

Rebuilding the Edge

The Ferrovia dei Parchi

Project Team

Natasha Stamler

John Devine

TJ Bayowa

Teaching Team

Liminal

MIT Urban Risk Lab

MIT Digital Structures Group

Scale

Territory, Town

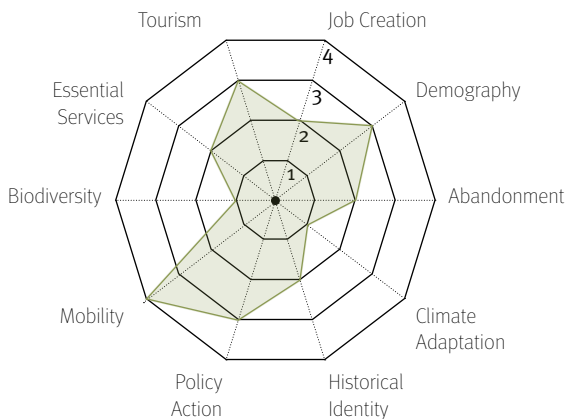
Location

Ferrovia dei Parchi, Cansano



© Propriété intellectuelle
NE PAS SE PENCHER AU DEHORS
BIEN S'ASSURER
DE S'ENQUÊTRE EN TOUT TEMPS

The Ferrovia dei Parchi



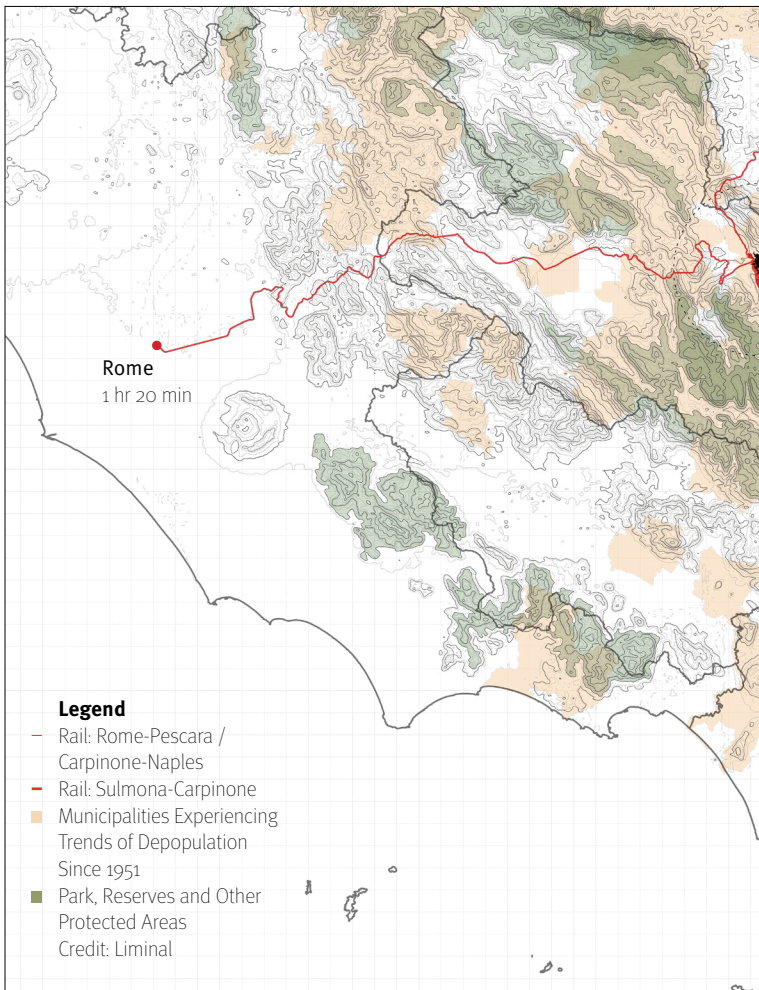
- 1 Not addressed
- 2 Somewhat addressed
- 3 Minor focus area
- 4 Major focus area

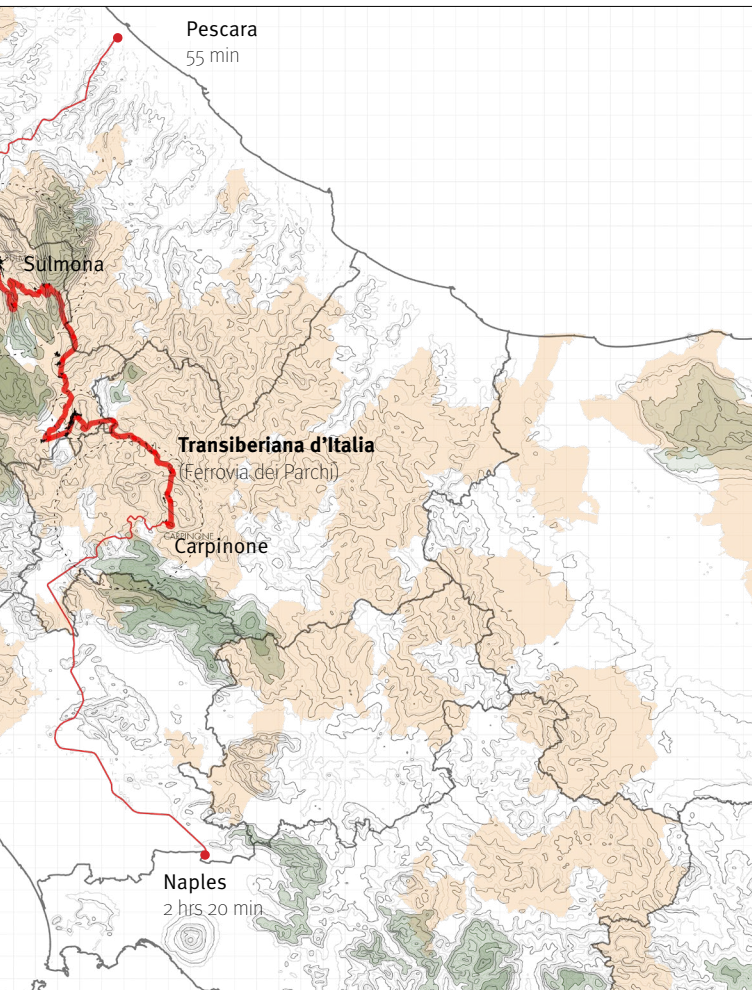
The Sulmona-Carpinone rail line used to be a vital connection to the isolated hill towns of Abruzzo and Molise. The line was inaugurated in 1897, and although passenger and commercial line was closed and reopened several times in its history, it was ultimately closed down in 2011. It re-opened in 2014 and is today branded as the 'Railway of the Parks'.

Today the rail line only runs a tourist-oriented historic train service on weekends. One of the peculiarities of this line is that it connects to the Rome and Pescara line which is currently being renovated and potentiated thanks to an investment of €2.36 billion, which suggests the government's belief that the railway system can play a key role in boosting the socio-economic growth of the country at large. In 2014, the Railway of the Park hosted 427 travelers, in 2021 it hosted 22,491.

On a typical itinerary today, the tourist train makes four stops: in Campo di Giove, Palena, Castel di Sangro, and Carovilli while it passes by 18 more potential stops. This project surveys the nine remaining train stations as potential options of connection and discovery both for the tourist train and for the local communities which have yet to potentiate their ability to become direct beneficiaries of the train service.

Although the line was built to serve many different towns, the railway track doesn't always come close to the towns it is servicing, reinforcing the disconnection of towns to larger service networks. The student group examined how different last-mile interventions could turn this historic rail line into an economic engine by improving access to recreation and vital services for urban centers alongside the train route.





Stations Along the Sulmona-Carpinone Line

The team first explored the landscape of the railway aboard the tourist historic train. They then re-traced their steps via car, looking at the same landscape but from a different viewpoint, speed and time commitment.



Pettorano sul Gizio



Cansano



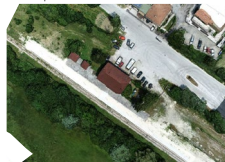
Campo di Giove



Alfedena



Castel di Sangro



S. Pietro in Avellana



Palena



Carovilli



Rivisondoli/Pescocostanzo

Roccaraso Train Station
Drone Orthophoto



What are the existing conditions between trains and towns and how may they be re-imagined to simplify and encourage use?



Documenting Existing Connections



School bus stop Hiking sign Commercial sign Abandoned sign Pedestrian lighting

What Is Missing?

During the fieldwork phase the team walked or drove along the connection paths between nine train stations and town centers along the train line. They documented and cataloged the variety of connections, paying attention to their length, slope, condition of maintenance and wayfinding devices. The aim was to understand the existing conditions of connection and begin outlining the missing elements to enable accessibility between towns and trains.



National park sign Road marker Train service shed Waiting shelter

Legend

- Highways
- || Railway
- - Rail Access
- City Center
- Train Station

Campo di Giove

Amenities restaurants, hotels, skiing, mountain, biking, park access

Population 803

Distance 400 m

Walk 5 min

Cycle 2 min

Drive 2 min

Sulmona

Amenities schools, hospitals, professional services, restaurants, shopping, museums

Population 24,557

Distance 2.3 km

Walk 35 min

Cycle 14 min

Drive 7 min

Palena

Amenities restaurants, hotels, museums, mountain biking

Population 1,362

Distance 10.8 km

Walk 2 hrs

Cycle 30 min

Drive 16 min

Cansano

Amenities restaurants, park access

Population 274

Distance 1.4 km

Walk 18 min

Cycle 6 min

Drive 5 min

Pescocostanzo

Amenities restaurants, hotels, skiing, shopping

Population 1,128

Distance 2 km

Walk 32 min

Cycle 15 min

Drive 6 min

Rivisondoli

Amenities restaurants, hotels

Population 700

Distance 2 km

Walk 32 min

Cycle 11 min

Drive 4 min

Pettorano sul Gizio

Amenities restaurants, park access

Population 1,376

Distance 1.2 km

Walk 17 min

Cycle 7 min

Drive 4 min

0 km 2.5 km 5 km

Castel di Sangro

Amenities schools, hospital, regional rail, restaurants, shopping, museums, hotels, professional services

Population 700

Distance 1 km

Walk 11 min

Cycle 5 min

Drive 5 min

Roccaraso

Amenities restaurants, hotels, skiing

Population 1,627

Distance 650 m

Walk 9 min

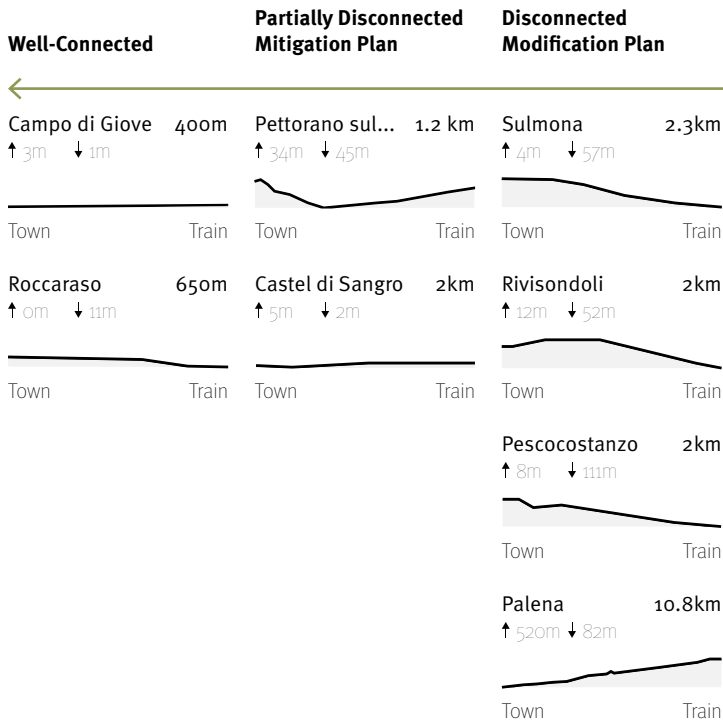
Cycle 5 min

Drive 3 min

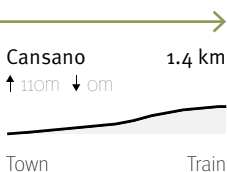
PALENA



Spectrum of Disconnection



Highly Disconnected No Plan



The team focused on the segment of the rail line between Sulmona and Castel di Sangro, the two key urban centers along the line. They divided the stations encountered on the rail and ordered them in four categories based on their level of disconnection to their respective town center.

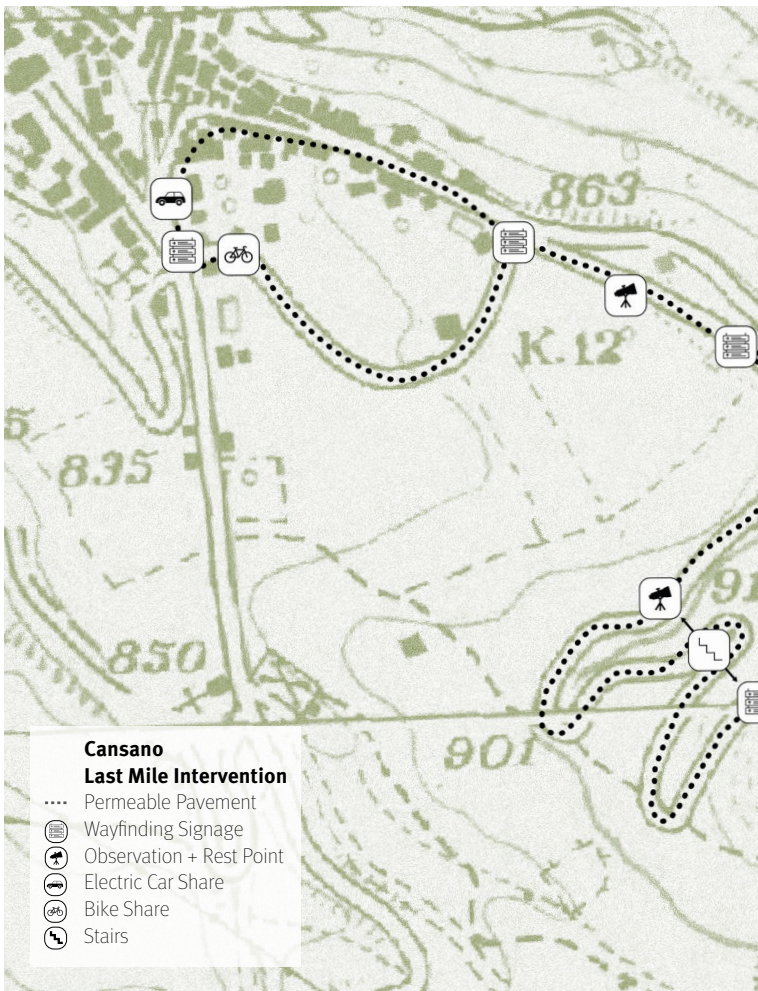
In the spectrum drawn here the towns are coupled with the elevation difference between town (left) and station (right) displaying the variety of slopes and distances.

Cansano: A Case Study

Distilling What Is Present

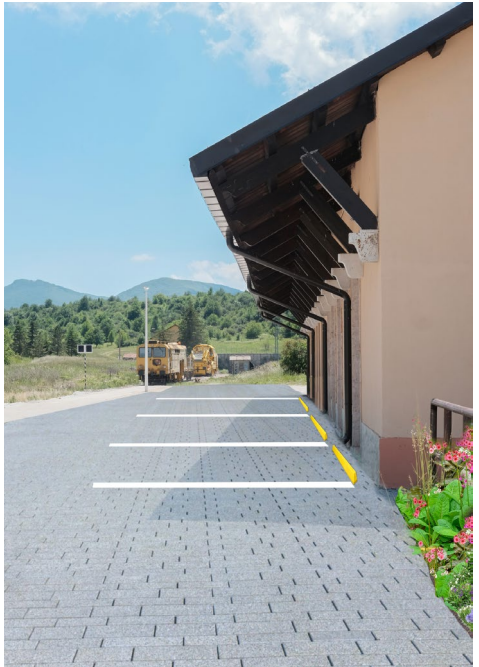
After visiting eight stations across three days, the group began questioning what the existing connections between trains and towns were made of, who they served and how effectively? With this knowledge they looked to re-imagine and simplify these connections to encourage the use of the train station. Due to its disconnection but relative proximity to the town center, the team focused on Cansano as an example subject to study how to improve 'last mile' connections between town centers and the historical rail.

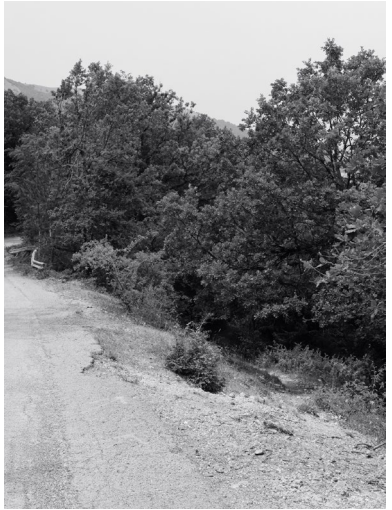
Although the village of Cansano has many restaurants and agritourism businesses, visitors to the station have to walk along the roadside for 1.4 km with a 110m elevation change, without any signage for wayfinding to go between station and town. To tackle this 'last mile' issue the team first developed a map, tracking locations of danger and opportunity. They then developed a kit of resources and solutions, leading to a scatter of interventions, with varying upfront costs, permanence, audience and spatial presence.





Existing **Proposed**





Existing

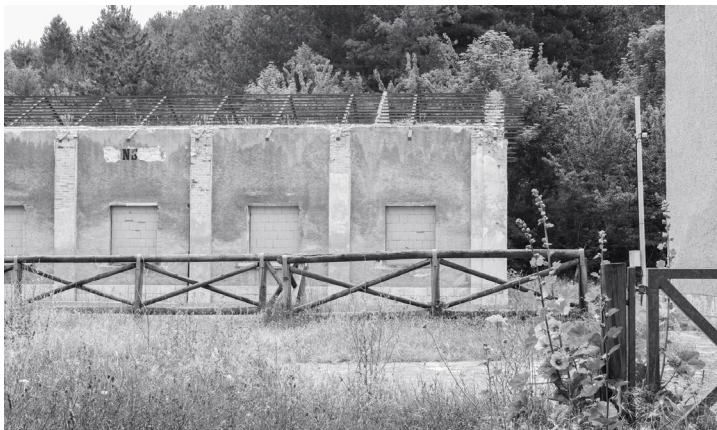
Projecting: Ways to Increase Accessibility

The team proposed replacing the asphalt road with permeable pavers that reduce storm water runoff and create a more pleasing visual experience for pedestrians. Adding signage, rest/observation points, and stairs for steep grade changes can all help improve pedestrian comfort as well. For visitors who cannot or do-not want to make the long walk, electric car share and bike rental can be placed at the station and the town center.



Proposed

Existing



proposal

Proposed



Kit of Parts



Pedestrian Stairs



Signage



Public Art



Resting Points



Permeable Surface



Landscaping



E-Car Sharing Stations



E-Bikes

Steep and unrolling roads make it difficult for pedestrians to use the road. By introducing stairs at key points, walking time can be reduced.

Old, damaged, or missing signage is prevalent across the stations. By introducing signage at junctions and replacing older ones, new and functional designs can be introduced.

To attract tourists and promote walking or cycling, public art installations can be used as means of creating experiences along the trails and walks into the town center.

The distances between the stations and town squares are longer than most people are used to walking. By introducing resting points pedestrians can take walks and rest along the way.

A more pedestrian friendly and sustainable road surface can be used to promote walking and a more pleasing experience for pedestrians.

The weeds by the road and abandoned stations require landscape work to turn them into attractive areas for tourists and potential residents.

With parking spaces at the station for Electric vehicles. The car share feature allows users to easily move between towns separated by distances too far to walk or cycle.

With docking locations placed in the town center and at the train station E-bikes are provided as an efficient travel between station and town square.



CANSANO



Moving Forward



1. Collect a database of goods and services in each town along the rail
2. Conduct a survey to evaluate the potential of car/bike share options in this cultural context
3. Launch a wayfinding campaign as a 'low funding' tactical intervention to improve last mile connections in one exemplary town



The lack of accessibility to towns and internal areas is a primary and continued problem in Italy and Europe at large. As a consequence smaller urban centers are suffering from depopulation, abandonment, a diminishing lack of services and isolation of citizens. Historically the Sulmona-Carpinone line was built to serve multiple towns, connecting people to work, leisure, and other regional amenities; today it has been reactivated exclusively as a tourist line thanks to the efforts of the Fondazione FS Italiane. The workshop enabled the team of students to look closely at the last mile conditions, from the perspective of the train, the car, and the pedestrian. The group surveyed, cataloged and analyzed different levels of maintenance, preservation and wayfinding systems as well as different topographical conditions linking towns to their train stop.

This project seeks to organize by typology the challenges of moving between stations and towns. The proposal seeks to establish a library of deployable tactics, catering to all modes of transportation to ease access to the railroad especially in conditions when the town and train are more than 2km apart. Ultimately this work chooses to position itself in the middle ground between tourist and regional trains, hoping to serve both the local and non local communities. This project believes that it is critical for railway infrastructure to be developed to address current needs whilst foreseeing the changes of use overtime, in order to capitalize and make sense of the large investments required to build and run such essential infrastructure.

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