the Rhine, Strasbourg has been developing around a lively network of canals and ditches which have shaped the city, its inhabitants and its activities for several centuries.

In order to go back to the original state of water the plastic artists Anne Godet and Dorothee Sadowski, working together within the association "Espace des airs" have imagined an artistic walk, visual and sonorous, like a woven thread between the city and its river, between historical remembrance of the Rhine, every day life of the inhabitants and the view the artists have on the city. Of the confrontation of these visions and experiences reappear the personal experiences and the emotions linked to the existence of the river.

Even today, street names perpetuate the souvenirs of buried waterways which used to be opened for shipping : Rheingiessen (from the Ill to the Rhine through the quarter of the Krutenau), Gerbergarden (current "rue du Fossé-des-Tanneurs" street of the tanners' ditch), Goldgiessen (Gold street), Ulmergraben (street of

the Old Hospital). Although the harbours installations are a very good opening towards European trade, only few of Strasbourg's inhabitants know their existence and their economic and industrial meaning.

The project "Water Identities" wants to provoke the meeting between the individual and the Rhin, between patrimony and the city's history. Therefore the visitors are invited to discover their water identity all along the way from the covered bridges to the Austerlitz dock.

The steps

The public discovers an assembling of metal containers identical to those in the harbour: the container is the modern symbol of the transport of merchandises. On both sides parallel to this assembling photo are put up representing a precise topic. On every stage a different topic is dealt with: goods, boats, boatmen, industrialisation, construction of the silos of the Austerlitz docks. The first stage begins at the "Ponts Couverts" ("Covered Bridges").

At night

The street lamps along the way illuminate the streets with water colours. The container assembling appears in blue, decomposed by the lightning. At the sixth stage a projection of the silos of the Austerlitz dock will take place at nightfall. It will represent the grain filling of the silo and marks the end of the way.



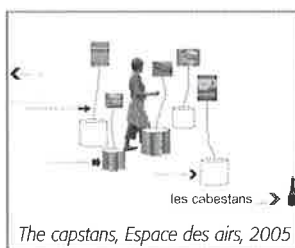
Stage 1 during the day, Espace des uirs, 2005



Stage 1 at night, Espace des airs, 2005

The capstans

A set of supports called "capstans" accompanies the visitor all along his way. These "capstans" represent Strasbourg's waterways. They are used for supporting visuals tracing back different places of the Rhine. They are put together or on their own in the streets which link the six stages but also in the area around the containers. During the walk the noise of passing boat or of singing boatmen can be heard.



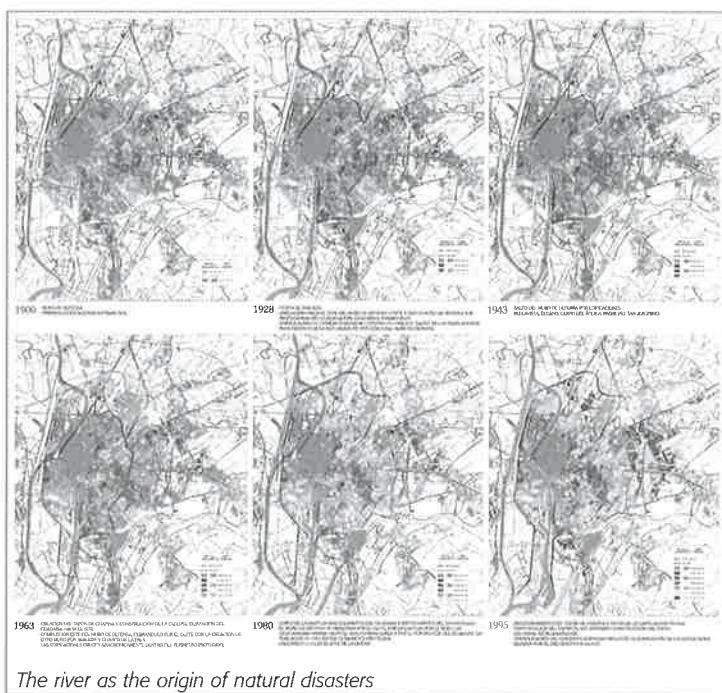
The capstans, Espace des airs, 2005

The Austerlitz dock

It is the last stage situated at the place of the first Rhine harbour. Near the quay of the Alps on the Dusuzeau dock, a barge transporting containers is fastened.



Stage number 6, "the silos", Espace des airs, 2005



Historical Research

1. The river as the origin of natural disasters

Ever since the city was founded, the river has played a dual role. On the one hand it has been the cause of the city's development as a commercial metropolis and on the other its frequent freshets have led to disastrous and tragic inundations.

Historically, as well as the inundations themselves one must also add the diseases caused by stagnant, unhealthy waters within the city. There are numerous historical references to flooding as the cause of plague and famine in the city.

Such was the violence and virulence of the floods that during some historical periods, the city walls were more a form of protection against the river than a military defence. Face with such threats, special attention was paid to caulking the gates with esparto grass and reinforcing them with baulks of timber and sandbags in an attempt to resist the waters' onslaught.

First there was a sea, then a gulf, later a plain and finally a river. The first settlements in what is the Seville of today date from the late Bronze Age. Until the Visigoth period following the end of Roman rule that gave the site the name of Hispalis, the river as it passed through the city had a secondary branch that eventually dried up giving rise to two lagoons: the Feria lagoon, located in what today is the Alameda de Hércules, the Pajería lagoon, today's Plaza del Molviedro.

Seville's relationship with its river has been marked by the city's defence against the threat of floods and the improvement of its navigability. This has led to a complex series of hydraulic works involving both the river, its tributaries and the surrounding territory.

The result of these works has meant that the river's course has been the subject of important interventions, its course being altered by "cortas" or channels that have reduced its total length by some 40km and embankments being built to protect the whole of the city.

2. The river as a trading port

Since the city's very beginnings the main role of the river has been as a trading link, either at its estuary or at the inland port of Seville that contributed to the inland distribution of merchandise.

The Phoenicians, attracted by the precious metals to be found in the Sierra Morena, established a presence in the area from the 7th century BC onwards, thus bringing commercial activity to the site and turning it into a place to obtain provisions. By the 4th century BC Seville, via its river, enjoyed close ties with the city of Carthage.

In the 1st century BC, the Iberian Peninsula now firmly part of the Roman Empire, Hispalis boasted shipyards equal in importance to those in Cádiz. Thus Hispalis became a strategic communications hub and an important river port, consolidating its commercial importance and gaining the reputation of a trading and warehousing centre. Its commercial activity was based upon the export of products from the region such as minerals, crops, oils, salt, flax, wools etc





During the Moorish period the port area, with its large volume of commercial traffic, was the city's nerve centre. It was during this time that the first shipyards were built.

In the second half of the 13th Alfonse X, "the wise" founded the "*Atarazanas*", or shipyards outside the city walls in the area that to this day is still known by that name. It was during this period and during the 14th century when Seville became an important centre for international trade, its port now becoming a bustling hub for imports and exports. The trade was mainly in agricultural products and other products of first necessity.

During the Early Middle Ages Seville had important trading links with Genoa, controlled by Genoese merchants, leading the city to become a trading emporium. The city also traded with England, Portugal, Flanders and North Africa.

In the early 16th century, the *Casa de la Contratación*, or House of Trade was founded where all of the goods bound for the Indies as well as those arriving from the New World were stored. This act led to Seville reaching her Golden Age. The House of Trade was a Crown administrative organ that controlled, inspected, comptrolled, registered and levied duty on the trade of all such goods – a cross between a commercial warehouse and a Customs House.

The House of Trade's decline during the 16th coincided with the decline in the Indies Trade and as a result, Seville's importance as an inland maritime port also waned. Its fate was sealed when the

Bourbon dynasty ascended to the throne and the monopoly on the Indies trade was transferred to Cádiz.

During the second half of the 19th century, and in order to revitalise it, both the port and the river underwent a series of radical changes. These engineering works led to an increase in the number of ship owners and shipping agents. At this time the port's main export was ore from Andalusia to Spanish and international markets.

The 20th century saw yet more hydraulic works to improve the river's navigability and to improve the city's flood defences. This meant that the port of Seville, as well as continuously moving further south, is now in a basin accessed through locks. Commercial activity continued throughout this century, nearby areas being developed for the industrial transformation of raw materials as another measures in its revitalisation. However, the new forms of maritime goods transport have yet again changed the port's appearance, reinforcing its role as an intermodal hub for rail, road and maritime transport.

3. The river as a leisure area

Due to the large-scale trading activity on the river, Seville's first riverine leisure areas were upstream of the *Puente de Barcas* pontoon bridge. The city's first riverside promenade, Patín de las Damas, much beloved by the citizens, was laid out between what is now La Barqueta and San Laureano in the 17th century. This walk passed through Huerta de Hernando Colón and La Hacienda de las Flores, two estates that were famed in the 16th for the beauty of their gardens. In the 19th century, the Patín de las Damas became a Romantic garden and was the favourite of the poet Gustavo Adolfo Becquer, who described it as such in his works.

During the 18th century, the citizen's promenades were still intimately linked to their river and were extended southwards to include the





Paseo del Arenal and the Bella Flor gardens, arriving as far as the Torre del Oro, or Golden Tower. These promenades were mostly bordered by poplars among which there were ponds and other areas where one could pass the time and rest.

The early 19th century is when, at the hands of the assistant Arjona, garden architecture reached its zenith in Seville. Arjona embellished the existing promenades and created other new ones. He designed a project to follow the course of the river southwards, demolishing the section of city wall that linked the Torre del Oro tower with Torre de la Plata, or silver tower and create the Salón de María Cristina and Paseo de las Delicias promenades. These promenades were for many a year the meeting point of Sevillian society and were well-frequented until well into the 20th century.

These promenades were strategic features in the layout of Seville's gardens and leisure areas, linking the Eslava gardens that occupied the site of what is today the Alfonso XIII hotel, the gardens of the Dukes of Montpensier, in San Telmo, the gardens of San Diego and, opposite, the Paseo de los Lutos promenade next to what is today María Luisa Park. Unfortunately most of the city's wealth of promenades, and gardens fell victim to the decision to place a railway station in what is now called Plaza de Armas.

More than a century later in 1980 the city recovered its riverside promenades with the inauguration of the lower Marqués de

Contadero promenade and the upper Paseo de Colón, with a design contextualised in their contemporary period.

On the occasion of the works to build the 1992 Universal Exhibition (Expo' 92) and once the Córdoba Station in Plaza de Armas had been decommissioned and the railway infrastructure removed, the city discovered, and indeed recovered, the northern section of the river. This space became part of the city's traffic and gardens network with the building of the Paseo de Juan Carlos I promenade, a large linear park that runs along the left bank parallel, and on a lower level, to Nuevo Torneo avenue, access from one to the other being afforded by ramps and steps, occupying what had once been the Patín de las Damas.

4. The river as an area for sports and games

Rowing

Rowing is undoubtedly the most important of all of the sports practised on the river. Moreover, it enjoys a long tradition with news of regattas being celebrated on the Guadalquivir as early as the 16th century.

Today this sport boasts a large number of fans and oarsmen and women, their numbers growing since the late 19th century when the Rowing Club de Sevilla, forerunner of the city's present rowing clubs, was founded. The removal of the dyke that severed this arm of the river and the creation of the Isla de la Cartuja rowing canal has turned the Guadalquivir into a rowing centre that attracts rowers and canoeists from all over the world. Indeed, it has even been chosen by the Spanish Rowing Federation as the seat for its Centre of Excellence (CAR).

Seville organises a large number of regattas and championships, the *Fiesta de la Piragüa*, or canoe festival, the regatta between the two local football clubs, Sevilla and Betis, etc. It is a familiar sight for Sevillians to see canoeists practising on the river at dusk

The "velá" in honour of Santiago and Santa Ana

This popular fiesta is held in the district of Triana in late July, turning the river into a place of fun and games. The fiesta proper, with its



Rowing



Seville's "beach"

attractions and marquees, is held in Calle Betis, on the left embankment of the basin. People from the whole city flock there, attracted by the typical feel of the fiesta and the agreeable sensation of passing an evening by the river while gazing at the beauty of the river and the opposite bank's skyline.

All types of festivities and games take place on the river, the most noteworthy being that of the *Cucaña*, perhaps one of the city's oldest traditions. The game consists of trying to climb a greasy pole on a boat moored on the river in order to take the flag fluttering from the top.

Seville's "beach"

An old custom, now in disuse, was that of bathing in the river. In the 18th century the town Hall regulated bathing, indicated the best places for it and divided the areas by sex. The bank from Los Humeros as far as Puerta de San Juan were for women while the men bathed near to the Los Remedios outfall.

Around 1920 the popular María Trifulca beach located to the south of the city in the area belonging to the former course of the river Guadaira was formed. This remained very popular until the 1960s when the river was dredged to install new port facilities as it was extended southwards.

Fishing

Anglers sitting upon special seats or on the banks of the river itself is a popular image. It is one of the ways that Sevillians have of combining leisure time with a sporting activity. In the past, when the river was untrammelled by locks and dams fishing from boats was also practised. Special mention must be made both because of their



beauty and the skill of the men that handled them, of the fishing boats that used hand nets

5. The river as a working area

Pottery

There is evidence that as far back as Roman times there were pottery workshops and kilns in Triana, an artistic industry heightened by the Arabs and from the 15th century onwards influenced by Italian ceramics. In the 16th century the pottery industry boomed. Clay was extracted from the river banks at the Tablada, Cartuja and Triana water meadows, leading to a deterioration of the banks. 50 kilns are known to have existed in Triana in the middle of the above century and history tells us that in 1599 a traveller was amazed at the existence of 50 pottery shops there. Within Spain Sevillian pottery enjoyed great fame and it was also exported to England, France, Flanders, Portugal, Italy and the Indies.

The Sevillian pottery industry gained new impetus in the 19th century when the La Cartuja potteries were opened next to the river in the former Charterhouse Monastery of Santa María de las Cuevas. The factory was still functioning until a few years ago.

Activity on the wharves

During the 15th century, Seville being in the hands of the Christians, the river's banks were reformed, giving rise to a new cityscape and the concentration of important port-based economic activity.

The first stone wharf, called the *Aduana*, or Customs wharf, was on the left bank. Its function was to unload the stone being used to build the Cathedral. The other jetties were wooden and merely functional such as those of el Barranco and el Arenal, on the left bank.

On the Triana side of the river there was Muelas wharf, so called because of the worn millstones (*muelas*) used to pave the area. This wharf, where the Isabel II bridge now stands, was where small boats were repaired. Immediately after this latter was Mulas wharf that was used to provision the fleets, strings of pack mules (*mulas*) arriving the wine, oil and soap. Finally there was Camaroneros wharf where all of the fishing activity, especially that of the shrimp catchers (*camaroneros*) was concentrated.

During the 16th century, the great economic wealth generated by the wharves' activity had a great effect upon the city's physiognomy. The House of Trade, adjacent to the Alcázar, close to the river and with excellent links to the port, was created to enable the Crown to exercise an economic control over the newly discovered lands of America. The shipyards stopped building large ships and instead concentrated on repairs and building smaller craft and so part of their land was given over to other uses such as the Customs House, the Hospital de la Caridad, Fishmongers etc. The Royal Mint was transferred to a site to the south of the Cathedral where the Archivo de Indias now stands. The building was divided into three different sections: the King's ironworks, a hospital and the Mint. At the end of the century the building was demolished in order to build the *Casa de la Lonja*, trading house and the Mint was transferred to a site away from the Atarazanas area.

The 19th century saw the revitalisation of the Port and its facilities as it moved southwards yet again, relaunching its commercial activities with the creation of new wharves. The City's new physiognomy was



Triana Bridge

culminated in the early 20th century when the Muelle de la Sal wharf, running parallel to Paseo de las Delicias, was extended to allow smaller craft to moor. The Muelle de Nueva York wharf, owing its name to the fact that boats bound for the United States set sail from it as well as the Tablada and Delicias wharves were also built around this time.

Las almonas

Las almonas was the name given to the soap industry that dated back to the Middle Ages and which was of great importance during the 16th century. This activity was located between Calle Castilla and Paseo de la O promenade where there was a slipway used to slide baskets of soap to boats bound for Castile, the Indies, England, Flanders and other destinations. Each year 15,000 *quintales* (approx. 1,500,000 lbs) of white soap were produced, using more than 50,000 *arrobas* (approx. 137,500 gallons) of olive oil from the Aljarafe.

Fishing

Fish were plentiful downstream of the *Puente de Barcas* bridge and so fish traps were installed along the banks of the river, even by royal privilege. The fishermen who worked the river were members of guilds and even had their own lay Brotherhood – that of San Juan Evangelista. The freshwater species to be harvested from the Guadalquivir was highly varied (barbel, stickleback, perch) as well as there being other species that, depending on their lifecycle inhabited fresh or salt water such as lamprey, shad, Twaite shad eel bass and sturgeon. Fishing was carried out in the traditional manner using trammel nets, etc., fish traps and gaffs for sturgeon and bass. Fish traps were also used while shrimp and bleak fishermen used spoon boats. Fishing therefore has been a constant in our city from its foundation to the present day.



6. The river as a navigable channel for passenger traffic

Trade has been the main economic activity on the river yet passenger traffic has been closely linked to trade. The origins of Seville were as a maritime port and even in the Roman and Moorish periods work was already being done to make the river navigable as far as Córdoba in order to establish fluvial navigation.

From the Moorish period onwards there were boatmen who, as well as transporting merchandise, also turned their hand at ferrying groups of people. In fact there were six landings with almadies and carabos offering their services.



Later, when Seville came under Christian domination, caravelles, carracks, galleons, hookers and galleys were to be seen on the river as well as a flotilla of smaller craft such as boats, longboats, lighters, rafts and almadies that moored in the fluvial ports of Sanlúcar, Bonanza, Horcadadas, Borrego, Puntal, San Juan de Aznalfarache and las Muelas, while the important commercial moorings were to be found between the Torre del Oro and Puerta de Triana gate.

When Philip II visited the city, he went by boat from San Jerónimo in order to review the fleet and to preside over a rowing competition from a vantage point from which he could contemplate the spectacle of the fleet with the city as a backdrop. He entered the city by the

Puerta de Goles gate that has ever since been known as the *Puerta Real*, or Royal Gate.

Later, when Philip IV visited Seville, he was presented upon his arrival with a gondola so that he could cruise the river and enjoy himself. However, the real boom in passenger traffic began in the early 19th century when ship's captain Alejandro Briarly formed a navigation company to improve the journey between Seville and the sea as well as attempting to make the river navigable between Seville and Córdoba. Later, in the middle of the century, another limited company brought the steamship "Rápido" from London, a highly popular craft due to the route that it plied between Seville and Sanlúcar.

Although the *Compañía de Navegación del Guadalquivir*, or Guadalquivir Navigation Company disappeared, the favourable economic conditions of the second half of the 19th century led to an increase in the number of private shipping companies offering both freight and passenger services, companies such as M. Sáez, Juan Cunningham, Vinuesa, Alcón, Ybarra, Segovia, etc., who diversified the destinations offered. There began to be a lot of passenger steamer traffic and thus the port became an important element in the life of the city, not only due to commercial but also passenger trade.

During the 20th century, the port maintained its position as an inland port but a markedly maritime one. Slowly, fluvial traffic has diminished until today only the Sanlúcar service remains.

Today passenger services are limited to no more than pleasure trips around the basin, from Alamillo bridge as far as the lock and visits from large and medium-sized yachts that visit the city during its springtime festivities.



7. The river and its bridges

Puente de Barcas. This pontoon bridge (literally bridge of boats) was built in 1171 by Abu Yaqub Yusuf (Almohad period) and was rebuilt on numerous occasions because of the ravages of both time and freshets. Before the bridge was built, the only way to cross the river was by hiring the services of a boatman, a tradition that continued until the early 20th century.

Isabel II (Triana Bridge). This bridge was built by the French engineers Gustave Steinacher and Ferdinand Bernadet between 1845 and 1852 on the site formerly occupied by the Puente de Barcas which was itself moved further downriver. It has been the subject of various modifications, including in 1970, the complete replacement of its roadway.

Seville-Huelva railway bridge. Built in 1879 on the Chapina dyke to carry the Seville-Huelva railway, it was demolished to make way for Cristo de la Expiración Avenue.

Pasadera del agua. This bridge built between 1893 and 1898, served a dual purpose as the supporting structure for the pipeline bringing water to the city and as a pedestrian bridge.

Alfonso XIII Bridge (Puente de Hierro). This iron bridge was thrown across the Tablada channel for the 1929 Universal Exhibition. It was a drawbridge construction, allowing access to the port. It was dismantled in 1989 because of its obsolescence and was substituted by the present Las Delicias bridge.

San Telmo Bridge. This bridge was built between 1925 and 1931, linking the Cristina gardens with the Plaza de Cuba. Originally a drawbridge with two leaves, it became a fixed bridge in the 1960s due to the heavy traffic in the city.

Los Remedios Bridge. This bridge was built in 1968 and communicates the Marineros Voluntarios roundabout on Avenida de la Palmera with the Los Remedios district.



Isabel II (Triana Bridge)



San Telmo Bridge

Las Delicias Bridge. Las Delicias bridge was built in 1992 for the 1992 Universal Exhibition. It is a double bridge, one being used by road traffic and pedestrians and the other, on a lower level, by trains. It links Avenida de la Raza, via the Delicias wharf, to Los Gordales.

V Centenario (5th Centenary) Bridge. This bridge with a roadway 45 metres above the river and finished in 1992, was built for the 1992 Universal Exhibition. It is located on the southern arc of Seville's ring road. Its great height means that large ships can pass beneath it easily.

La Barqueta Bridge. La Barqueta was built on dry land in 1989 for the 1992 Universal Exhibition. Once completed it was then floated on the river and lowered into place. In front of the crossroads of Resolana and Torneo streets, it connects the northern area of Seville's Old City with the La Cartuja area.

Cristo de la Expiración Bridge. This bridge, was built in 1991 on dry land upon the dyke that the existed at Chapina before the dyke was removed. It too was built for the 1992 Universal Exhibition.

Pasarela de la Cartuja. Built in 1991 for the 1992 Universal Exhibition, this is one of the slenderest bridges to have been built in Europe. Initially conceived to serve La Cartuja as a pedestrian bridge,

it is now also open to wheeled traffic. Facing the Old City's Calle Baños, it links Calle Torneo, with La Cartuja.

Alamillo Bridge. Finished in 1992 for the 1992 Universal Exhibition, it has thirteen pairs of steel cables supporting the load of the roadway, a weight that is counter-balanced by its backward-leaning mast. The bridge links the northern ring road with La Cartuja, from which point a viaduct continues towards the N-630 Ruta de la Plata A-road.



La Barqueta Bridge



Pasarela de la Cartuja



Alamillo Bridge

Pilot Project

1. The river as the city's principal urban open space

In addition to its connective function, the river must be understood as the city's principal open space and therefore as an element providing numerous opportunities for open air activities, as in any other open space area. Taken as such, with the rezoning of the areas along its banks, the river affords the city tremendous added value. Until now, the only acknowledged role of the river has been that of shaping the city's historic-artistic appearance. In recent years its banks have been inaccessible or put to inappropriate or less-than ideal uses.

The intent behind the following group of actions is to achieve an integrated intervention that can return the use and enjoyment of the river and its banks to the inhabitants of the city; an intervention that will allow the city's inhabitants to reclaim the river. These actions are backed by developmental planning at the initiative of the city government of Seville.

Left Bank: San Jeronimo – Alamillo Bridge Section

Establishment of an area set aside for relaxation and landscape viewing, with the creation of a completely equipped Seville beach or sun-lounging area. This area assigned to public use will be fully integrate into the riverside promenade by extending into the Paseo de Juan Carlos I promenade to the south, and into the Alamillo Park via the San Jeronimo dyke to the north.

Right Bank: San Jeronimo – Alamillo Bridge Section – Alamillo Park

Opening up of the park to the river, allowing the vegetation to cascade over the bank and making water channels that will meander through the park, forming part of the underlying structure of the proposed expansion.

Left Bank: Alamillo Bridge – Patrocinio Bridge Section

Promotion of the Paseo de Don Juan Carlos I promenade as a leisure and recreational zone, providing the area with urban furniture and activities conducive to their use. The creation of bandstands has



Right Bank: San Jeronimo – Alamillo Bridge Section – Alamillo Park



Left Bank: San Jeronimo – Alamillo Bridge Section



Left Bank: Alamillo Bridge – Patrocinio Bridge Section

been proposed for musical performances or for alternative uses and activities. A similar proposal is to delimit and plan a linear area set aside for the creation and exhibition of plastic arts, with the establishment of a temporary street market giving special emphasis to artwork pertaining to the river and the city.

Right Bank: Alamillo Bridge – Patrocinio Bridge Section – La Cartuja

Subsection: Alamillo Bridge – Teatro Central Theatre. Extension of the riverside promenade up to Alamillo Park, especially conditioning the area encompassing the rowing installations, taking into account the construction of a new bridge extending from José Díaz Street, connections with the Directive Plan for Alamillo Park.

Subsection: Teatro Central – Barqueta Bridge. Extension of the existing riverside pathways, provisional and permanent fencing of public-use areas.

Subsection: Barqueta Bridge – Jardines del Guadalquivir. Revamping of the existing riverside promenade, conditioning of the river edges, a crossing underneath the Barqueta Bridge, reforestation of the Jardines del Guadalquivir and riverside promenades.

Subsection: Jardines del Guadalquivir – Nature Pavilion. Transformation of the installations of the former Expo '92 Lake sluice, creation of an artificial lake in the La Ciaboga zone (last section of the former lake), continuity of the upper and lower river roads, provisional and permanent fencing of the Jardin Americano gardens and the Nature Pavilion as well as the public-use areas. Reforestation of the Jardin Americano gardens.

Subsection: Nature Pavilion – Puerto de Triana. Recovery of the trees in the Jardin Americano garden and of the tropical plant shadehouse; continuity of the riverside promenades.

Subsection: Puerto de Triana – Patrocinio Bridge. Construction of a riverside promenade along the riverbank; renovation of the riverside and complete reforestation of the surroundings.



Right Bank: Patrocinio Bridge – Triana Bridge Section – Paseo de la O promenade



Right Bank: Triana Bridge – San Telmo Bridge Section

Right Bank: Patrocinio Bridge – Triana Bridge Section – Paseo de la O promenade

Promotion of the riverside promenade and its public-use features by enhancing accessibility, attractiveness and maintenance of the area, as well by improving passage into the Triana quarter. Improvement of the access roads at each end of the promenade with a river-level road platform linking it to Betis Street, and developing an extension of the promenade into the riverside pathway on La Cartuja Island. Guidelines for on-the-water use of the river, encouraging boating and uses that support recreational and sport activities, while installing the fishing quays and piers needed to support sport and boating activities along the Guadalquivir River.

Left Bank: Triana Bridge – San Telmo Bridge

Promotion of the riverside promenade via a new design, interfacing with the upper section, and allowing relaxation and viewing of the river and city landscapes. Utilisation of the river-level area of Paseo de Marqués de Contadero promenade for purposes relating to the river, both cultural and sport-related. Elimination of all motor vehicle traffic.

Right Bank: Triana Bridge – San Telmo Bridge Section

The creation of a river-level promenade along the full length of the section, given that the retaining walls that separate the river from the

upper promenade on Betis Street are 8 metres tall. The construction of this new promenade would allow the public to walk along the edge of the river between both bridges, connecting to the upper promenade and at the same time make the extension into Paseo de la O promenade possible.

Left Bank: San Telmo Bridge – Los Remedios Bridge Section Nueva York Wharf

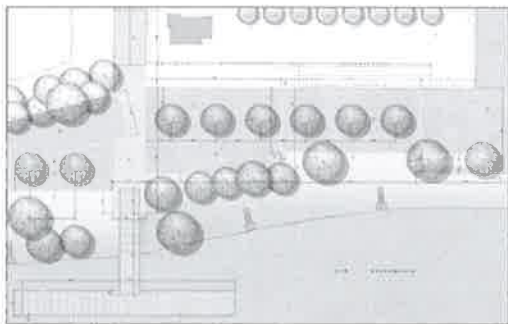
This intervention would increase the enjoyment opportunities of the public along the Guadalquivir riverside promenade, while creating areas for relaxation and viewing of the landscapes of the river and the city of Seville. This would also enhance the continuity of the riverside promenade itineraries as it would provide a link with the city's park areas which lay crosswise to the riverbank. Similarly, the proposal would improve accessibility to the upper Paseo de las Delicias promenade.

2. The river as a channel for passenger traffic

Boat-bus

As the city's principal open air space, the river has an added value as a grand avenue that crosses through the city from north to south. This quality can help it become an important channel for the circulation of a certain type of traffic.

The establishment of a public transport service with regular intervals has been proposed. This would travel north to south alongside the dock with stops and starting points on each side of the river, similar



to public road transport. This proposal would afford passengers transport without the bother of daily congested traffic, in a relaxed and recreational atmosphere of river travel while enjoying the open air and viewing the city's most emblematic architectural elements.

The boat transport service would travel alongside the docks on both sides of the river in two circular routes, one clockwise and the other counter-clockwise, thus facilitating the timely arrival of passengers to their destinations. The route would go from the San Jeronimo dyke to beyond Las Delicias Bridge, with established stops at platforms to be built for the purpose at points in the greatest demand by, or of special attraction to, users.

The "boat-bus" transport service would consist of light comfortable boats with technical features that would allow for rapid service.

River Cruises

Seville is an important inland seaport whose main activity has always been commerce, enhanced by its ideal location for the distribution of merchandise. Passenger travel along the different navigable routes established during different periods was formerly a salient activity as well, although this practice has virtually disappeared.

The promotion of tourist cruises has been proposed, with the purpose of recovering the splendour of the former routes, by adapting the quays between the San Telmo and Las Delicias bridges; coexisting with the recreational, cultural and dining uses provided for in the planning project. This intervention would mean inserting the city within the tourist cruise circuits that are currently booming both national and internationally. Seville could become a port of call, or indeed, a home port, for tourist cruises to the Mediterranean, the coast of Portugal, the Canary Islands, North Africa, and so forth.

The river could thus recover one of its former characteristics and contribute to the enhancement and revitalisation of the riverside, in addition to promoting the tourism sector and generating wealth.



3. The river as a sport and recreational area

The Beach

To establish an area reserved for relaxation and landscape viewing with the creation of a beach or sun-lounging area furnished with lounge chairs, sunshades, small ponds and fountains and other elements designed for use and relaxed enjoyment in contact with nature. These facilities could be used in conjunction with other nature-oriented activities closely related to the proposed use of the area.

This area assigned to public-use would be integrated into the river promenade to the south with the extension of the Juan Carlos I promenade, and to the north, via the San Jeronimo dyke, with the Alamillo park.

In addition, adjacent land would be assigned as a sport zone for the practice of open air sport on a cross country circuit, transversely connecting the entire assigned area with San Jeronimo Park.

Fishing

The city's inhabitants still maintain their secular tradition of fishing in the river, even holding fishing competitions during festivities and holidays. The construction of fishing quays and piers has been proposed for use in daily fishing and fishing competitions.

The fishing quays would be water-level platforms, with safe and easy access, strategically distributed along the river's banks. They would



be structurally independent from the talus to keep them separated from the possible negative effects from the river on the banks. Fishing could also be done from floating piers, joined to the bank by means of fixed piers, with a structural design similar to the quays and with the same safe and easy access. These platforms or piers could also be used for sports events or recreational events on the river.

4. The river leads to the creation of new buildings

Taking advantage of the opportunities that the riverbank offers, projects for the creation of facilities all along its route have been drawn up that, on the one hand, can be used to disseminate information about the river and related events, and on the other hand, to promote the river promenades through the assignment of new cultural facilities, allowing inhabitants to fully reclaim the use of the riverside.

Nature Information Centre. To be situated at river-level on the Paseo del Marqués de Contadero promenade or in new specially built premises, similar to the latter, along the Paseo de Juan Carlos I promenade, below Torneo Street. The Centre would be used for science, educational and recreational exhibits regarding the natural riches of the region, with particular emphasis on the Guadalquivir River and river valley. A centre in which the flora, fauna, geology, and environment of the region would be displayed.

River Museum. To be situated at river-level on the Paseo del Marqués de Contadero promenade, substituting the space currently occupied by municipal offices and storage facilities. The Museum, to be used for exhibits and educational purposes, would focus on showing the history of Seville based on the river and its relationship with the city and would afford an ideal opportunity to centralise, in a single space, all of the documentation and knowledge about the river and its history that is archived in the city's different institutions and official buildings.

Pottery Information Centre. To be situated at one of the premises or offices facing out on the Paseo de la O promenade, favouring the creation of a new façade on the promenade and the production of activity; allowing inhabitants to take advantage of the riverside promenade and its interface with Castilla Street. An alternative location



would be in one of the three pottery sites catalogued by the Special Triana Plan, in Antillano Campos Street. The Centre would be focused on the dissemination of pottery and its history, with educational functions manifest in the creation of workshops in the city centre.

5. The river as an organisational backbone - La Cartuja

105

A task still pending in Seville is the integration of La Cartuja within the city's spatial and functional structure.

La Cartuja is a zone with an approximate surface area of 400 hectares, in close contact with the historic city centre and the northern sector of the city. The EXPO'92 universal exposition changed the face of this area. First, the removal of the Chapinas dyke reconnected the area to Triana, as it had been in the past. The area was urbanised and built up, following a planning project that gave the area autonomy from the city, in a prompt response to the immediate demands of EXPO'92. In addition, outside the boundaries of La Cartuja, the railway leading to Cordoba Station was removed and the wall that ran the long length of Torneo Street was demolished.

The integration of La Cartuja should be based on the reform of the existing spatial planning, allowing it to be incorporated into the city's urban continuum. Aside from earlier reform interventions, also proposed is the creation of a series of bridges for motor vehicles and footbridges that would connect both sides of the river and facilitate east-west accessibility at strategic points.

Two new bridges for motor vehicles and three new footbridges have been proposed.

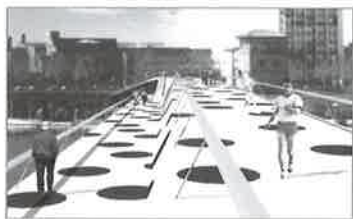
A bridge for motor vehicles connecting Alamillo Park with the San Jeronimo quarter and Seville's northern access road.

A footbridge between San Jeronimo Park (Seville Beach) and Alamillo Park.

A footbridge joining the far western point of the current northern ring road and La Cartuja, at the Teatro Central cultural installations.

A footbridge between the Paseo de Torneo promenade, where it meets Narciso Bonaplata Street, and the La Cartuja auditorium and the Jardines del Guadalquivir gardens.

A bridge for motor vehicles situated near the northern zone of the bus station, connecting Torneo Street and the Torre Triana area.



Attachments

Sheets for 17 real HRC squares in Florence, 5 green areas and an Arno river Museum

01. Corso Italia – Lungarno Vespucci



Nel punto in cui Corso Italia confluisce sul Lungarno Vespucci si viene a creare uno spazio urbano caratterizzato dalla sola presenza della statua di Garibaldi e che ha tutte le potenzialità per diventare una terrazza sul fiume. Attualmente, però, non ha una sua connotazione precisa essendo occupato da un parcheggio di superficie. È uno spazio discretamente ampio che si presta ad accogliere una nuova destinazione legata all'Arno, anche in previsione del nuovo utilizzo di Villa Favard.

PROGETTO: L'utilizzo di questo spazio urbano è sicuramente legato alla nuova destinazione d'uso prevista per Villa Favard. Tuttavia, a prescindere da questa, la sua posizione fra il Parco delle Cascine e il centro storico suggerisce di creare, in una parte di questa che diventerà una nuova piazza sul fiume, un punto di partenza per le carrozze. Da qua le carrozze potranno portare i turisti verso il centro oppure verso il Parco delle Cascine.

02. Piazza Ognissanti



Piazza Ognissanti ha già una sua configurazione precisa, dettata dalla presenza dell'omonima chiesa, dell'Istituto Francese e dei prestigiosi e storici Hotel Excelsior e Grand Hotel. È un grande spazio pavimentato di forma rettangolare caratterizzato dalla presenza di una statua centrale. Attualmente, almeno una volta l'anno, la piazza è anche sede della Mostra degli Antiquari ed è in questa occasione che viene occupata tutta la sua area con un allestimento in stile.

PROGETTO: Le potenzialità della piazza sono notevoli e potrebbero concretizzarsi con la realizzazione di un tunnel di collegamento con le sponde dell'Arno dove trovare una imbarcazione per poter navigare il tratto storico dell'Arno secondo il percorso indicato nella Tavola 7. Anche qui, vista la posizione, sarebbe opportuno pensare alla realizzazione di un parcheggio interrato "tascabile".

03. Piazza del Cestello



Piazza del Cestello è caratterizzata dalla presenza dell'omonima chiesa, dalla vicina caserma, dal teatro e da alcuni locali di ristoro che si affacciano sul lato opposto. Attualmente la piazza è utilizzata come parcheggio di superficie separato dalla strada tramite uno spartitraffico ed un filare di alberi.

PROGETTO: Vista la presenza della chiesa e la vicinanza con la caserma che assumerà una nuova destinazione d'uso, è auspicabile arrivare ad una pedonalizzazione della piazza che incentiverà e migliorerà anche l'attività commerciale. In questo modo gli alberi potranno mantenere l'attuale posizione e funzione quali elementi di separazione di questa nuova area pedonale dalla strada. Il parcheggio, seppur in versione "tascabile", potrà essere interrato.

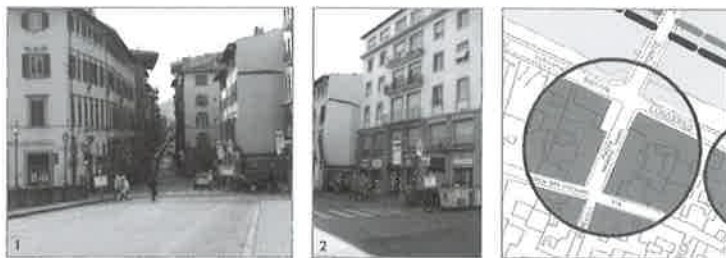
04. Piazza Goldoni



Piazza Goldoni si inserisce nel tessuto urbano come una cerniera che collega aree commerciali diverse che potrebbero trovare uno sviluppo ulteriore spingendosi verso il fiume. Elemento caratterizzante è la statua di Goldoni posta all'estrema sinistra e decentrata rispetto al ponte. Non sarà possibile una completa pedonalizzazione dell'area in quanto non potrà essere bloccato il flusso di traffico che arriva dal Lungarno Vespucci, né quello che arriva da S.M. Novella o dal centro.

PROGETTO: Il marciapiede esistente potrà essere allargato in modo che si venga a creare una continuità con l'area pedonale delle vie del centro che arrivano in questo spazio. Inoltre, la presenza ormai consolidata dell'edicola suggerisce di installare al suo fianco un INFO POINT HRC (consiste in una postazione informatica, gestita in questo caso dal giornalaio, attraverso la quale venire a conoscenza del progetto HRC, dei nuovi percorsi culturali lungo l'Arno, etc.).

05. Piazza Nazario Sauro



Piazza Nazario Sauro ha uno sviluppo longitudinale che comincia da Borgo S. Frediano per terminare sul Ponte alla Carraia. È uno spazio urbano già connotato e caratterizzato dalla presenza di attività commerciali che, con la pedonalizzazione di via S. Spirito, sono incrementate notevolmente. Ciò nonostante questo spazio urbano è ancora attraversato dal traffico, soprattutto quale collegamento di Borgo S. Frediano con il Lungarno Guicciardini.

PROGETTO: Il traffico cittadino che attraversa la piazza è destinato ad essere diminuito ma non del tutto eliminato. Per questo, pur non potendo prevedere una completa pedonalizzazione dell'area, nel punto in cui si affaccia sul fiume potrebbe essere ricavata una nuova area di sosta comprensiva di alberi.

06. Piazza degli Scarlatti



Questo ristretto spazio che si affaccia sull'Arno è già connotato ed ha consolidato, almeno fino ad oggi, la sua funzione con la presenza di un ristorante e un parcheggio per ciclomotori.

PROGETTO: Viene confermato il ristorante esistente e viene proposta la realizzazione di un tunnel che dalla piazza antistante permetta l'accesso alle sponde dell'Arno. Vista l'ampiezza delle sponde proprio in questo punto e la presenza di una scaletta metallica quale memoria dello storico circolo dei canottieri, potrebbe anche essere allestita una piattaforma attrezzata per la sosta di chi è interessato al percorso sul battello oppure al percorso naturalistico lungo le sponde.

07. Piazzetta Frescobaldi



Come Piazza Nazario Sauro ha uno sviluppo longitudinale che nasce con via Maggio e sfocia sul Ponte S. Trinita.

L'attività commerciale è consolidata e offre prodotti di vario genere e di qualità.

PROGETTO: Prevalentemente la piazza è attraversata dal traffico cittadino destinato comunque ad essere diminuito. Nel punto in cui si affaccia sul fiume si crea un ampio spazio che potrebbe essere pavimentato ed allargato in modo da poter realizzare un'area di sosta e di relax sul fiume. Vista l'attività commerciale potrebbe essere opportuno inserire un INFO POINT HRC che, come in casi analoghi, verrebbe gestito dal giornalaio.

08. Piazza del Pesce



Questo spazio urbano privilegiato, caratterizzato dalla presenza delle arcate del Corridoio Vasariano e dall'ingresso al Ponte Vecchio, rientra nel nuovo tratto da pedonalizzare e come tale potrà offrire un valido sviluppo alle attività commerciali già esistenti.

PROGETTO: La maggiore attrazione di questa nuova piazzetta sul fiume sarà sicuramente l'affaccio attraverso le arcate del Corridoio Vasariano e la possibilità di sostare in un punto da cui godere della vista di Ponte Vecchio.

09. Piazza Santa Maria soprarno



La particolarità di questo ampio spazio che si affaccia sull'Arno è la vista privilegiata che offre di Ponte Vecchio. Inoltre, è uno spazio che si trova al termine di una zona pedonale fra le più frequentate in quanto sull'asse di collegamento fra Ponte Vecchio e Palazzo Pitti.

PROGETTO: Visto l'attuale inutilizzo di questa terrazza sul fiume, la riqualificazione di questo tratto di lungarno prevede di potenziare lo sviluppo dell'attività di ristorazione (che caratterizza tutta via de' Bardi fino al Ponte Vecchio) sfruttando proprio il rapporto con il fiume. In questo contesto è prevista anche la realizzazione di un tunnel di accesso alle sponde del fiume per poter usufruire del servizio del battello che avrà un punto d'approdo in prossimità di questa piazza.

10. Piazza dei Giudici



Piazza dei Giudici è occupata da un parcheggio di superficie ed è attraversata dal traffico che arriva dal Lungarno Archibusieri e da via de' Castellani. Lo spazio urbano è delimitato dalla presenza dello storico Palazzo dei Giudici, oggi Museo della Scienza, e da edifici la cui destinazione è pressoché residenziale.

PROGETTO: Con la realizzazione dell'uscita dei Nuovi Uffici e la pedonalizzazione del Lungarno Acciaiuoli e Lungarno Archibusieri fino a piazza dei Giudici, sarà necessario dare a questo spazio urbano la giusta importanza visto che attualmente appare inadeguato. Il progetto prevede la parziale pedonalizzazione dell'area antistante il Museo della Scienza fino ad arrivare all'Arno. Qui, sarà possibile la sosta, grazie ad un adeguato arredo urbano, e sarà installato un INFO POINT HRC gestito direttamente dal Museo.

11. Piazza Mentana



Anche Piazza Mentana, occupata da un parcheggio, ha numerose potenzialità di sviluppo in uno stretto rapporto con il fiume. In effetti, già adesso, viene sfruttato l'accesso al fiume che si affaccia su questa piazza, per le iniziative organizzate dall'Associazione dei Renaioli (cfr. Tav. 5).

PROGETTO: Per motivi di traffico e viabilità se ne propone solo la parziale pedonalizzazione, con l'inserimento di alberi e siepi che forniranno la giusta cornice per eventuali bar all'aperto o zone di sosta e riposo. La piazza, con i giusti accorgimenti, potrebbe essere anche dotata di un parcheggio "tascabile" interrato. Viene confermata la posizione di un approdo sottoforma di una piattaforma galleggiante per imbarcare i turisti interessati al nuovo percorso culturale sul fiume.

12. Piazza de' Mozzi



Piazza de' Mozzi ha uno sviluppo longitudinale in continuità con il Ponte alle Grazie. Attualmente è occupata da un parcheggio di superficie su entrambi i lati ed è attraversata, seppur in misura ridotta, dal traffico cittadino. La peculiarità di questa piazza è dettata soprattutto dalla presenza del palazzo e del giardino Torrigiani e dal Museo Bardini.

PROGETTO: La posizione di Piazza de' Mozzi in rapporto al fiume è sicuramente privilegiata anche in confronto al nuovo percorso culturale da potenziare che collega la zona di Santa Croce con la zona di San Niccolò e del quale il Museo Bardini sarà uno dei centri di attrazione. Il progetto prevede una parziale pedonalizzazione della piazza quale collegamento fra il Museo Bardini e la vicina area verde della chiesa Luterana e il fiume. Questa nuova area potrebbe anche ospitare un bar con servizio all'aperto.

13. Piazza Demidoff



Piazza Demidoff già da qualche anno ha assunto un ruolo centrale nel quartiere di S. Niccolò. La sua posizione rialzata rispetto alla strada permette di godere di una vista privilegiata del fiume. Gli elementi che caratterizzano maggiormente questo spazio sono la statua centrale protetta dal gazebo, gli alberi e le aiuole. Durante le sere estive la piazza si riempie di tavolini che permettono ai locali dislocati lungo la strada di offrire un servizio all'aperto.

PROGETTO: La connotazione di questo spazio è già ben definita anche se la destinazione d'uso che assumerà il vicino Palazzo Serristori (probabilmente di tipo ricettivo), potrebbe favorire un ulteriore sviluppo.

14. Piazza Cavallegeri



Piazza Cavallegeri è stata sistemata di recente, in occasione dell'intervento di adeguamento interno della Biblioteca Nazionale Centrale. L'intervento ha previsto la realizzazione di uno spartitraffico centrale a forma triangolare, dotato di panchina per la sosta e qualche parcheggio per ciclomotori. Il passaggio delle macchine da questa area, fondamentale visto che proprio alla fine della piazza comincia la Z.T.L., in effetti ne ha sempre limitato l'utilizzo.

PROGETTO: Le origini di questo spazio urbano sono strettamente legate al fiume. Infatti, la piazza era stata concepita come una terrazza per una vista privilegiata sul fiume, ma attualmente questa funzione è stata tradotta in uno stretto marciapiede rialzato. Viste le dimensioni così ampie del Lungarno della Zecca, si ipotizza di far girare le macchine che non possono entrare nella Z.T.L. prima della piazza in modo da poter prevedere almeno una parziale pedonalizzazione dotata di pensilina di protezione per chi aspetta l'autobus per entrare nel centro storico. Inoltre, ipotizzando di creare uno sbarco per il battello che eseguirà un percorso culturale attraverso il fiume, si realizzerà una discesa al fiume attraverso una scala in legno e metallo che, in base alle stagioni e al livello dell'Arno, potrà essere posizionata in corrispondenza dell'attuale terrazza rialzata.

15. Piazza Poggi



Piazza Poggi è caratterizzata dalla presenza di una terrazza verde che si affaccia sul fiume e, sul lato opposto, dalla Torre San Niccolò e dalle rampe che portano al Piazzale Michelangelo. Attualmente è attraversata dal Lungarno ed è occupata da un parcheggio di superficie. Verso l'interno si aprono anche alcune attività commerciali.

PROGETTO: La forza di questo spazio urbano è essenzialmente dettata dalla Torre, dalle vicine mura Michelangiolesche e dal percorso pedonale che porta al Piazzale Michelangelo dal quale, non solo si ha una vista unica della città di Firenze, ma anche del corso dell'Arno nel tratto storico. L'ampio spazio della piazza dovrebbe essere lasciato libero e potrebbe essere sfruttato per manifestazioni culturali ed esposizioni temporanee all'aperto, strettamente legate alle manifestazioni estive che già si svolgono sulle rampe. Si propone, di conseguenza, la realizzazione di una parziale pedonalizzazione e di un parcheggio interrato.

16. Piazza Piave



La piazza è caratterizzata dalla presenza della Torre della Zecca, attualmente segregata al ruolo di isola spartitraffico. In realtà questo spazio urbano, se ben utilizzato, potrebbe offrire anche alla torre un inserimento più consono. Sul lato opposto alla caserma sono stati realizzati due alberghi con i due ingressi affacciati su un parcheggio di superficie. L'area è fortemente trafficata e non è certo ipotizzabile una completa pedonalizzazione, forse però sarebbe opportuno realizzarne una parziale.

PROGETTO: L'area che più si presta ad essere pedonalizzata è sicuramente quella compresa fra Corso Tintori e il Lungarno della Zecca Vecchia, dove si affacciano le strutture alberghiere. In questo modo sarebbe anche favorito l'accesso alle sponde dell'Arno e al giardino esistente.

17. Piazza Ferrucci



Piazza Ferrucci è attualmente molto caotica sia per la presenza costante di traffico sia per la sistemazione di aiuole spartitraffico che ne definiscono un disegno disomogeneo e assolutamente non armonioso. Le attività che si svolgono sono principalmente commerciali, anche se non mancano interi isolati ad uso residenziale.

PROGETTO: Piazza Ferrucci potrebbe essere sfruttata, almeno in parte, come terrazza sul fiume andando a pedonalizzare la zona adiacente alle sponde dell'Arno. In questo modo si potrebbe creare anche una zona dove eventuali locali di ristoro (come ad esempio quello esistente) potrebbero trovare spazi più ampi per una sistemazione all'aperto. La nuova area pedonale, oltre ad essere completamente pavimentata, potrebbe essere caratterizzata anche da aiuole verdi e filari di alberi. Anche in questa piazza, considerata una cerniera importante in quanto vi arrivano le strade che collegano piazzale Michelangelo e le tutta l'area di Firenze sud al centro città, potrebbe essere vagliata l'ipotesi di realizzare un parcheggio interrato.

18. Vittorio Veneto



Si tratta di un punto nodale sia in relazione al traffico cittadino, sia in rapporto al vicino Parco delle Cascine di cui costituisce la cerniera con il centro storico. Attualmente è una piazza attraversata da macchine e caratterizzata dalla presenza di aiuole verdi.

PROGETTO: Questo spazio urbano, seppur ancora non precisamente connotato, è destinato ad essere occupato da aree verdi che andranno a completare un più ampio progetto legato alla realizzazione della tranvia.

19. Santa Rosa



Lo spazio urbano che si crea fra le ampie sponde dell'Arno e la Porta S. Rosa, è già destinato ad area pubblica a verde. Si distinguono al suo interno una area attrezzata con i giochi per bambini, un percorso per biciclette e jogging, il tutto collegato strettamente al vicino parco delle Cascine. Il collegamento attualmente può avvenire dalla strada ma poi potrà essere realizzato anche direttamente dal fiume. Questa area ha numerose potenzialità da sviluppare.

PROGETTO: L'area che si sviluppa intorno al Torrino di S. Rosa è uno dei due Poli d'Attrazione del Progetto. Viste le attività che attualmente si svolgono in questa area, dalle gare di pesca, all'intrattenimento per bambini, alla ristorazione (seppur in un circolo da qualificare) il progetto prevede di realizzare: un nuovo ristorante-bar sul fiume che accolga e promuova gare ed eventi legati alla pesca; l'approdo per il battello che si dirigerà verso le Cascine; aree verdi attrezzate lungo le sponde, sfruttando la continuità fra Ponte alla Vittoria e Ponte alla Carraia, per passeggiate e jogging; una piscina all'aperto per bambini da realizzare nell'area abbandonata e dismessa adiacente al Torrino di S. Rosa (foto 2).

20. Giardino Torrigiani



Il giardino Torrigiani divenne in parte pubblico verso la fine dell'Ottocento in occasione della costruzione del Lungarno; nel 1901 vi fu costruita la Chiesa Luterana. Questo piccolo spazio verde è oggi utilizzato come area di sosta e di relax.

PROGETTO: La peculiarità di questo spazio è dettata principalmente dalla vista privilegiata del fiume ma anche degli Uffizi. Rispettando l'attuale uso dello spazio come area di sosta e di relax, viene proposta la realizzazione di una discesa al fiume attraverso una galleria da realizzare sotto la strada.

21. Lungarno Cellini



Il giardino realizzato di fronte a piazza Poggi è un'area già consolidata, costituita da percorsi, aiuole e filari di alberi e da un bar inserito in un gazebo. Questa terrazza verde sul fiume è uno dei punti nodali del nuovo polo d'attrazione del Piano Direttore, caratterizzata da un importante accesso al fiume.

PROGETTO: La proposta progettuale tenta di rinforzare la destinazione attuale con l'inserimento di un nuovo gazebo per un ristorante, un punto informazione HRC, la realizzazione di un approdo per il battello e di un collegamento con l'area verde prospiciente la sponda opposta attraverso la pescaia. Inoltre, verranno messi in evidenza gli impianti idraulici esistenti che serviranno come punti di vista privilegiata sul fiume (Fig. 2).

22. Lungarno Pecori



L'area verde realizzata in prossimità del ponte S. Niccolò è caratterizzata da un utilizzo specifico, essendo stata destinata già da qualche anno al mercatino etnico. Inoltre, in adiacenza a questo è, stato realizzato un locale con teatro per cabaret denominato "Teatro dell'Acqua".

PROGETTO: La proposta progettuale conferma la destinazione attuale con l'inserimento di un nuovo gazebo per un bar, la realizzazione di un approdo per il battello in direzione Bellariva e di un collegamento sia con l'area verde prospiciente la sponda opposta (attraverso la pescaia) sia con l'area verde adiacente, posta oltre il ponte S. Niccolò.

23. Ex-Gasometro



L'Ex-Gasometro, situato subito fuori le mura nel quartiere di S. Frediano, è attualmente una struttura inutilizzata. L'area in cui si inserisce, invece, ha già trovato destinazioni specifiche rivolte all'infanzia e al sociale. La struttura risale al 1846, realizzata allo scopo produrre gas per illuminare la città; la fabbrica subì un ingrandimento nel 1896 per poi essere trasferita a Rifredi.

PROGETTO: L'inserimento dell'edificio in prossimità di uno dei due Poli d'Attrazione (cfr. Tav. 10) e la particolarità della struttura, suggeriscono di realizzare all'interno del l'Ex-Gasometro il Nuovo Museo storico dell'Arno. L'intervento prevede la costruzione di una nuova struttura leggera in metallo e vetro in modo da creare un unico volume aperto ulteriormente diviso in aree distinte tramite elementi d'arredo che, in base alla loro disposizione, potranno fornire configurazioni diverse.

Strasbourg, HRC site presentation

The construction of the city



The territory and the communities of the CUS [Urban Community of Strasbourg] realization and © CUS/SIG 2002.

The Urban Community of Strasbourg (CUS) is composed of 27 communities with 451 240 inhabitants on a territory of 306 km². The main community, Strasbourg, has 264 115 inhabitants for a surface of 78,27 km².



Extract from a satellite photograph of the CUS in September 2002, view of the satellite spot 5; Source:

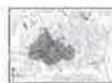
CNES 2002, distribution Spot Image, treatment SERTIT 2003; realization CUS/SIG 2003. Situated in the alluvial plain at the embranchment of three important rivers (the Rhine, the Ill and the Bruche); the historical urban centre developed between two arms of the Ill. In the east, the Rhine marks the historical border with Germany. On both sides of the river, the harbours of the cities of Strasbourg and of Kehl, its German neighbour, developed.



Expansion of the city; the Roman camp in the 12th century, © map CUS 2002

A Roman castle was built between the year 13 and the year 9 before Jesus Christ, at the place of a Celtic village in order to consolidate the Rhine border. It covers 18 ha. Two main ways structure it: the "via principalis", rue du Dôme and rue du Bain-aux-Roses and the "via praetorian" formed by the current rue des Hallebardes. The Roman wall was doubled by ditches, the one in the north, the tanners' ditch, was natural, but was filled in the 19th century although its trace subsists in the current street carrying the same name, and the one in the west, situated at the current rue des Grandes-Arcades and in the rue du Fossé-des-Tailleurs, was artificial. In the 12th century, the site was surrounded by new walls. The surface of the city by then covers 34 ha,

but the urbanization remained limited, because the marshy character of the site was not favourable to construction.



Urban expansion from the 13th to the 15th century, © map CUS 2002

In three centuries, Strasbourg knew four successive extensions. They included the island's ellipse, the eastern and western suburbs as well as the south of the Krutenau. Every new extension included agricultural plots of land which were urbanized progressively. The walls were doubled by ditches and didn't allow any extension outside them. The land surrounding the cities was liable to flooding and served to produce food stocks. At the end of the 15th century, the fortified surface comprised 202 ha., Strasbourg was an average medieval city (Cologne: 450 ha., Paris: 440 ha.).



Coloured map of Strasbourg by Conrad Morant, 1548, © CUS archives

This map is one of the first topographic representations of the city. The drawer was placed on the tower of the cathedral, which, as a matter of fact, doesn't appear. Only the central ellipse is represented and the deformation imposed by the chosen view point underlines the island character of the city. The amplitude of the places was exaggerated on purpose and opens a good view on the waterways and channels. They are represented with a strong emphasis on the perfection of the defence system by means of a wall completed with water ditches.



The Ditch of the Orphans, © map and photograph CUS 2002

The rue du Fossé-des-Orphelins follows the line of the 13th century's urban wall and of the ditch, filled in 1822 and running along it. To optimize the space, constructions like the buildings of 1 and 1b, were built by finding support in the enclosure wall.



Strasbourg's territory around 1644, engraving Matthias Mérian, © National University Library of Strasbourg

The ramparts and the areas liable to flooding were facing land which was almost uninhabited and essentially composed of an important plant barrier, gardens, convents and marshy ground. The fortifications were doubled with ditches, here represented in water.



The Rohan palace, © CUS 2003, G. Engel
In 1681 Strasbourg became a royal city of France. Smart-

ing-ups were undertaken, amongst them the Rohan palace. Situated on the quays of the Ill, facing the middle-class houses of the Batelier quay, the deep ground doesn't permit an academic conception "between court and garden". Today, the building, erected by the architect J. Massol according to the drawing of R. de Cotte, accommodates the Museum for Archaeology, the Museum for Decorative Arts and the Museum for Fine Arts.



Urban development from the 16th century to the 18th century

Strasbourg was equipped with new fortifications erected according to the plans realized by Vauban in 1683. The military system/plan was the result of the king's intention to transform the city into one of Europe's strongest places. In the south-east, the Vauban barrage made it possible to use water as a means of defence. In the east, the city grew by the construction of the citadel composed of barracks and military equipment.



Quay Saint-Nicolas, © CUS/PCU 2005

The building situated Quay Saint-Nicolas, number 13, is an example of changing aesthetic tastes and dwelling ways of the period. The existing buildings were reshaped, extended. This gothic building was subject to modifications: bigger windows in the 16th century and oriel windows added in the 17th century.



Urban expansion at the end of the 19th century, © CUS 2002

In 1870 the city was "annexed" to Germany, this period was decisive for the city. Strasbourg became the capital of the Reichland in 1879. In order to symbolize their power, the Germans supported a high development both on a socio-economic and an urban level. The new quarters allowed tripling the existing surface to an extension of 618 ha. After the set up of a contest the project of J.G. Conrath was chosen and partly realized.



The National University Library of Strasbourg, © CUS/PCU 2005

The creation of the Neustadt ["Newtown"] gave a new dimension to the city. The place of the Republic, seat of the imperial power, accommodated the Emperor's palace (Rhine Palace), the Parliament (current National Theatre) and the National Library by the architects A. Hartel and S. Neckelmann. A monumental avenue was conceived between the place of the Republic and the University Palace, to link the political power and the power of the University. The plan of the new city organized around a circulation axe which leads directly to the Rhine.



International secondary school, © CUS/PCU 2005

The former secondary school for girls was built in 1903 by the architect J.K. Ott. The situation at the border of the Ill, the treatment of the river banks, simple but adorned with a few exceptional trees as well as the architectural style – union of gothic remembrance and of references to the German Renaissance – accord to this place a particular charm.



Saint-Paul Church, © CUS/PCU 2005

Ancient protestant garrison church, Saint-Paul was built in 1897 on an incomparable site at the point of

the Sainte-Hélène island, behind the bridge of the University (today the Auvergne bridge). It is the work of the architect Louis Muller from Kassel, who won the contest organized by the army. It is Alsace's first new gothic sanctuary registered in the historical monuments' survey.



Public baths, view from the big pool, © CUS 2005, E. Laemmel

Bathing establishments with swimming pools and medical baths existed already in most of the German cities where hygiene had developed. Therefore Strasbourg needed to possess its own establishment. The public baths were built by Fritz Beblo between 1905 and 1908. Named leading architect of the city, Beblo broke off the monumental style of its predecessors for a writing in which the regional styles were used but adapted to modern techniques and to contemporary needs. The style of the two pools was conceived in reference to users, curbs, volutes and shells for the small pool reserved for women, severity and sobriety for the men's pool.



Building of the E.S.C.A., in the background the church Saint-Paul, © CUS/PCU 2005

Constructed between 1932 and 1934 by the architect A. Wolff at the place occupied by public warehouses stocking wood (Workhof), this rich-looking building was erected a few metres away from the banks of the Ill. It benefits from a privileged situation while leaving at the same time enough space for the setting up of a walk along the river banks adorned with a few splendid weeping willows. These impressive dimensions correspond to the lake created by the confluence of the Ill and the Ditch of the "Faux-Remparts".



The Human Rights Palace, façade quay Bevin, © CUS/PCU 2005

The building stands at the junction of two waterways, the river of the Ill and the canal of the Marne to the Rhine. It

was constructed in 1994 by S.R. Rogers and calls to mind a glass and metal boat, stationed at the quay, at the river bank. The head of the building is formed by two circular volumes, on piles, where the Court and the Commission come together. The building is extended by two parallel edifices which follow the round shape of the Ill's course.



The European Parliament's building number 4 (IPE4), © CUS 2002, G; Engel

In 1990 the seat of the European Parliament was fixed in Strasbourg by the decision of Edinburgh. The city opened an architects' contest whose winner was the agency Architecture Studio. The building with a round volume marries the shape of the river banks while overhanging the dock formed by the convergence of the canal of the Marne to the Rhine and the Ill. The round volume accommodates the big hemicycle. A walk and a cycle track are laid out on the river bank.



Seat of the TV channel ARTE, © CUS/PCU 2005

Built on the border of the Ill near the European institutions the new seat groups together the services of the German-French cultural TV channel. The building with a glass, metal and concrete façade was realized by the German architect H. Struhk in 2003.



Garden of the Two-Banks: the project's plan, © CUS/Brosch 1999

The Garden of the Two-Banks is a shared realization of the cities of Strasbourg and Kehl. The cross-border landscaped garden was planned in a contemporary spirit by the architect R. Brosch on both sides of the Rhine on a surface of 55 ha. It allows an appropriation of the two banks of the historical river. The inauguration in April 2004 stood at the beginning of six months of events in the context of the Art of the Landscape festival (Landesgartenschau).



Foodbridge over the Rhine,
© CUS 2004/E; Laemmel
Central element of the Garden of the Two-Banks, the

footbridge has been conceived by the architect M. Mimram. Suspended in the air, it permits to cross over the Rhine, river and border at the same time. Thus, it links the two river sides of the garden and participates in the dialogue between nature and art.

The Big-Island, world patrimony



Perimeters of the safeguarded sector and of the world patrimony UNESCO sector
© carte CUS/PCU 2005

The safeguarded sector, delimited in 1974, covers 73 ha. This perimeter corresponds to one part of the city whose building structure is the most homogenous one with about 65% of the buildings dating back to the years 1840 to 1850.

The Grande-Ile ["Big-Island"] of Strasbourg, registered in 1988, covers 300 ha. Two entering criteria have been taken into account: "the cathedral, gothic art vector in Europe and the 'Grande-Ile', characteristic urban example for the average Europe and the unique gathering of domestic Rhine architecture in the 15th and the 16th century". Between the two dates the recognition criteria for patrimony have changed and the territorial unity of the town centre, defined by the arms of the Ill, became necessary.



The tramway driving over the Theatre bridge, © CUS/PCU 2005

The "Grande-Ile" is accessible from 21 bridges and footbridges. It is crossed over by two perpendicular tramway-lines and covers most of the 2,8 ha. of pedestrian surface. In France, seven other urban areas are classified as world patrimony.



Extract from the safeguard plan and from the validation (PSMV), © C. Lavillaurieux, CUS 2005

The PSMV is the regulation document allowing to make sure the management of the safeguarded sector by fixing the land rights through detailed zoning of the building and the parcel scale. The key is identical for all the safeguarded sectors and fixed by the State. The plan includes notably prescriptions for the realization of public places, the indication of buildings the demolition or modification of which are forbidden (thick hachure), those the modification of which is possible (fine hachure) and those whose demolition is necessary (yellow). Each building has been filed on a descriptive card accompanied with advices for its restauration and upkeep.



Extract of the parcelling plan of the town centre including indication of the historical monuments, © CUS/SIG 2004

On Strasbourg's ground, about 250 edifices are protected under the title of the historical monuments. On this plan appears the detail of the protection of every monument: the whole, façade, roofing, selective elements, interior elements. A visual field of 500 metres is generated from every protected part and implies specific regulations. These ones, combined with the other regulation means, permits to control the evolution of the historical quarters. The town centre is very well maintained and the percentage of damaged buildings is very weak.



The cathedral from the place of the Castle, © CUS 2002/G, Engel

The number of tourists in the city is important as reveal the accesses to the main monuments and museums: 122 000 entries for the tower of the cathedral, 125 000 entries for the astronomic clock and 391 500 for the city's museums (numbers 2003). The quarter of the cathedral is the one tourist visit most frequently.



The Mills' quay, from the edge of the lock, © CUS/PCU 2005

The quarter of Little France is often visited because of its picturesque architecture built along the canals. It is, with the

quarter of the cathedral, Strasbourg's second quarter for tourists. Due to the terraces of its pubs and restaurants it is also a place where Strasbourg's inhabitants go to for a stroll.



The Covered Bridges, from the panoramic terrace of the Vauban barrage, © CUS 2002/ F. Rillard

With the cathedral, this view on the Covered Bridges belongs to those pictures which are the most used to represent the city.

The water control



Depth of ground water in the CUS, © CUS/SIG 2002

The Rhine ground water, enormous reservoir shown on the surface, is 20 km wide and 200 m deep under Strasbourg and Kehl. It imposes important constraints to urbanisation but presents a strong economic value, especially for its use in the farm-produce industry (breweries) and in agriculture. Drinking water is supplied directly by pumping from ground water. This is a fragile environment which needs to be protected from pollution risks.



Map of the areas of the CUS liable to flooding, © CUS/SIG 2002

The consequence of the existence of a rich hydraulic network (300 km) is the flooding risk. In Strasbourg there are two different risks: - submersion while the waterways burst its banks, above all the Bruche, but also the Rhine and the Ill - the rising of ground water which can flood basements and low land in periods of high water. 19 % of the city's territory is liable to flooding by submersion.



The place of the railway station when the tramway station was built, © CUS 1993, E. Laemmel

In order to permit the successive extensions of the city numerous humid areas have been filled up. The roof of ground water is between

1 and 6 metres deep. The underground works are limited by this constraint and ground water frequently comes to surface during the work, here, during the construction of an underground tramway station.



Lock 86, "route de l'Hôpital" ["Hospital road"] © CUS/ PCU 2005

This lock is situated on the junction canal between the Hospital gate and the Austerlitz dock. Its size limits the shipping of Rhine barges to the Rhône to the Rhine canal.



Slaughterhouse Bridge, from the National Bridge, © CUS/PCU 2005

The locks, under the Slaughterhouse Bridge, are part of the urban landscape. Beyond, the Vauban barrage, constructed in order to protect the city by flooding the territory south of the fortifications.



The Robertsau barrage © CUS/PCU 2005

The last Alsatian "needle" dam allows a fine regulation of the rise in the water level. Beyond, the Human Rights building.



J.F. Kennedy Bridge © CUS/PCU 2005

The J.F. Kennedy Bridge, decorated with four impressive statues, work of the sculptor Martzloff. It is one of the 300 works managed by the CUS Service of art works.

Life around water



Representations of nautical jousts when Louis XIV visited Strasbourg in 1744, © Strasbourg's Museum

Initially, nautical games were organized for the festival of the boatmen's corporation. Founded in 1331, this corporation was one of the oldest and most powerful ones of the city: every year, it organized a

festival which was also a demonstration of its know-how. In the following centuries, the city was inspired by this festivals and organized special events like official visits, here the one of the French king.



Extract of the daily newspaper "Das Elsass - L'Alsace" from may 27th, 1887, copy AMURE

After the disappearance of the corporations, the sports associations took over from them. Here, the illustration of a Big Jules play episode, of Strasbourg's Nautical Society, during a competition of jousters. This society, founded in 1887 as well as the nautical society Gaenselspiel from Schiltigheim-Bischoffheim in 1919 still exists. Because of sanitary risks, the jousts are no longer organized quay of the boatmen but on the artificial lakes, today.



Quay of Little France

© CUS/PCU 2005

The visit of the city by river shuttle is one of the most popular tourist attractions. 687 000 visitors take these boats every year. The circulation capacity of the shuttles is limited by the circulation capacities and the constraints imposed by the preservation of the river banks.



Boats restaurants, Fishers' quay, © CUS/PCU 2005

In the town centre, but below the Fishers' quay, sheltered

from the circulation and behind the E.S.C.A. fountain, the terraces of the boats restaurants are a privileged place to relax.



Public places along the canals, © CUS/PCU 2005

For Strasbourg's inhabitants the banks are a place to relax. Due to their important linear shape, they represent an efficient and pleasant walking network for pedestrians and cyclists.



The Heyritz harbour

© CUS/PCU 2005

The dock of the Hospital Gate is a nautical stop today. The project aiming at the reconstitution of the docks foresees the creation of a sailing harbour on the Citadel dock.



The Ill in lights

© CUS 2002, G. Engel

Every summer, the Ill in lights is an occasion to make discover or rediscover the city. Under the illuminated Saint-Thomas Bridge, a water curtain receives projections.



The Ill in lights

© CUS 2002, E. Laemmel

For a festive animation, fireworks behind the Vauban barrage.

Strasbourg and water

By Michel Hau, Professor of economical and social history at University Marc Bloch

Placed in the heart of the European continent, Strasbourg has on the one hand the advantage to be linked to the ocean by the Rhine and to be set on a unique site by the river banks. In fact, the Alsatian metropolis is situated at the confluence of the Ill, which drains a rich agricultural plain, and of the Rhine. On the other hand it is placed at the last ford of the Rhine, a necessary passage of the shortest itinerary between France and Central Europe. Furthermore, it is located at the breaking point between the navigable Rhine and, upstream, at the only accessible part to light boats. For a long time the city's prosperity relied on this privileged geographical situation. However, economic history makes this diagram more complicated by adding the role of human factors to the geographical determinism.

1. The commercial prosperity of the Middle Ages and of the modern times:

In the Middle Ages Strasbourg started to fully benefit from its situation by the Rhine, this "solid and continuous band which links the different river cities to each other", according to the figurative expression of the great historian Lucien Febvre. The navigable waterway is supplemented by a network of roads towards Italy, by the "Porte de Bourgogne" ["Gate of Burgundy"] or by the Saint Gothard pass. On the axis Cologne – Frankfurt – Basle the most intense traffic was to be found.

Since the 12th century a fair has existed in Strasbourg. It was officialized by Louis from Bavaria in 1336. In the 14th and 15th century it took place one month a year and was exempted from customs duties. Strasbourg exported the Alsatian agricultural products transported on the Ill to the other Rhine metropolises and its public buildings shel-

tered under its roofs grain lofts of several floors. In the beginning the international influence of Strasbourg's fair was less important than the one of Frankfurt's fair, but it increased notably in the 16th century and there was to be two annual fairs soon. More and more the trade of Strasbourg was based on the redistribution of goods of specific high value, such as fabrics, books and spices. Strasbourg benefited from its situation between the Netherlands and Northern Italy. An intense traffic of goods developed all along this axis. The one of travellers is not to neglect either, especially the one of the pilgrims coming back from Rome or going to Aachen. During all this period starting from the late Middle Ages and elapsing to modern times Strasbourg essentially lived from its commercial and financial function. The city itself produced little with the exception of printed books which were among its specialities. Above all it bought and redistributed goods produced elsewhere.

The actors of this trade were Strasbourg's boatmen, gathered in the corporation of the Anchor which assembled 262 members according to the census of 1444. The boats, directed by crews of four or five men, were at the most 25 to 30 metres long and able to carry up to 1000 tons of goods. It took them four days to go from Strasbourg down to Mainz, from where they reached Frankfurt by shipping on the Main. The way back up from Frankfurt to Strasbourg required towing and took one week without freight, but three weeks when fully loaded. Lighter boats served for a single trip: they were used for going down the river. They transported barrels of Alsatian wine to Cologne or even to the Netherlands. Unsuitable for going up the Rhine again they were sold in the harbour they were bound for. At

the bottom of the cathedral the "Kaufhaus" ["Warehouse"] (currently known as the "Ancienne Douane") served as an exchange place, particularly between the boats of the Ill and the barges of the Rhine coming from the Wantzenau. Therefore the "Kaufhaus" was the heart of Strasbourg's economic life. It used to be the place where foreign merchants were held to bring their goods. It also used to be the place where all the sales, purchases, due and exchange payments took place under the control of the local authorities.

The relations between Strasbourg and Frankfurt were the most intense ones. But Strasbourg also had relations with Cologne and Antwerp. Since the 14th century these cities have shipped towards Strasbourg wool from England, woollen cloth from Flanders, salt and salted fish whereas they imported high quantities of Alsatian wine by barrels and whole tuns. Antwerp was a supply centre for spices for Strasbourg's merchants too. The traffic of overseas products between the Netherlands and Switzerland provided a growing part of the transport of goods via Strasbourg. Alsatian wine was exported to the north of Germany via Cologne.

For a long time Strasbourg's boatmen possessed almost a transport monopoly on the Rhine to Mainz, a monopoly which started to be contested by the boatmen from Mainz and those from Mannheim in the 17th and 18th century. Upstream, they had to compete with Basle's boatmen and in the 15th century repeating conflicts opposed the two communities, both of them claiming liberty of navigation for itself and trying to restrain it for its rival. In 1424 Strasbourg's inhabitants complained about hindrances to the boarding of pilgrims on their boats upstream from Basle, while Basle's inhabitants protested against the fact that Strasbourg's boatmen refused their requests for pilots to continue their journey downstream from Strasbourg.

2. The decline of the Rhine shipping in the 18th and beginning 19th century: During the 18th century the weight of taxes, multiplied by many micro-states dotted along the Rhine, ended up suffocating the traffic between the Netherlands and Switzerland. The most anachronistic and most constraining disposition was the stopping duty which obliged all the ships to unload their cargo in Cologne, even those which were transiting.

In order to stop the decline of the river traffic, the French Republic replaced these multiple duties by moderate tolls only meant to maintain towpaths and dikes as well as beacons. The Congress of Vienna maintained the achievements of the French Revolution: in the articles 108 to 116 of its final act it confirmed freedom of shipping on the Rhine. Nevertheless Cologne maintained its stopping duty until 1831 and the Netherlands continued to take taxes at the mouth, at the Lek and the Waal, pretending that it was not a river but a maritime space; they only renounced to it in 1836, after a toll war with the German States.

Yet, the abolition of the fiscal and legal obstacles didn't allow the traffic to rise again. The re-routing works of the Rhine, beginning in 1840, accelerated the current all along its higher part: from 1843 on, ships ceased to go back up the Rhine upstream of Strasbourg. It has to be acknowledged that the "canal du Rhone au Rhin" ["canal of the Rhone to the Rhine"], which has connected Strasbourg and Mulhouse since 1834, offered an alternative through Alsace. But because of the continuation of the regularization works and the acceleration of the current, boats weren't able any more to go back up the Rhine any further than Mannheim after 1868. Only steamers developed enough power to do so, but the river wasn't deep enough for them. Navigation consequently knew a long interruption on the Upper Rhine. Customs regulation added its effects to

the navigation problems. Under the Restauration it was forbidden to stock up with cotton and various products from Baden because of the privileges granted to French harbours: the Lainé law, voted in 1816, prohibited the import of cotton and other overseas products by land borders. In 1848, the monopoly was substituted by a heavy warehouse surcharge, which remained in force for Strasbourg until the annexation of Alsace by Germany in 1867.

In all the Rhine area the first industrial sites are far away from the river. Around 1840 industry could be found in a string of regions more or less close to the Rhine but seldom situated by its banks. In all the big cities of the Rhine, Mainz, Mannheim, Strasbourg, the industrial development started quite late because it was hindered by the regulations of the corporations. The banks of the Rhine didn't attract industries as much as the nearby over-populated rural areas did because in these areas the recruitment of workers for workshops and factories was the easiest.

The new rise of the Rhine traffic since the end of the 19th century:

However, it would be excessive to claim that the Rhine only played a minor role in the industrialization of the Rhine area. The industrialization finally led to traffic of considerable heavy goods and would have been slowed down if powerful transportation means hadn't been found to absorb them, though the impact still needs to be evaluated.

Between 1840 and 1880 German and French engineers temporarily lost interest in the waterways and favoured the railway. But soon waterways experienced a shattering revenge in Germany. With the rise of the coal-steel complex of the Ruhr and the development of big cities the traffic of products with low specific value (coal, iron and steel products, construction materials, cereals) developed in 1880 to a point that bottle-

necks multiplied in the railway system. The solution invented by the German engineers didn't consist in creating new railways but in connecting the Rhine to a majority of the big German cities by waterways passing via the northern plain and by digging canals with an East-West orientation. This way the main German rivers could be connected with each other, from the Rhine up to the Elbe. Instead of a network adapted to the traditional barges drawn from a towpath and not heavier than 280 tons (a solution which had been adopted in France at the same time by the Freycinet plan), they chose waterways able to welcome steamers weighing a thousand tons similar to those which went back up the Rhine to Mannheim. The decision was voted by the Reichstag in 1882. The works were over by 1914.

Being aware of the opportunity which these works gave to the Rhine cities, in 1886 the city of Strasbourg decided the construction of a harbour connected to the Rhine by a two metres deep fairway. The whole was inaugurated in 1892. At the same time negotiations were carried on between the Alsace-Lorraine Reichsland and the two German neighbour states, Baden and Bavaria, in order to regularize the Rhine downstream from Strasbourg. In 1894 they led to the signature of an agreement on the development of the Mannheim-Strasbourg section: Alsace-Lorraine financed 60% of the operation and Baden 40% without counting a fixed participation of Bavaria. The works, finished in 1923, consisted in the creation, in the bed of the river, of a sinusoidal channel maintained by groins at intervals of different length between Strasbourg and Mannheim. On the way back up the current (1,5 metres a second) one horsepower was required for three tons. However, from now on Strasbourg was able to receive powerful steamers shipping 1000 tons all year long. From 1892 on, the traffic on the way back up to Strasbourg started again: from less than 10 000 tons in

1892 it went up to 549 000 in 1901 and to 1 656 000 in 1913, Strasbourg could compete again with Mannheim over the transit towards Switzerland. In 1913 the Alsatian metropolis became the principal harbour of the Rhine again. The return to France in 1918 didn't stop the Rhine axis from continuing to be an industrialization factor for Strasbourg thanks to the legal regulation which the French authorities accorded to the Rhine traffic as well as to the measures taken in order to improve the infrastructure. Indeed, the French government adopted an ambitious Rhine policy in order to confirm Strasbourg's role as a big European commercial metropolis. Many decisions went in this direction. The law of July 27, 1927 exonerated loadings going from Strasbourg to Switzerland by the canal Rhône-Rhine from transportation taxes. In 1926 the Swiss railways granted preferential tariffs to goods transiting by water towards Switzerland. Finally, in 1930 the "Port autonome de Strasbourg" ["independent harbour of Strasbourg"] brought into service the electric towing system between Strasbourg and Huningue. These dispositions provoked a noticeable resumption of the traffic on the Alsatian branch of the canal Rhône-Rhine. On the Rhine, upstream of Strasbourg, the deepening works extended those already carried out between Mannheim and Strasbourg, but Istein's tow bar prevented from going to Basle. In order to bypass it, the construction of the reach and of the Kembs dam was undertaken in 1928 and was finished in 1932.

In addition to the improvement of the connections of Strasbourg's harbour with Switzerland, the French State financed, with the creation of the "Port autonome" ["independent harbour"], most of the doubling of Strasbourg's harbour installations and of the setting up of a widespread industrial area on the banks of the Rhine. In 1924 a French Rhine shipping company, the "Compagnie Générale pour la Naviga-

tion du Rhin", was set up with ships and equipment given up by Germany. The most important measure consisted in making an important breach in the tariff privileges of French maritime harbours: until then, the goods which were subject to a transfer through a foreign harbour before reaching France had to pay a surcharge. The decree of December 23, 1919 exonerated the goods arriving in Strasbourg via the Rhine, under the double condition that they passed through Antwerp and that they arrived straight from there. The return of Alsace to France scarcely modified the conditions of coal supplies: concerned about the development of Strasbourg's harbour traffic the French government granted high quotas to Alsace's big harbour for the importation of Ruhr's coal. The coal imported to Strasbourg via the Rhine and mainly coming from Duisburg represented 48,6% of the consumption of the Bas-Rhin Department from 1927 to 1931 and 60,8% in 1938.

With the creation of a series of reaches on the French bank after World War II, the Rhine became a large size waterway up to Switzerland and regular shipping was made possible to Basle. Initiated by the French government and in cooperation with Germany the works, interrupted by the war, were resumed again in the Fifties and Sixties, first from Southern Alsace to Strasbourg, then, after 1970, beyond Strasbourg. In the south of Strasbourg the adopted solution consisted in the construction of successive reaches, making up the great Alsace canal. Every reach was about fifteen kilometres long and had a lock and a hydroelectric power station downstream. The Ottmarsheim, Fessenheim and Vogelgrün reaches were opened one after another, then those of Marckolsheim and Rhinau as well as those of Gersheim and Strasbourg. After 1970, the dams of Gambenheim and Iffezheim, situated downstream from Strasbourg were built in the bed of the Rhine in cooperation with Germany. From now on

convoys of 3000 tons can go up to Basle which has become the terminus of the river traffic on the waterway of the Rhine.

Today the Rhine is an essential element in the transportation system inside a region extending from Northern Switzerland to the Netherlands. Its traffic relieves the road and railway networks of the Rhine area. One barge transports the equivalent of a hundred and ten trucks row. The Rhine also gives access to the extra-European space. The traffic of heavy goods arriving from the ocean keeps on developing. More than ever before it is an advantage for Strasbourg. In the Middle Ages the Rhine allowed Strasbourg to become one of the great

European commercial metropolises and to remain it throughout modern times. However, the first industrialization of the Rhine area occurred in a decline period for the Rhine shipping and thus didn't affect Strasbourg. This proves that the current economic power of the Rhine area is not only due to the existence of the great European river. It is also the key element having made possible the continuation of the industrialization process and the urbanization to the extent we know today. Major import harbour on the Rhine and seat of the "Commission Centrale pour la Navigation du Rhin", Strasbourg deserves indeed to be named the city of the river as much as it is called city of the roads.

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ARCHIVIO STORICO DEL COMUNE DI FIRENZE (soprattutto per il fondo disegni che copre il periodo 1866-1960 dove sono conservati disegni dei ponti, dei lungarni, dei principali edifici storici con anche le planimetrie della sistemazione degli stabilimenti balneari dei primi anni del Novecento, delle fognature e degli emissari del 1866, dell'acquedotto e del piano Poggi e vi si trovano anche immagini significative dei festeggiamenti sul fiume nei secoli XVII e XVIII).

ARCHIVIO DELLA SOPRINTENDENZA PER I BENI ARCHITETTONICI ED IL PAESAGGIO DELLE PROVINCE DI FIRENZE, PRATO E PISTOIA (soprattutto per l'Archivio fotografico e l'Archivio disegni e gli interventi di restauro degli immobili).

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Il tema della salvaguardia e della tutela dei Beni Culturali (patrimonio architettonico) ha attraversato un lungo periodo di evoluzione teorica, cominciato con la Carta di Atene del 1931, che ha lanciato (definito) una specifica prospettiva metodologica con il raggiungimento di una tappa fondamentale rispetto alle considerazioni del XIX secolo per i ritrovamenti archeologici.

La definizione di monumento da tutelare è stato radicalmente sviluppato solo più tardi con la Carta di Venezia (1964) che ha definito i principali siti e monumenti architettonici da tutelare. Il Centro Storico come specifica categoria di Bene Culturale da tutelare, non solo per il singolo valore monumentale, ma principalmente come insieme (unico) di valori architettonici minori, è stato esteso rapidamente dopo la classificazione dell'UNESCO del centro storico di Firenze, come una mancanza (?), nella lista del Patrimonio Mondiale. Lo stesso destino è toccato poi ad altri Centri Storici come Siena. D'altra parte sono state elaborate, definite ed usate diffusamente politiche di tutela e strumenti di pianificazione che hanno fornito i mezzi per una protezione integrata dei centri storici.

Questa struttura è fortemente maturata e si è consolidata a livello internazionale ed è (oggi) in grado di sostenere altre tematiche ancora più specifiche, prendendo spunto dalle politiche esistenti per aumentare la qualità dei bisogni, gli ambiti di applicazione e le prospettive per i centri storici.

Questo processo è già in via di sviluppo e tende ad analizzare i centri storici in base ai bisogni e agli aspetti specifici da tutelare, in relazione allo sviluppo dettato dalle linee guida annunciate a Cracovia. Questo processo integra la conoscenza, gli studi storici e le nuove categorie interne specifiche per i centri storici guardando oltre verso ulteriori sviluppi. Questa prospettiva permetterà di indirizzare meglio le politiche di tutela esistenti e gli strumenti e di adattarli alle tematiche specifiche dei centri storici.

Riscoprire i centri storici lungo i fiumi

Il patrimonio strettamente legato allo spazio urbano lungo i fiumi che attraversano le città è fra i più significativi e ricchi siti monumentali delle nostre città. La maggior parte delle città in Europa sono state fondate e sviluppate lungo le sponde dei fiumi. La vita sociale, economica e culturale di queste città è stata strettamente e reciprocamente influenzata e condizionata dalle relazioni sviluppate con il fiume. I fiumi urbani sono stati i motori dello sviluppo delle attività economiche, della crescita sociale e delle attività culturali. Gli stessi fiumi

sono stati nei secoli anche un pericolo e una fonte di terrore per i cittadini a causa delle alluvioni. La maggior parte dei Centri Storici in Europa è correlata ai propri fiumi e forma un sistema insolubile con forti peculiarità e valori storici condensati. Il contenimento naturale dell'acqua, i collegamenti fra le sponde, i lungofiume urbani, i prospetti longitudinali urbani, le relazioni fra spazi aperti e costruiti, gli elementi architettonici decorativi, i rapporti dialettici con i monumenti, le prospettive e le viste urbane, sono (messi in luce) evidenziati dagli elementi emergenti che definiscono questo paesaggio architettonico.

Gli specchi d'acqua delle città storiche sono capaci di testimoniare memorie storiche, da quando possono essere state idealmente considerate come piazze della città d'acqua, al centro della città, della vita sociale, degli eventi storici. In effetti è molto usuale trovare riferimenti al fiume nelle più antiche fonti e documenti storici della città. D'altra parte, ciò che distingue questo patrimonio culturale è la mancanza di una visione sistematica, di una definizione culturale coerente e di uno strumento di approccio. In realtà sono disponibili soltanto strumenti impropri che utilizzano sia il concetto culturale generale di centro storico, sia il più limitato strumento relativo al singolo monumento. Questo handicap culturale produce debolezza, a livello operativo, e rischi, in una prospettiva di interventi e sviluppo di recupero urbano.

Attualmente molte città stanno affrontando la sfida di riscoprire le potenzialità offerte dall'attraversamento dei fiumi, soprattutto lungo il loro asse storico. Di conseguenza diventa sempre più essenziale definire la struttura ed il contesto di questo sito storico e culturale e stabilire i protocolli per una corretta e coerente tutela. È essenziale promuovere a livello internazionale la consapevolezza per la definizione di questa nuova categoria di bene culturale che, accanto e in modo complementare al principio generale del centro storico, è accettato e classificato come un valore autonomo da proteggere e una struttura dinamica da sviluppare.

La Commissione Europea ha co-finanziato la Città di Firenze in rete con le Città di Strasburgo e Siviglia, tre delle più importanti città storiche europee sviluppate lungo il fiume, che hanno tentato di fare un passo in questa direzione.

Questo libro è il risultato di un anno di attività, settembre 2004-settembre 2005, sviluppato a livello sperimentale e teorico, tentando di costituire un lavoro di base per future disseminazioni e iniziative consapevoli.

La cuestión de la protección y salvaguarda del patrimonio arquitectónico recorrió un largo período de evolución teórica que empezó con la Carta de Atenas en 1931 que lanzaba una perspectiva marco específica, suponiendo un paso fundamental hacia adelante a partir de las consideraciones del siglo XIX sobre los descubrimientos arqueológicos. La definición de la protección del monumento arquitectónico se ha desarrollado muchísimo a raíz de la Carta de Venecia que introducía el principio de protección del emplazamiento y del complejo arquitectónico.

La conservación del centro histórico como herencia específica no sólo por simples valores monumentales sino principalmente como conjunto único de valores arquitectónicos menores, se extendió rápidamente tras la clasificación de la UNESCO del centro histórico de Florencia, en su conjunto, como Patrimonio Mundial. A Florencia le siguieron otros centros históricos. Por otra parte, se han elaborado, definido y utilizado de forma extensa políticas de conservación e instrumentos de planificación que especifican los medios para una protección integrada de los centros históricos.

Este marco se ha madurado detenidamente y se ha aceptado internacionalmente y es capaz de soportar más especificaciones temáticas, reforzando la eficacia y la correspondencia de políticas con necesidades de mayor calidad, campos más detallados y perspectivas de centros históricos.

Este proceso está aún en desarrollo, reuniendo los centros históricos de acuerdo con los planteamientos y necesidades específicos en virtud de las directrices anunciadas en Cracovia. El proceso permite el conocimiento, el estudio histórico y la salvaguarda de nuevas categorías internas de los centros históricos, en busca de desarrollos en grupo. Esta perspectiva permitirá dirigirse mejor a las políticas e instrumentos existentes, adaptándolos a la explotación temática de los centros históricos.

Redescubriendo los Centros Históricos a orilla de los ríos

El patrimonio relacionado con los espacios urbanos históricos en ciudades cruzadas por los ríos, está entre los elementos monumentales más significativos y ricos de nuestras ciudades. Una gran parte de las ciudades europeas se fundaron y desarrollaron a orillas de un río. La vida social, económica y cultural de estas ciudades se ha visto fuerte y recíprocamente influida y condicionada por la relación desarrollada con sus ríos.

Los ríos urbanos han sido los motores de las actividades económicas florecientes y de la riqueza social y cultural. Estos mismos ríos han constituido también

durante siglos un peligro y un temor para los ciudadanos, a causa de las crecidas y las inundaciones. Los grandes centros históricos de Europa están hermanados con sus ríos y forman un sistema insoluble con fuertes peculiaridades y valores históricos. La contención física del agua y del caudal, las conexiones entre las orillas, las orillas urbanas, las elevaciones longitudinales urbanas, la relación entre los espacios abiertos y construidos, los elementos decorativos arquitectónicos, la dialéctica con los monumentos, las perspectivas y las vistas urbanas, se ven reforzados entre los elementos emergentes que definen este emplazamiento arquitectónico.

Estos espejos acuáticos de las ciudades históricas pueden ser testigos de memorias históricas ya que se pueden considerar de forma ideal, la plaza acuática de la ciudad, en el centro de la misma, de la vida social y de los acontecimientos históricos. De hecho, es muy común encontrar referencias al río en los primeros documentos y fuentes históricas de las ciudades. Por otro lado, tan distinguido patrimonio cultural carece de visión sistemática, definición cultural coherente e instrumento de planificación. Realmente, solo están disponibles planteamientos inadecuados que utilizan, o bien el concepto cultural general de centro histórico o el más limitado de instrumento único de acceso monumental.

Este handicap cultural produce debilidad, a nivel funcional y de riesgo por lo que se refiere a las posibles intervenciones de restauración del emplazamiento.

Varias ciudades se enfrentan hoy en día al desafío de redescubrir las posibilidades ofrecidas por el paso de los ríos y en especial las ofrecidas por sus ejes históricos. Por consiguiente, es cada vez más importante definir el marco y el contexto de dichos emplazamientos culturales e históricos y establecer protocolos para una conservación correcta y coherente.

Es vital promover la conciencia internacional para la definición de esta nueva categoría de patrimonio que, aparte y como complemento del principio general de centro histórico, es aceptada y clasificada como valor autónomo que debe ser protegido y como marco dinámico a desarrollar.

La Comisión Europea co-financió a la Ciudad de Florencia en conexión con las Ciudades de Estrasburgo y Sevilla, tres de las más importantes ciudades históricas de Europa desarrolladas a orillas de un río, con la intención de dar así un primer paso en esta dirección.

Este libro es el resultado de unas actividades desarrolladas durante un año completo, de septiembre de 2004 a septiembre de 2005, basándose en niveles teóricos y experimentales, con el deseo de constituir un trabajo básico para nuevas iniciativas de difusión y concienciación.

La question de la protection et de la sauvegarde du patrimoine architectural a traversé une longue période d'évolutions sur le plan théorique. Une étape importante est la Charte de Venise qui introduit les principes de site urbain et d'ensembles architecturaux.

Désormais, les centres historiques ne sont plus reconnus pour leurs seuls monuments, mais en tant qu'ensembles spécifiques. Le développement de cette notion se lit à travers les inscriptions de l'UNESCO sur la liste du patrimoine mondial. Le centre historique de Florence y a été inscrit dans sa globalité en 1982, d'autres centres historiques ont suivi comme Sienne ou Strasbourg en 1988. Pour prendre en compte les spécificités des ensembles urbains, des politiques de protection et des instruments de planification adaptés ont été élaborés puis mis en application.

Ces politiques sont intimement liées aux projets de développement économique ou touristique dont des villes. Ce processus permet d'améliorer l'état des connaissances, de conduire des recherches, d'identifier de nouvelles catégories de biens ou de réaliser des exploitations thématiques pouvant elles même être porteuses de développement ciblé.

Redécouvrir la présence et l'importance de l'eau dans les centres historiques

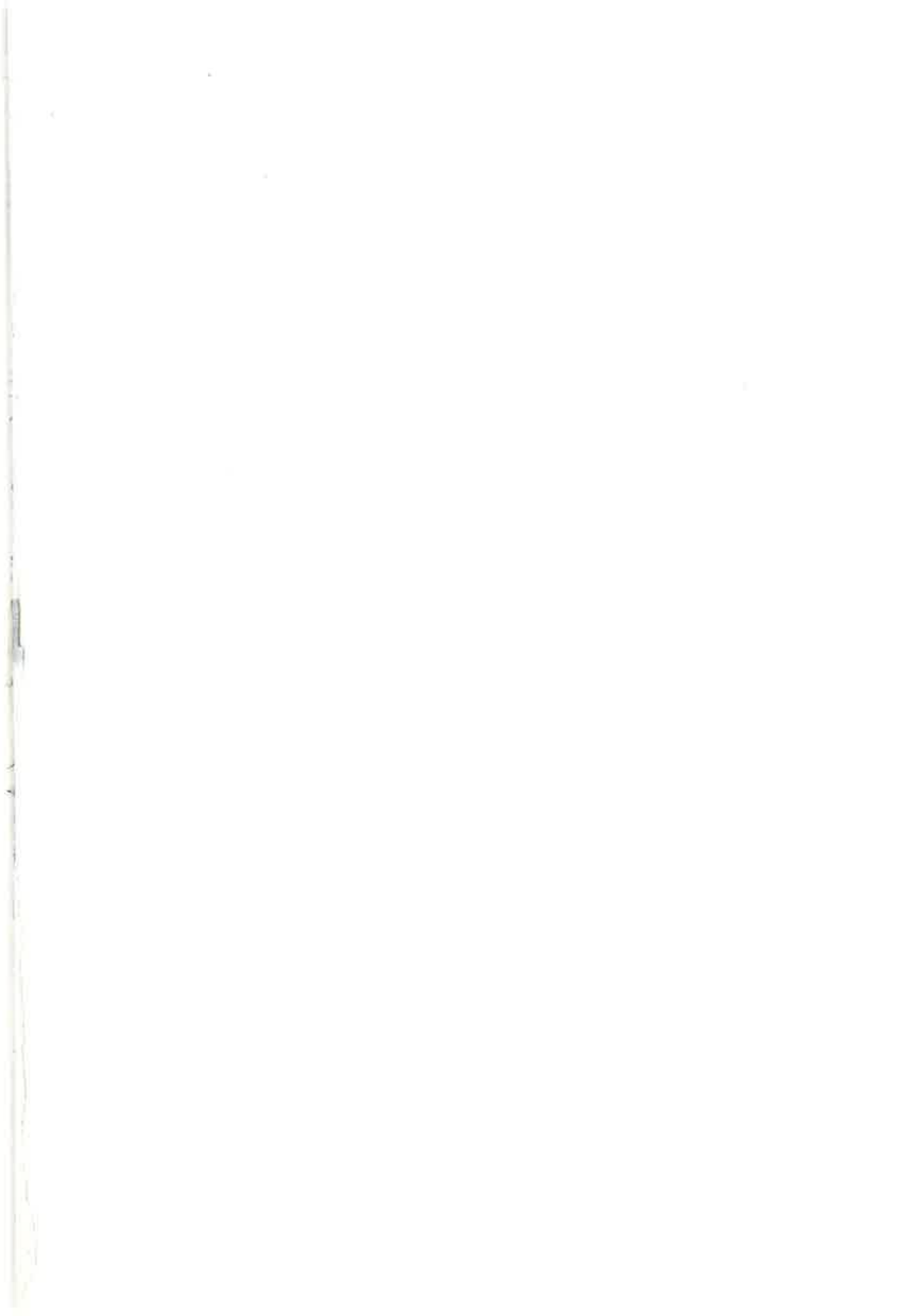
Rares sont les centres historiques qui ne sont pas structurés à partir d'un cours d'eau ou d'un fleuve. La vie culturelle, sociale et économique des villes a été fortement influencée par cette présence et réciproquement. Les fleuves y ont été le moteur d'activités florissantes. Ils ont aussi pu être, au travers des siècles, synonymes de dangers et de peurs pour les habitants, notam-

ment en raison des inondations. Le rapport entre la ville et l'eau a ainsi généré sa propre histoire. Les travaux de régulation, l'aménagement des berges... ont généré des formes urbaines, des mises en perspectives et des ensembles architecturaux parmi les plus intéressants, notamment grâce aux ouvertures visuelles créées. Ce sont très souvent des lieux de forte valeur symbolique ou historique.

Il manque néanmoins à cette catégorie de patrimoine une vision spécifique, une définition culturelle cohérente et des instruments d'intervention. Seules des approches indirectes et partielles sont actuellement opérationnelles, soit à partir du concept général de centre historique, soit à partir de la vision plus limitée centrée sur les monuments.

Ce handicap culturel engendre une fragilité sur le plan opérationnel et des risques dans la perspective d'interventions. De nos jours, de nombreux centre-villes sont confrontés au pari de la redécouverte du potentiel offert par les voies d'eau. Par conséquent, il serait essentiel de définir un cadre pour permettre une protection cohérente et une prise de conscience internationale visant à la définition de cette nouvelle catégorie de patrimoine, valeur indépendante à protéger et développer.

La Commission européenne soutient la Ville de Florence en partenariat avec les villes de Strasbourg et de Séville, trois villes européennes importantes pour leur construction autour du fleuve. Ce livre est le résultat d'un an de recherches et travaux communs, de septembre 2004 à septembre 2005. Il constitue un premier pas dans une direction que nous souhaiterions promouvoir.





FIRENZE

STRASBOURG



SEVILLA