

team

2

INFRA 2  
International Infrastructure Workshop Torino  
“designing complex lines”  
15/22 february 2003

Marco Callea	Torino
Roel Meurders	TU Eindhoven
Oana Rades	TU Eindhoven
Davide Rolfo	Politecnico di Torino (PhD)
Philip Rutten	TU Eindhoven
Herwin Sap	TU Eindhoven (PhD)
Ronald Schuurmans	TU Eindhoven
Gianluca Sudano	Torino
Brigitte Vandewall	TU Eindhoven



3

turin map

Turin and the Tangenziale



Scheme of the Tangenziale



INFRASTRUCTURAL WORKSHOP TURIN

Turin, like most of the other Italian urban beauties, has to pay the price for its beautiful centre through its heart-breaking ugly periphery. The periphery is mostly the result of an economical or practical necessity, with elements which are there because of a certain reason-to-be in regard to the city centre and with total disregard for one another. The resulting landscape is an incoherent one, with unfortunate juxtapositions. Such a problematic element is also the Tangenziale, the ring road around Turin, planned also mostly from the point of view of its practicality: to connect the South Piedmont to the North Piedmont and Milan (although nowadays it is used much more for local than interstate traffic) and with interchanges occupying vast areas at the Fiat factory. The meeting of the Tangenziale with the expanding city landscape is most of the times a random one, in which the city has to accept the highway as a necessary evil, resulting in a very poor living quality. The purpose of the workshop was to deal with different critical points along the Tangenziale and come up with solutions to improve the spatial quality.

VENARIA AREA

One of these critical points is where the two municipalities of Turin and Venaria, along the two sides of the Tangenziale, have expanded until almost melting in each other. The castle of Venaria was built in the baroque period

by the dukes of Turin as a leisure residence (for hunting pleasures). The castle can be reached by a direct road from the centre of Turin, which represents the historical connection between the two centers. Around the castle, Venaria grew into a large village with its own specific character. Situated in a triangle between a river, the highway and a monumentally conserved area, the only possibilities of expansion left for Venaria were towards the highway: its newly built residential area is only 30m away from the highway. On the other side, the ever expanding Turin has also touched the Tangenziale, with several programmatical elements: the stadium, "Casa della Juve", an industrial area, a shopping mall, a music hall, a prison, a psychiatric institution, etc. This piece of Tangenziale is separated from its surroundings by means of sound barriers: lines of raised earth along the highway, with a row of trees on top, like statues on a classic cornice. It is the most obvious solution for staging the meeting between the highway and its direct environment. With this banal gesture, the environment is protected against the noise pollution, and its source is masked visually. It is a result of the way this infrastructural element is (dis)accepted in the landscape, appreciated economically and practically but for the rest regarded as a distortion and an unpleasant part of the metropolitan reality. We sought for ways of reevaluating this infrastructural landscape and reconciling the meeting of Tangenziale and the City in a more exciting and profitable way for both.

analysis  
5 6  
area map



race bikers in the industrial area



sound barrier with christmas trees, like statues on a classic cornice



spontaneous gardens

area views  
8



new living quarter of Venaria built 30m away from the highway; industrial area of Torino on the other side of highway

sea of asphalt around "Casa della Juve"





9 area views  
10 area views



industrial area

"Casa della Juve" in industrial area



spontaneous gardens along the highway



area views  
concept  
12



"READING" THE AREA

After a couple of visits at the site, we developed a way of "reading" the area. At first, the problematic appeared to be: two municipalities growing towards each other and meeting at the highway. The evident design task would be reinforcing the connection and/or separation. After a closer look, we realised that most of the programmatic elements in this area had less to do with traditional Turin or Venaria, but much more with a city-edge condition. These elements don't fit in the traditional city scape anymore because of their size (stadium, shopping mall), social acceptance (psychiatric institution, prison), social conventions (gipsy camp), and physical nuisances such as sound and air pollution (the Tangenziale), etc. Spin-offs of the highway or simply sharing the same fate of only being allowed to take place at the city's edge, these elements belong to a typical peripheral condition which starts living a life of its own. These elements formed our study area, defining a third zone in the landscape between Turin and Venaria. Our task became to establish the identity of this third zone, the "highway zone".





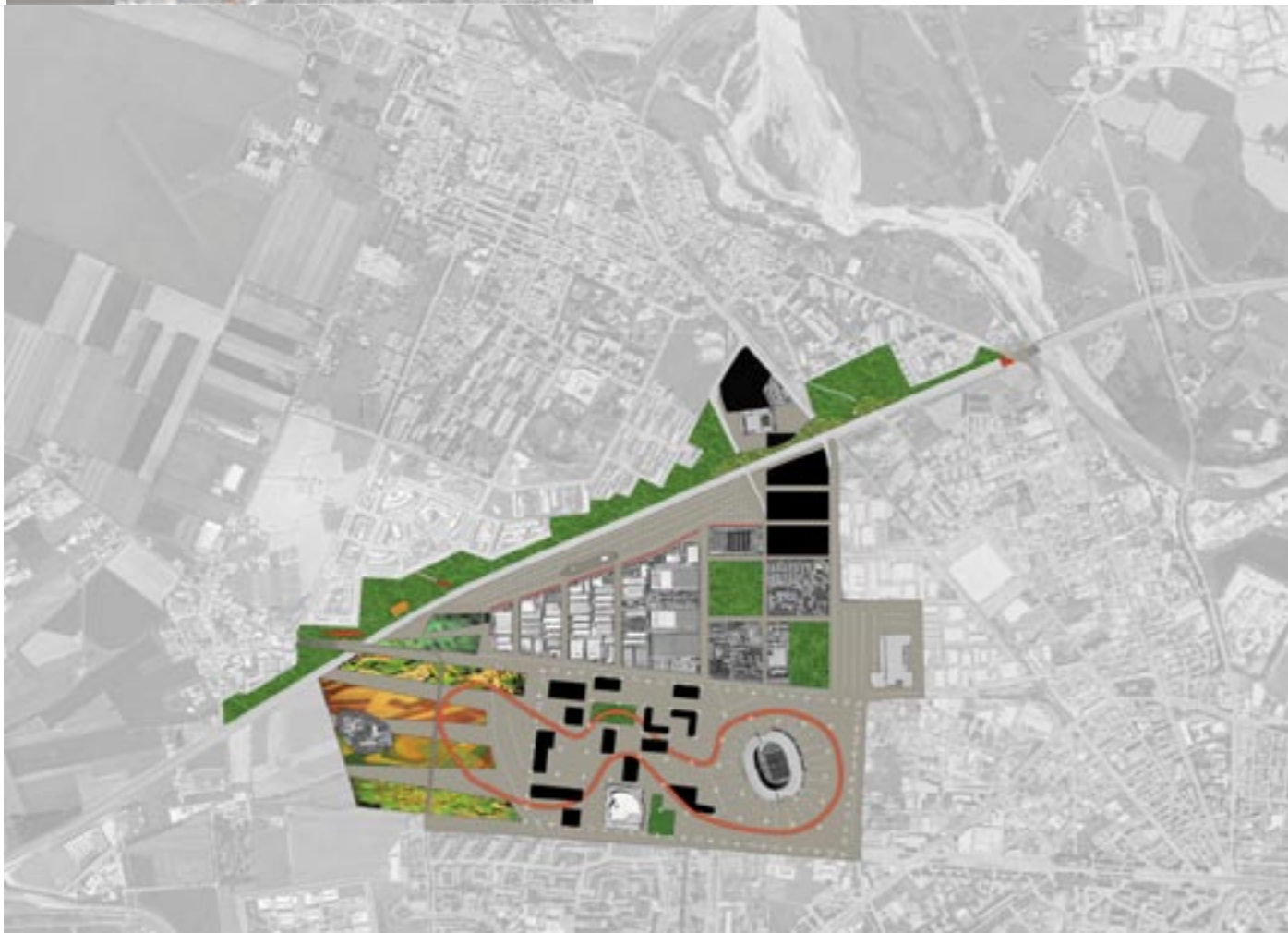
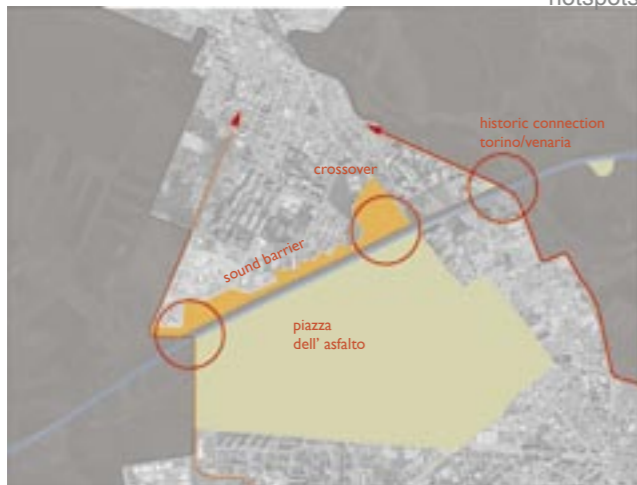
delimiting our work area

hotspots

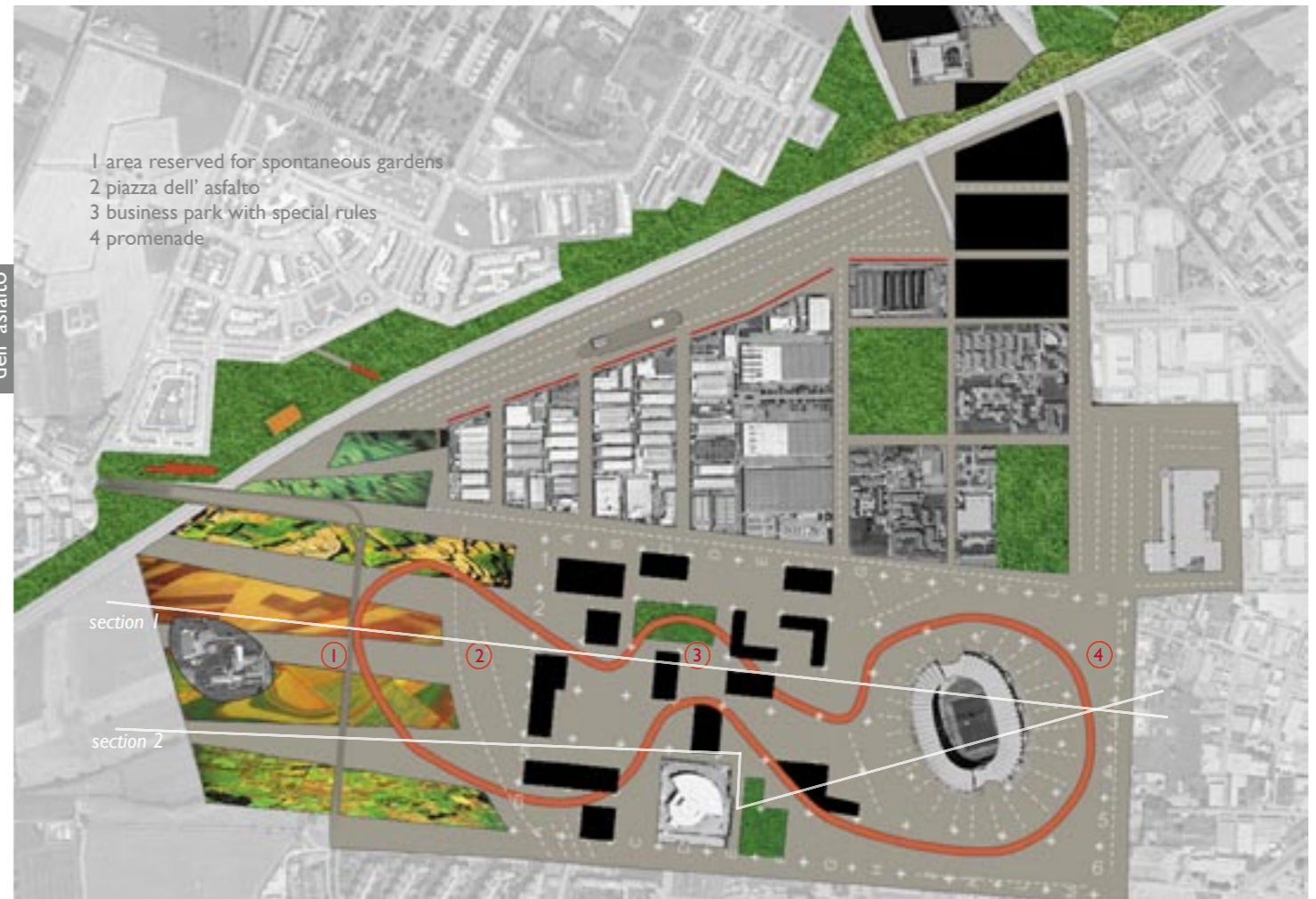


work area as suprematistic composition

concept  
13 14



masterplan  
15



piazza dell'asfalto  
16

## CONCEPT

We delimited our zone as being there, where you would simply not like to be dropped out of the car and have to walk, where you'd rather be in the car. Further we identified a few hotspots, deserving special design attention. At a first look, the area appears to be designed with the sole purpose to work, architecture and urbanism of effectiveness. The planning culture of the traditional city hasn't left any traces here. Also in form, the area is radically different from the dense and complex, traditional city tissue; it appeared to us like a suprematist composition, with big programmatic elements floating in a neutral asphalt plane. The absence of traditional city quality space has also led to an absence of certain constraints and has released certain freedoms. A series of unplanned events start being possible here: we saw race-bikers training, people making use of the fountains to wash their car-windows, land squatted by the people and used for spontaneous gardens, etc. We discovered a certain poetics of this apparently quality-less sea of asphalt, in the way that it could spontaneously facilitate a number of (small) desires. We wanted to make a design which encouraged the potential of satisfaction of these desires. We saw no need to separate this piece of land from the highway, because technically and spherically they are linked. That's how we came up with the most direct expression of this thought: directly extending the asphalt of the highway into our area; connecting all the pieces of asphalt of all the peripheral elements and melting them

into one big plaque of asphalt.

The openness and accessibility of the highway (as a public space par excellence) would become the characteristics of this asphalt plaque. It could be a new sort of public space, one that doesn't claim to stand for the needs of the community as a whole, but much more one that facilitates individuals desires.

## PIAZZA DELL'ASFALTO

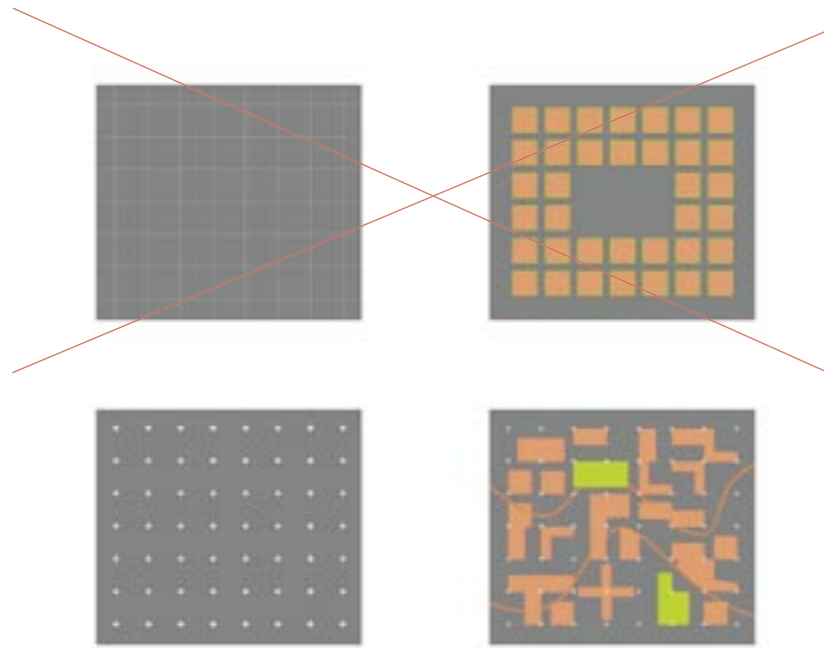
We called the design for the southern part of our area "Piazza dell'Asfalto". The name stands for a zone which doesn't have streets and pavement anymore, but just a plaque of asphalt punctured by programmatic elements. The design is composed of an area reserved for spontaneous gardens and a business-park, on which we superposed a meandering promenade (a bicycle track, for example). For the configuration of the business park we imagined special rules, that reinforce the essence of Plaza dell'Asfalto: to leave place for spontaneous and informal activities.

- 1 area reserved for spontaneous gardens
- 2 piazza dell'asfalto
- 3 business park with special rules
- 4 promenade

section 1

section 2

REDISTRIBUTION OF MASS AND GREEN OF A GRID USING SPECIAL RULES



BUSINESS PARK RULES FOR OCCUPYING THE PLOTS

- BUILT VOLUME NEVER BE CONNECTED TO MORE THAN ONE OTHER PLOT
- BUILT VOLUME CANNOT OCCUPY MORE THAN 50% OF THE PLOT'S AREA
- THE REST OF THE AREA HAS TO BE DEDICATED TO PUBLIC SPACE AND PARKING
- PARKING MAY NOT EXCEED 20 % OF THE PLOT'S SURFACE
- OUTSIDE SPACE FOR COMPANY USE MUST BE INTEGRATED WITHIN THE BUILT CONTOUR
- THE FACADE HAS TO BE STRAIGHT AND FLAT
- THE HEIGHT CAN VARY BETWEEN A MINIMUM OF 7m AND A MAXIMUM OF 12m
- NO MORE THAN 260m OF THE PERIMETER MAY BE TOUCHED
- NO LESS THAN 100m OF THE PERIMETER MAY BE TOUCHED
- AT LEAST TWO OF THE FOUR SIDES OF THE PLOT HAVE TO BE TOUCHED
- CUL-DE-SAC SITUATIONS WITH BORDERING PLOTS ARE NOT ALLOWED
- BUILDINGS CAN BRIDGE THE EXISTING BICYCLE TRACK
- CURVED FACADES ARE ONLY ALLOWED ALONG THE BICYCLE TRACK
- ALL OTHER FACADES HAVE TO BE PARALLEL TO THE GRIDLINES

business park piazza dell' asfalto 17 18

section 1

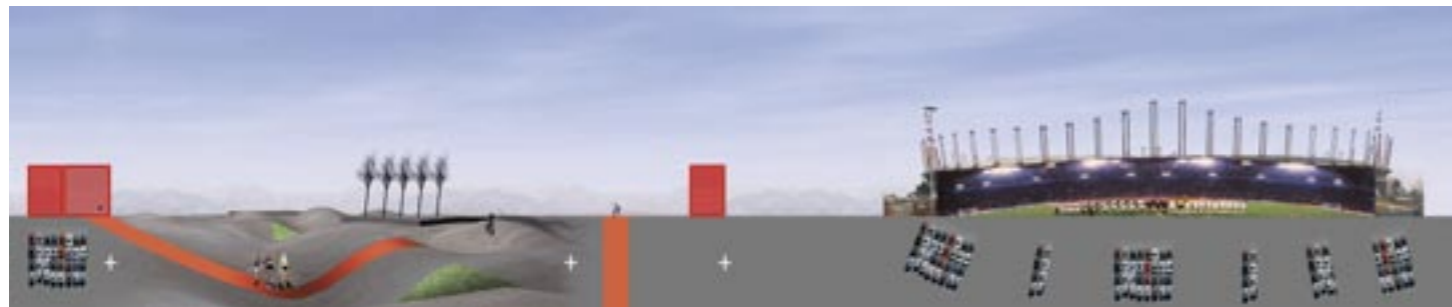


spontaneous gardens elevated tram line bicycle track promenade asphalt camping industrial plot

section 2



parking piazza dell' asfalto temporary use - market tram stop buildings clustered according to plot rules sound



asphalt pleasures promenade parking space Casa de la Juve during soccer game

piazza dell' asfalto 19

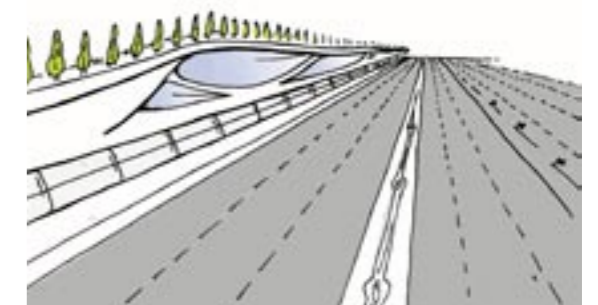
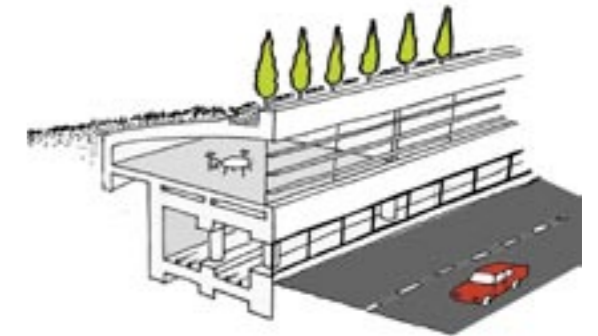


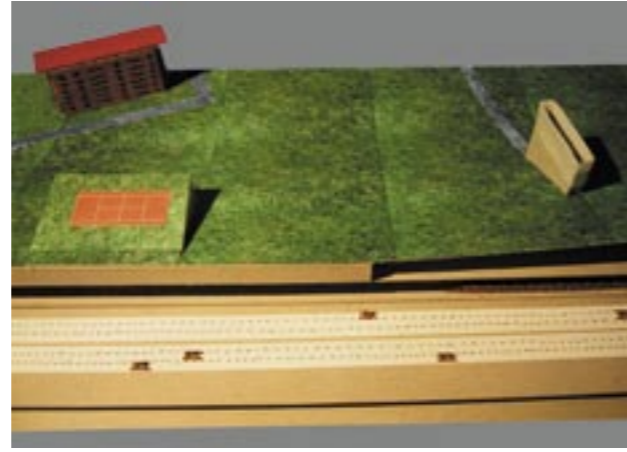
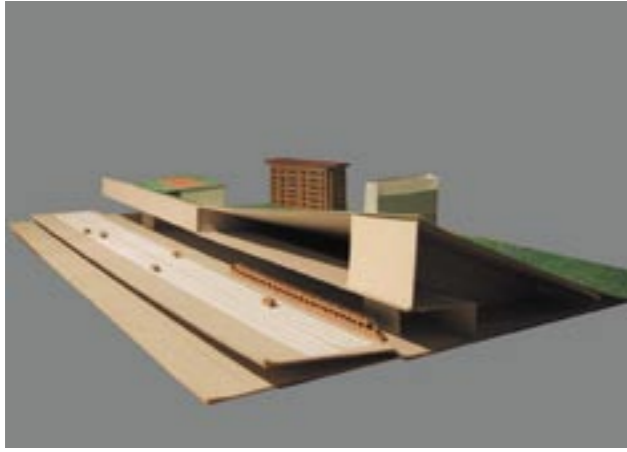
garden industrial plot slanting trees orchard parking space temporary use - festival promenade

sound barrier 20

SOUND BARRIER

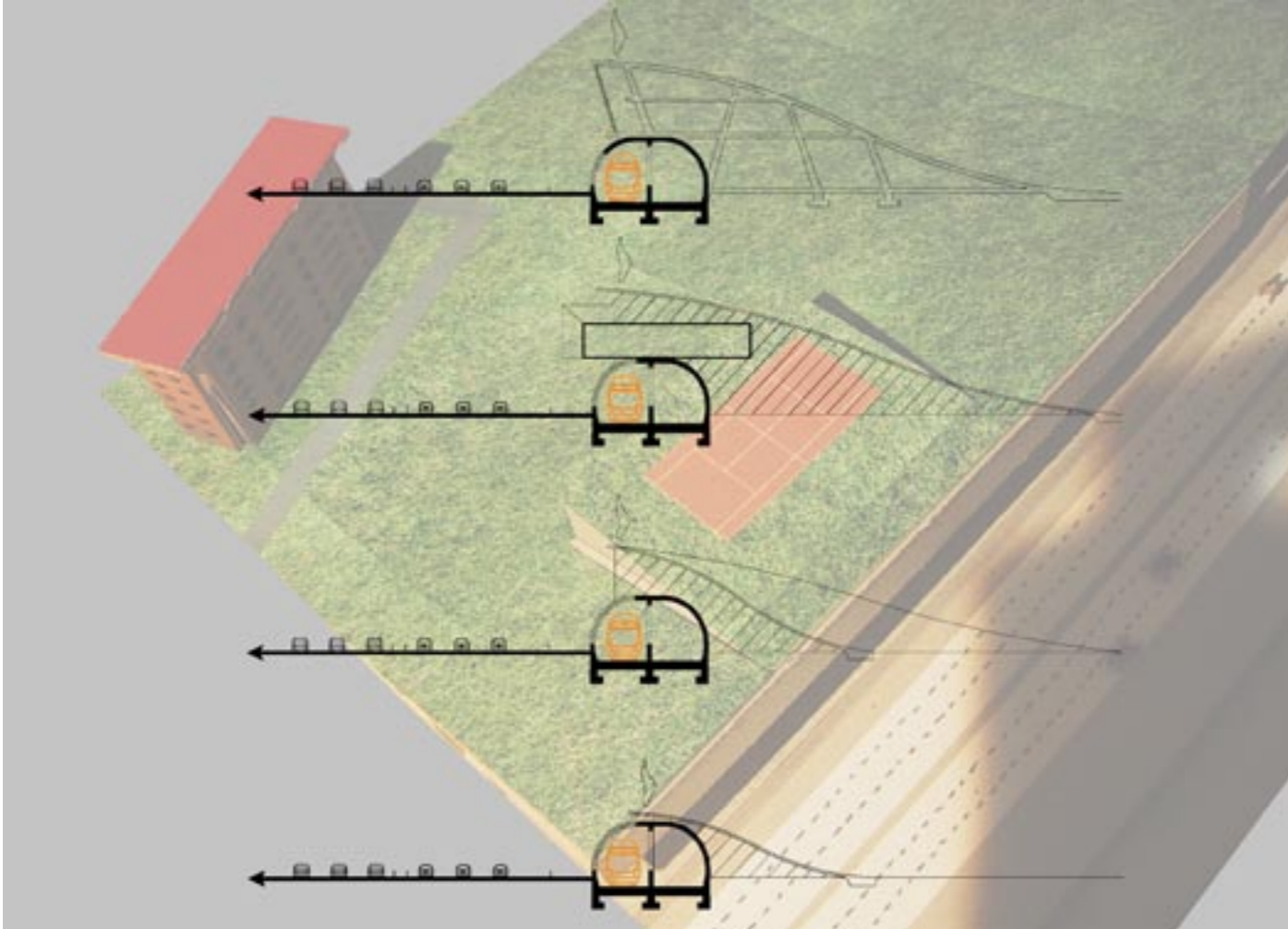
At the other side of the ring way, the Venaria-side, the situation was totally different. What we saw there was the new suburban residential area, built only 30 m away from the Tangenziale. The sound barrier was a necessity there. But like the strategy used at the Piazza dell'Asfalto, we tried to "dissolve" the barrier and let it become an area in itself by inhabiting it. First of all, we assumed that the planned high-velocity train line will also be entrenched into the sound barrier along the highway. We tried to conceive the territory at this side of the highway as a tectonic plate that curls up where it meets the highway. Underneath this raised edge we could "hide" the train tunnel. But we could also put more in there, on top of the train tunnel and underneath the roof of the "tectonic plate". This roofline could start a life of its own, meandering up and down, creating a beautiful undulated continuous curve along the highway. We could program certain elements into it, like shopping, sport facilities or house parties. In this way, we enhance the sound barrier and dissolve it (as a pile of earth) at the same time, making it a more elaborated version of itself.





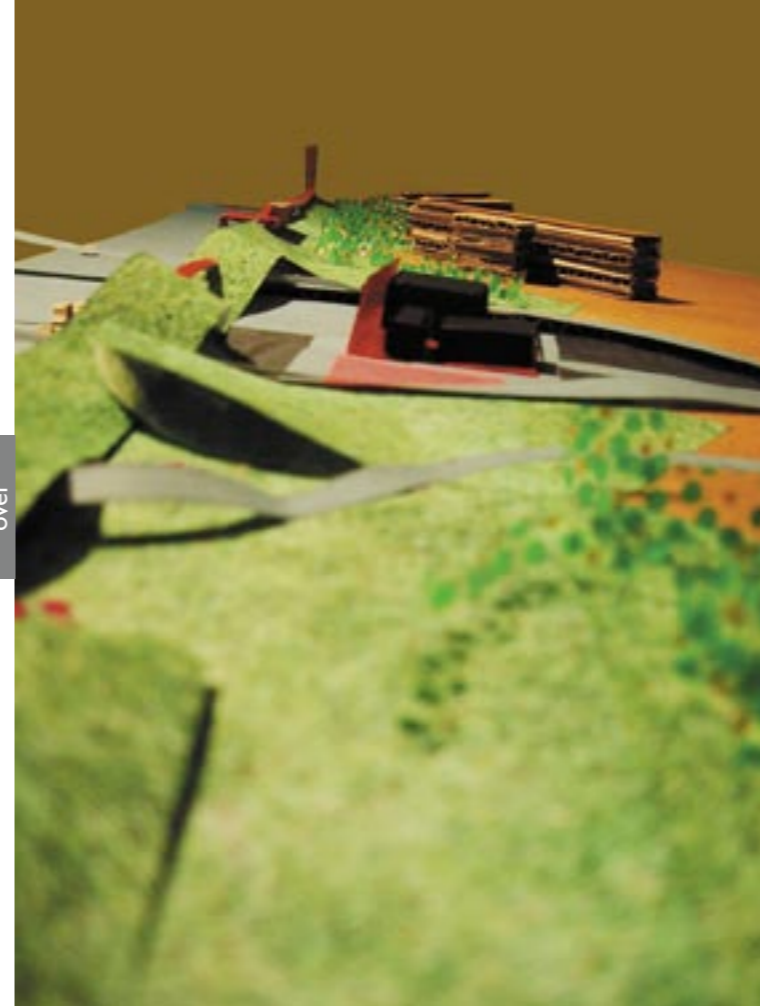
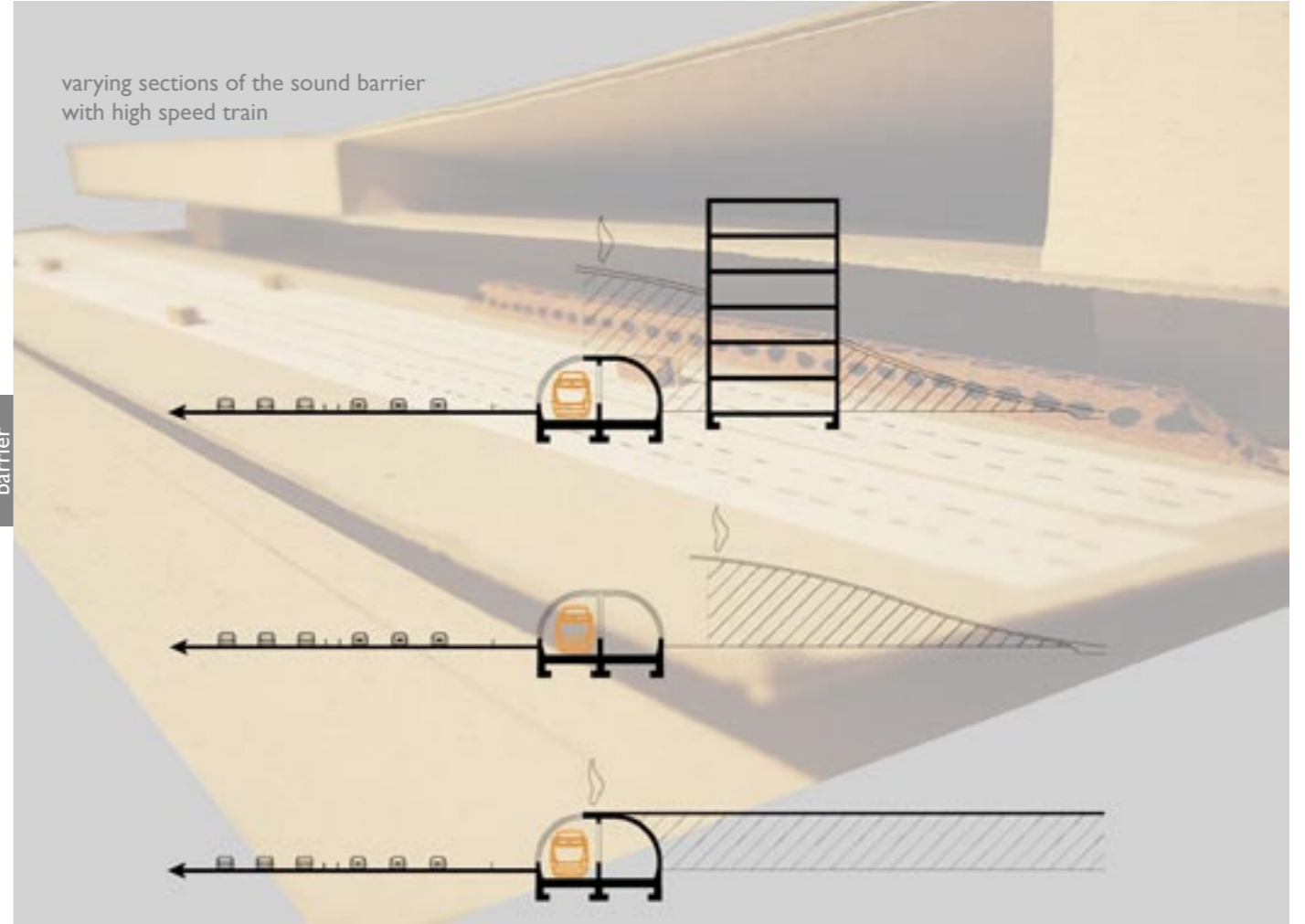
sound  
barrier  
sound  
barrier

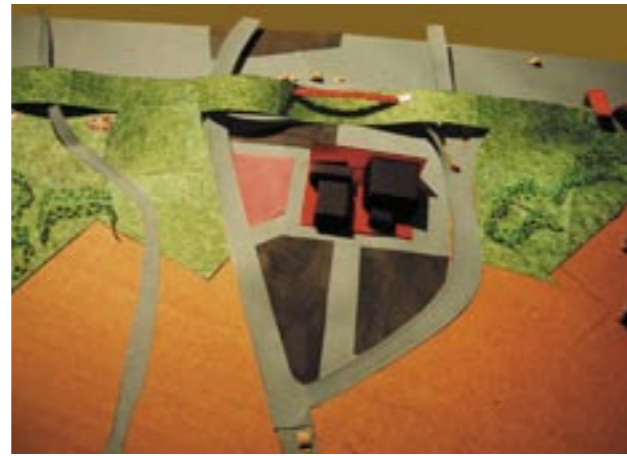
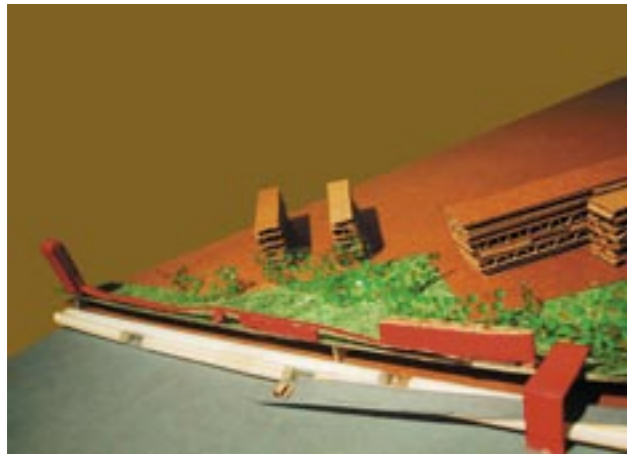
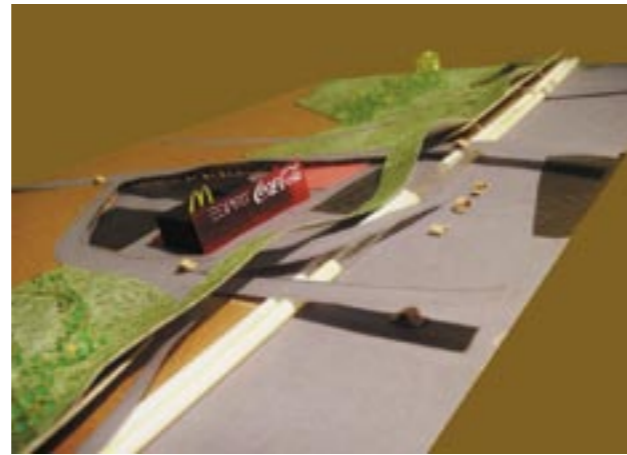
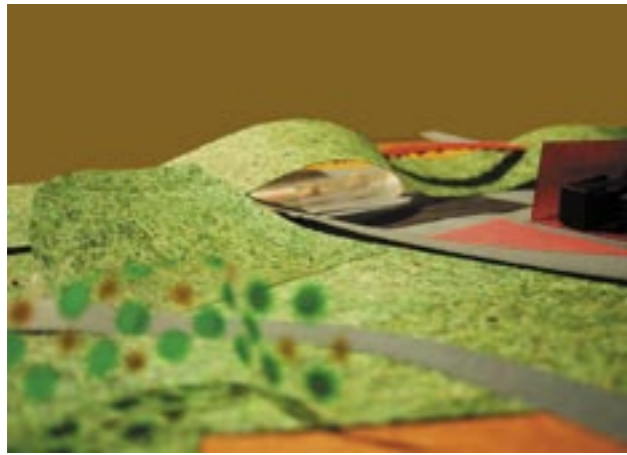
21 22



sound  
barrier  
cross  
over

23 24





cross over  
 25  
 connection torino/venaria  
 26

CONNECTIONS TORINO /VENARIA

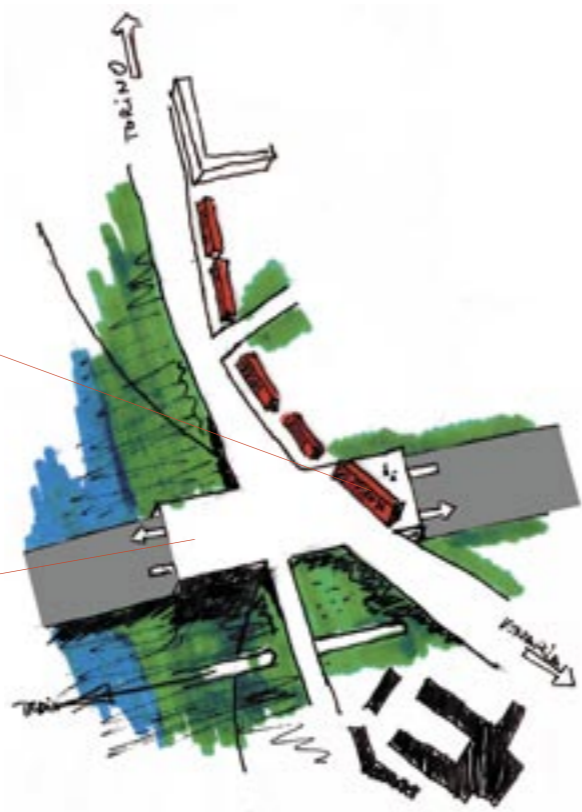
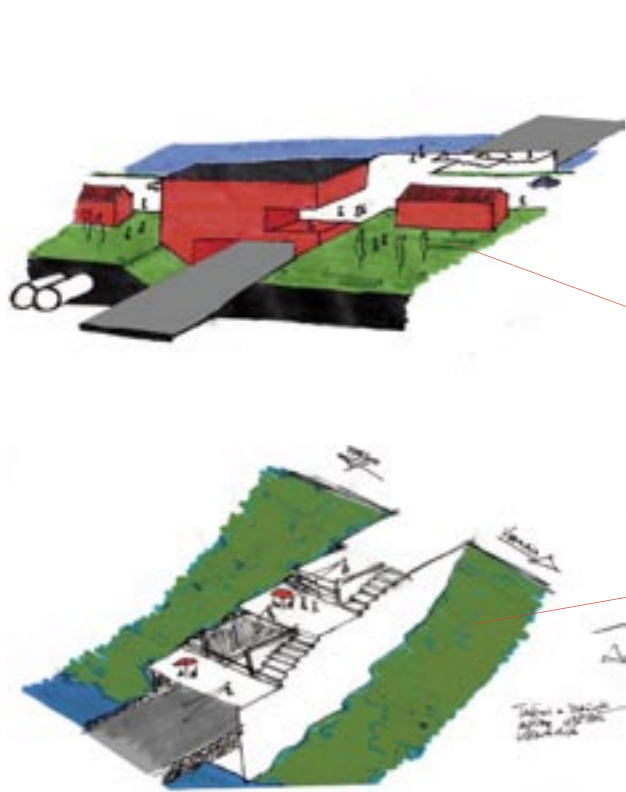
With the highway zone in between, we decided to reinforce the infrastructural connections between Turin and Venaria. The two municipalities keep on having clearly distinct identities.

HISTORICAL CONNECTION TORINO/VENARIA

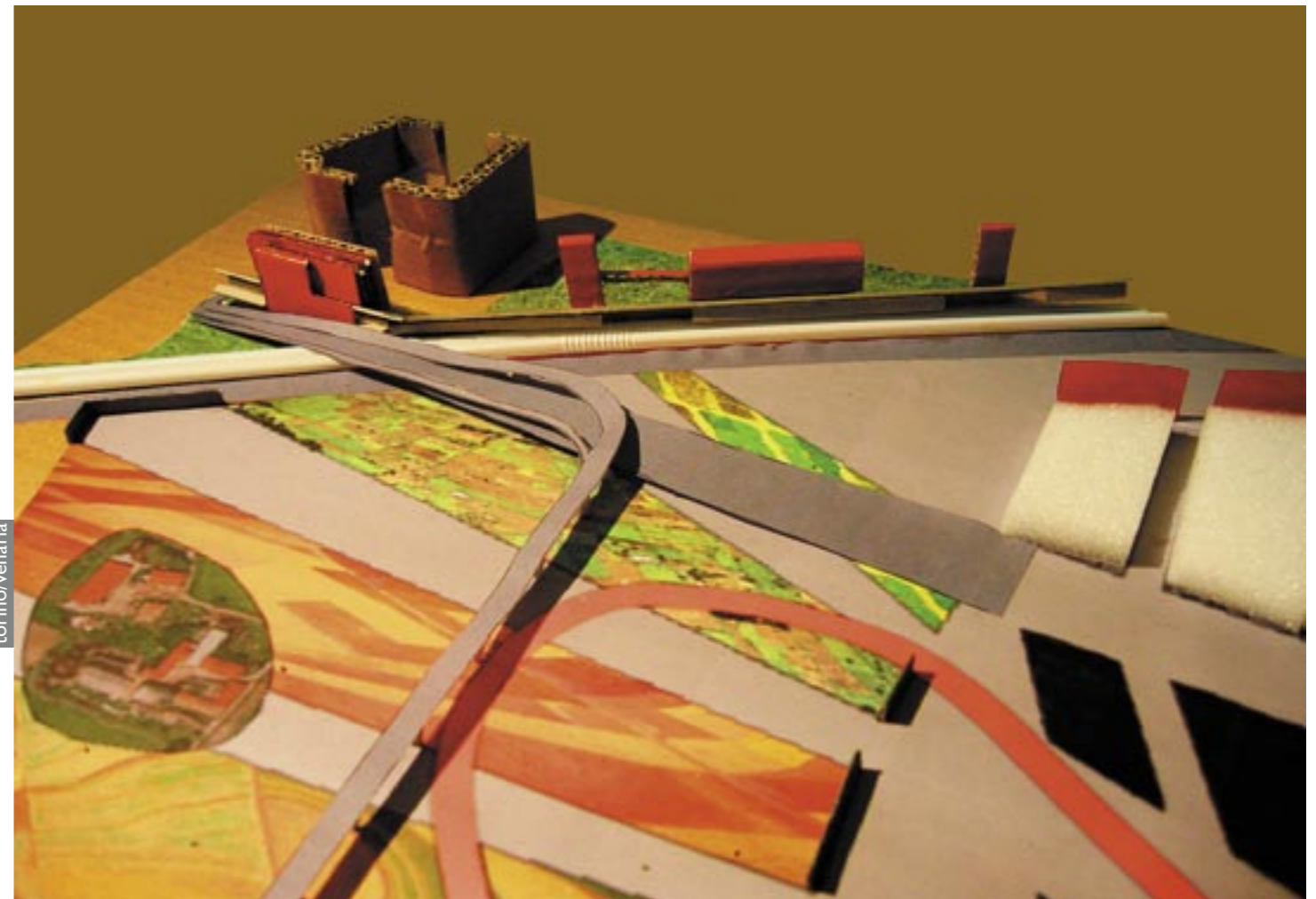
The historical connection is now crossing the highway with a bridge. However, while driving this road, if one is not alert, we realised that the moment of crossing the highway might even pass unnoticed. This is due to the fact that the character of the road, aligned with buildings on both sides, stays unchanged in the two different municipalities. Our proposal is to reinforce this continuity by enlarging the bridge over the highway in order to make the moment of cross-over even more unnoticed. The enlargement can have a more architectural quality, transforming the bridge into a programmatic element. Thinking about the interest and finance which the European Union is investing in the restoration of the Venaria castle, one can expect a big flow of tourists making use of this road in the future. The enlargement of the bridge could be used as a panorama deck on the side of the Alps, with a road-restaurant on the other.

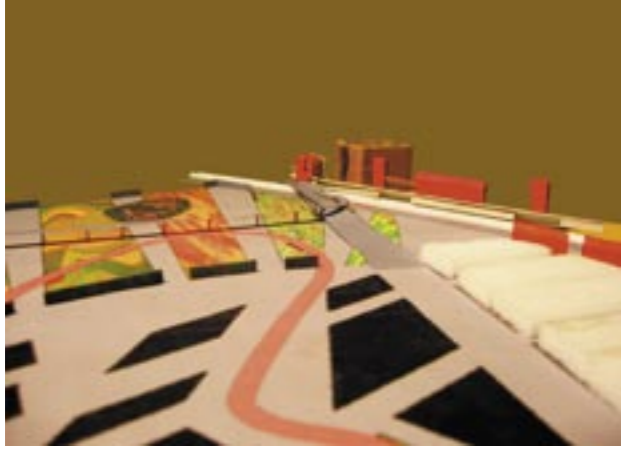
NEW CONNECTION TORINO/VENARIA

With the new residential neighborhood of Venaria, the local government is planning a new connection between the neighborhood and Turin. A tramline will run from the industrial area of Turin to the castle of Venaria. We imagined the tram tracks elevated from the ground there where they cross the territory of the spontaneous gardens. Like this, they won't form another barrier in the landscape. Parallel to the tramlines we planned a bicycle track, with the possibility of connecting to the meandering promenade of Piazza dell'Asfalto. A tram stop at the Piazza dell'Asfalto could bring people from both municipalities to their garden.



connection torino/venaria  
 27  
 connection torino/venaria  
 28





connection  
torino/venaria

art  
concepts  
30

### NATURAL RESERVE OF NOISE

“The Tangenziale is a sound polluting element and therefore it needs to be packed in sound barriers in order to mute its noise”.

Another way of looking at things is to recognize this noise as a constant characteristic in the areas along the Tangenziale and try to use it instead of suppress it.

The presence of the Tangenziale could be announced in its surrounding areas through art installations which make use of the natural reserve of noise.

# NATURAL RESERVE OF NOISE

NOISE GENERATOR

KIND OF ENERGY



VISUAL OR MUSICAL EFFECTS



seismograph



water box



sound garden



art  
concepts  
31



32

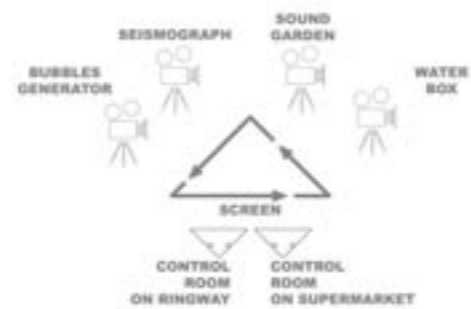




bubbles generator



control room at supermarket



art  
concepts

33

34  
presentation



35

presentation

36

team





37

after

