VISUAL and FUNCTIONAL REVITALISATION OF LANDSCAPE
cityscape’s identity and changes
techniques & methodology

arch. Wojciech Oleński
Urban designer of MPPiSR
PhD at the Technical University of Cracow
member of Council on Tall Buildings and Urban Habitat
Municipal Office of Urban Planning and Development Strategy in Warsaw

- established 1996
- employs over 40 professionals

> fields of activity:
  - Study of Preconditions and Guidelines of Spatial Development
  - local plans
  - analytic studies for the city
  - prognosis (economical, social, environment)
Warsaw Functional Zones
Areas: Post-industrial, High-rise, UNESCO

- Post-industrial Area
  - Marywilska & Plochocinska
  - Land Use Plan

- Port Praski Harbour
  - Land Use Plan

- Western City Centre
  - Palace of Culture & Science

- Old Town
  - UNESCO List
Post-industrial areas in Warsaw
Marywilska St. & Plochocinska St. Local Plan

219 ha
Objectives:
- Revitalisation of degraded areas after the building industry
- Spatial integration of areas with Zeranski Canal

Main conceptions:
- preservation of the Mercantile Hall
- new bridge across Zeranski Canal
- specialized services areas
Post-industrial areas in Warsaw
Port Praski (Praga Harbour)
Post-industrial areas in Warsaw
Port Praski (Praga Harbour)

Pre-War Conceptions

Current Situation
Post-industrial areas in Warsaw
Port Praski (Praga Harbour)

Architectural competition 1992

Objectives:
- Spatial integration of left-bank and right-bank Warsaw
- Revitalisation of degraded areas
- Preservation of Natural Value

Conceptions after 1989:
- Center „Bis” & Representative Area
- New Bridge
- Skyscrapers
Post-industrial areas in Warsaw
Port Praski (Praga Harbour)

Development Conception 2010

National Stadium – EURO 2012
Post-industrial areas in Warsaw
Port Praski (Praga Harbour)

Local Plan Conception 2010
Post-industrial areas in Warsaw
Western City Centre & UNESCO Zone
> main high-rise and monuments are in different clusters
> **Conservatory protection** is related with monuments and some skyscrapers
> **East Wall** and **Western City Centre** have different spatial context
Tallest Buildings Trends – statistics
by Council on Tall Buildings and Urban Habitat

World's Tallest 20

Europe (>100m):

<table>
<thead>
<tr>
<th>Location</th>
<th>Total</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moskwa</td>
<td>93+23+8</td>
<td>338m</td>
</tr>
<tr>
<td>London</td>
<td>38+12+54</td>
<td>310m</td>
</tr>
<tr>
<td>Frankfurt</td>
<td>28+2+19</td>
<td>259m</td>
</tr>
<tr>
<td>Warsaw</td>
<td>17+4+20</td>
<td>237m</td>
</tr>
<tr>
<td>Paris</td>
<td>27+1</td>
<td>231m</td>
</tr>
</tbody>
</table>

Tall building construction was once dominated by North America. However, by the end of 2012 only 23 North American buildings made the list.

By the end of 2012, only 17 of the tallest 100 tallest buildings were made of steel, once the dominant construction material for tall buildings.
## Tallest Buildings Trends – analogies

### Warsaw and Paris

<table>
<thead>
<tr>
<th>Name</th>
<th>City</th>
<th>Country</th>
<th>Height (m)</th>
<th>Year</th>
<th>Floors</th>
<th>Address</th>
<th>Status</th>
<th>Architect</th>
<th>Description</th>
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<tbody>
<tr>
<td>Chmielna 70</td>
<td>Warsaw</td>
<td>Poland</td>
<td>230.7m</td>
<td>1965</td>
<td>43</td>
<td>Ofiara Palace</td>
<td>Proposed</td>
<td>L. Rutkowski</td>
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<tr>
<td>Lilium</td>
<td>Warsaw</td>
<td>Poland</td>
<td>220m</td>
<td>2000</td>
<td>70</td>
<td>Zamoyska</td>
<td>Project</td>
<td>D. Libeskind</td>
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<tr>
<td>PKIN 43</td>
<td>Warsaw</td>
<td>Poland</td>
<td>199m</td>
<td>1999</td>
<td>43</td>
<td>(J. Pilsudski)</td>
<td>Local Plan</td>
<td>(T. Szczepański)</td>
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<td>WTT 86</td>
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<td>Poland</td>
<td>197m</td>
<td>1996</td>
<td>66</td>
<td>(M. Wieniawski)</td>
<td>Construction</td>
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<td>Poland</td>
<td>169m</td>
<td>2000</td>
<td>45</td>
<td>Złota 44</td>
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<td>167m</td>
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<td>(Kahn Pedersen Fini)</td>
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<td>Poland</td>
<td>157m</td>
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<td>Rondo1</td>
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<tr>
<td>RT Warsaw Hines 191m</td>
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<td>Poland</td>
<td>191m</td>
<td>2000</td>
<td>40</td>
<td>Hotel IC</td>
<td>Project</td>
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<td>Poland</td>
<td>154m</td>
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<td>40</td>
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<td>Eiffel Tower 324m</td>
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<td>France</td>
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<td>59</td>
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<td>B. Féraud</td>
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<td>France</td>
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<td>1993</td>
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<td>Total Montparnasse</td>
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<td>France</td>
<td>263m</td>
<td>1993</td>
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<td>B. Féraud</td>
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<tr>
<td>Tour Aréa</td>
<td>Paris</td>
<td>France</td>
<td>210m</td>
<td>2001</td>
<td>44</td>
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<tr>
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<td>Built</td>
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<tr>
<td>Tour T1</td>
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<td>France</td>
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<td>44</td>
<td>Courbevoie (Paris)</td>
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<tr>
<td>Tour Total Eff 132.2m</td>
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<td>44</td>
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<td>France</td>
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<td>44</td>
<td>Paris Métropole</td>
<td>Built</td>
<td>(J. Hénin)</td>
<td></td>
</tr>
</tbody>
</table>

Warszawa – 231m…280m…?

Paris – 300m…323m…?

www.skyscraperpage.com
Tallest Buildings Trends
Warsaw and Paris – symbolic analogies

Tour Eiffel
Montparnasse Tower
La Defence

Palace of Culture and Science
Old Town reconstruction
Western City Centre

Symbol – height vs. history
High-rise Cluster
Tallest Buildings Trends
Warsaw and Paris – big scale anomalies

Plan Voisin
Montparnasse Tower
Osiedle za Żelazną Bramą
Daewoo Tower

Urban anomalies
View anomalies
Tallest Buildings in Europe
skyscrapers vs. heritage – UNESCO List

UNESCO List of World Heritage in Danger

DRESDEN (Elbe Valley) – deleted from the W.H. List in 2009 due to construction of a new bridge inside the UNESCO zone

KOLN (Cathedral) – 2004-2006, OK after scale down plans for the construction of new high rises close to cathedral

LONDON - ? – controversy related to new high-rise development in the city centre, close to World Heritage sites
1589

Warsaw becomes the capital of Poland

1655-1660

Swedish Invasion = "Swedish Deluge"

1772, 1775, 1795

Partitions of Poland
History of Warsaw Panorama

1832-1836 construction of the Warsaw Citadel

1894-1912 construction of the Orthodox Cathedral
History of Warsaw Panorama

1945-1954 reconstruction of the Old Town and Royal Castle

1953-1956 construction of the Palace of Culture and Science (231m)

1989 end of Communism era

2005 joining the EU

2009
History of Warsaw Panorama

- 1581
- 1770 B.B. Canaletto
- 1781 Panorama Bryczkowska
- 19th cent.
- 1942
- 2010
History of Warsaw Panorama

Bernardo Bellotto „Canaletto” (1721-1780)
History of Warsaw Panorama
Bernardo Bellotto „Canaletto” (1721-1780)

Warszawa
Dresden
RESTITUTION = reconstruction with use of preserved elements of the building

RECONSTRUCTION
1) of the BUILDING, 2) of the SYMBOL

authenticity of material ≠ reliability of form

„the Royal Castle and the Cathedral, 2 symbols of polish statehood, must come back to Warsaw landscape”

ruins of the Cathedral - 1945

reconstruction of Royal Castle - 1945...1970

reconstruction of the Old Town & Cath.
History of Warsaw Panorama
UNESCO protected area

1939-1944
destruction of cityscape

unique example of urban reconstruction

1945-1955
partial reconstruction

1971-1984
complete reconstruction
History of Warsaw Panorama
UNESCO Complex, History Monument Area

History Monument Area (Historical City Complex) =
the Old and New Town with Scarp & Vistula
the Royal Castle & Royal Duct
Historical Parks, Wilanów
History of Warsaw Panorama
B.O.S. Archives

On the UNESCO List "World Memory" (2011)
History of Warsaw Panorama
reconstruction <> transformation
Landscape & Skyline Analysis
perception and transformation of cityscape

Image of the City elements
(K. Lynch)

impression curve (Wejchert)

theory

practice

form & arrangement (Wejchert)

Ottawa – NCC analysis

Lower Manhattan Plan - NYC
Landscape & Skyline Analysis
Ottawa – NCC - 1992

Several Big Buildings?
Plusieurs grands édifices?
Landscape & Skyline Analysis

Hudson Skyline: Present

Hudson Skyline: Future
Landscape & Skyline Analysis
Warsaw – Ottawa – New York
## Landscape & Skyline Analysis

Form of the city skyline

<table>
<thead>
<tr>
<th>City</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>&quot;CONE&quot;</td>
</tr>
<tr>
<td>Chicago</td>
<td>&quot;DEPRESSION&quot;</td>
</tr>
<tr>
<td>Toronto</td>
<td>&quot;CITY WITH TOWER&quot;</td>
</tr>
<tr>
<td>Frankfurt am Main</td>
<td>&quot;AVENUE&quot;</td>
</tr>
<tr>
<td>Madrid</td>
<td>&quot;CITY GATE&quot;</td>
</tr>
<tr>
<td>Tenerife</td>
<td>&quot;TWIN TOWERS&quot;</td>
</tr>
<tr>
<td>Barcelona</td>
<td>&quot;SINGLE&quot;</td>
</tr>
</tbody>
</table>
Landscape & Skyline Analysis

anomalies

SAO PAULO - "FOREST" OF DOMINANTS

SHANGHAI - INCOHERENT CITYSCAPE

DUBAI – "SEA" WALL

STAMBUL – IRRATIONAL EXPANSION
Landscape & Skyline Analysis
London – historical and modern clusters
Landscape & Skyline Analysis
Paris – La Défense – away from the centre
Landscape & Skyline Analysis
Frankfurt am Main – High-rise Avenue
Landscape & Skyline Analysis
Munich (!) – High-rise Ring
Landscape & Skyline Analysis
Rotterdam – visibility of the skyline, visual range
SKYSCRAPERS IN WARSAW
HISTORICAL & SPATIAL CONDITIONS
Warsaw Landmarks

history

Cathedral Tower
16th cent.

Saski Orth. Church
(19th-20th cent.)

PASTA 1908

Prudential 1936

God Providence
Temple (concept)

Dep. of Transport
(extension design)

PASTA 1944

Napoleon Square 1945

Old Town
reconstruction

Central Culture
House (design 1955)

Palace of Culture
and Science 1955

Royal Castle
reconstr. 1970

East Wall of Marszalkowska St. 1969

West Center
District – 1976...

Marriott&Elektrim
Twin Towers’

hotel IC, Rondo1, WFC
2000-2008

Golden Terr.
Warsaw Landmarks
the East Side of Marszalkowska St. (1962-69)
Warsaw Landmarks
the Western Centre District (1969-74-…)

[Images of various buildings and urban diagrams related to the Western Centre District of Warsaw, showcasing the landmarks and developments from 1969 to 1974.]
Warsaw Landmarks
the Western Centre District (1969-74-…)

[Image of Warsaw skyline and architectural plans]
Warsaw Landmarks
Structure of the city skyline

Śląsko-Dąbrowski Bridge

Gdański Bridge

Świętokrzyski Bridge
Warsaw Landmarks
Structure of the city skyline

Museum of Warsaw Uprising Tower
Warsaw Pipes
St. Anna Tower
Millenium Plaza
Warsaw Landmarks
Structure of the city skyline

Siekierkowski Bridge (south view)

Orange Baloon

Saska Kępa District
Warsaw Landmarks
Statistics

- **ZŁOTA 44**
  - D. Libeskind
- **HINES TOWER**
  - Murphy&Jahn
- **SUPERSAM**
  - S.Kurylowicz
- **PROSTA TOWER**
  - S.Kurylowicz
- **WARSAW SPIRE**
  - Jaspers & Eyers
- **KURIA & BCC**
- **Poczta Polska em Jednacz arch.**

**Statistics:**
- **Historical:** 3
- **Present:** 30
- **Proposed:** 68
- **Construction:** 5
- **TOTAL:** 100?

**Projects:**
- **HOTEL SYSTEM**
  - stan surowy
- **PRUDENTIAL**
  - rewitalizacja
- **LILIUM**
  - Zaha Hadid
- **KALEIDOSCOPE**
  - A. Chołdzyński
- **KULCZYK**
  - APA Wojciechowski
- **ORCO**
  - zmiana elewacji?
Warsaw Landmarks
visual anomalies – city skyline, view axes

WTT (Daewoo)

ZEBRA TOWER

NOWY SUPERSAM

‘WITKAC’ BRACKA

‘TPSA’ ul.MONIUSZKI

ARCHITECTURE & CONTEXT
ANALYSIS OF WARSAW LANDSCAPE
TOOLS & METHODOLOGY
Tool & Methodology
Virtual 3D model
Tool & Methodology
View corridors & highrise zones
Tool & Methodology
Highrise zones – 3 clusters
Tool & Methodology
Protection of UNESCO complex integrity
Tool & Methodology
Skyscraper form – column analogy

CAPITOL
top of the tower
can be seen only from afar
junction between building and sky

SHAFT
the most elegant and unadorned
vertical part of skyscraper
its quality rely on graceful proportions

BASE
groundfloor of tall building
seen by observer in the street level
forms part of streetscape

Adolf Loos’ project
Palace of Culture Area after the war
Palace of Culture Area
urban conceptions after 1989

DiM (Dom i Miasto)

ARE

Bielyszew & Skopinski

AEDAS
Palace of Culture Area
How to change the symbol and space?

Pack up...

Grupa Plus 48

Add new highrisers...

Glass...

Screen...

Pull down...

Cover...
Palace of Culture Area
City skyline shape
Palace of Culture Area
City skyline shape
Palace of Culture Area
Local plan (2010)

sections → AutoCAD (model 3D) & Corel

plan's drawing → ArcMap (models/maps 2D)

view analysis → ArcScene (model 3D)

modeling → visualisations / model 3D

shading → Sketchup (model 3D)
Conclusions
coexistence of many spaces

<table>
<thead>
<tr>
<th>WARSAW MIXED SPACE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>HISTORICAL SPACE (REMAINED)</td>
</tr>
<tr>
<td>FANTOM SPACE (DESTROYED)</td>
</tr>
<tr>
<td>IDEOLOGICAL SPACE (IMPOSED)</td>
</tr>
<tr>
<td>“FREE MARKET” SPACE (PRESENT)</td>
</tr>
</tbody>
</table>
Conclusions

coexistence of many spaces
Conclusions
quality and direction of landscape transformation

> Highrise zoning

> Skyline & cityscape transformation

> Historical landscape protection

> Quality of architecture & public areas

>> methodology & tools of landscape analysis

>> formal-legal & landscape conditions + guidelines

😊 „à présent”

😊? „plans”

😊? „demain”
Conclusions
publications, web pages, ...

www.pracownia-warszawy.pl
www.architektura.um.warszawa.pl
www.wiezowce.waw.pl
www.ctbhuh.org
www.esri.pl
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