

centro multimeios de espinho

portugal

“Centro Multimeios de Espinho” is a modern building managed by the Navegar Foundation, a non-profit organization, mainly devoted to scientific popularization, namely in Astronomy. The foundation has worked for nearly 4 years and has developed several actions with schools nation wide: production and exhibition of planetarium shows, thematic exhibitions, public astronomy observations, training of teachers and students, etc.



planetarium

In the center of our dome we find the Minolta Cosmoleap 10 star projector. This machine enables our audience to see more than 6000 stars, the Sun and it's planets from any point in the Solar System using the most accurate calculations. Under these stars, people can appreciate a variety of shows covering different subjects in astronomy, science in general and even history. But the planetarium is not only made of stars and planets. A great number of projectors surround the audience with images and videos. A digital sound system with six independent channels and three subwoofers creates a even more splendid ambiance. The Planetarium is not only a science instrument, it's a place where science, culture and art can meet to celebrate the conquests of human mind.

Planetarium

-Dome: 6,10 m radius.
-80 seats

Video

- Video Projector: Barcovision 708
- DVD player: Pioneer V7300 D
- SVHS player: Sony SVP - 5600P

Visual stills

- Slide Projectors : ELMO Omnigraphic 253
There are three sets of projectors, in a total of 8, each one with a capacity for 80 slides. These sets of projectors can be used separately or together.
- One projector working together with a mechanical mirror, which allows the image to be projected practically in every area of the dome.
- 9 Monoprojectors: Optikinetics Solar 250
These projectors use only one slide, but this image can be placed anywhere in the dome.
-All-Sky System: Kodak ektapro 4020
It is a 6 projectors system which is able to cover the entire area of the dome. Each one of the projectors can also be used individually.

Panorama

Two sets of six projectors assembled in the center of the planetarium which can project panoramic images. These fill the dome from the horizon to an height of about 40°. These projectors are rotary, which means that the panorama is not static.

Star projector

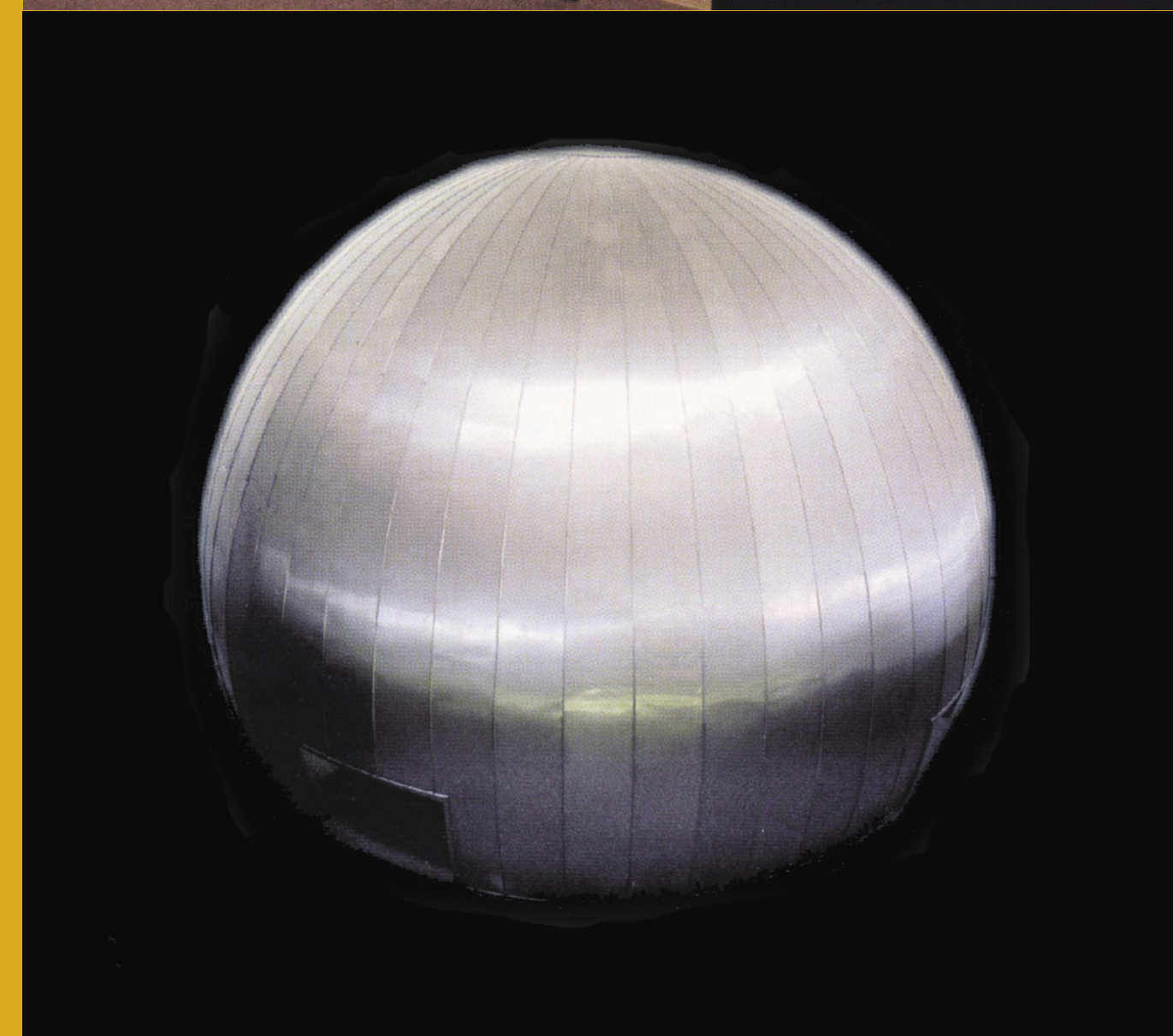
- Minolta-Cosmoleap 10.
- Minolta Space-Simulator. It projects planets, the Sun and Moon, from any point of the Solar System, in any date. Can be programmed to project any other body of the solar system.

Sound

- Speakers system 6.1
- Mixer: Spirit Digital 328
- Spirit Audio Monitors
- Amplifiers: CAudio Pulse 4300
- Digital Recorder: Fostex D2424LV
- CD Player: Marantz CD4000

Show control

- SPICE from SkyScan, Inc.



observatory



The Astronomical Observatory is located in Centro Multimeios de Espinho, at the top of the building. It has an automated roof, which can be opened in order to perform astronomical observations. The observatory is equipped a modern 16 inch reflector telescope, digital CCD cameras, filters, autoguider and several eyepieces. Everything is automated and controlled by a computer, using astronomical software thus making its operation very simple, whether in loco, or remotely. The observatory is used for public shows, workshops for students, and science purposes.

cinema

The Tempus Room is an amphitheatre with 280 seats. It was designed for large format cinema usually known as IMAX, but has both 35 mm and 70 mm projection systems, equipped with the biggest cinema screen in Portugal. Its stage can be lifted, which allows other types of events to take place, such as music concerts, theatre, conferences or dance.



exhibition gallery

Its a vast open area of about 250 m². Since its opening, 4 years ago, it has hosted various kinds of exhibitions: painting, photography, astronomy, history. Most of the exhibitions are produced by Centro Multimeios, others come from other Cultural Institutions in the country or abroad.



polivalente room

It's a very multifaceted, small room, normaly used for press conferences, small concerts, workshops, courses and training.



“varandim”

“Varandim” means balcony. This open cyber space is located on the top floor of the building and there the public can access the internet, free of charge. This space has an average of 200 users per day, 7 days a week. There are several other spaces similar to this throughout Portugal, part of a governmental project. “Varandim”, with its 25 computers, is one of the largest.



cosmoteca

sky and space library

Cosmoteca is a public library dedicated to Astronomy. It works as a complement to the planetarium and the astronomical observatory that also can be visited at Centro Multimeios de Espinho.

It is a place for study, formation and science popularization, where is possible to find educative and didactic material, including books, magazines, videos, CdRoms and computers. Cosmoteca, Sky and Space Library, is available for everyone who have interest in Astronomy. It was created having in mind the rising importance of Astronomy in nowadays school programs. Here even the teachers, themselves, can find suport on their class preparation, and the students in their homeworks and group works.

