Place attachment of local residents with an urban forest and protected area in Vienna

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Place Attachment

Place attachment (PA) is a social-psychological concept, = the emotional-symbolic-functional attachment toward a particular geographic locale; an affective bond between people and specific places (places are more than geographic settings!).

• Understanding PA enhance urban forest management’s ability to address deeper landscape meaning and place-specific symbolic values in natural resource/urban planning decision making (Williams & Vaske, 2003).
• PA fosters social and political involvement of local residents in the preservation of the physical/social features of their neighbourhood.
Place Attachment

Several dimensions of place attachment:
• **Place identity**: refers to emotional/symbolic ties an individual may feel for a specific place, expressed as an identity with a symbolic meaning or idea such as nature conservation.
• **Place dependence**: functional attachment, is often related to the (recreational) activity an individual may pursue; unique ability to facilitate desired experiences, goal achievement.

Other dimensions:
Familiarity, Place belongingness, Rootedness, Social bonding, Lifestyle etc. (Hammitt et al. 2003; Kyle et al., 2004; Warzecha et al., 2000; Williams & Roggenbuck, 1989)
The Lobau

Area size: 2400 ha
Alluvial forest, high biodiversity:
- Biosphere reserve 1977 (Lower Lobau)
- National Park 1996

~15 000 local residents within 15 min of walking distance
> 150 000 local residents within 6 km of distance (22nd district, Groß-Enzersdorf)

> 600 000 visits/yr (1999) ➔ Heavily visited area, resulting in conflicts between recreation use and nature conservation
Research Questions

How important is the Lobau for local residents for
- outdoor recreation
- quality of life
- community attachment

How attached are local residents to the Lobau?

Are there any relationships between the place attachment dimensions and attitudes towards
- nature conservation/visitor management
- tourism development
The Research Project

Financed by the Austrian Man and Biosphere Programme (UNESCO), administered by the Austrian Academy of Sciences (ÖAW)

Project partners: Institute of Landscape Development, Recreation and Conservation Planning & Institute of Wildlife Biology and Game Management (BOKU) in co-operation with the Vienna Forest Department & the Danube Floodplains National Park Administration

Main components of the project (duration: 3.5 yrs.):
• 2-year wildlife monitoring using GPS-tracking
• 2-year visitor counting
• On-site visitor surveys
• Survey of local residents
Postal survey between February and March 2006

Local residents of the
- Community of Groß-Enzersdorf
- 22nd District of Vienna

Random sample of local residents (>= 14 yrs.) based on the inhabitant register

6-page questionnaire
Methods

Procedure (Dillman 1978):

1. [Announcement letter]
2. Questionnaire I
3. Reminder (postcard)
4. Questionnaire II
5. [Reminder]

➤ Response rate: 53%
➤ $N = 602$
The sample

Age (Mean): 50 yrs. (14 - 93)
Gender: 49% Females
Origin: 50% From 22nd district
Education: 34% Secondary school, professional school
28% Apprenticeship
24% High school
13% University degree
Occupation: 50% Employees & workers
32% Retired
6% Self-employed
5% Pupils and students
5% Housewife/man
Length of residence (Mean): 27 yrs. (0.5 - 83).
Recreation use

Number of frequently visited recreation areas in and around Vienna: 3.2 (mean)

Most frequently visited recreation areas:
1. Lobau: 329
2. Donauinsel / Neue Donau: 50
3. Danube Floodplains NP in LA: 47
4. Alte Donau: 39
5. Donaupark: 28

Average number of visits to recreation areas in and around Vienna during the last year: 84
Recreation use of the Lobau

98% have visited the Lobau
Number of visits to the Lobau during the last year: 65 (mean)
→ 77% of all recreation visits are allotted to the Lobau

Frequency of visits: Daily: 1.5%
Weekly: 22%
Monthly: 38%

60% categorize themselves as regular visitors to the Lobau
→ The Lobau is extremely important for outdoor recreation use for local residents
→ Respondents are satisfied with the Lobau as recreation setting (1.6 on a scale from 1=very satisfied to 5=unsatisfied)
## Lobau - Place attachment

<table>
<thead>
<tr>
<th>Place attachment items (excerpt)</th>
<th>Strongly agree (1)</th>
<th>Agree (2)</th>
<th>Strongly disagree (5)</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I would recommend that area to my friends”</td>
<td>57%</td>
<td>25%</td>
<td>1%</td>
<td>1.7</td>
</tr>
<tr>
<td>“I am very attached to the Lobau“</td>
<td>48%</td>
<td>25%</td>
<td>2%</td>
<td>1.9</td>
</tr>
<tr>
<td>“The Lobau is very special to me“</td>
<td>41%</td>
<td>26%</td>
<td>3%</td>
<td>2.0</td>
</tr>
<tr>
<td>“The Lobau means a lot to me“</td>
<td>42%</td>
<td>25%</td>
<td>3%</td>
<td>2.1</td>
</tr>
<tr>
<td>“I would prefer to spend more time here if I could“</td>
<td>42%</td>
<td>24%</td>
<td>2%</td>
<td>2.1</td>
</tr>
</tbody>
</table>
## Lobau - Place attachment

<table>
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<th>Strongly disagree (5)</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>“The Lobau is the best place for recreation of all Viennese recreation areas”</td>
<td>31%</td>
<td>24%</td>
<td>5%</td>
<td>2.3</td>
</tr>
<tr>
<td>“The Lobau is the best place for my favourite recreational activities”</td>
<td>29%</td>
<td>25%</td>
<td>7%</td>
<td>2.5</td>
</tr>
<tr>
<td>“My desired recreation experience I can get only in the Lobau”</td>
<td>13%</td>
<td>20%</td>
<td>12%</td>
<td>3.0</td>
</tr>
<tr>
<td>“I would not go to other recreation areas in and around Vienna”</td>
<td>14%</td>
<td>13%</td>
<td>18%</td>
<td>3.2</td>
</tr>
</tbody>
</table>
Place attachment dimensions

13 place attachment items (5-point response scale)

Factor analysis (principal component analysis, Ward-method):

2 dimensions:
- place **dependence** (4 items; Cronbach’s $\alpha$ .879, 28.0%)
- place **identity** (9 items, Cronbach’s $\alpha$ .913; 40.8%)

explaining 69.0% of the total variance
KMO = 0.948
## Lobau – Nature conservation

<table>
<thead>
<tr>
<th>Items - nature conservation</th>
<th>Strongly agree (1)</th>
<th>Agree (2)</th>
<th>Strongly disagree (5)</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Protected areas such as the Lobau increase the life quality in my community“</td>
<td>80%</td>
<td>13%</td>
<td>1%</td>
<td>1.3</td>
</tr>
<tr>
<td>“There should be more protected areas in my community“</td>
<td>35%</td>
<td>21%</td>
<td>5%</td>
<td>2.4</td>
</tr>
<tr>
<td>“Visitor management is needed to protect nature from recreation impact“</td>
<td>28%</td>
<td>24%</td>
<td>10%</td>
<td>2.5</td>
</tr>
<tr>
<td>“Recreation use has a negative impact on the wildlife of the Lobau“</td>
<td>17%</td>
<td>22%</td>
<td>4%</td>
<td>2.7</td>
</tr>
<tr>
<td>“Nature conservation is strongly limiting recreation use“</td>
<td>13%</td>
<td>17%</td>
<td>20%</td>
<td>3.2</td>
</tr>
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### Items – tourism

<table>
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<tr>
<th>Item</th>
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<th>Agree (2)</th>
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<td>“National park tourism will lead to an overuse of the Lobau“</td>
<td>39%</td>
<td>24%</td>
<td>3%</td>
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<td>“The Lobau should be a recreation area primarily serving for local residents“</td>
<td>41%</td>
<td>22%</td>
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<tr>
<td>“National park tourism will contribute to regional income“</td>
<td>19%</td>
<td>17%</td>
<td>11%</td>
<td>2.8</td>
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<td>“The Lobau should be promoted for tourism“</td>
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<td>25%</td>
<td>23%</td>
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## Place attachment dimensions

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<th>Variables</th>
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<tr>
<td>Age</td>
<td>n.s.</td>
<td>**</td>
</tr>
<tr>
<td>Length of residence</td>
<td>n.s.</td>
<td>**</td>
</tr>
<tr>
<td>Community attachment</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Years of Lobau use</td>
<td>***</td>
<td>*</td>
</tr>
<tr>
<td>Frequency of visits (last yr, Lobau)</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>Satisfaction with Lobau as recreation setting</td>
<td>***</td>
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*p < .05; **p < .01; ***p < .001; n.s. = not significant
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Conclusions

High importance of the Lobau as recreation area: it is the recreation area of the region (few substitutes)

High frequency of visits

High satisfaction scores

Increases living quality

Low awareness of the recreation impact on wildlife (39%)

High PA scores

PA correlates with

- Duration and intensity of use
- Satisfaction
- Community attachment
Conclusions

PA attachment correlates with attitudes towards
- nature conservation (strong correlations)
- tourism development
Concerns about their (daily) environment: strong support of nature conservation, limited for tourism.

Differences between PA dimensions:
“Dependence”: more relationships: the elderly, long-term users and traditional residents perceived limitation of recreation use by nature conservation, open for some kind of tourism (open access?).
Specific focus on rural residents.
Conclusions

PA is a useful concept for place-based management of urban protected areas.
PA helps urban forest management to address place-specific emotional symbolic and functional values of local residents.

For management:
No limitation of recreation use
Sophisticated visitor management (buffer zones needed)
Less efforts in promoting national park tourism
Increasing PA: better access (public transport)
Educational measures etc.
Thank you!

Lobau – We love you
Management for Protection and Development

The Fourth International Conference on Monitoring and Management of Visitor Flows in Recreational and Protected Areas

Montecatini Terme (Tuscany, Italy)
October 14-19, 2008
http://web.fi.ibimet.cnr.it/MMV4/