POLYTECHNIC OF TORINO
FACULTY OF ARCHITECTURE 1
Degree in Architecture
Honors theses

The Unipolar Spinal Unit in Turin
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My graduation thesis mainly focuses on an investigation carried out in order to determine whether any possible location and organizational structure existed in view of the realization of a Unipolar Spinal Unit to be located in the area neighbouring the CTO Hospital of Turin - the Traumatology hospital - and it also deals with its relevant design and engineering development.

My thesis includes three separate sections: a general description which contains overall information which might be necessary if the design of such a Unipolar Spinal Unit is to be further developed and extended in order to include people who suffer from particular physical disabilities. Among the items:

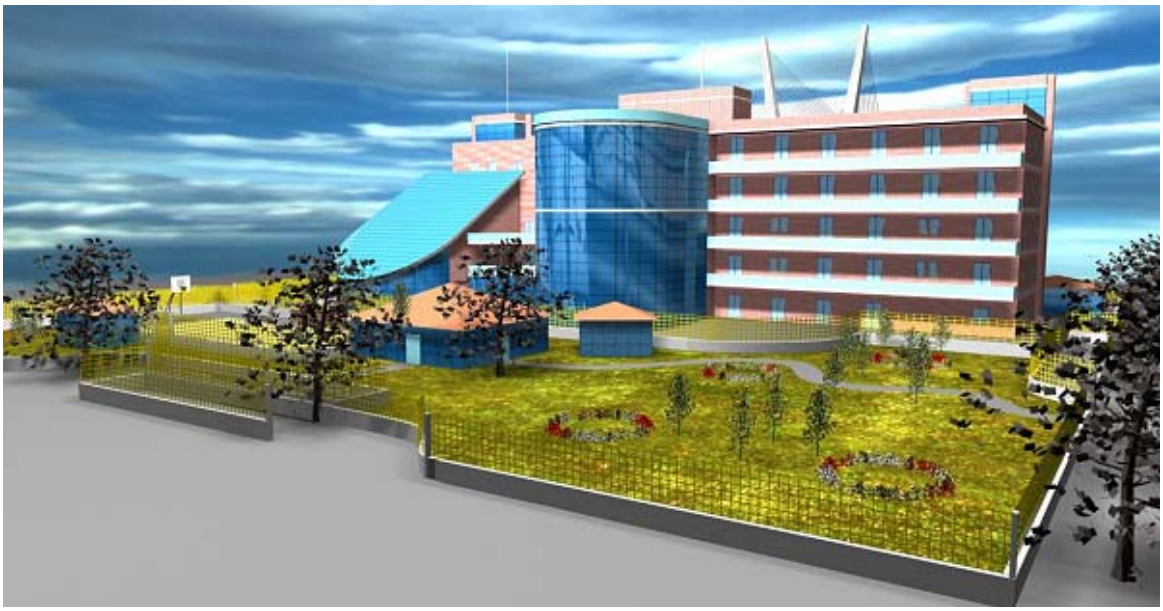
- Problems connected to lesions of the marrow with documentation of statistical data for Italy as to the age of the people, the type of lesion and the causes of the problem concerning the myelitis lesion;
- Rehabilitation programmes already set up in these health centers;
- Contacts between such a Unit and the surrounding territory within the regional boundaries;
- Singling out of any Unipolar Spinal Units already existing in the country;
- Some examples of rehabilitation centers outside Italy such as the neurological center in Basel and the Paraplegic center in Nottwill, Switzerland.

Section 2 of my thesis gathers information that might be useful in order to draw up the engineering design in consistency with the specific guidelines set up for Unipolar Spinal Units.

Further on my thesis approaches the internal organization within the Unipolar Spinal Unit and considers the creation of three different departments:

- in-patients department;
- instruments and areas for diagnosis and treatment comprehensive of physiotherapy, neurology & urology, neuro-psychology and social rehabilitation;
- general services.

Section 3 exhaustively approaches the subject of the engineering design of the Unipolar Spinal Unit of Turin based on the problems connected to its location within the city boundaries, namely on the land belonging to the Town Council Authorities located in front of the CTO Hospital; the creation of a connection to the above hospital through a pedestrian catwalk between the Spinal Unit and the Hospital emergency and entrance department where operating-theatres are located on the fourth floor.



There exists an important limit though, since green areas are to be provided on the land under consideration, as well as a public parking under ground.
The engineering solutions that have been developed as far as the type of infrastructures is concerned originate from the limits due to the shape of the area itself and from its surface. Therefore, a compact and uniform morphology has been chosen with vertical interconnections sticking out, a definite area at the back where a panoramic ramp will be built and a sloping roof for the hydrotherapy swimming pool.

My thesis ends with three appendices that give some information about the importance of the specific associations which gravitate around and are involved in the activity of the Unit. Appendix 2 - which is called *Engineering Recommendations* - thoroughly examines the engineering solutions. It contains three recent architectural examples: the first one shows the application of structural glass to the sloping roof the Schell (Headquarters in Rueil, Paris, France; the second one, the catwalk connecting the two buildings where Fiat

Administration departments are located at Corso Marconi, Turin, Italy; while the last one shows the revamping and refurbishing of the old Fiat Factory at Lingotto, Turin.

Appedix 3 includes the Articles of Association of O.n.l.u.s. , an association to be established in order to support the internal organization and the implementation of the expected structure.
The conclusion relates the ten rules of behaviour of the model hospital according to the Italian designer Renzo Piano.

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