

# **Rebuilding the Edge**

## The Ferrovia dei Parchi

**Project Team**

Ava LaRocca  
Sacha Moreau  
Alexis Spinetta

**Teaching Team**

Liminal  
MIT Urban Risk Lab  
MIT Digital Structures Group

**Scale**

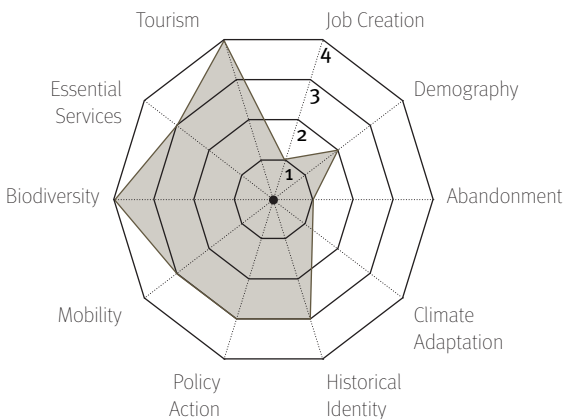
District

**Location**

Bugnara, Introdacqua, Sulmona  
Pettorano sul Gizio, Cansano (Abruzzo)



# Understanding Natural Potential

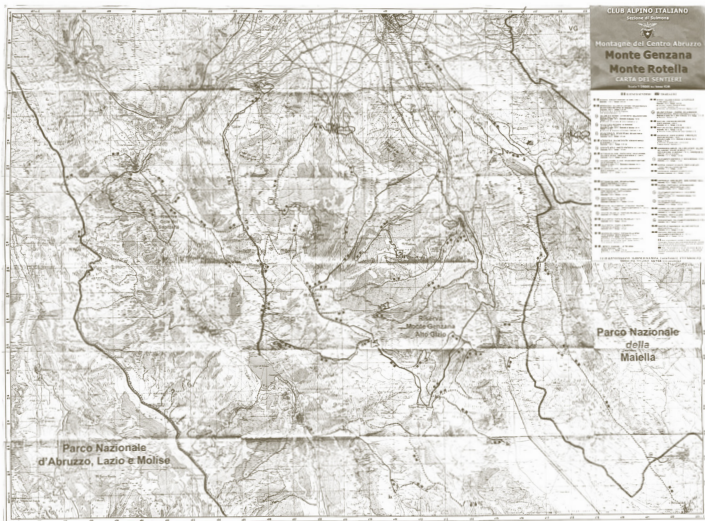


- 1 Not addressed
- 2 Somewhat addressed
- 3 Minor focus area
- 4 Major focus area

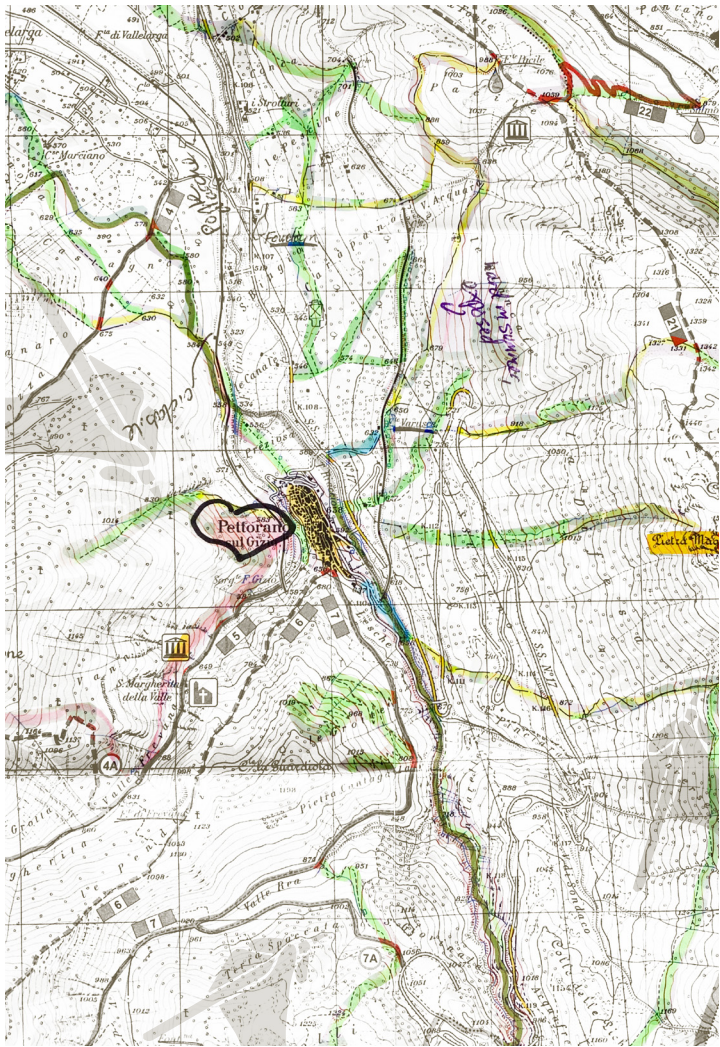
Abruzzo is the largest natural area within Europe, hosting over 75% of all species found across Europe. In its entirety, over 1/3 of the region is designated as a protected natural area, encompassing three national parks, one regional park, and several nature reserves. In doing so, Abruzzo has earned the nickname “The Lungs of Europe.”

Although the area of Abruzzo is known for nature as a whole, this group began with one of the more low-receiving eco-tourism areas: the inner region of the Valle Peligna. Access to nature is high in this area spanning 100km<sup>2</sup>, yet tourism remains relatively infrequent. Two of the most significant obstacles hindering increased tourism are a lack of services and a poorly integrated communication and marketing strategy.

Through several hikes, conversations with stakeholders, and analyses of distinct trails, the group ultimately proposes a new integrated path: the Sentiero Juan Carrito. It connects five small towns through a ring-like connection: Bugnara, Introdacqua, Pettorano sul Gizio, Cansano, and the regional center, Sulmona. Ultimately, the proposal to link services between and across these towns aims to embrace local communities, support the local economy, further protect the environment, and promote responsible travel.



The project began by stepping outside and exploring the Valle Peligna in many different ways, including hikes, e-bike rides and walking. Along the way, the group highlighted the various routes traveled on a physical map of the territory and categorized them according to type.



elarga

F. di Vallegarga

L. Stratiara

F. di Arcugnano

F. di Arcugnano

22

C. Marciano

F. di Arcugnano

F. di Arcugnano

F. di Arcugnano

22

C. di Arcugnano

F. di Arcugnano

F. di Arcugnano

F. di Arcugnano

22

C. di Arcugnano

F. di Arcugnano

F. di Arcugnano

F. di Arcugnano

22

C. di Arcugnano

F. di Arcugnano

F. di Arcugnano

F. di Arcugnano

22

Pettorano sul Gizio

Poggio di S. Margherita

C. di Arcugnano

F. di Arcugnano

F. di Arcugnano

F. di Arcugnano

22

C. di Arcugnano

F. di Arcugnano

F. di Arcugnano

F. di Arcugnano

22

C. di Arcugnano

F. di Arcugnano

F. di Arcugnano

F. di Arcugnano

22

C. di Arcugnano

F. di Arcugnano

F. di Arcugnano

F. di Arcugnano

22

C. di Arcugnano

F. di Arcugnano

F. di Arcugnano

F. di Arcugnano

22

C. di Arcugnano

F. di Arcugnano

F. di Arcugnano

F. di Arcugnano

22

C. di Arcugnano

F. di Arcugnano

F. di Arcugnano

F. di Arcugnano

22

C. di Arcugnano

F. di Arcugnano

F. di Arcugnano

F. di Arcugnano

22

C. di Arcugnano

F. di Arcugnano

F. di Arcugnano

F. di Arcugnano

22

# Hiking Across Towns

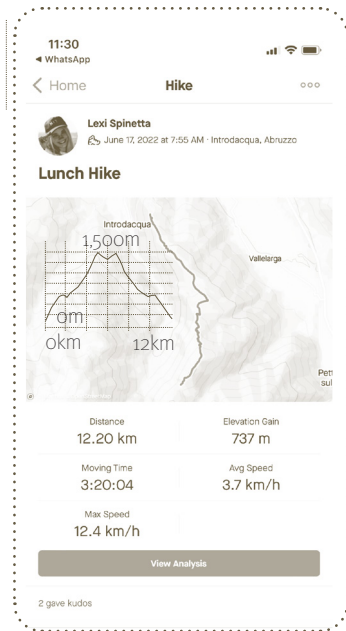
As part of their fieldwork, the group spoke with the Club Alpino Italiano (CAI), the oldest and largest mountaineering society within Italy. They hiked together and charted an unmapped trail in the area critical for the proposed loop.







One of the many other hikes was with Antonio, a local from Pettorano sul Gizio who they met at the town bar. With him, the group hiked roughly three hours from Introdacqua to Pettorano through lesser advertised and maintained trails.





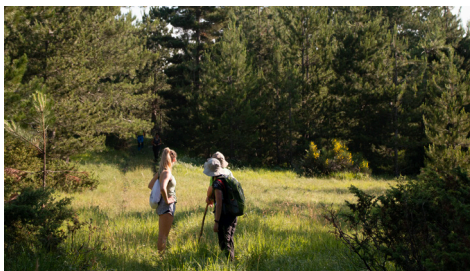
We love the spirit of this place. Everything you are seeing now are a product of people's relationship to the landscape here. Our main challenge is that we lack a complete marketing strategy, because without a clearly outlined offer, it's hard to sell the territory to travelers.

—Mario Cipollone  
Cooperativa Valleluna



Vistas to nearby towns from trails

Through these hikes, the group discovered a variety of conditions that neighbor the trails, which would ultimately be harnessed in the final proposal.



Proximity of trails to dense forests



Small scale agricultural cultivations abutting trails

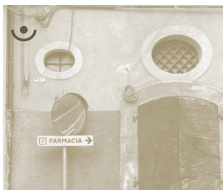
# Analyzing Trail Features



Historic rural architecture



Clearly worn trail



Directional signs



Thorny overgrowth



**Pettorano  
sul Gizio**



Following the several hikes and excursions, the group began analyzing several conditions and services along different trails. The aim was to better understand the missing services and potential opportunities, as shown here for the Pettorano-Cansano trail.



Visible markers

Barbed wire



Landscape with anthropic transhumance features

Historic infrastructure



Thick plant growth



**Cansano**

### Legend

-  Asset
-  Shortcoming
-  Point of Interest

How can we classify successful, existing trail features and what could be added to increase demand and use?



## Analysis of Next Steps Needed for Expanded Trail Eco-Tourism

Need	Specific Actions
<b>Completing the Loop</b>	<ol style="list-style-type: none"><li>1. Missing trail establishment and long-term maintenance strategy</li><li>2. Sulmona-Bugnara and Sulmona-Introdacqua connection</li></ol>
<b>Aiding Navigation</b>	<ol style="list-style-type: none"><li>1. Distinct signage on trails and in towns</li><li>2. Educational signage along routes and at interest points</li></ol>
<b>Adding Services</b>	<ol style="list-style-type: none"><li>1. Expansion of accommodation options</li><li>2. Luggage shuttle service for town-to-town hikers</li></ol>
<b>Curating &amp; Distributing Information</b>	<ol style="list-style-type: none"><li>1. Stand-alone guide and map with trails and interest points</li><li>2. Marketing plan to expand reach to target national and international audience</li></ol>

## **Stakeholders**

---

CAI, volunteer org.,  
regional bus, on-call  
shuttle or e-bike

---

CAI or individual  
municipalities

---

Property owners or  
(new) on-call luggage  
transfer service

---

CAI, new org. or  
regional body assisted  
by marketing agency

---

## Trail Quality Inquiry

Asset ☺

Path is clearly directional

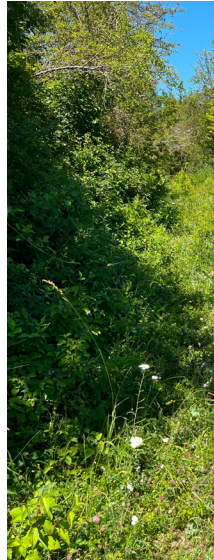
Well-kept trail



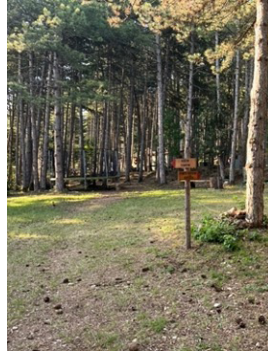
Shortcoming ☹

No directional quality

Overgrown paths



analysis



## Signage Inquiry

**Asset** 😊

In-town periphery signs to indicate available trails



### Shortcoming 🕒

No clear signage upon leaving town, hindering discovery and use of trails

## Educational Activity Inquiry

**Asset** 😊

Clearly indicated  
educational moments



**Shortcoming** 🏹  
Small, difficult to see  
educational moments



How can we classify the target audience for an inter-connected trail network and understand their relative economic and environmental footprint on the territory?

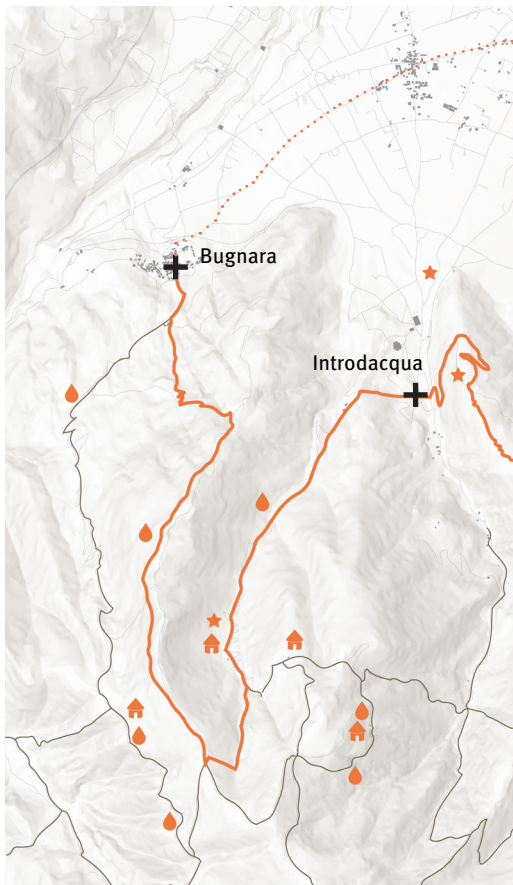


Traveler Type & Estimated Spending	Main Assumptions	Primary Goals
<b>Full Support Family</b> €1,870	🏠 5 nights 👤 5 people ✂ €35/day/person 🧳 Luggage transfer 🚦 Excursions	Authentic vacation with planned schedule, desirable, comfortable accommodations with diverse excursions
<b>Intermediate Support Family</b> €1,720	🏠 5 nights 👤 5 people ✂ €25/day/person 🧳 Luggage transfer	Active, authentic vacation with unique destination, desires control & flexibility
<b>Intermediate Support Couple</b> €1,300	🏠 5 nights 👤 2 people ✂ €35/day/person 🧳 Luggage transfer	Same as above with “romance” factor
<b>Intermediate Support Individual</b> €850	🏠 5 nights 👤 1 person ✂ €35/day/person 🧳 Luggage transfer	Peace and quiet with space for self-reflection
<b>Low Support// Backpackers</b> €270	🏠 7 nights 👤 1 person ✂ packed €50 total	Surrounded by nature in low-cost manner, sleeps in mountain refuges/along trail

\* Assumptions based on bottom-up estimates from interviews and market research

# Proposing the Juan Carrito Trail

Ultimately, the final scheme poses a connection across five towns in the Valle Peligna that surround Sulmona. The trail is named after the famous local bear “Juan Carrito,” who is known for making appearances at human venues. Together, the trail is roughly 50km long, and is expected to be completed anywhere between 2-8 nights of travel.














## Sentiero Juan Carrito



### Legend

-  Fountain/Water
-  Point of Interest
-  Hut/Refugio
-  Key Town/City
-  Juan Carrito Trail
-  Other Trails
-  Street Segment  
(Potential Biking)  
Ferrovia dei Parchi





▲ 580m // Bugnara

Accessibility	  
Attractions	  
Activities	  
Services	  

Key improvement area:  
Accommodation options

- indicates present
- indicates absent



Rifugio Ponte della  
Montagna



Lago di Scanno



13.5km



▲ 642m // Introdacqua

Accessibility	  
Attractions	  
Activities	  
Services	  

Key improvement area:  
Town to trail head link



Monte Genzana



Riserva Naturale Regionale  
Monte Genzana Alto Gizio

14.0km



▲ 625m // Pettorano sul Gizio

Accessibility			
Attractions			
Activities			
Services			

Key improvement area:  
Train to town connection



Colle Mitra



Pietra Maggiore



10.0km



▲ 825m // Cansano

Accessibility



Attractions



Activities



Services



Key improvement area:  
Improve essential services



Agricola Chiocciola  
Peligna



Marco's Saffron Farm





▲ 405m // Sulmona

Accessibility			
Attractions			
Activities			
Services			

Key improvement area:  
Agriculture and trail links



# Moving Forward



1. Develop regional funding strategy for towns connected by trails
2. Set priorities for implementation of plan; begin refurbishing huts & essential services along trails
3. Execute an international marketing and advertising strategy



# SENTIERO JUAN CARRITO

- Critical Issues and Measures:**
- Identifying key personas and market
  - Equilibrating transferable needs into actionable items
  - List of costs and expenses for future market
  - Opportunities and challenges for trails and towns

## Critical Measures & Suggestions



### USER PERSONAS

**BACKPACKERS**

- Main Goal: Connectivity for fully experienced hiker and convenient to nature in a restricted destination
- Values: Independence and spontaneity when exploring
- Wants to engage in activities that maximize the development and utilize

**INTERMEDIATE SUPPORT**

- Main Goal: An active, non-technical hiker with a single destination
- Values: Control & flexibility over exact schedule and accommodations
- Wants to learn about the surrounding environment and utilize

**FULL SUPPORT**

- Main Goal: An active, non-technical hiker with a unique destination planned for their trip
- Values: To experience nature while enjoying superior accommodations
- Wants to learn about the surrounding environment and utilize

**VARIED TOURISM**

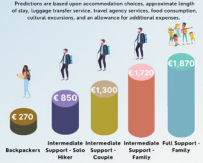
- Main Goal: A non-technical hiker with a unique destination planned for their trip
- Values: To experience nature while enjoying superior accommodations
- Wants to fully experience the culture of each village and may desire a longer stay in one area

### IMMEDIATE NEEDS OF EXPECTED USERS



CRITICALITY	SPECIFIC ACTIONS	POTENTIAL ACTORS
EXPAND LOGGING OPTIONS	<ul style="list-style-type: none"> <li>• Local hosts may shorten minimum stay of rooms</li> <li>• Airbnb listings or add additional listings</li> <li>• Development of hotels for solo hikers</li> <li>• Mountain hut expansion and renovation for backpackers</li> </ul>	<ul style="list-style-type: none"> <li>• Local property owners</li> <li>• Development companies that will not disregard local community and culture</li> </ul>
COMPLETE THE LOOP	<ul style="list-style-type: none"> <li>• Trail establishment and long-term maintenance</li> <li>• Development of Salsura - Bugura Connection</li> <li>• Development of Salsura - Interoceano Connection</li> </ul>	<ul style="list-style-type: none"> <li>• CAI and/or (new) volunteer organizations</li> <li>• Regional bus or new seasonal shuttle service, and/or a bike service with marked paths</li> </ul>
ADD ESSENTIAL SERVICES	<ul style="list-style-type: none"> <li>• Baseline AT signage on trails and in towns</li> <li>• Educational multi-lingual signage along routes and at interest points</li> </ul>	<ul style="list-style-type: none"> <li>• CAI and/or (new) municipalities</li> <li>• CAI and/or individual municipalities</li> </ul>
AID IN NAVIGATION	<ul style="list-style-type: none"> <li>• Loggare shuttle service for town-to-town hikers</li> </ul>	<ul style="list-style-type: none"> <li>• (New) on-call loggare transfer service, possibilities to add bus for Salsura, Petrarca, and Canico</li> </ul>
CURATE & DISTRIBUTE INFORMATION	<ul style="list-style-type: none"> <li>• Standardize guide &amp; accurate map with trails, interest points, other sources</li> <li>• Publishing guide to spread awareness of the experience</li> </ul>	<ul style="list-style-type: none"> <li>• CAI - reference existing map</li> <li>• Regional body assisted by marketing agency</li> </ul>

### How much will a tourist spend?



## **Moving Towards Integrated Sustainable Travel**

Over the course of three weeks, this group used exploratory tracking, photography, and interviews to gain an understanding of trails around the Sulmona Valley. Following extensive documentation and analysis, the final proposal developed into the Sentiero Juan Carrito—a 50km trail that runs through five towns within the region.

While the trail presented may be perceived as “new,” the reality is that so much of the work to create this trail is already complete. The majority of these trails already exist. As such, one of the greatest strengths of this project is that the feasibility of implementation is high. The main work to render this vision a reality rests in 1) improving a few essential services across each trail and 2) packaging the trail as a unified loop for tourists.

By combining analysis with feasibility studies, the overarching methodology manages to link economic and environmental initiatives closely together. On the one hand, the trail’s expected economic footprint (see analysis section) presents an economic opportunity for many smaller municipalities such as Pettorano sul Gizio and Cansano. Simultaneously, the possibility to link historical features, agricultural destinations, and educational opportunities presents a holistic opportunity for building greater environmental awareness. Together, the trail is much more than just gravel along a path. Its unifying nature creates the opportunity to produce a comprehensive tourist experience for increased rural resilience across multiple towns, activities, and individuals in the Valle Peligna region.

## **Workshop**

Liminal, Associazione di Promozione Sociale

## **Partners**

Fondazione FS Italiane

MIT-Italy

MIT Urban Risk Lab

MIT Digital Structures Group

MIT Department of Architecture

## **Booklet Curation and Editing**

Adriana Giorgis

Angela Loescher-Montal

Sarah Lohmer

## **Typefaces**

Meta Pro

Century Gothic

©2022 by Liminal Associazione di Promozione Sociale. Text and images © their authors. All rights reserved. No part of this booklet may be reproduced in any form without prior written consent by the copyright holder.



**liminallab**