LANDSCAPE AROUND ROADS: EVALUATION AND SOSTENIBILITY

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1. Introduction

• Landscape: an increasing value in our society.

• Infrastructures: enemy of the landscape?

• Visual character of a road can be changed.

• Validated landscape evaluation methods.
2. Objectives

- First step of the OASIS project.

- New cartography with information about:
  1. Scenic routes: indicators.
  2. Best practices on landscape integration.
  3. Potential areas for applying integration measures.
3. Methodology: Inventory

- Taking photos and recording its geographical position along 1,600 km.
3. Methodology: Inventory

• *Where did we take photos?:*
  1. Change in the landscape: land use, land form, vegetation…
  2. Best practices of landscape integration.
  3. Important visual impacts introduced by the infrastructure.
3. Methodology: Evaluation

- Photography, a tool for assessment of human activity on a landscape (local scale).

<table>
<thead>
<tr>
<th>Highly sensitive Method</th>
<th>Physical attributes</th>
<th>Aesthetical attributes</th>
<th>Psychological attributes</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Land forms, Vegetation, Land use, Views, Cultural resources, etc.</td>
<td>Shape and Colour</td>
<td>Unity and Expression</td>
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</tbody>
</table>
3. Methodology: Evaluation

- **Landscape classification:** 7 different landscape qualities

  - **Excellent:** >80
  - **Very good:** 68-80
  - **Good:** 56-68
  - **Fairly good:** 44-56
  - **Mediocre:** 32-44
  - **Poor:** 20-32
  - **Deteriorated:** <20
3. Methodology: Indicators

- Establishing homogeneous landscape quality areas.
- Evaluation of representative photos per area.

![Diagram showing Atlantic and sub-Atlantic hills and valleys with points where photos were taken and driving direction.](image-url)
3. Methodology: Indicators

- **Average quality of the landscape unit (AQ):** stretches of 50 km.

- **Variability of landscape units (VU):**

  \[ VU = \frac{\text{number of units of landscape}}{\text{length of the stretch (km)}} \]

- **Variability of the quality of landscape (VQ):**

  \[ VQ = \frac{\text{number of different landscape qualities}}{\text{length of the stretch (km)}} \]
4. Results

- Average quality of landscape unit (AQ)
4. Results

- **Variability of landscape units (VU)**
4. Results

- **Variability of landscape qualities (VQ).**
5. Conclusion and research

- A new GIS cartography of quality and variability on highways.

Priority Areas

Testing landscape evaluation method

Input for next stages of OASIS PROJECT

TOOL for managements

Priority areas for landscape integration measures

Testing its effectiveness in road areas

Landscape integration measures evaluation

www.irf2010.com
5. Conclusion and research

- Effectiveness of landscape integration measures
THANKS FOR YOUR ATTENTION

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