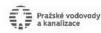
Industrial Heritage: Understanding the Past, Making the Future Sustainable 13 - 14 September, 2018 Santiago, Chile

# THE REHABILITATION OF THE OLD WASTEWATER TREATMENT PLANT PRAGUE, CZECH REPUBLIC INDUSTRIAL HERITAGE AND MANAGEMENT

Šárka Jiroušková Petr Justa









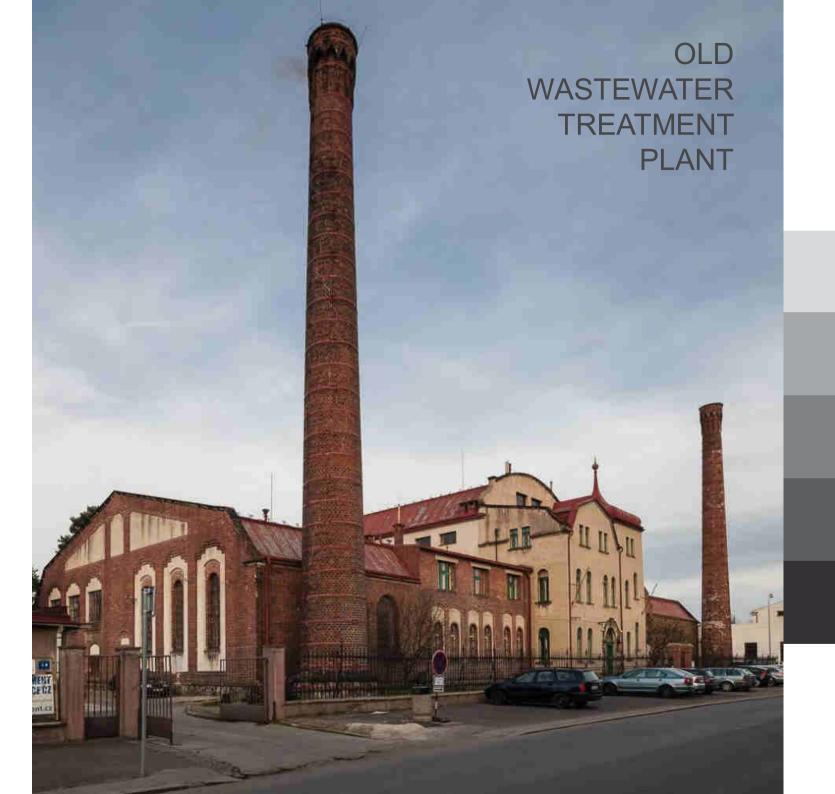




# CZECH REPUBLIC PRAGUE







**INTRODUCTION** 

**OLD WWTP** 

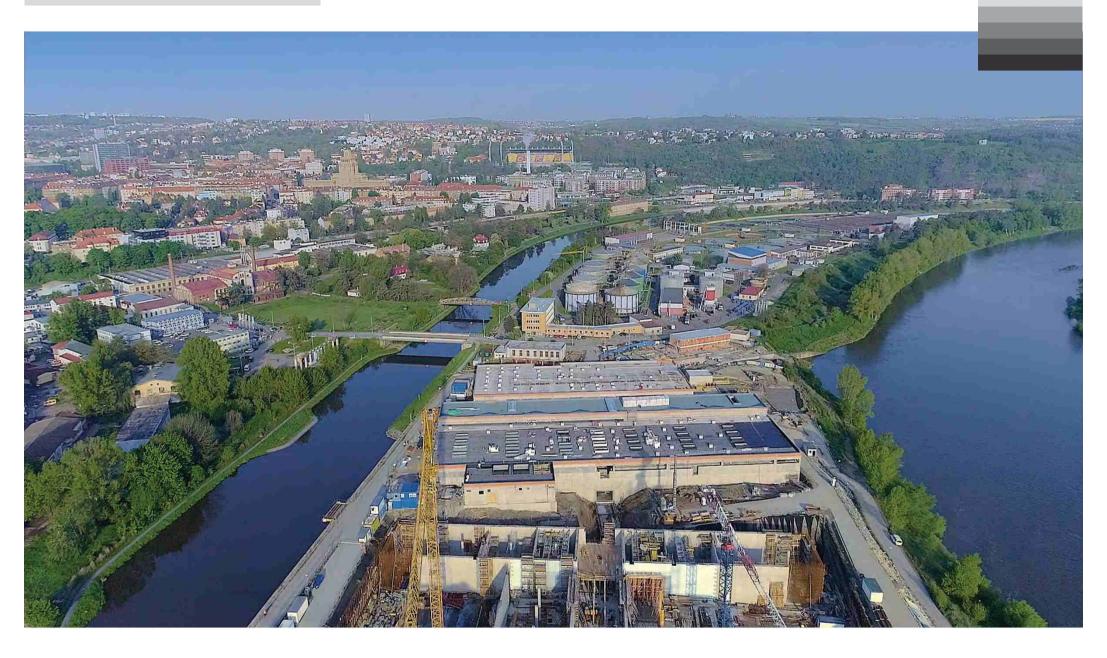
**MANAGEMENT** 

CONSERVATION

PAST - FUTURE

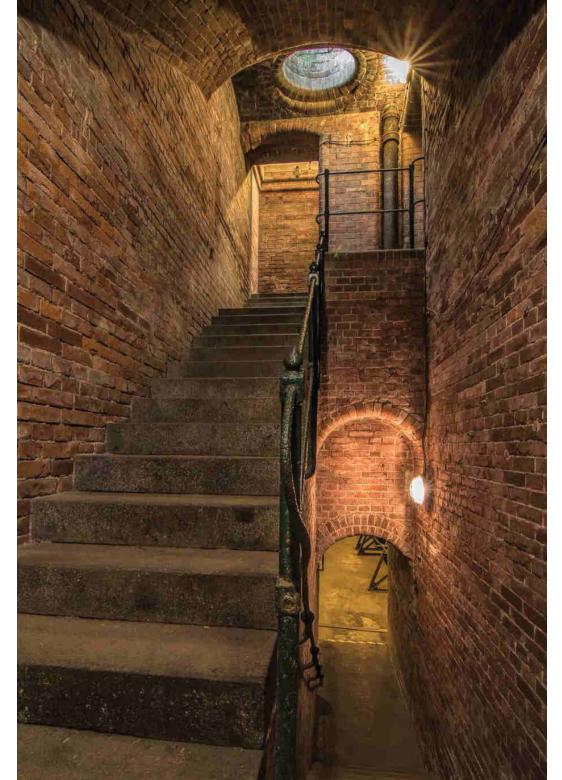
#### **INTRODUCTION**





Three plants – three stages of wastewater treatment 1906, 1967, 2018

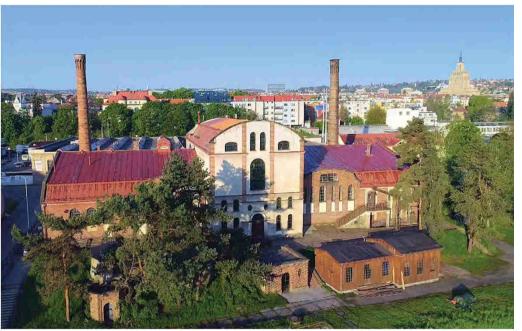




2010 - National cultural monument

2016 - ERIH

2016 - Tentative List Application

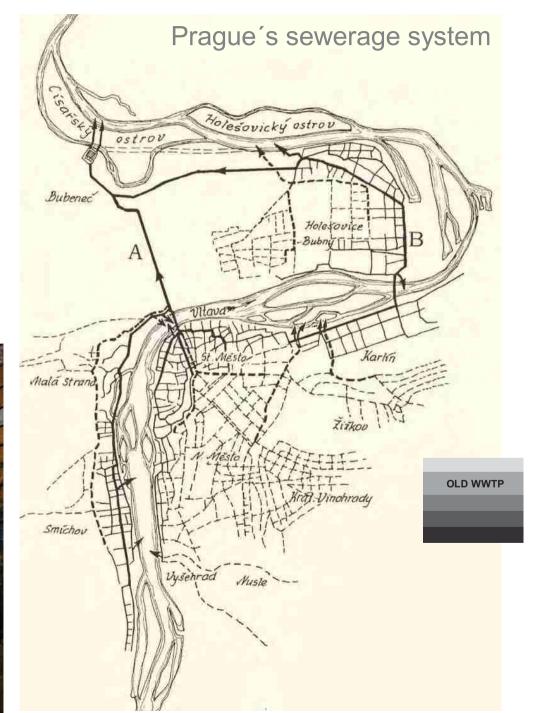


Old Wastewater treatment plant significance and value





#### OLD WASTEWATER TREATMENT PLANT

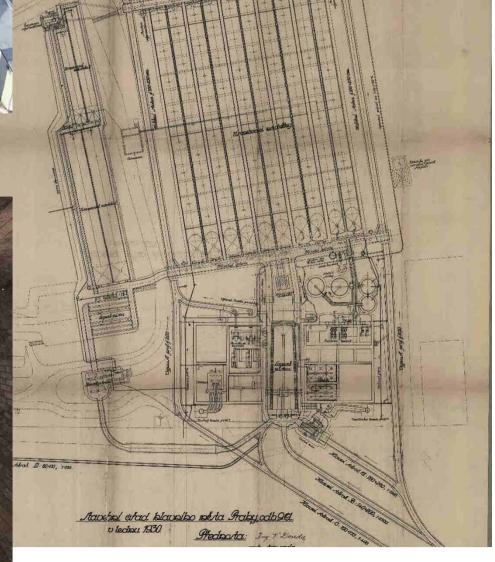


Zatizení kanalizační



## The compound







Screens



Wastewater treatment process



Sand trap

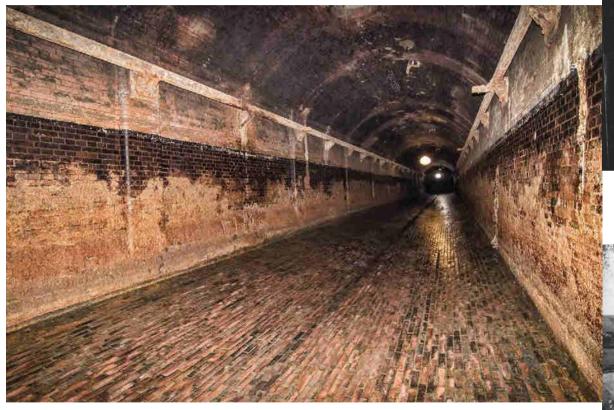


OLD WWTP

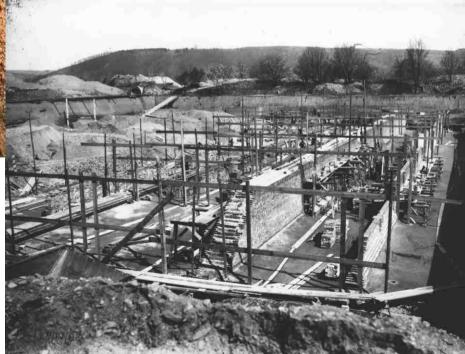
Wastewater treatment process

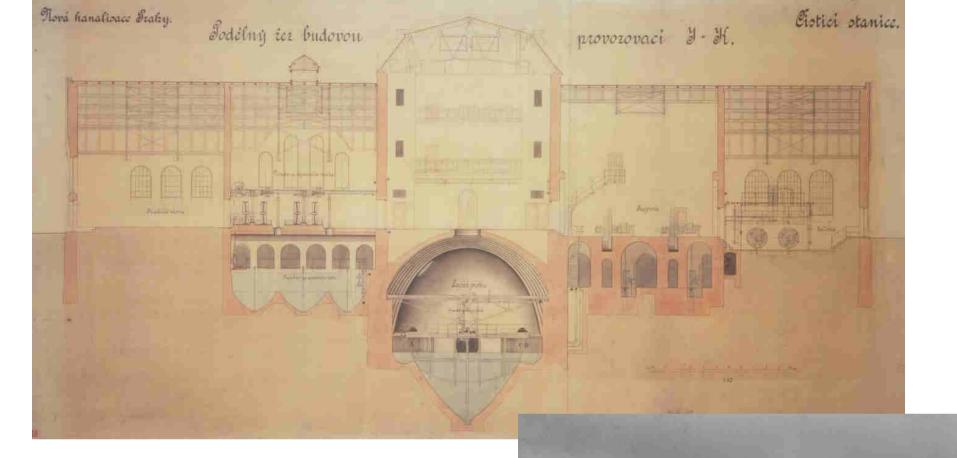
### Wastewater treatment process

Settling tanks





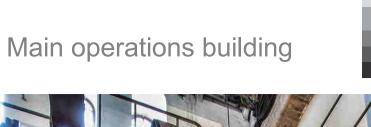


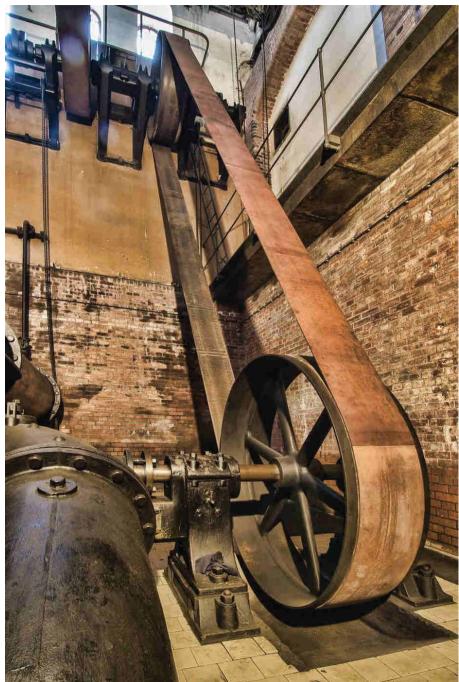




Storage of chemicals





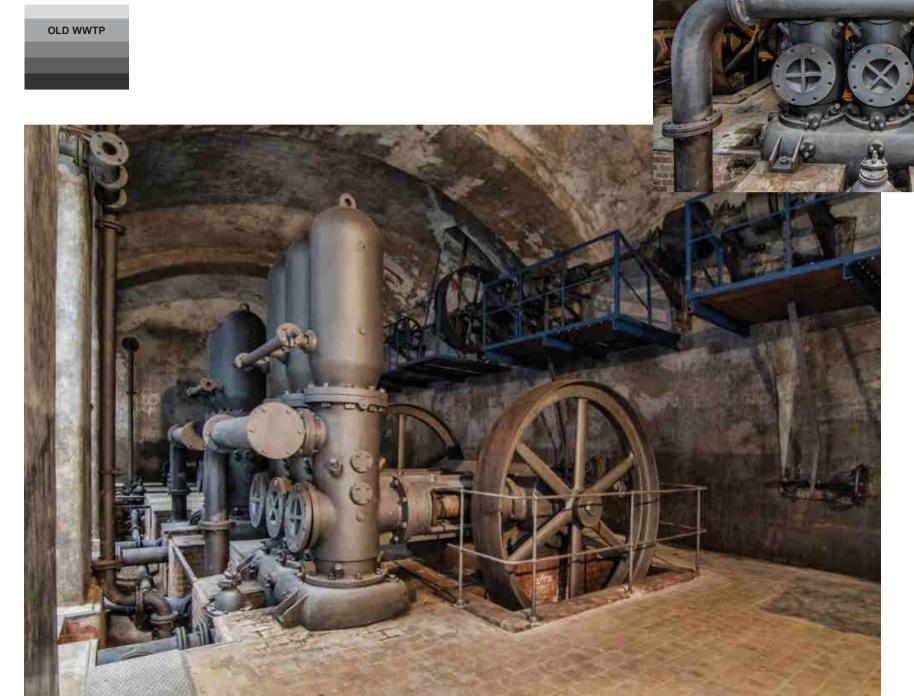


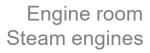


Engine room Flood pumps



### Main operations building





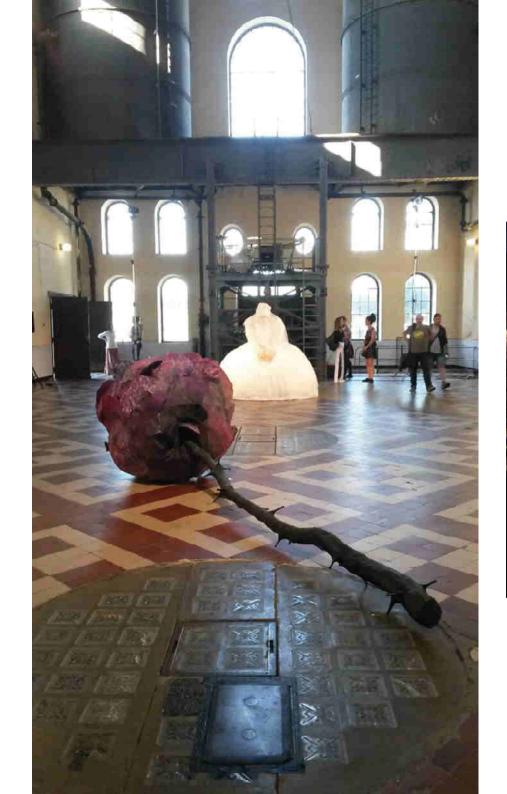


Main operations building

OLD WWTP



Boiler room



#### PRESENT SITE MANAGEMENT

Tovarna o.p.s., sprava industrialnich nemovitosti

TOVÁRNA



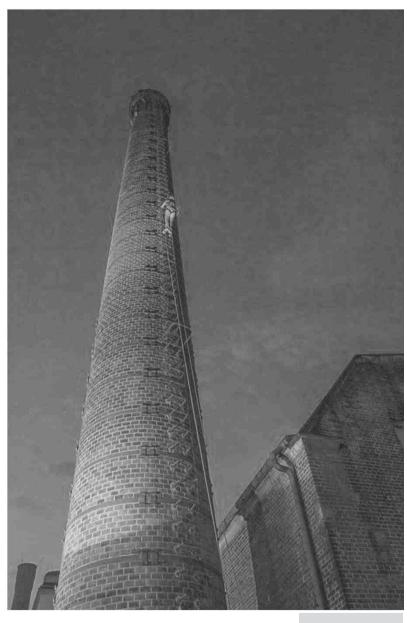
Cultural and education centre



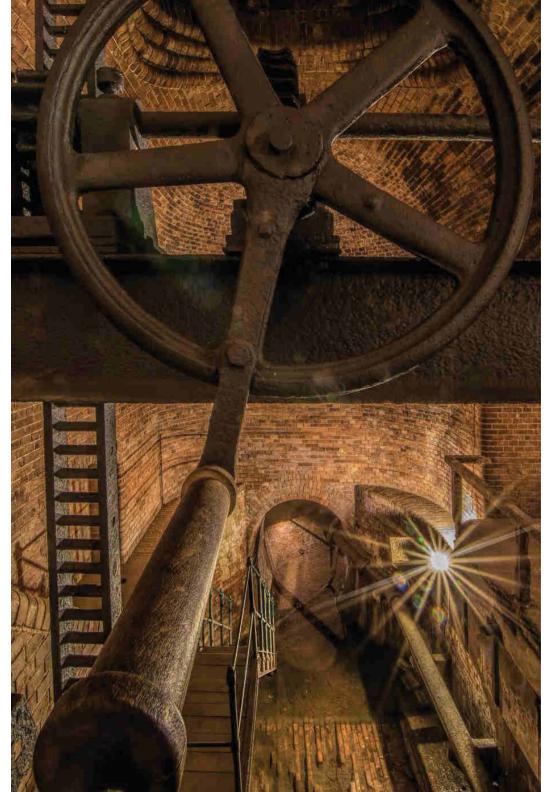








MANAGEMENT



# Maintenance and restoration Significance and value



MANAGEMENT

### RENOVATION

# Prague, August 14, 2002







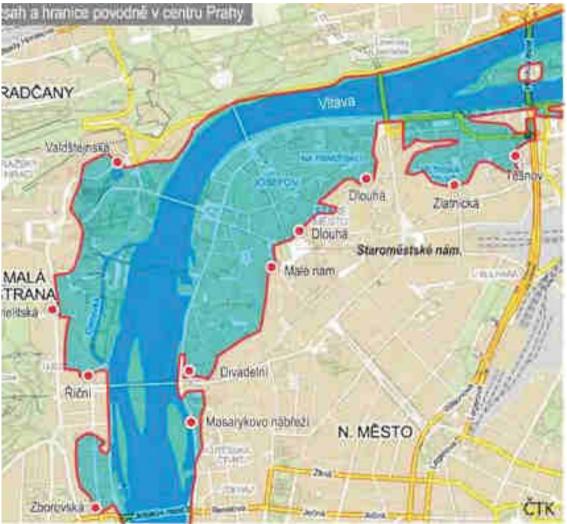






# Extent of Prague Flood in 2002





# New flood came in 2013







# Restoration of powered machines





# Emergency works

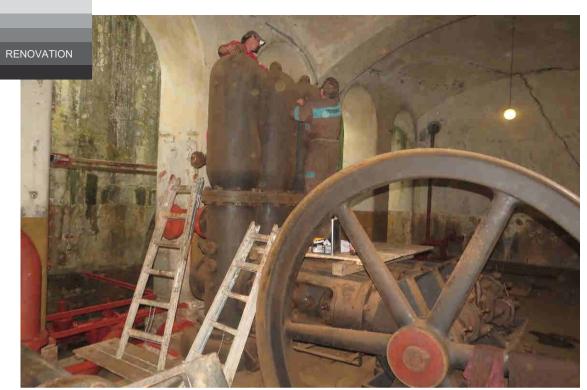


# Before the treatment had started

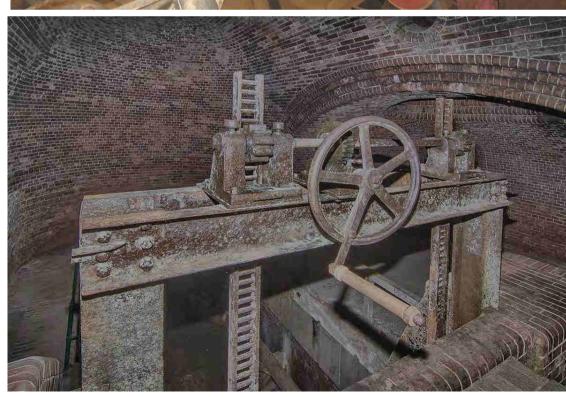








# Cleaning and Documentation





# All moving units and expansion bearings had to be released





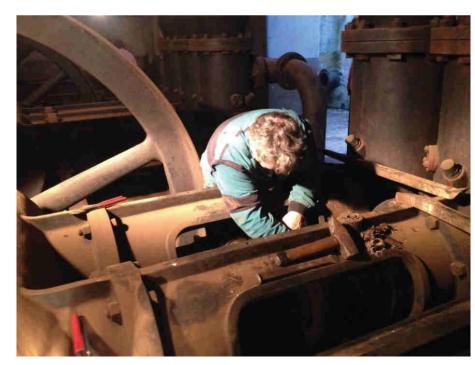




## Renovation of shafts









# Sludge pump renovation

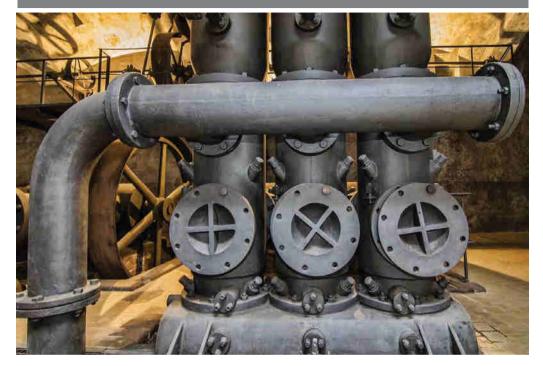




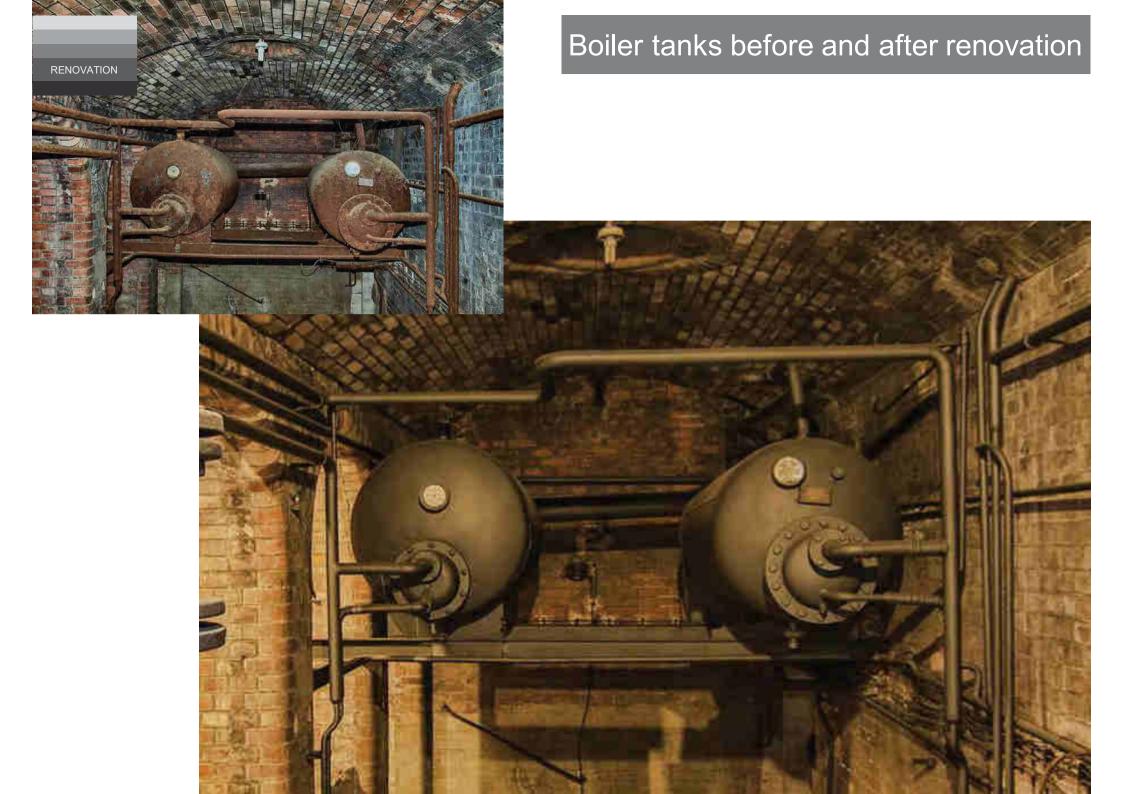




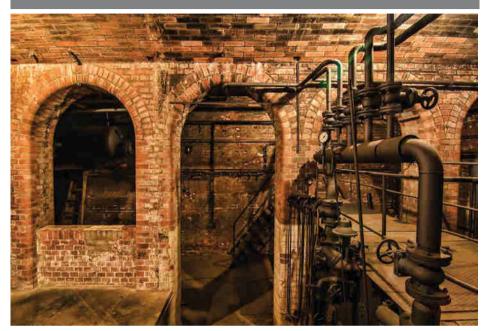
# Sludge pump after renovation







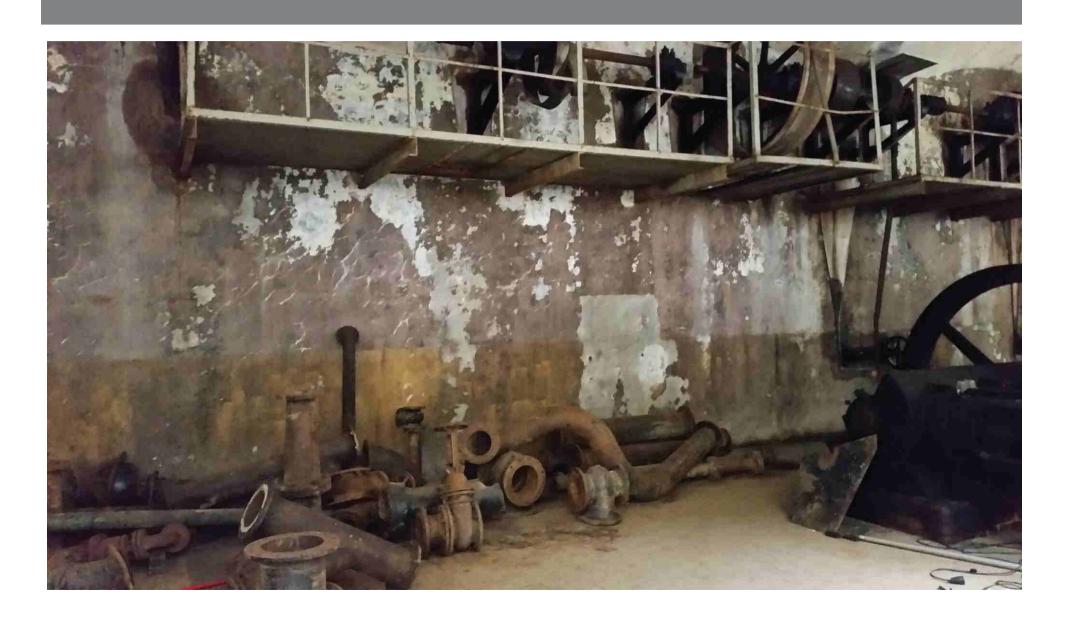
## Technology units after renovation







# Restoration and conservation of masonry and plaster



## Underground Sludge pump room

- number of layers to be removed
- old wiring and electrical units were checked and all recent additions were removed
- intensive biological attack of algae
- recent interventions within walls and columns







## Walls before intervention









# Mechanical cleaning by intensive grinding layer after layer













## Paint and varnishes removal

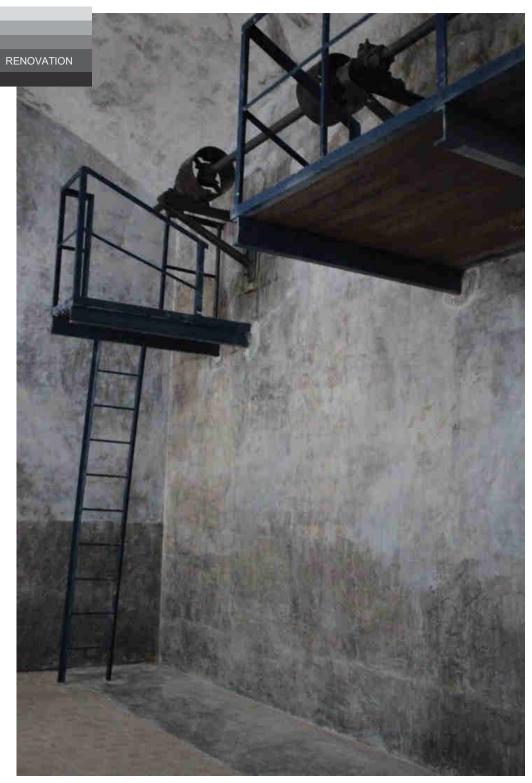




# All deficiencies had to be repaired by various kinds of cement putties

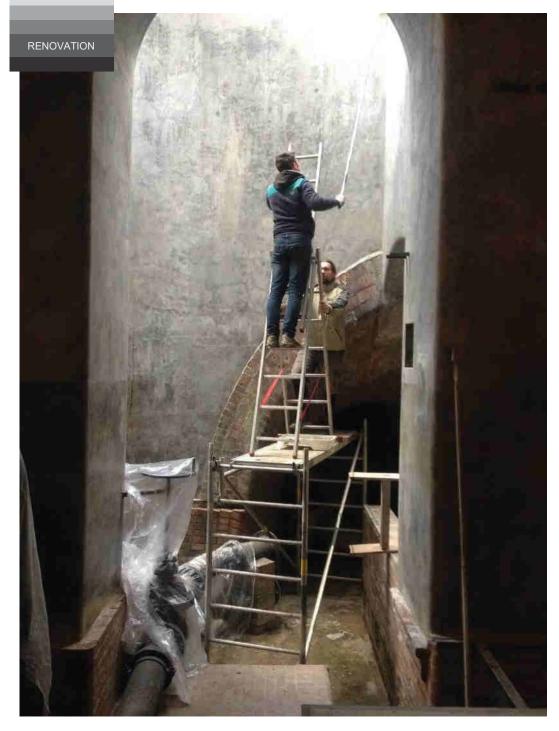




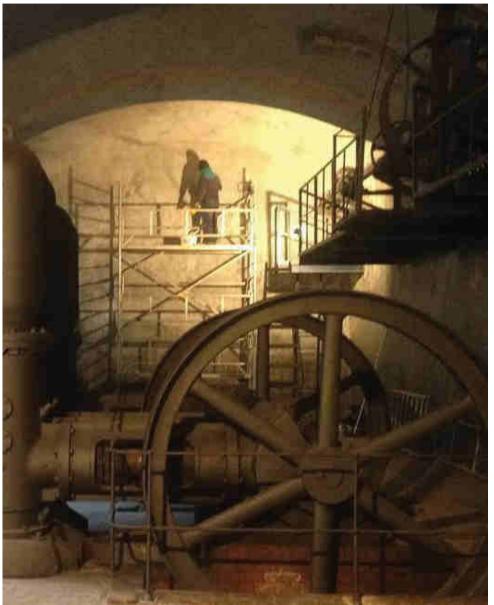


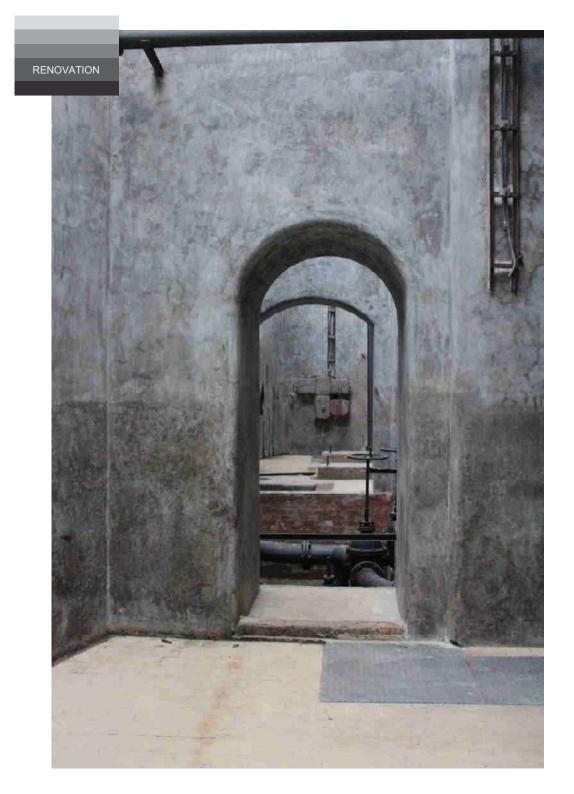
Preserved condition after repair of walls and plasters



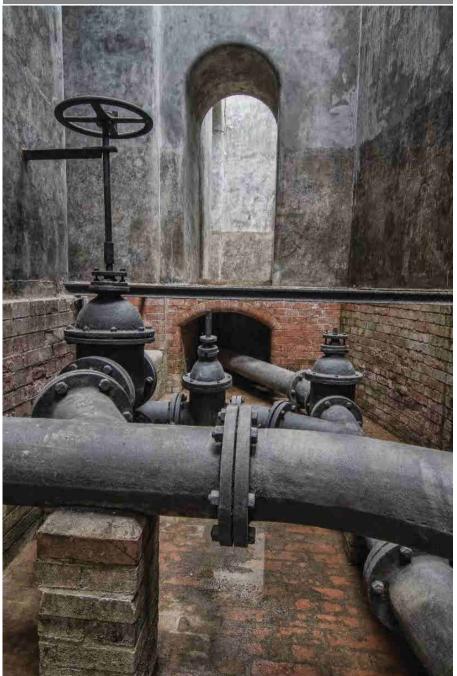


# Color retouching was made by mural paintings restorers





Final appearance after retouching



### Restoration of sludge pump room completed



### Concrete railings before treatment









#### Restoration of concrete railings







#### Restoration of concrete railings and stair landings



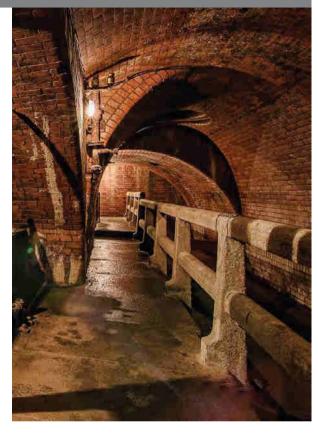




## Restoration of concrete pavements



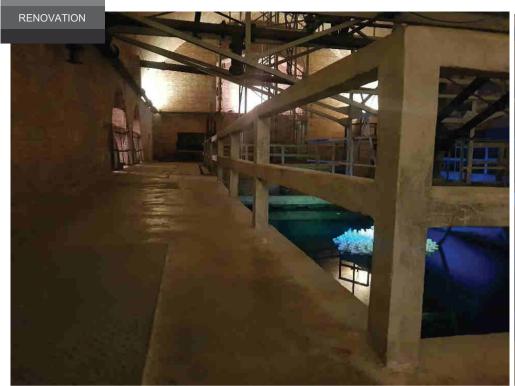




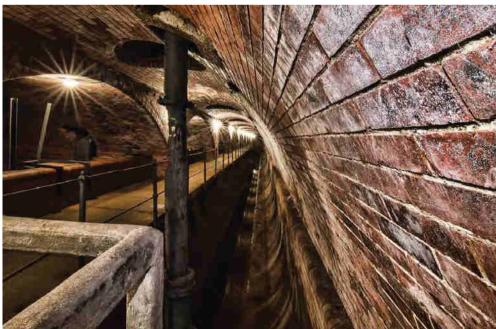


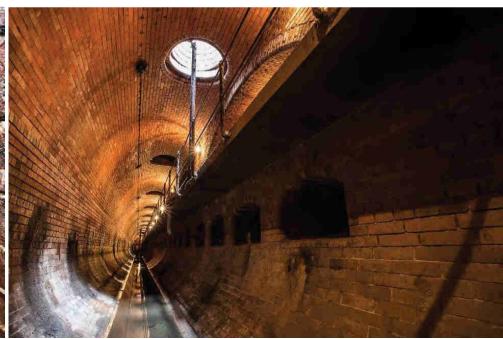


#### Concrete elements after renovation



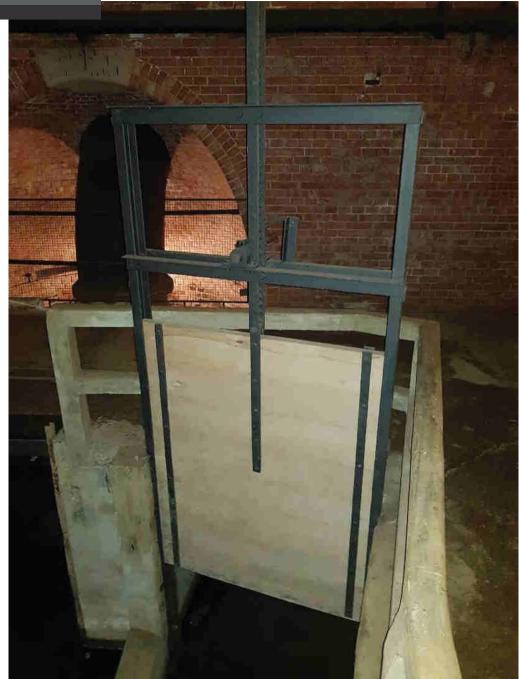






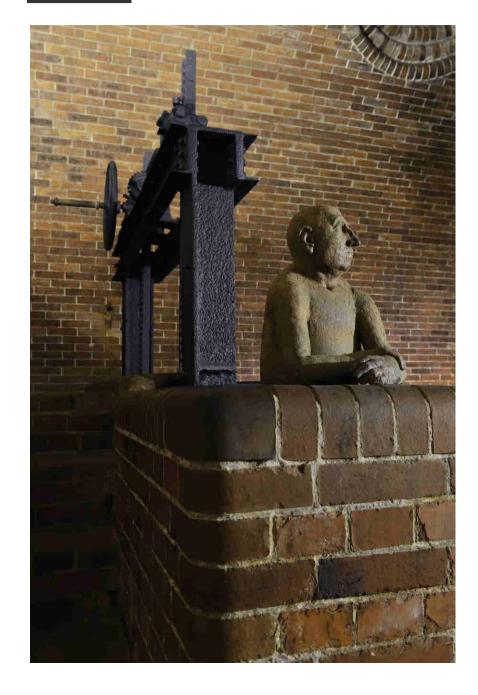
Details

RENOVATION





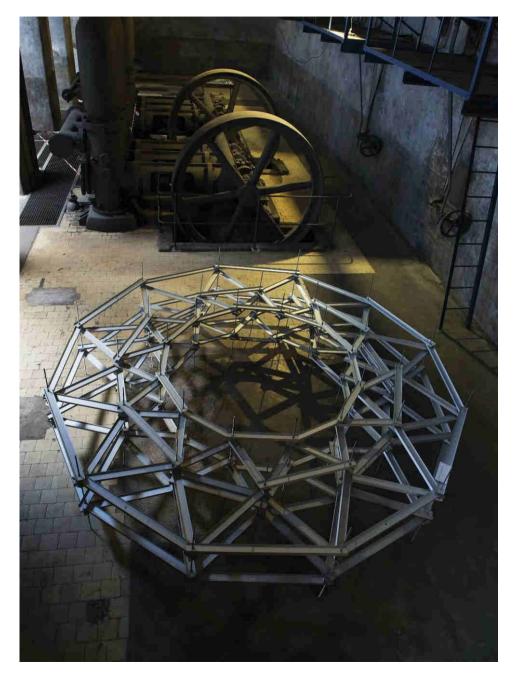
#### Details

















The Documentary 1943



PAST - FUTURE

