**Gianpietro Marchiori, EIE and the TNG**

**By Prof. Cesare Barbieri**

My relationships with Gianpietro Marchiori actually precedes the very existence of EIE and their involvement in the design and construction of the Telescopio Nazionale Galileo. In the mid '80s, as Director of the Astronomical Observatory of Padova I wanted to move the 67/92 cm Schmidt telescope from the original location near the town of Asiago to Cima Ekar, next to the 182-cm Copernicus telescope. That location would not only ease the operational burden of having telescopes in different sites but would also offer a slightly darker sky and better seeing conditions. Building a new dome ( see Figure 1) offered the possibility to experiment a new design, on the footstep of the ESO New Technology Telescope. It was then when Gianpietro was first involved in my activities.

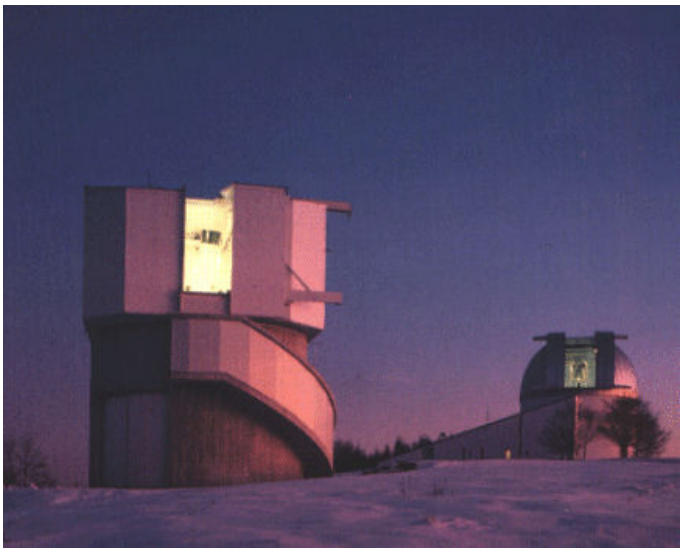

*Figure 1 – The Schmidt telescope dome with its octagonal dome, a precursor of the TNG dome design.*

This positive experience convinced me to use the same design for the dome of the 3.5m Telescopio Nazionale Galileo, which started taking shape in those years. Actually, moving from design to construction was not a straightforward path. The Project was first instructed by the National Council of Astronomical Research to set on the island of Mauna Kea, next to many other American and Japanese telescopes, at 4300 m of elevation. More or less two years were spent in designing for that site, its peculiar geomorphology, its elevation, the different electrical power, the different regulations, and so on. I wish to remind this may be forgotten initial period because I had to defend not only myself but also the project office and all contractors by criticisms about delays and greater expenditures. And surely Gianpietro, with his experience of building in remote places and especially of the crazy astronomical world, went to my rescue, with his advices and calm attitude, several times. Finally, the Roque de los Muchachos was selected, and the design tailored to such new site. The Canaries at the beginning were not yet fully in the European Community, having peculiar regulations about civil construction, water waste and electrical plant. I had to rely heavily on the contractors, EIE in particular, good will and flexibility.

So the construction went on, in the Ansaldo factories in Genova and Milano, and on the Roque. At the acceptance ceremony of the telescope Gianpietro figured prominently among the speakers.


*Figure 2 – The acceptance of the TNG telescope in Ansaldo Milano.*

Not that the crises were over. In addition to the 'normal' troubles, an unexpected dramatic event was solved through Gianpietro prompt intervention, namely the failure by one of the contractors to provide the dome rotating mechanism. With great ingenuity by the project office and EIE together, that event was finally absorbed with little notice by the external world, and the TNG dome equipped with an exclusive rotation system (see Figure 3) which is still now in good conditions.

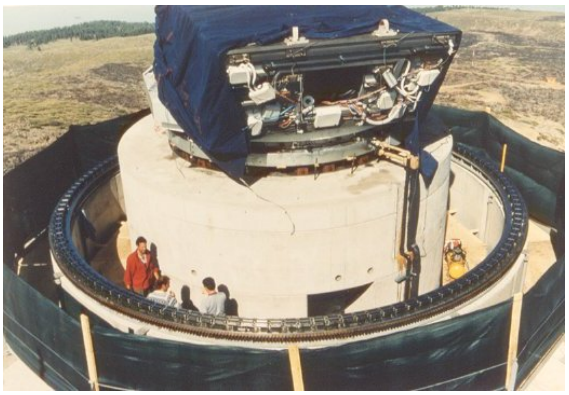

*Figure 3 – the rotation system of the TNG while being installed on the external cylinder of the pillar.*

And finally, in June 1996 the construction could be considered finished. This phase of work had a spectacular conclusion with the attendance of the King and Queen of Spain, the Italian Minister of University and Research, and many national and international authorities. Gianpietro of course was present.

This event concludes my recollection of the intervention of EIE in the TNG construction. Of course I had many other occasions in the subsequent years to interact with Gianpietro and EIE for the TNG and other projects of ground and space astronomy. I wish to conclude that EIE and Astronomy all over the world (not only the Italian one!) have enjoyed a 25 years old relationship to the mutual benefit.