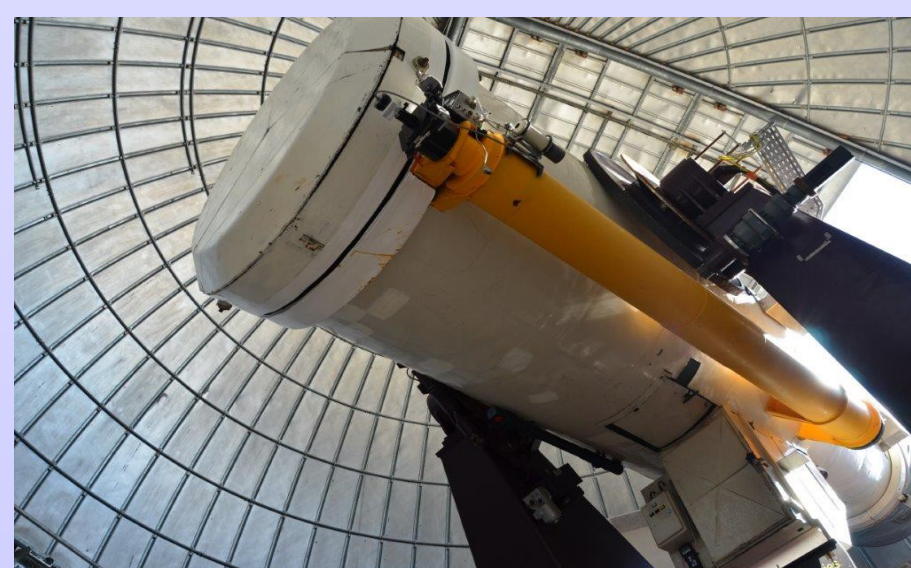


The *Observatoire de la Côte d'Azur*, formerly *Observatoire de Nice*, founded in 1879 has from the beginning dedicated an important part of its research to astrometry, in particular with the installation of a large meridian circle made by the Brunner brothers (1887) and a **Zeiss binocular astrograph** (1931). In the 1970s, astrometric observations were enriched by the construction of a **Schmidt telescope** at the Calern observatory administrated by the CERGA - *Centre d'Etudes et de Recherches en Géodynamique et en Astrométrie* - created in 1974. In 1988, the CERGA and the *Observatoire de Nice* merged into the *Observatoire de la Côte d'Azur* (OCA). Nowadays OCA owns collections of plates taken with its Zeiss astrograph and its Schmidt telescope, and also collections from other observing sites.



Nice binocular astrograph. Diameter of each Zeiss mirror: 40 cm. Focal length: 2 m. Marc Heller © OCA



TESCA, the Calern Schmidt telescope. Jean Texereau mirror diameter: 152 cm and correcting plate diameter: 90 cm. Focal length: 316,1cm. © OCA



Nice astrograph plate n° 4406 taken by B. Milet. March 25.16724, 1976. 16x16 cm. West Comet. © OCA



Calern Schmidt telescope film n° 3400 taken by TESCA team. May 28th, 1995. 30x30 cm. © OCA

More than 11 000 plates over more than 60 years (1935-1996)

Instruments at OCA sites

- **8 200 glass plates from the Nice binocular Zeiss astrograph (1935-1978)** with a few years missing). Limiting magnitude: $M_v = 15$ (V photographic magnitude). Various formats: 9 x 12 ; 13 x 18 ; 16 x 16 ; 18 x 24 ; 24 x 30 ; 30 x 30 cm.
 - 2 700 plates (1935-1961). Observers: A. Patry, M. Laugier. Studied objects: asteroids.
 - 5 500 plates (1965-1978). Observers: B. Milet. Studied objects: asteroids, comets.
- **3 600 glass plates and soft films from the Calern Schmidt telescope (1978-1996).** Limiting magnitude: $M_b = 21.0$ (B photographic magnitude). Observers: TESCA team: J.-L. Heudier, A. Maury, C. Pollas *et al.* Format: 30 x 30 cm. Studied objects: Solar System objects, stellar dynamics in clusters, supernovae, variable stars, nebulae, quasars and space debris location.

Astronomical images from other observing sites

- **3 293 soft films from the Meudon Schmidt telescope (1961-1975)** (diameter: 17,5 cm). Limiting magnitude: $M = 16$ (photographic magnitude).
- A few plates from the *Carte du Ciel* program from various observatories (Algiers and non identified observatories).
- Some 50 glass plates taken at the Pic-du-Midi observatory by O. Calame (1960s) (meridian plates and solar images).
- Some 450 glass plates (various formats) mostly from Ch. Veillet, taken at *La Silla* and also at *CFHT*, *Observatoire de Haute Provence*, *Pic-du-Midi* and *Chirán* observing station (1970s, 1980s). Studied objects: mostly Solar System planets (in particular Jupiter, Saturn, Uranus, Neptune, Pluto), nebulae, clusters, galaxies.

A will to preserve this collection

In autumn 2012 an important protection operation was undertaken by the OCA through its Heritage service for the 16 000 photographic plates and films which were stored for several years in precarious conditions of preservation (very high and fluctuating humidity, unstable temperature) at the *Calern* observatory:

- **Secured storage.** An air-drying facility has been set up to gradually change the relative humidity in order to avoid thermal shocks. All the plates have been moved in a safe room. Delicate handling operations because of the weight and fragility of the plates.
- **Classification and inventory** of the plates that where not inventoried (more than 8 000) before moving.
- **Plate preservation.** Dust removal, reconditioning with neutral paper. A quality control has been performed on sample plates randomly selected in each series of our collection. Most of them are well preserved.

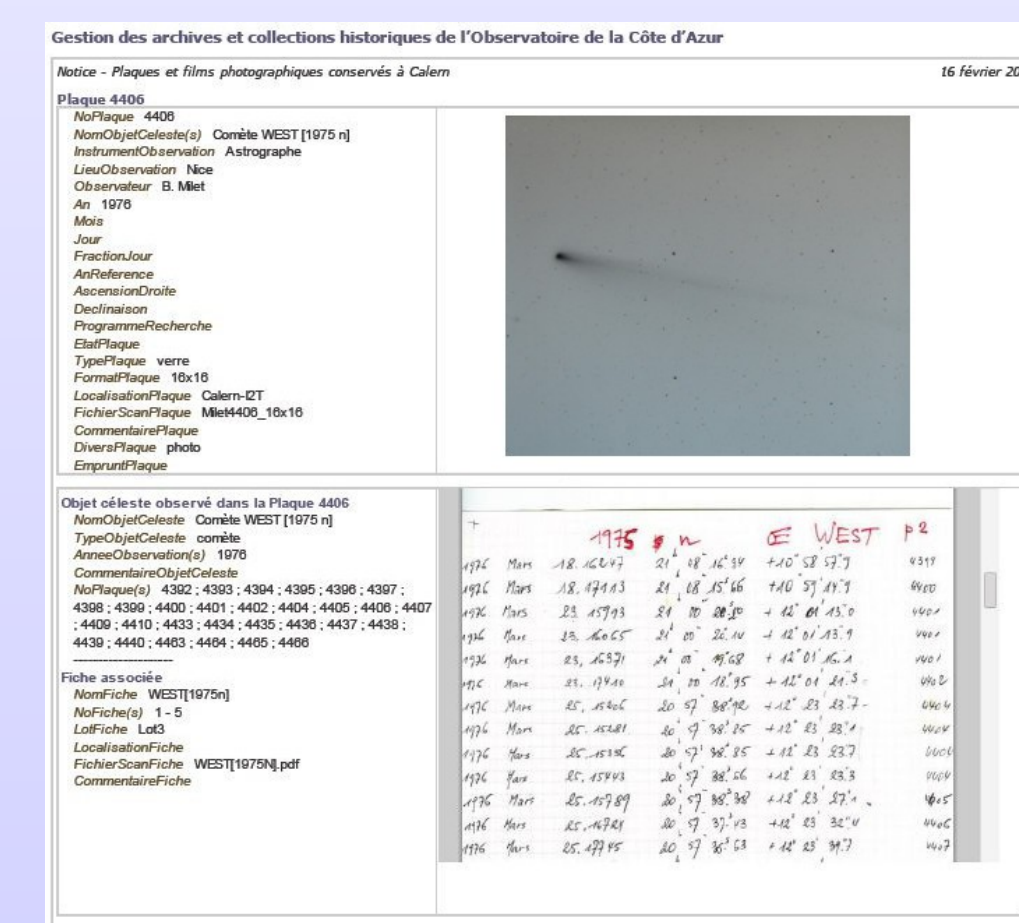
All the 16 000 plates and films are now conserved in a controlled atmosphere.



A new secured storage facility for astronomical plates, located at the Calern observatory. The complete OCA's plate collection has been moved there in february 2013. © OCA

A general referencing operation

- A collaboration with researchers has started to gather possible information on these plates, collecting and ordering the existing archives.
- **Database conception:** a flexible and complete classification scheme has been designed and is under implementation.
 - Registration of the information on electronic files. Digitalization of observation logs for the Nice astrograph for which no inventory existed before 2013. Up to now, it concerns 2 500 observing logs about 1 500 celestial objects (asteroids, comets) on 6 000 plates.
 - Integration of the Calern Schmidt plates which have already been inventoried by Ch. Pollas (TESCA team).
- Inventory in process for the other collections (less numerous) to integrate them later in the database.



Database issue corresponding to the B. Milet plate n°4406. © OCA

Prospective

- To continue with the preservation aspect (end of reconditioning, checking the state of the plates).
- To persue and refine the referencing effort.
- Next step: high resolution digitalization of the most valuable plates.
- Scientific exploitation by astronomers from OCA (some of them are deeply involved in GAIA program, and thus interested in astrometry and proper motion determination for example), or from other institutes (IMCCE, Observatoire de Paris...).