The MonViso Institute

A real-world mountain laboratory for research, education and entrepreneurship in sustainability transitions and systemic design

Ostana, Valle Po, Italy

Tobias Luthe
Web of Life

Measuring, Implementing and Communicating Sustainability in Mountain Tourism
Building a meta-network for comparable assessment and communication of sustainability
MonViso Institute – evolving campus is located in Ostana, Occitan Alps at the border of Italy and France. Valle Po, origin of the river Po, at the foot of Monte Viso (3842m asl).
Crisis and system breakdown

Graphic 1. demographic changes of Ostana municipality from 1861 to 2011 based on Italians Census records

Graphic by Maria Anna Bertolino on Istat data
 Migration balance in the Alps 2002 - 2012

Löffler, R. et al. (2014). New Highlanders in Traditional Outmigration Areas in the Alps, JAR, 102-3
Abandoned areas need to regain a resilient economy

Smaller, more diverse, flexible, adaptive > circular
Strengthened re-organization after crisis
Systems Transformation

Pioneering spirit – intrinsic motivation – systems thinking – wide knowledge base
Rebuilding a community – the social hub and meeting point Rifugio Galaberna for guests and the local community
Rebuilding a community – poly-functional building
a cultural center for local people, visitors, entrepreneurs, co-workers and group activities
Systemic design of networked hospitality and accommodation
Albergo Diffuso – many small (private) rooms connect to a flexible accommodation network

Ordinary Hotel

Albergo Diffuso

http://www.alberghidiffusi.it
The MonViso Institute
Vision & Goals

TRANSFORMING AN ABANDONED PLACE INTO A LIVING LABORATORY FOR SUSTAINABILITY

Learn about Serre Lamboi
The MonViso Institute

Vision & Goals

DESIGNING A PLAYFUL HUB
FOR RESEARCH, EDUCATION, ENTREPRENEURSHIP
IN SUSTAINABILITY

The MonViso Institute is advancing and promoting sustainability through research, education, design and entrepreneurship, by collaborating in international research projects, by offering courses and trainings on-site for local practitioners and to international university student groups, by providing design solutions, and through entrepreneurial initiatives.
The MonViso Institute
Vision & Goals

- RESEARCH & DESIGN
- EXPERIENCE & LEARN
- LIVE & SHARE
The evolving campus of the MonViso Institute

1450m asl
Transdisciplinary real-world laboratory research at the MonViso Institute

Resilience of mountain social-ecological systems...Alpine Urbanism...Smart cities...Energy transition...Forestry and wooden constructions...Cradle-to-cradle design...Responsible tourism...Environmental change...Circular Economy...Ecosystem Services...
Communicating and Learning about Sustainability
The *SustainaBuild* six-dimensional sustainability concept

Sustainability is the Global Goal
A local Path
And a Joint Process

FINDING A BALANCE
Live Happily, Respect Nature

MVI Systemic Design Principles

**Be systemic**
- Everything is connected - think and design systemic to take more effective action in tackling wicked sustainability challenges.

**Think big & act direct**
- Our challenges are globally connected but require direct, local action. Walk the talk.

**Find Leverage**
- Action is urgently needed - being efficient is good but not enough. Go for what is most effective, having most leverage.

**Use low tech & high brain**
- Use low tech, simplified, passive and mechanic solutions where possible, for less embodied energy and easy maintenance.

**Learn from Nature**
- Nature offers genius design solutions with billions of years in evolution, functioning in closed systems, where no waste exists.

**Respect local knowledge**
- Often, local people know their terrain and can tell us solutions that work, if we listen carefully.

**Re-fuse, Re-use, Re-cycle**
- Less is more. Let's rethink consumption and work towards zero emissions and zero waste.

**Design with carbon**
- Products and Services designed to minimize carbon flows over entire life cycles may well be the most effective tools to slow down climate change.

**Transfer knowledge and build capacity**
- Share trusted knowledge and valuable experience to involve, stimulate and engage others to support the sustainability transition.

**Be transparent**
- Facts are facts, there is no alternative truth to the current state of knowledge. Show your data and carefully interpret it.

**Have fun do good**
- Follow your instinct and enjoy contributing to a net-positive impact.
Data collection – climate, social-ecological development, tourism
Top-down quantitative data collection & bottom-up qualitative experiences

OBSERVATORIES

The MVI is a data collection hub and positioned as part of an international mountain observatory network.
Experimenting with new mountain life styles – Alpine Urbanism

Why did you return to the mountains – and what will keep you here?

New Highlanders
(Löffler et al. 2014)
Local mobility experiment with USI Lugano
Real-world learning of a Master student course in Ostana
Demonstrating the vision before changing the existing

Gain mutual respect and TD support, long-time – involving MSc students
Social complexity – Master student research

Mapping the innovative potential of the Ostana community network (N=44)

Layout clustered by openness for change (core is very supportive, periphery less)
Rich course program 2018 merging international scope and diversity
with local knowledge and place-based experiences
Tradition meets Innovation
Challenges? Technical Engineering Design – Social Innovation

Accelerating technological innovation processes
testing and demonstrating building and energy solutions in real

A modular combination of traditional knowledge application
and modern plug-&-play elements connecting research and industry
Traditional systemic design lessons

Keep the existing where possible
Systemic Design – Evolution of Tradition
Visual bottoms of stone plates vs. grey coloured PV cells
Modern demand (overhang, insulation,..) requires new flexibility
Promoting the nature- and sports tourism potential in the region
Connecting traditional Occitan culture with international inspiration

Ski traverse the wildest section of the European Alps through the unique culture of Occitania: From Mont Blanc (France), the highest mountain of the Alps, to Monte Viso (Italy), the highest peak of the Southern Alps referenced in Dante's Inferno.

TransOccitan ski safari
Mont Blanc to Monte Viso

270km on skis - crossing 17 ski areas
30'000m vertical downhill
3'000m ski mountaineering uphill

Ski the largest and most famous ski areas of France, and the smallest and most hidden treasures in forgotten valleys of the Italian border region. Tour through wild terrain, experience overnights in mountain refuges and boutique hotels, and dine with cheese and wine.

Welcome to Powder Mountain – a utopian club for the millennial elite

When these young entrepreneurs bought a remote ski resort in Utah, they dreamed of an exclusive, socially conscious community. Is this...
TransOccitan ski safari – from Chamonix Mont Blanc to Ostana Monte Viso
350km on skis – 17 ski resorts – 3 days ski mountaineering – 8 days total
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Re-growing industrial hemp as an incubator for designing a circular economy

Building insulation fabric medicine cosmetics food paper soil improvement tourism engineering (fibres, bio-plastics)
Hemp fibres from the MVI field in Ostana

Merging tradition with sustainable innovation
Winning two eco design prices at ISPO 2018, Munich
The Consumer Choices We Make
Up to 50% reduced GWP while stimulating a circular economy in mountain regions

The Grown Hemp Ski "MonViso edition"
Regenerative design - 100% hemp fiber-Paulownia wood composite
Minimal ecological footprint - renewable materials with 0km potential
Positive contribution - restoring circular mountain economies
Systemic Design: Research, Doing, Experience
A typical RWL learning context in designing eco-skis, on-site
Scales of Transformations
Abandoned houses – compound – community – valley - region
Meet, Experience and Co-Design place-based systemic sustainability transitions to incubate change-making in other places.
Grazie mille – Danke – Thanks – Merci – Tonte Grasie