v. 23 n. 2 2023

cadernospós
cadernos de pós-graduação
em arquitetura e urbanismo

São Paulo Water Museum: an opportunity for urban infrastructure utilization

Museu Água de São Paulo: oportunidade de aproveitamento da infraestrutura urbana

Museo del Agua de São Paulo: oportunidad de aprovechamiento de la infraestructura urbana

Cesar Shundi Iwamizu, Master's Degree and PhD in Architecture and Urbanism from the Faculty of Architecture and Urbanism at the University of São Paulo (FAUUSP). A faculty member at the Faculty of Architecture and Urbanism of the Universidade Presbiteriana Mackenzie (FAU-Mackenzie), coordinates the External Experience course at Escola da Cidade. He has been associated with the SIAA Arquitetos firm since 2008.
E-mail: shundi@siaa.arq.br

Eduardo Pereira Gurian, Master's degree in Architecture and Urbanism from the Faculty of Architecture and Urbanism at the University of São Paulo (FAUUSP). He is a faculty member at the Faculty of Architecture and Urbanism of the Universidade Presbiteriana Mackenzie (FAU-Mackenzie) and a Design Professor at Faap. He has been associated with the SIAA Arquitetos firm since 2013.
E-mail: gurian@siaa.arq.br

Maria Fernanda Xavier, Architect, graduated from the Faculty of Architecture and Urbanism at Fundação Armando Álvares Penteado (Faap) in 2018. Before graduating, she completed a technical course in Interior Design at Panamericana School of Art and Design. She has been associated with the SIAA firm since 2018.
E-mail: mariafernanda@siaa.arq.br

Valéria Ferrari Waligora, specialized in Architectural and Environmental Heritage Conservation from Politecnico di Milano, Italy (Polimi), and graduated from the Faculty of Architecture and Urbanism at the University of São Paulo (FAUUSP).
E-mail: vfwaligora@gmail.com

Para citar esse artigo: IWAMIZU, C. S.; GURIAN, E. P.; XAVIER, M. F.; WALIGORA, V. F. Museu de Água de São Paulo: oportunidade de aproveitamento da infraestrutura urbana. *Cadernos de Pós-Graduação em Arquitetura e Urbanismo,* São Paulo, v. 23, n. 2, p. 312-329, 2023. DOI 10.5935/cadernospos.v23n2p312-329.

Invited

Abstract

The São Paulo Water Museum project results from the national architecture competition proposed by AESabesp – Association of Engineers of Sabesp – in 2019. It is an opportunity for integration between infrastructural facilities and their utilization as a cultural space for the city. The chosen location for the museum's implementation is the França Pinto Pumping Station and Reservoir Center, inaugurated in 1929, considered alongside its neighbors – the Biological Institute and the Museum of Contemporary Art of USP – as meaningful cultural heritage sites of our city. Its 8,000 square meters will be shared between its historical and infrastructural uses for treated water storage and pumping and public and cultural services focused on water and its developments. In addition to preserving the architectural complex, two new buildings are proposed, adapted to the remaining voids of the existing tree masses on the site. A series of walkways offer new educational and playful routes, a public passage between França Pinto Street and the Museum of Contemporary Art, and future indications of connections to the Biological Institute.

Keywords: Museu; Water; Sabesp; Historical heritage; Infrastructure.

Resumo

O projeto para o Museu Água de São Paulo é resultado do concurso nacional de arquitetura proposto pela AESabesp – Associação de Engenheiros da Sabesp – em 2019. Uma oportunidade de integração entre um equipamento infraestrutural e seu aproveitamento como espaço cultural para a cidade. O local escolhido para implantação do Museu é a Estação Elevatória e Centro de Reservação França Pinto inaugurada em 1929, considerada, junto com seus vizinhos – Instituto Biológico e Museu de Arte Contemporânea da USP – como importantes patrimônios culturais de nossa cidade. Seus 8.000m² serão compartilhados entre seus usos históricos e infraestruturais de reservação e bombeamento de água tratada com usos públicos e culturais voltados para o tema hídrico e seus desdobramentos. Além da conservação do conjunto arquitetônico, dois novos edifícios são propostos, adaptados aos vazios remanescentes das massas arbóreas existentes no local. Uma série de passarelas propõe novos percursos didáticos e lúdicos, além da passagem pública aberta entre a rua França Pinto e ao MAC e indicações futuras de conexão com o Instituto Biológico.

Palavras-chave: Museu; Água; Sabesp; Patrimônio histórico; Infraestrutura.

Resumen

El proyecto para el Museo Agua de São Paulo es el resultado del concurso nacional de arquitectura propuesto por AESabesp – Asociación de Ingenieros de Sabesp – en 2019. Es una oportunidad de integración entre una instalación infraestructural y su utilización como espacio cultural para la ciudad. El lugar elegido para la implementación del Museo es la Estación Elevadora y Centro de Reservación França Pinto, inaugurada en 1929, que se considera, junto con sus vecinos, el Instituto Biológico y el Museo de Arte Contemporáneo de la USP, como importantes patrimonios culturales de nuestra ciudad. Sus 8.000 metros cuadrados se compartirán entre sus usos históricos e infraestructurales para el almacenamiento y bombeo de agua tratada, y usos públicos y culturales centrados en el tema del agua y sus desarrollos. Además de la preservación del complejo arquitectónico, se proponen dos nuevos edificios, adaptados a los espacios vacíos de las masas arbóreas existentes en el lugar. Una serie de pasarelas propone nuevas rutas educativas y lúdicas, así como un paso público abierto entre la calle França Pinto y el Museo de Arte Contemporáneo, con indicaciones futuras de conexión con el Instituto Biológico.

Palabras clave: Museo; Agua; Sabesp; Patrimonio histórico; Infraestructura.

Contextualization

The São Paulo Water Museum Project is the outcome of a national competition held by the São Paulo State Sanitation Company Engineers Association – AESabesp – in 2019[1]. The project envisions the establishment of a new leisure and cultural area that integrates research, preservation, knowledge production, and public dissemination related to water resources, sanitation, and water usage. This initiative aims to highlight the historical and artistic heritage of the city while emphasizing the importance of water resources.

The França Pinto Pumping Station and Reservoir Center – EEFP – was chosen by AESabesp to install the future Museum. Located at 1494 França Pinto Street, in Vila Mariana, São Paulo, it is an infrastructure inaugurated in 1929, as indicated by an inscription on the pump house facade. It continues to operate today, supplying potable water to the Espigão da Paulista area.

1 According to the minutes of the meeting of the Judging Committee of the Architecture Competition – Museu Água, held on January 21, 2020, and February 7, 2020, with the following judging panel: Ricardo Toledo Silva, Erika Hembik Borges Fioretti, Juliana Mendes Prata, Rodrigo Mindlin Loeb, Carlos Roberto Ferreira Brandão, Renata Motta and coordinators Patricia Biguetti and Walter T. Orsati.

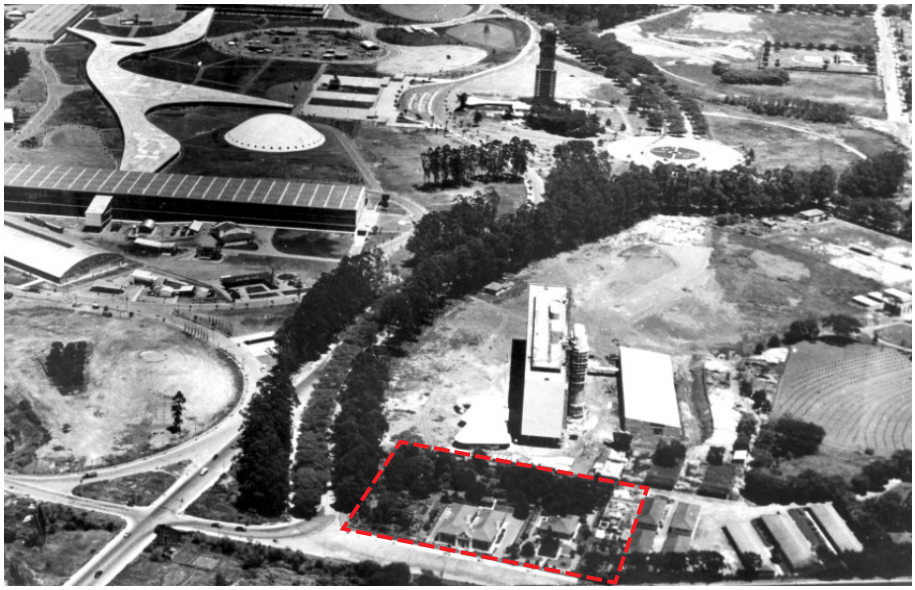

Figure 1: Enlarged aerial image of the constructions in Ibirapuera Park in the early 1950s. Highlighted is the lot of the França Pinto Pumping Station and Reservoir Center. In the background, we can see the under-construction Palácio da Agricultura. Source: Roberto Carvalho de Magalhães. Fotolabor (Werner Haberkorn), São Paulo, Brazil. Aerial view of the construction of Ibirapuera Park in the early 1950s. March 2016. https://parqueibirapuera.org/passeio-com-musica-no-ibirapuera-iv/fotolabor-werner-haberkorn-sao-paulo-brasil-vista-aerea-da-construcao-do-parque-ibirapuera-no-inicio-dos-anos-1950/. Accessed in July 2021 (Image edited by SIAA).

To this original and historical function, an open use focused on leisure and research will be incorporated, fulfilling the foremost principle of historical heritage, which is that of public and unobstructed enjoyment.

The project area extends over approximately 8,000 square meters of the lot. The existing buildings total 894 square meters, including the pump house, pump room, and others, and are subjects of maintenance and restoration. The project envisions the construction of 1,640 square meters for cultural uses, such as a museum and an auditorium, and around 1,800 square meters of walkways that facilitate internal and external circulation between the volumes. Moreover, potential pathways could connect the area with its neighboring lots, namely the Palácio da Agricultura – MAC USP and the Instituto Biológico.

Despite not having its heritage protection process[2], establishing the França Pinto Pumping Station evokes a moment of consolidation for the modern state and discussions about sanitation and public health. Furthermore, the artistic value of the infrastructure's constructions illustrates the engineering conception of its time.

2 Resolution No. 20/Conpresp/2014, which designates the Instituto Biológico as a heritage site, mentions the facade of the former Repartição de Águas e Esgotos-RAE building and establishes a maximum height limit of 10 meters for new constructions. Additionally, the França Pinto Pumping Station is associated as an Enveloping Area of this property (Resolution No. 62/Condephaat/2013), as well as in the resolutions of Ibirapuera Park (Iphan –1429-T-98 and Resolution No. 1/Condephaat/92).

Figure 2: Immediate surroundings of the França Pinto Pumping Station. We highlight the neighboring properties: Instituto Biológico and Palácio da Agricultura, currently occupied by the Museum of Contemporary Art of the University of São Paulo. The proximity to other cultural amenities, such as Ibirapuera Park, the Obelisk Mausoleum of the Heroes of '32, and the Brazilian Cinematheque, is noteworthy. However, the road network in the immediate vicinity is characterized by major high-speed interventions, such as Avenida 23 de Maio and the João Saad road complex, commonly referred to as "Cebolinha." Source: Google Earth. Accessed in July 2023 (Image edited by SIAA).

Project memory

For a long time, urban infrastructures were regarded solely as technical elements, focused only on quantitative functions, without considering their potential as architectural features or for enhancing public spaces. However, this project proposal, made possible through the competition organized by AESabesp, reinforces the notion that urban infrastructure areas should serve both technical and qualitative functions, enabling diverse architectural uses and the potential for being integrated into public spaces. Therefore, areas designated initially for providing specific infrastructure services can contribute to shaping the city when they encompass cultural, recreational, or educational uses, especially if they remain open to the surrounding communities.

The project described below aims precisely to achieve this, aligning the technical-industrial use – supplying treated water to a region – with public service that includes plazas, a museum, an auditorium, and a library, among others. The theoretical framework of the proposed new cultural center is focused on discussing the water cycle, sustainable use of water resources, the history of sanitation and urbanization, as well as the preservation of our city's historical and artistic heritage.

The Water Museum

The establishment of a Water Museum for the city of São Paulo comes at an opportune moment: more than ever, issues related to the construction and preservation of our habitat demand attention and care, and topics related to the appreciation of our water resources must continue to be the focus of study and reflection by all to ensure our existence on this planet.

A Museum dedicated to the theme of 'water' should be a place capable of engaging the population around this subjectabove all, a site for raising awareness and learning – both through its architecture and its exhibition design, as well as through the history inherent in the chosen location for its establishment.

The area designated for establishing this museum will also house the new buildings required for the new programs. Still, it will also utilize the operational infrastructure as an integral part of the exhibition content. Additionally, it will be treated as a space for enjoyment, regardless of specific entry to the buildings.

Conceived as an urban passage, this arrangement enables the utilization of this underutilized green area as a public space, capitalizing on the presence of neighboring institutions by proposing a new programmatic machinic arrangement. This approach considers the direct interaction between various surrounding institutions, whose specific activities can mutually complement the activities of this new Water Museum.

Based on the interpretation of the heritage protection process that applies to this plot, a careful assessment was proposed for this project, reflected in an implementation that maintains a constant dialogue with the various authorities responsible for its preservation.

Already incorporated as part of the built landscape of this site, numerous properties – not necessarily only those under heritage protection – have been preserved due to their full technical functionality or suitability for accommodating new uses within their interior spaces.

In other cases, buildings protected by the heritage conservation process had their continued presence questioned by this proposal, such as the adaptation of the former Administrator's House as a space for articulation between the new museum's programs or the subtle intervention of the structure of the conduit, which houses the arrival of water to the lower reservoir and now serves as an observatory – offering a visual and auditory experience – of this remarkable infrastructure, generally hidden from the eyes of those who use and consume this water resource in their homes.

Equally important to any building preserved by heritage conservation, the open spaces over the existing reservoirs and tree masses on different plateaus were

considered integral and structuring parts of this landscape. These elements define the location for the implementation of the new buildings.

In the case of the underground tank slabs, their preservation as open space is proposed, an area intended for unforeseen uses and now treated as landscape, organized by elevated pathways of different scales capable of engaging with water mirrors and vegetation in the surrounding regions, didactically revealing their use as buried and hidden reservoirs.

Among the tree masses, two spaces capable of accommodating new programs were identified, the first near França Pinto Street and the second near the MAC USP boundary. Similar to how liquid adapts to the shape of its container, in both cases, the design of the buildings starts from the voids defined by the contours of the tree canopies.

Figure 3: Physical model, the configuration of the version presented in the Competition. Reflected in black is the water mirror, proposed in correspondence with the underground reservoir chambers. In metal, the new buildings and walkways are represented, including the pipeline structure enclosure and the high-voltage cabin. The buildings adapted to the tree masses with an exhibition area, auditorium, and library. Source: SIAA.

Figure 4: Photo insertion and configuration of the executive project version. The inserted photo highlights the proportion of the Water Museum project in the urban context, about the nearby cultural facilities. Source: Google Earth. Accessed on July 2023 (Image edited by SIAA).

Located next to the entrance from França Pinto Street, a two-story volume signals the new programmed uses for the site organized around an interior courtyard. The entire administrative area is arranged on one side, adjacent to the boundary with the Biológico Institute. On the other side, near the Pump House and the access to the internal street, a flexible space can accommodate the educational sector, an auditorium on the ground floor, and a temporary exhibition area on the upper floor. This sector features high ceilings suitable for such uses, also taking advantage of the descending slope of França Pinto Street.

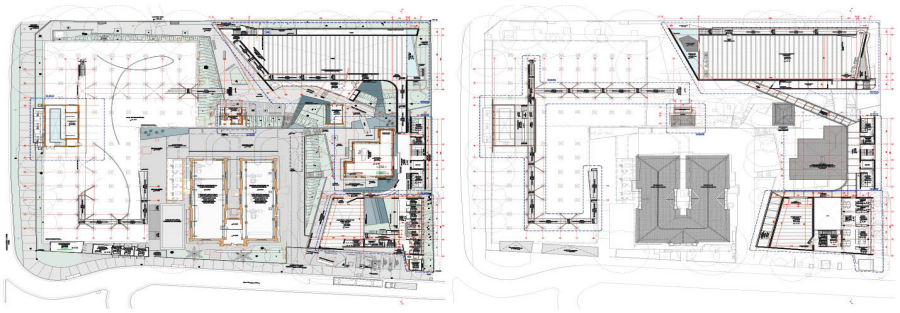

Figure 5: Ground floor plan – level 760.29 and Upper floor plan levels 764.49 and 764.74. The existing buildings are represented in orange, and the new constructions are in black. The Water Museum is located on the opposite section of the existing reservoir, relating to the clearings in the existing vegetation. Source: SIAA.

The former Administrator's House is preserved as a memory and now accommodates the welcoming program with waiting areas, cloakrooms, and a shop. An intervention eliminates the original internal partitions to enable the new uses. However, the original layout is subtly marked as designs on the floor and furniture around the house's perimeter. This subtraction of internal walls

requires the creation of a new roof structure, which, on the other hand, faithfully follows the exterior volume of the original roof – now equipped with a central skylight for natural lighting and ventilation.

From this central space, the departure and arrival routes of the permanent exhibition are organized, as well as the covered and accessible connection to the administrative blocks, educational sector, and temporary exhibitions.

In the clearing near the MAC USP, the building intended for permanent exhibitions is organized along a linear path that begins on the upper floor through aerial walkways and an immersion tunnel leading to the first exhibition hall.

This space, designed flexibly adaptable to different exhibition layouts, features terraces and viewpoints at its ends, allowing specific visual connections with the surroundings. After the journey through the gallery, access to the lower level is provided by a descending perimeter ramp that allows an elevated view of the second exhibition space located on the lower floor and visual openings to the green area near the reservoir. At the end of this exhibition space is a small sunken courtyard with retaining walls and a water mirror that directs the path to a new ascending ramp, allowing for the return to the museum's reception area.

The reference of 10 meters from the current topography is respected. It enables the generous ceiling heights suitable for the exhibition spaces through a slight excavation that facilitates better integration with the other buildings in the complex and their pathways.

In addition to didactic relationships – explicit or implicit – between the architecture and the thematic purpose of a museum, the current proposal also adheres to a concept of flexibility to be explored by its curatorial approach – closed halls for projections, walls designed as supports, open spaces for displaying machines and instruments related to the realm of infrastructure – in the creation of a museographic narrative conceived from the environmental relationship with its surroundings, but also in contrast with more introspective atmospheres.

From a constructive standpoint, mixed structures suitable for each case are proposed: reinforced concrete for retaining walls and volume envelopment, wooden slabs and beams for the floors and roofs of the exhibition areas, as well as metal structures and enclosures for the aerial walkways connecting the volumes.

The expressive geometry resulting from each of the buildings in this ensemble rejects generic solutions, and due to their complete symbiosis with the environment they inhabit, they become unique, specifically designed for this context and the purpose of the Water Museum.

The formal freedom employed in their volumes aligns with simple structural and constructive solutions, avoiding pursuing merely spectacular or unjustified

architecture. On the contrary, nestled within the greenery, the spatial variety of their terraces and openings cannot be seen and recognized solely through the exterior form but rather through slow wandering and architectural surprises experienced along their paths and from within their interiors.

Figure 6: The composition above represents (1,2) a View of the proposed entrance from França Pinto Street. On the right, the existing "Pump House" building, and on the left, the proposed building that houses the programs of the auditorium, education, administration, and services. (3) View of the passage between the existing building and the proposed building for circulation and restrooms. (4) Interior view of the space called "Acolhimento" (House of the Administrator). Source: SIAA.

Figure 7: The composition above represents (1) a View of the access walkway between the buildings of the Long-Term Exhibition and Temporary Exhibition and (2,3) Views of the long-term exhibition spaces, upper and semi-submerged levels, respectively. Source: SIAA.

Figure 8: The composition above represents (1) a View of the library access, (2) a View of pathways between the existing Pump House building and proposed structures, and (3) an External pathway view and library view. Source: SIAA.

History of water management in the city

The EEFP was established by the Department of Water and Sewers (RAE), a public company under the Department of Agriculture, Commerce, and Public Works of the municipality of São Paulo, which managed sanitation[3] between 1893 and 1954. It is during this period that the free supply of water through fountains and tanks, as well as the use of rivers and streams, will be replaced by the rationalized system composed of collection, treatment, conveyance, occasional pumping (elevation), storage, and final distribution, in addition to river channelization and floodplain sanitation.

The RAE was responsible for doubling the water supply capacity; however, the population growth and metropolitanization of the city were so significant that its closure was decreed so that water management could be operated by the Department of Water and Sewerage (DAE), an autonomous entity linked to the State of São Paulo, which functioned between 1954 and 1968, jointly managing the already conurbated municipalities of the São Paulo Metropolitan Region (RMSP). During the five years that separated the water management by DAE from that by Sabesp, water management in the city was operated by metropolitan companies directly guided by the Federal Government.

Established in 1973, the São Paulo Basic Sanitation Company (Sabesp) continues to be the water administrator for the City and approximately half of the municipalities in the State. It has become one of the largest companies in the world in the sector.

3 Sanitation comprises three basic services related to water management: drainage, drinking water supply and sewage, in addition to another service related to sanitation, which is solid waste management.

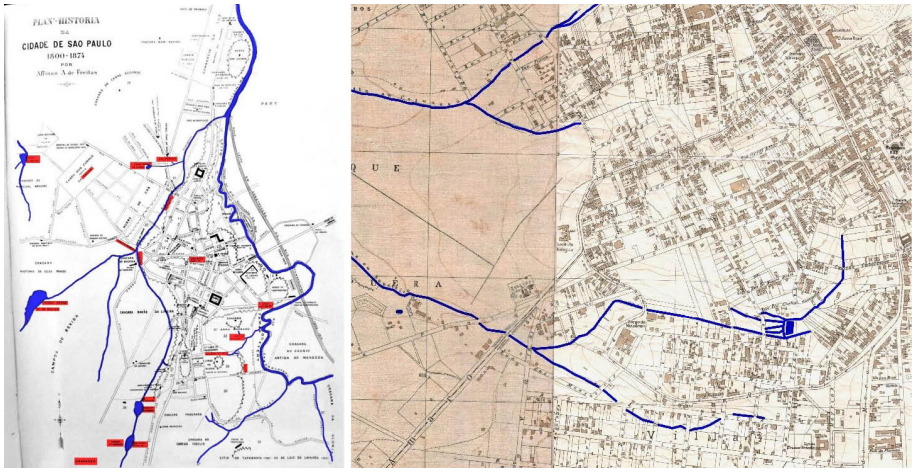

Figure 9: On the left, Historical Map of the City of São Paulo 1800-1874, by Affonso A. de Freitas. This map was created based on the survey conducted by this historian, journalist, and linguistic researcher who lived between 1870 and 1930. In red, we highlight all references to the water supply system of that time, such as Tanque do Arouche, Tanque do Reúno, Tanque do Zunega, Bica do Açu, etc. On the right, Topographic Map of the Municipality of São Paulo, executed by the company SARA Brasil using the Nistri method of aerial photogrammetry, according to the contract established under Law No. 3203 of 1928 during the tenure of Mayor Dr. José Pires do Rio, with Engineer Arthur Saboya as Director of Public Works. 1930. Sheets 50 and 51. This is the first record where the RAE Pumping Station can be seen (highlighted in red). In black, we see the Vila Mariana Water Tank (protected by Res. No. 06/Conpresp/2018), where water from França Pinto is still pumped. Additionally, we observe the construction of the Instituto Biológico, the Public Slaughterhouse (now the Cinemateca Brasileira), and the indication of the location of the Ibirapuera Park, which had not yet been developed. Source: Newsletter of the Municipal Historical Archive – http://www.arquiamigos.org.br/info/info20/i-indice.html (images edited by SIAA).

Inclusion of the França Pinto Pumping Station in the water supply system

In addition to the six structures visible at street level, within the EEFP premises are two underground reservoir chambers. To supply water to these chambers and pump it for distribution, tens of kilometers of pipelines traverse the São Paulo Metropolitan Region. The water is sourced from the Guarapiranga System, and from there, the pipelines lead to the Engenheiro Rodolfo Jose Costa e Silva Water Treatment Plant (ETA ABV). The treated water is then directed to the EEFP, where it is pumped to an elevation approximately 60 meters higher, reaching the Vila Mariana Reservoir and the Vila Mariana/Paulista Distribution Pumping Station before finally being consumed.

The entire Guarapiranga system is interconnected with the Cantareira production system, and together, they account for approximately 58% of all water produced by the São Paulo Metropolitan Interconnected Adutor System. Specifically, this water production segment is responsible for supplying the strategically important Espigão da Paulista region, including several hospitals and other facilities.

Following the path that water takes on the E.E. França Pinto site, the above-ground reservoir and pumping structure consist primarily of the arrival structure and the pump house (main building). The **arrival structure** faces Avenida Pedro Alvares Cabral (formerly Av. Rubem Berta) and consists of a building and three inlet pipes. Here, the water is discharged and directed towards the **two reservoir chambers**, each with a storage capacity of approximately 2600m³. There are 30x30cm pillars spaced at intervals of 4.20x5m supporting the raft slab that forms the roof of the reservoir chambers, also serving as the ground-level walkway. Each room is connected to a network of approximately 2.50m high channels through a 1.20 x 1.20 m gate leading into the main building. At the ground level, there are control structures for the channels.

The main building is the **pump house**, housing control valves, flow meters, an overhead crane, four electric pumps, and the telemetry room. This building faces Rua França Pinto and consists of three interconnected wings surrounding a narrow central void, forming a U-shape. Each wing features a façade adorned with elements in mortar, a modular concrete structure, and openings, all covered with exposed bricks; the total area is approximately 565m². The roof is supported by wooden trusses that hold ceramic tiles, forming eight pitches. Adjacent to one of the facades of this building is the high-voltage substation.

There are also four additional buildings on the site, with three of them likely dating back to the same period as the entire structure's inauguration. These include two storage facilities, previously identified as a residence and a garage, and another building of undefined use. In the 1980s, though the exact construction date was unconfirmed, an annex for training purposes was added. Sabesp uses this annex to provide personnel training.

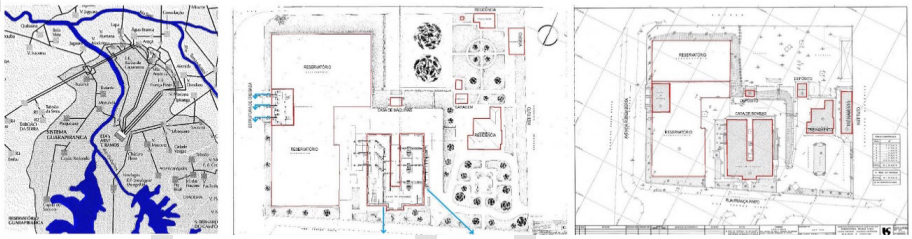

Figure 10: The left section depicts the map of the Integrated Adutor System of the São Paulo Metropolitan Area in 1994, highlighting the Guarapiranga Reservoir, the ETA ABV (Water Treatment Plant), and the E.E. França Pinto. In the center is the França Pinto Reservoir General Plan and Pumping Station, DAE, Des. Oswaldo T. T. Hu. We haven't identified whether this plan is a design or a survey, and its creation date is also unknown. The constructions and reservoir chambers are highlighted. The direction of water inflow and outflow on the site is also indicated. The Detailed Cadastre Planialtimetric Survey of the França Pinto Reservoir, Sabesp, 1984 is on the right. This represents the current layout of the site. The water intake, storage, and pumping structures are highlighted, along with the training offices and storage facilities. Source: SIAA.

The study of the site, its structures, its integration into the production system, and the history of water supply in the city was further developed in the document produced within the ProAC Expresso LAB no. 59/2020 scope. This opportunity allowed for the development of the "Studies for the São Paulo Water Museum." This research was essential for the process carried out throughout 2022 and 2023 in collaboration with AESABESP and the entire project team across various specialties, contributing to the final stage of the presented executive Project.

Technical file

Competition Team

Year of the Competition
2019

Competition Team
SIAA
Andrei Barbosa da Silva
Bruno Valdetaro Salvador
Camila Yumi de Campos
Cecília Torrez Prudencio
Cesar Shundi Iwamizu
Eduardo Pereira Gurian
Fernanda Britto
Julia Carvalho Dell'acqua
Laura Cardone
Leonardo Nakaoka Nakandakari
Maria Fernanda Xavier
Márcio José Rocha Borges
Paula Mendes Máximo
Victor Luiz Quio

Executive Project Team
Architecture | SIAA

Cesar Shundi Iwamizu
Eduardo Gurian

Historical Research
Valéria Ferrari Waligora

Project Coordination
Maria Fernanda Xavier

Basic Project Team
Camila Yumi de Campos
Bianca Barreto Juliasz
Giulia da Cruz Silva
Victor Luiz Quio

Students
Bento Marques Sater
Camila Caroline Silva
Júlia Tassara Rodrigues Correia
Thiago Santos de Oliveira

Updated physical model
André Filipe Lemos Marques
Gabriel Taniguchi
Leonardo de Oliveira Pina Soares

Project Management and Restoration Project | Instituto Pedra

Management
Luiz Fernando de Almeida (Diretor-Presidente)
Norton Ficarelli (Diretor adjunto)

Project Management
Alan Gualberto

Architecture Coordination
Benjamim Saviane
Mariana Victor
Alessandro Percinoto Pompei

Architecture
Ana Luiza Teixeira
Bernard Greim
Mariana Vetrone

Architecture (interns)
Amanda Santos
Anita Chaves
Leonardo Moura

Museology
Viviane Longo

Museography and Visual Communication | Base 7

Directors
Arnaldo Spindel
Ricardo Ribenboim

Deputy Administrative-Financial Director
Carmen Maria de Sousa

Curatorship
Jesus de Paula Assis

Deputy Production Director
Felipe Ribenboim

Content Coordination
Rachel Vallego

Iconographic Research
Fernanda Carvalho

EO Editorial – Historical Research
Julio Fonseca
Gabriela Hengles
Mariana Tomadossi

Museu.IO – Technology and Interactivity
Bruno Favaretto
Renato Almeida Prado

Visual Identity | Via Impressa
Carlos Magno Bomfim
Jailton Leal

Museum Plan | Gengibre Criativo
Carla Nieto Vidal
Joana Tuttoilmondo

Museum Coordination
Daniela Vicedomini Coelho

Exhibition Design
Vlamir Saturni
Ana Paula Garcia

Landscape Architecture | Soma Arquitetos

Authors | Architects and Urban Planners
Alessandra Gizella da Silva
José Luiz Brenna

Architect and Urban Planner
Nashira Mehen-Ha

Architecture and Urban Planning Interns
Mariana Stoppa
Danielle Ferreira

Lighting Design Project | Anna Turra Lighting Design

Authorship
Anna Turra

Team
Anna Turra
Victória Rocha
Paula Dal Maso
Shylton Mavie

Structural and Installations Design | Favale e Associados Engenharia

Fausto Favale

Architecture and Coordinator
Cristiane Inácio

Structural Engineer
Debhora Garcia

Concrete Designer
Rogério Góes

Metallic Designer
Thais Ramires

Electrical Installations
Stefano Bretas

Plumbing, Fire Protection, and HVAC
Paulo Souza

References

CHAFARIZES e fontes na cidade de São Paulo no século XIX. Disponível em: https://www.al.sp.gov.br/noticia/?id=259639. Access: Mar. 2021.

CINQUENTENÁRIO da Repartição de Água e Esgotos de São Paulo. *Revista DAE*, v. 16, jan./dez. 1943.

CONSELHO de Defesa do Patrimônio Histórico, Arqueológico, Artístico e Turístico do Estado de São Paulo. Condephaat. Processo n. 33348/1995.

CONSELHO de Defesa do Patrimônio Histórico, Arqueológico, Artístico e Turístico do Estado de São Paulo. Condephaat. Resolução SC-62, 2013.

CONSELHO Municipal de Preservação do Patrimônio Histórico, Cultural e Ambiental da Cidade de São Paulo. Conpresp. Processo n. 2002-0.072-810-1.

CONSELHO Municipal de Preservação do Patrimônio Histórico, Cultural e Ambiental da Cidade de São Paulo. Conpresp. Resolução n. 09/2003.

CURSO d'Água. *Revista DAE*, v. 48, n. 153, out./dez. 1988.

DOSSIER Sistema Cantareira. Espaço das águas. Fundação Patrimônio História da Energia e Saneamento, Companhia de Saneamento Básico do Estado de São Paulo, 2008.

DOSSIER institucional. Empresas de saneamento em São Paulo. Espaço das Águas. Fundação Patrimônio História da Energia e Saneamento, Companhia de Saneamento Básico do Estado de São Paulo, 2008.

FONTES de chafarizes de São Paulo. *Revista DAE*, n. 61, jun. 1966.

INSTITUTO do Patrimônio Histórico e Artístico Nacional. Iphan. Processo n. 1429-T-98.

MEMÓRIA do saneamento e do planejamento urbano regional: Theodoro Sampaio e as águas em São Paulo. *Revista DAE*, n. 196, 2014.

MOTTA, A. O abastecimento de água em São Paulo. *Revista DAE*, n. 2, 1937.