

THE SOCIAL ACCEPTABILITY OF CLEAR-CUTTING DERIVED FROM A STRATEGY OF MOSAIC FORESTRY IN BOREAL FIR FORESTS: the case of the Montmorency Forest

Véronique Yelle and Louis Bélanger
ISSRM 2008, June 11th



UNIVERSITÉ
LAVAL



Introduction

- Negative perception of clear cuts (*Ribe 2005, Bliss 2000*)
- Recreationists have high standard
- Ecosystem management in the boreal forest : clear felling
- Can clear felling and recreation coexist?

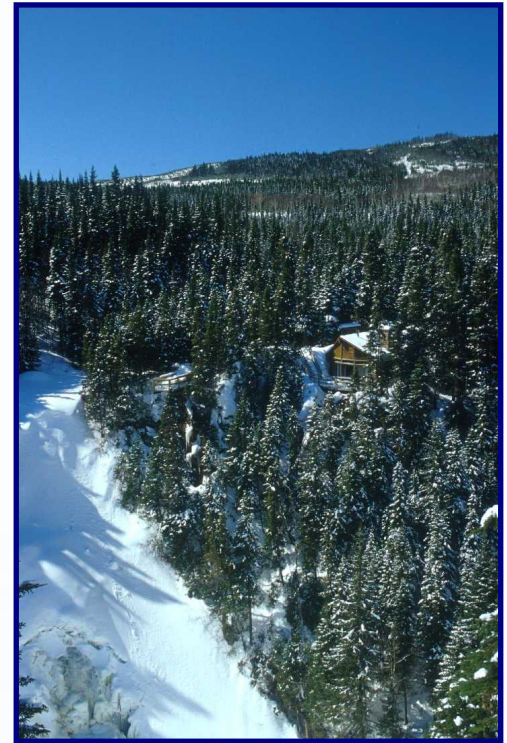


Location of Montmorency Forest



Area being studied

- Université Laval's research forest
- 70 Km north of Québec City
- 6 665 hectares
- Hilly terrain and cold humid climate
- White birch and balsam fir forest climatic zone
- Timber harvest : 11 000 m³ annually
- Integrated management : recreation



Mosaic Forest

- Scattered clear-cuts
 - ecosystem management (spruce budworm, fire, windthrow)
- 1st rule of the 1/3
 - regenerating / youngs / mature and old growth
- 2nd rule of the 1/3
 - < 10ha / 10-30ha / 30-100ha
- Visual integration of logging
 - Natural contours
 - Sub-dominance in the landscape (1/3 of 10 Km² units)





Recreational tourism

- Year round outdoors activities
- On site lodging
- Popular for winter sports
 - Crosscountry skiing
 - Snowshoeing
 - Ice skating
 - Hiking
- XXXX visitors annually
- Local visitors (Québec's city)



Goals and objectives

Is the mosaic forest acceptable in a winter recreational context?

- Small size of the clear cuts
- Regeneration
- Dispersion

➤ *It could be socially acceptable for the recreationnists*

Reasons for the frequentation
given the forestry context

Recognition of the clear cuts in
the landscape

Perception of the clear cuts



1. Semi-directed individual interviews

Questionnaire about overall perception of the mgt strategy

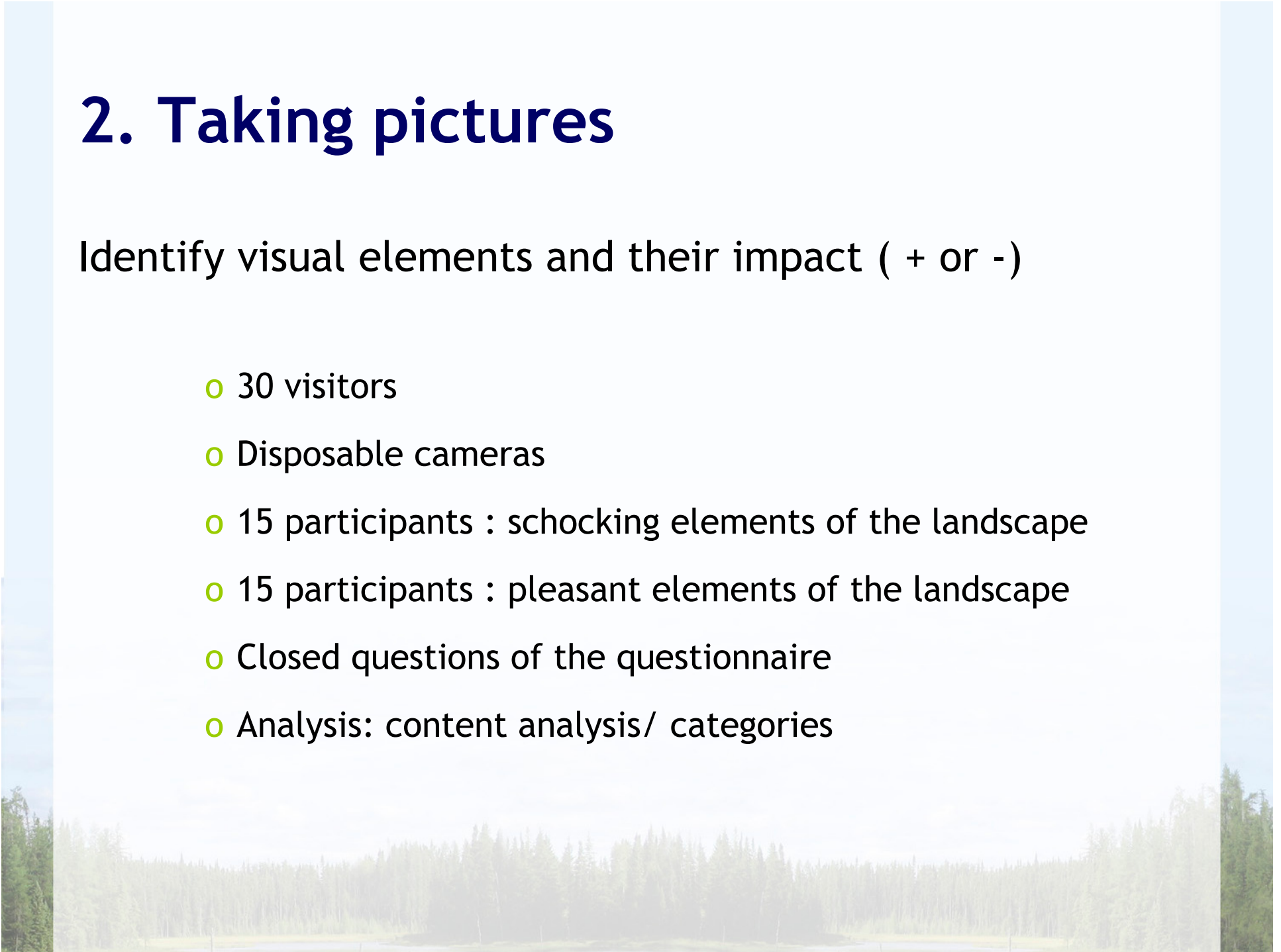
- Closed, semi-open open questions
- 50 visitors
- After activity
- Interviewer
- 15-20 minutes
- Spread over time
- February and March 2004
- Analysis: coding system



2. Taking pictures

Identify visual elements and their impact (+ or -)

- o 30 visitors
- o Disposable cameras
- o 15 participants : shocking elements of the landscape
- o 15 participants : pleasant elements of the landscape
- o Closed questions of the questionnaire
- o Analysis: content analysis/ categories



Acceptability of the Mosaic Forest

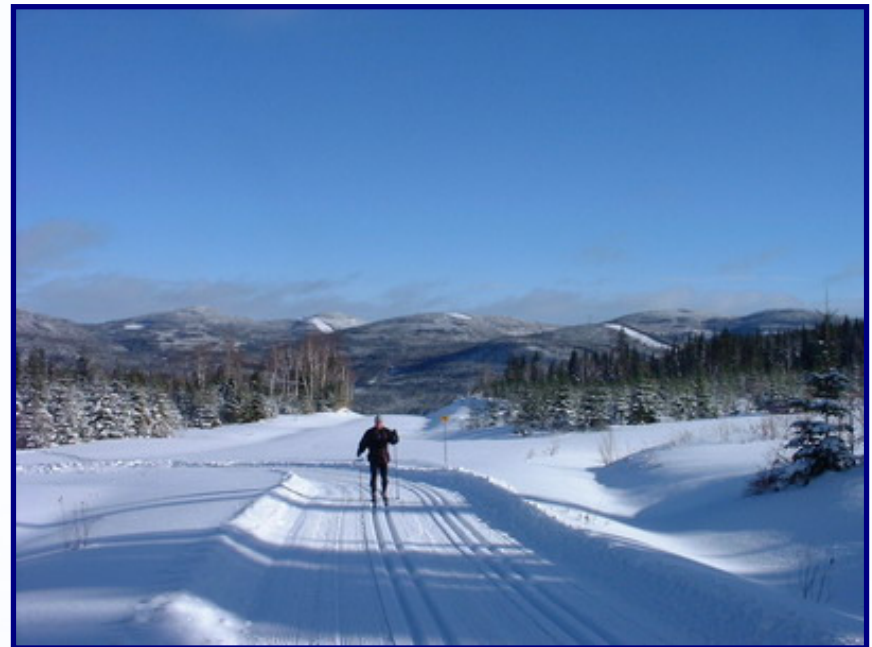
- Acceptability of the landscapes

Mean score
4.5/5 (4.1/5)

vs

- Beauty of the landscapes

Mean score
4.3/5 (4.1/5)



Acceptability of the forest practices in general

Open question

1. Type of cut
2. Presence of regeneration
3. Area of the cut
4. Distance between cuts
5. Habitat conservation
6. Quality of the management

Closed question

1. Surface area
2. Residual vegetation
3. Surroundings
4. Topography



Is a clear cut a clear cut ???

- 50% do not think that logging at MF is clear felling
 - Separation of the cuts
 - « everything is not bare, there is still a forest »
 - Regeneration
 - Small scale of the cuts
 - Habitat conservation
- 40% can't see them



Quality of management

- Participant's trust in the FM managers very high

4.15/ 5 (3.18/5)

- 60% think logging is legitimate at MF
 - 1/3 science
 - 1/3 forest regeneration and protection
 - University context ?
- Reaction to forest cuts : 50% positive to neutral
 - Logging is normal
 - Confidence in the managers
 - Dispersion
 - Powerless



Quality of the recreational experience

- Cohabitation of forestry and recreational tourism
 - **75% Harmonious or good**
- Impact of forestry on recreational experience
 - **75% no impact**
- Important environment's characteristics during their activity (*while 80% aware of logging*)
 - **Nature** : meets expectations
 - **Scenery** : meets expectations at 85%
 - **Peacefulness** : meets expectations



Shocking elements of the landscape

119 snapshots

Visual elements	% in the pictures
Harvest sites	28%
Open areas	28%
Young stand/ regenerating	24,5%
Snags	22,5%
Deciduous	22%
Epiphytes	16%
Old stands	10%
Fallen trees	9%



Negative elements of the landscapes



Pleasant elements of the landscape

200 snapshots

Visual elements	% in the pictures
Coniferous	82%
Mature stands	69%
Mountainous terrain	36%
View on harvesting sites	24,5%
Open areas	21%
Deciduous	20,5%
Young stands / regenerating	14%
Snags	9%



Positive elements of the landscape



Conclusions

- Suitability for recreational purposes:
 - ❖ clientele is satisfied
- Mosaic forest \neq clearcut stereotype
 - ❖ Regeneration
 - ❖ Dispersion
 - ❖ Small surface area
- Climate of trust
- Acceptability of the landscape



Limitations of the study

- Winter context: snow cover
- University context : higher trust
- Mosaic forest adapted to boreal balsam fir forest

