Heritage Impact Assessment
Some Cases and Examples

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1. WHY? Heritage Impact Assessments (HIAs) – Reasons for assessments

2. HOW? Our Methodology in compiling HIAs

3. CASE STUDIES related to the following specific questions:
   - **Timing:** Case 1_“VIS Dresden Elbe Valley”
   - **Planning and Governance:** Case 2_HIA Tunnel Entrances “Upper Middle Rhine Valley”
   - **OUV:** Case 3_“HIA Gallery Lower Austria” / Wachau Cultural Landscape”

4. CONCLUSION: Tasks for education and research
Heritage Impact Assessments

Reasons for application
Reasons for Heritage Impact Assessment – Risks (some examples)

- Climate change
- Socio-economic transformations
- Environmental threats

Research on cultural heritage
Management? Buffer Zones?
Meeting on Heritage and Environmental Impact Assessments (HIA) (EIA) | State of the art HIA and EIA practices | UNESCO Room VI | Prof. Dr.-Ing. Michael Kloos | 05 December 2017
Growth / Transportation Infrastructure?

HIA: Golden Horn Metro Bridge Istanbul / Turkey
Compilation: 2010-11
Client: Istanbul Metropolitan Municipality
Service Infrastructure?

HIA: Wind Turbaines in Wiesbaden / Germany

Compilation: 2013

Client: Municipality of Wiesbaden
SOC-Analysis (2013): Indicated Agents of Change (Cultural properties)

Meeting on Heritage and Environmental Impact Assessments (HIA) (EIA) I State of the art HIA and EIA practices I UNESCO Room VI I Prof. Dr.-Ing. Michael Kloos I 05 December 2017
Conclusion 1: Reasons for application

- **Reasons**: Our Heritage Impact experience is mainly related to questions referring to urban planning processes and visual integrity.

- **Questions**: Buildings and development, service infrastructure, management and planning, insufficient tools (e.g., buffer zones)...

- **Our Experience**: Most of the Impact Assessments are requested in complex WH-sites (Cultural Landscapes and Urban Landscapes).
2 Methodology
Case 1: VIS Bay of Kotor

Place: Cultural and Natural Region of Kotor (1979)
Compilation: 2009
Client: GTZ Project Office Montenegro, Ministry of Culture, Montenegro
Future State?

- New expressway between Croatia, Montenegro and Albania
- Replacement of the ferry service ...
Cultural Landscape Bay of Kotor (Mixed Site)
Meeting on Heritage and Environmental Impact Assessments (HIA) (EIA) | State of the art HIA and EIA practices | UNESCO Room VI | Prof. Dr.-Ing. Michael Kloos | 05 December 2017
S2: OUV / Attributes
Analysis of natural-/ cultural-values
Meeting on Heritage and Environmental Impact Assessments (HIA) (EIA) | State of the art HIA and EIA practices | UNESCO Room VI | Prof. Dr.-Ing. Michael Kloos | 05 December 2017
S4: Visualization
S5: Assessment
S5: Assessment
Assessment (background)

- ICOMOS HIA Guidance, Appendix 3b, 2011
- Statement on Outstanding Universal Value (World Heritage criteria, authenticity, integrity and management)

- Attributes (Operational Guidelines, § 82):
  - form and design;
  - materials and substance;
  - use and function;
  - traditions, techniques and management systems;
  - location and setting;
  - language, and other forms of intangible heritage;
  - spirit and feeling; and
  - other internal and external factors.
### S6: Summary of Various Assessment Layers

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Attributes</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Visual impact</td>
<td>Landmarks and points of elevated topography</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>‘Characteristic’ town views</td>
<td>Slight to moderate</td>
</tr>
<tr>
<td></td>
<td>Everyday views and street space</td>
<td>Moderate to positive</td>
</tr>
<tr>
<td>2 Functional impact</td>
<td>Visitors: management and information</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Compensation of urban architecture deficits in the immediate surroundings</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Compensation of urban architecture deficits in the quarter</td>
<td>Positive</td>
</tr>
<tr>
<td>3 Direct physical impact</td>
<td>Building heritage</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>Material quality and scale</td>
<td>Moderate</td>
</tr>
<tr>
<td>4 Socio-economic impact</td>
<td>Jobs / investments</td>
<td>Positive</td>
</tr>
<tr>
<td>5. Cumulative impact</td>
<td>Pedestrian traffic</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Urban development</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Vehicle traffic</td>
<td>Moderate (development of a traffic plan required)</td>
</tr>
<tr>
<td>6. Impact upon the management</td>
<td>Tourism</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Regional development</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Promoting World Heritage and education</td>
<td>Positive</td>
</tr>
<tr>
<td>7. Impact upon the World Heritage property as a whole</td>
<td>Sustainable development</td>
<td>Positive (attention to balanced development required)</td>
</tr>
</tbody>
</table>
S7: Recommendations: Masterplan and Buffer Zones
Conclusion 2: HIAs as a process to support sustainable development

- **Methodology:**
  - **Our basis:** Know-how in urban planning and conservation.
  - **Approach:** We have positive experiences with visualizations which show planned transformations as transparent as possible in order to come up with future-oriented perspectives for sustainable planning- and conflict-solving strategies.
  - **Principle:** We try to develop recommendations that can be fed back in planning processes. We include the relevant stakeholders. HIAs are seen as a process!
Heritage Impact Assessment (HIA)

“A process of **identifying**, predicting, **evaluating** and communicating the probable effects of a current or proposed development policy or action on the cultural life, institutions and resources of communities, then **integrating** the findings and conclusions into the planning and decision making process, with a view to **mitigating** adverse impacts and **enhancing** positive outcomes.”

Def. Impact Assessment: International Association of Impact Assessment (IAIA)

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**HIA as a Process: From Screening to Monitoring**
Legislative Context of HIAs

Environmental Impact Assessment (EIA)
Strategic Environmental Assessment (SEA)
Heritage Impact Assessment (HIA)

- EU-Legislation
- UNESCO World Heritage

- Not all of transformations in World Heritage properties are covered by EIAs!
- HIA as an assessment tool is not existing in EU-legislation – not legally binding!
- Only particular planning processes are covered by HIAs!
HIA plus SEAs EIAs

HIA: Stockholm Bypass Road / Sweden
Compilation: 2016 (in cooperation with Katri Lisitzin)
Client: Trafikverket / Sweden

Examples:
- HIA Stockholm Bypass and Ekerö Road / Sweden (2016)
- HIA Master Plan of South Dalmatia / Croatia (2016)
Combination of SEA and HIA on a strategic level.

In parallel to planning process.

Evaluations of SEA and HIA are supplementing each other.

HIA of the Master Plan for the Development of (…) South Dalmatia

*Place:* South Dalmatia (1979)

*Compilation:* 2016 (in cooperation with Katri Lisitzin)

*Client:* Trames Consultants / Dubrovnik
3
Case Studies
Question 1: Legislation and Timing

Reason for HIA: Waldschlösschen Bridge
Place: Dresden Elbe Valley / Germany
Compilation: 2006
Client: City of Dresden / German Commission for UNESCO
• Unique visual relationships as a key component of Outstanding Universal Value.

• Intensive interrelationships between “culture and nature” approx. 20 km “long” and strongly urbanized

Waldschlösschen Bridge
Recommendation,

- Revision of the plans to build the bridge
Waldschlösschen Bridge:
Withdrawn from the WH-List in 2009
Conclusion: What Went Wrong?

- **Bad timing:** HIA commissioned only 6 weeks before planned tender for bridge construction!

- **Negative Result:** No time to develop mitigation strategies.

- **Follow-up:** Extreme tensions between local and international stakeholders.
  - HIAs should be compiled as early as possible (but come in mostly too late!)!
  - HIAs cannot solve political problems!
VIS Cologne Cathedral (2005):
Impact Assessment + communication
Question 2: Feeding Back HIA-Results in Planning Processes / Governance?

Reason for HIA: New Railway Tunnels
Place: Upper Middle Rhine Valley / Germany
Compilation: 2015
Client: DB Netze (German Railway Networks)
- 3 tunnels, 5 alternative railway tracks.
- Evaluation of new tunnels entrances during planning process.
- Participation of the local population.
- Direct feedback of the examination results into the planning process.

HIA as an element in a co-operative process to integrate local population.
• From the very beginning, the potential impacts of the planned railway tracks on the World Heritage property have been taken into account systematically in the planning process.
From the very beginning, the potential impacts on the World Heritage was systematically assessed and discussed with relevant stakeholders (contracting authority, population, specialists, advisor bodies...).
1. First Assessment  2. Discussion  3. Improvements

Impact Assessment & Communication
Conclusion: HIA as an instrument for planning, communication, mitigation

- HIAs can help to test directly the World Heritage compatibility of new proposals within the planning process.
- HIAs can help to communicate complex planning processes.

▶ HIAs should be used as “pro-active” planning- and participation instrument!
Conclusion 5: HIA as a ‘pro-active’ instrument for planning, communication, mitigation
Upper Middle Rhine Valley – Upgrade of Management Plan with a ‘pro-active’ assessment system:

- **Background:** Many questions with regard to planning projects in the valley.
- **Goal:** Assessment of planned projects as soon as possible – during planning process.
- **3D-Modell of the entire valley.**
- Statement of OUV and attributes will be qualified with participation of local stakeholders and regional representatives.
- **Client:** Rhineland-Palatinate / Ministry of Inner Affairs

Research on Pro-Active HIA-System
Question 3: OUV and Attributes?

Reason for HIA: Gallery Lower Austria
Place: Wachau Cultural Landscape / Austria
Compilation: 2016
Client: Land Niederösterreich (Lower Austria, Ministry of Culture)
In cooperation with: Katri Lisitzin / Sweden (2nd opinion)
State Gallery of Lower Austria

- Main art gallery of Federal State of Lower Austria.
- International competition, 1st prize.
- Advisory Bodies participated in competition.
- Expert Panel to reduce the building volume.
- Advisory Body Critique: “No iconic buildings are needed in the World heritage site”.

Planned project
Wachau Cultural Landscape
A riverine landscape bordered by mountains

Architecture
Settlements
Agricultural use

“Illustrate a medieval landscape”

↓ OUV

Outstanding Universal Value
**Kriterium (ii):** Die Wachau ist ein herausragendes Beispiel einer in den Bergen gelegenen Flusslandschaft, in der sich der materielle Nachweis ihrer langen geschichtlichen Entwicklung in einem bemerkenswerten Ausmaß bewahrt hat. (…river landscape located in the mountains and very well preserved…)

**Kriterium (iv):** Die Architektur, die menschlichen Ansiedelungen und die landwirtschaftliche Nutzung des Landes in der Wachau illustrieren auf lebendige Weise eine grundsätzlich mittelalterliche Landschaft, die sich organisich und harmonisch über die Zeit entwickelt hat. (…architecture and land use structure illustrate medieval landscape…)

Eintragung als „fortbestehende Kulturlandschaft“ durch Wechselwirkungen zwischen Mensch und Natur. („continuing landscape“)

**Outstanding Universal Value**
Investigation area in 1935
Investigation area today

Stein

Krems
<table>
<thead>
<tr>
<th>Attribut</th>
<th>Veränderung</th>
<th>Ergebnis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landschaftliches Gesamtbild / Ortsbild</td>
<td>moderat</td>
<td>groß</td>
</tr>
<tr>
<td>Historische Stadtsilhouette</td>
<td>gering</td>
<td>moderat</td>
</tr>
<tr>
<td>Dachlandschaft</td>
<td>gering</td>
<td>moderat</td>
</tr>
<tr>
<td>Einzeldenkmäler / Dominanten</td>
<td>vernachlässigbar</td>
<td>gering</td>
</tr>
<tr>
<td>Alltagswahrnehmung / Tägliche Nutzung</td>
<td>positiv</td>
<td>positiv</td>
</tr>
<tr>
<td><strong>GESAMT</strong></td>
<td><strong>gering</strong></td>
<td><strong>moderat</strong></td>
</tr>
</tbody>
</table>
Wish: Impact Assessments should evaluate transformations with reference to OUV, Authenticity, and Integrity of UNESCO World Heritage properties.

Reality: SoOUVs are insufficient for assessment, attributes are not clearly listed and defined. Advisory Bodies sometimes refuse to concretize OUV and Attributes and do not reference their critique to OUV.

Result: Consultants were accused to have made 'mistakes' in HIA (despite quality management and 2nd opinion).

- OUV has to be clarified and attributes have to be qualified prior to HIA!
- Organisation and commissioning of HIAs has to be clarified by States Parties.

Conclusion: Definition of Attributes is crucial
Capacity Building and Education
10 years HIAs - No Feedback!
Three workshops to take stock
Workshops for WH-Managers and other representatives

(University of Applied Sciences Wiesbaden Rüsselsheim)
Training: Study course ‘Heritage Design’ (B.Sc.) (University of Applied Sciences Wiesbaden Rüsselsheim)
Purposes and Types: HIAs are used for various purposes. (Search for political solutions / ‘pro-active’). Methodologies and manuals must be adapted to this. Scientific knowhow should be included in manuals (Evaluation Theory!).

Effectiveness and Legislation: HIAs have no juridical status and are not legally binding! Therefore, HIAs come in mostly too late. It is necessary to embed HIAs in existing legislative systems (EU- and nationwide), as well as into Management Plans.

Planning and Governance: HIAs can only be applied successfully if applied in ‘pro-active’ manner. Embedding in planning processes allows to feedback results. Stakeholders and social communities have to be involved in HIA-assessment processes.

OUV and Assessment: HIAs have to be based on OUV and related attributes. There is a need for concrete Statements of OUV, incl. clear descriptions of attributes, so that assessments can be quantified and qualified. Qualification of attributes should be done prior to HIA (Terms of References) and not by consultants!


Training, Know-how and Quality: Quality, methodological approaches and results concerning the implementation of HIAs are varying significantly. Most HIA-practitioners are self-taught. Systematic training is necessary.

Conclusion: HIAs - Questions for Research
Thank You!

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