

The Twins!

The Jade from the Talcum Mine on Alpe Mastabia – Italy

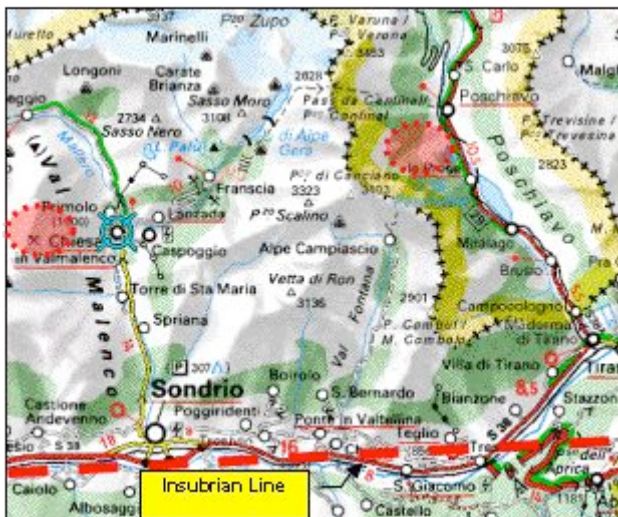
In my contribution to FOJ “Jade News – Fall 2003” I reported about a Talcum Mine in the Italian Alps where an apple yellow-green Nephrite Jade was discovered in the mine tailings.

This was the Talcum mine on Alpe Mastabia in Val Malenco in the Provincia di Sondrio of Italy.

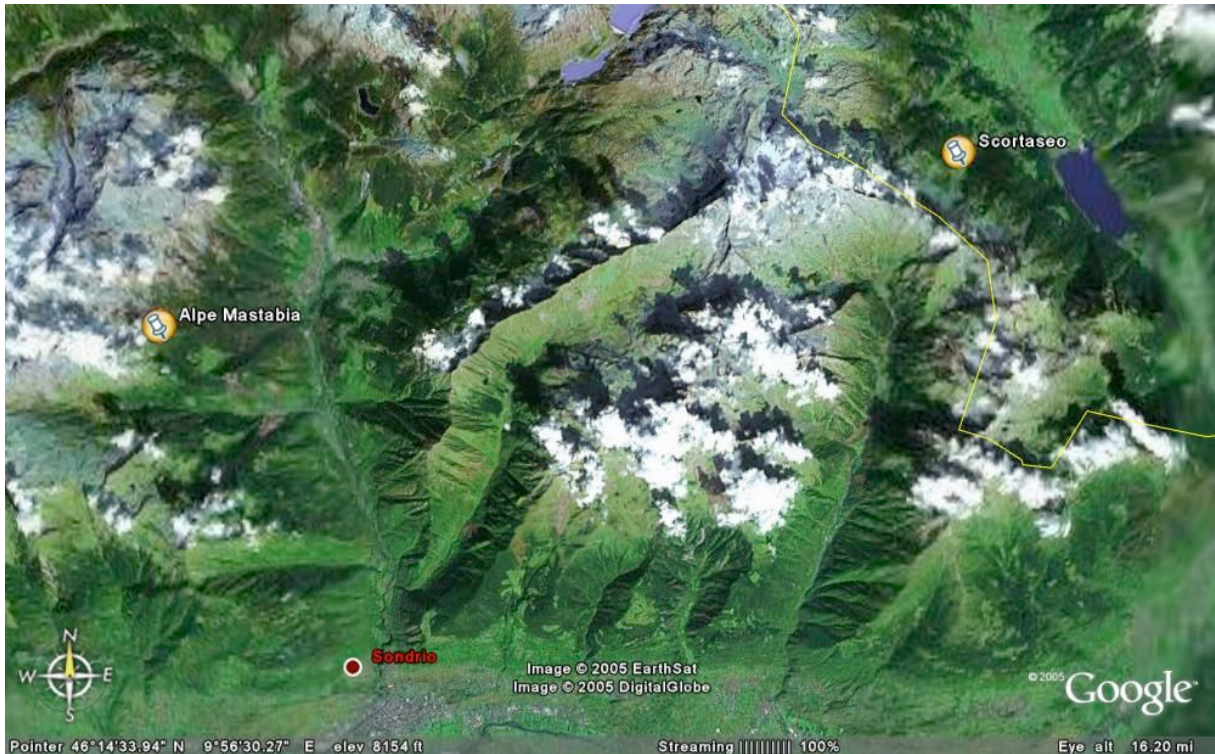
In late summer 1993 fellow FOJ Doug Nichols and I meet Mr. Pietro Nana, the actual discoverer and a avid rock hound, in Sondrio and in Chiesa di Val Malenco just after finishing the visit to the nearby Scortaseo Talc-cum-Jade mine in the Poschiavo Valley of Switzerland. We discussed his discovery in light of the nearby Scortaseo site and were given samples and details of the site.

Based on this information, the analysis of the samples, a review of the literature and contacts with Mr. C.Andreis, writer of a thesis on the Mastabia Talcum mine, Doug completed the publication “Nephrite Jade from Mastabia in Val Malenco”. This paper was published in Journal of Gemmology, 29, 5/6, 305-311 by the Gemmological Association and Gem Testing Laboratory of Great Britain in 2005. There you will find all the details on the local geology, composition and colors.

Due to the location of the site in the Alps at more than 2000m, just a limited time window for its visit is available and only this July our busy schedules allowed us to visit the site.



Map showing the twin Talc-cum-Jade sites Mastabia and Scortaseo (red circled area).



Satellite image of the region showing the Alpe Mastabia at 46°14'53"N and 9°48'34"E and 18Km west of the Scortaseo site

The Alpe Mastabia is located in the upper left side of Val Malenco, a extremely interesting geological and mineralogical area of the southern reaches of the Italian Alps and about 100Km north-east of Milano as the crow flies.

We have approached the site from Chiesa in Val Malenco, a small town with about 2750 inhabitants at 960m elevation after having passed the night at Hotel Tremoggia.



The Lenatti Family/Owners and Staff welcoming the intrepid (!) Jade explorers at the **** Hotel Tremoggia!

With the kind help of Mr. Cesare Lenatti next morning, we made a head start in the visit by being driven, along a private and normally closed road, to Alpe Lago already at 1614m of altitude.



Our staging point, Alpe Lago at 1614m and looking eastwards. The site was formally a small lake. Chiesa in Val Malenco is down in the valley beyond the wooded ridge.

After having adjusted our backpacks, readied our GPS and maps, we followed the trail to the west. The next steps were arduous as, within about 1000m distance, we had to gain 463m of altitude to reach Alpe Mastabia.

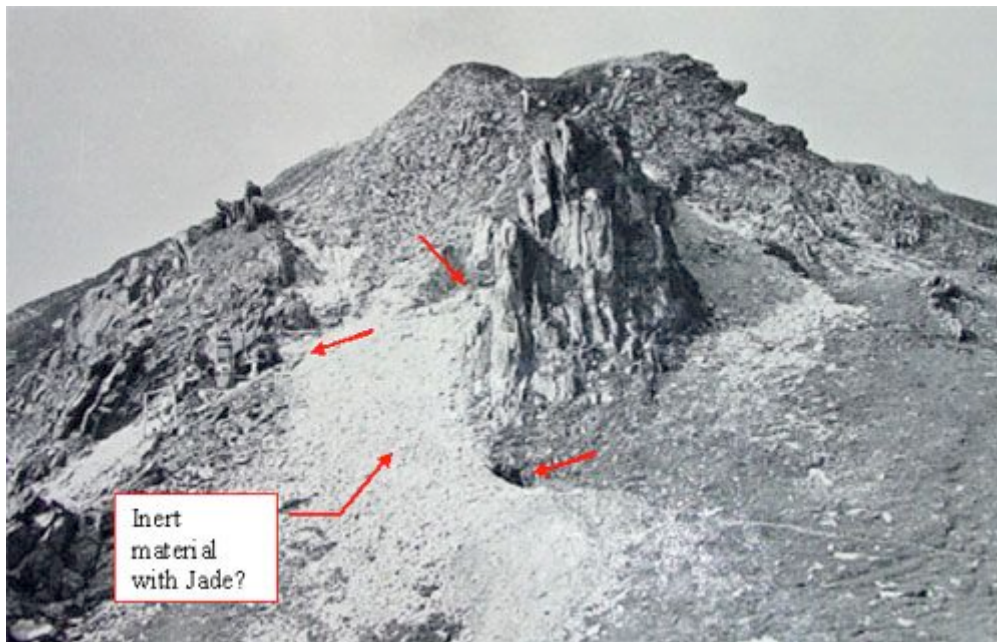


The last climb before reaching Alpe Mastabia and Rhododendrons, a signpost flower of the Alps.

The path led us through Larch forests, *Rhododendron ferrugineum* patches and over alpine meadows in full flower to an assembly of squat stone houses which, during summer time, are occupied by the herdsmen guarding cattle and producing cheese on Alpe Mastabia.

After having reached Alpe Mastabia we were not quite sure which of the two Talcum Mine sites would contain the Nephrite seams.

Two Talcum mine sites were described by C.Andreis and, based on the available 1970 pictures; we identified one to be located still about 250m higher up, on the slope of a barren mountain peak north to Alpe Mastabia.



1970 Andreis picture of the talcum mine site 1 with adits openings on a tree-less slope at about 2205m elevation behind Alpe Mastabia.

The second Andreis site was at an unknown position but from the surroundings, associated trees and background it was certainly located at a lower altitude.



1970 Andreis picture of the talcum mine site 2 with the railway tracks, trees and the Sasso Nero Mountain visible in north-easterly direction

Tired from the steep ascent and on the indications on a second map as also from a picture kindly furnished by Mr. Nana, we opted opportunisticly for the site 2. This site was fortunately at the same altitude as Alpe Mastabia, about 1Km away and accessible along the newly build "Alta Via della Val Malenco", a high mountain excursion trail.



Local excursion map showing the Talcum Mine (Andreis site 2) close to the “Alta Via della Val Malenco” (arrows) to the north-east of Mastabbia (Note: Alpe Mastabbia is also found to be spelt Alpe Mastabbia)

Half way there we started to see white gashes in the green meadows indicative of the Dolomite/Carbonate rocks accompanying Talcum deposits and shortly after encountered also the now half buried mine lorry railway tracks shown on the Andreis picture.



Doug Nichol on the Alta Via della Val Malenco, with the Talcum mine site 2, not to far away.

The mining sites follow the narrow band of the once up to 10m wide talc vein cropping out on the mountain side for about 200m length in a nearly vertical orientation. Only the associated dolomitic marble rims are now left over. Also here, like at the Scottaseo Talc-cum-Jade mine, Serpentine rock is about 300m distant but not in direct and visible contact with the Nephrite deposit. The entrances to the horizontal tunnels and galleries leading once into the ore body have mostly caved in or have been closed with boulders and barricaded.



Vertical extension of the narrow Talcum seam uphill and leftover tunnel entrances

The mined talc was once transported down to the valley near Chiesa by aerial cableway. Mining ceased around 1980's due to unacceptable high fibre content of acicular Tremolite, the cousin of Nephrite Jade. We had the chance to meet a former worker of the mine at the Refugio Bosio nearby. He was unaware of the value of these green stones we showed him but he recollects how they were dreaded in the Talcum milling plant. When such a piece of tough Jade was trapped accidentally in the soft Talcum material and got into the crusher mill all hell broke loose. The machine, unable to "digest" or crush the Jade boulder in its jaws, spit it out like cherry stone only at the difference that it went vent, like a cannon ball, straight up through the roof and landed then up to 50m away on neighbouring streets and houses.



Scrambling up the mining scree pile in search for Jade



Doug proudly taking possession of his first piece of Mastabia Mountain Nephrite Jade

As we had seen the samples of Mastabia Jade of Mr. Nana in 2003, we quickly recognized within the debris of the bygone mining activities, some nice boulders of the Nephrite Jade rock. The total amount left over is however very much lower than in Scottaseo.



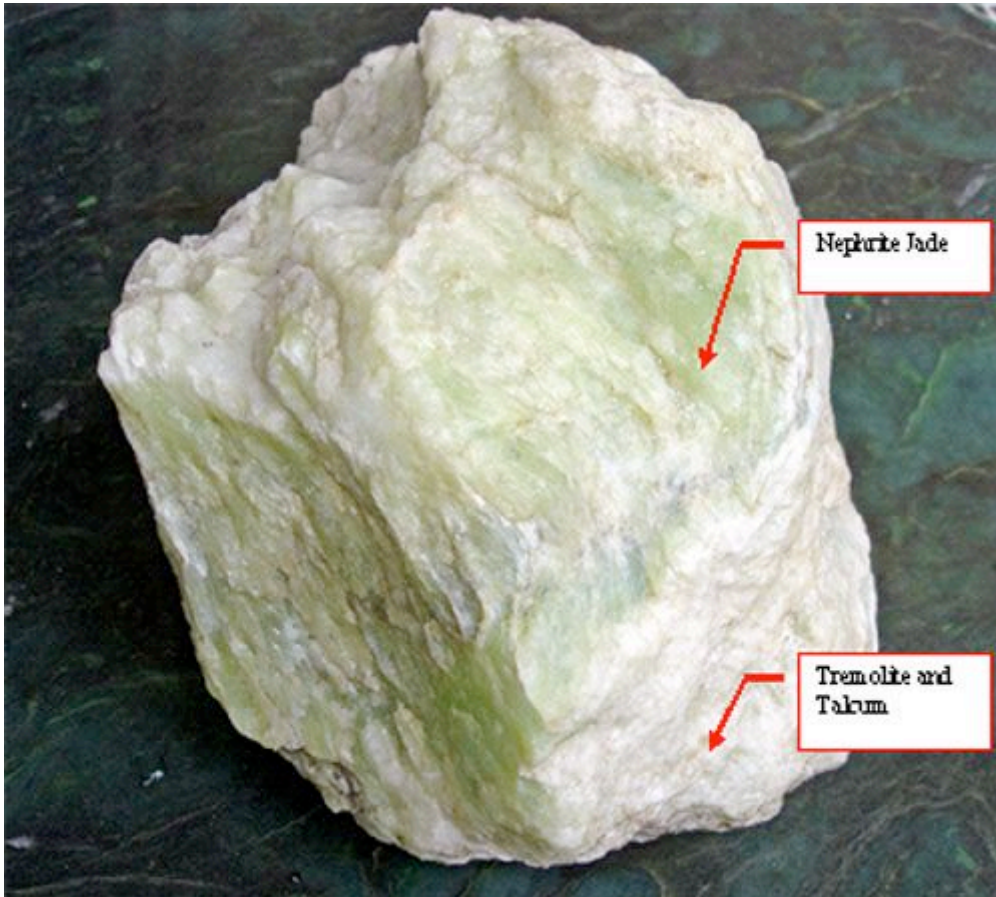
Piece of Mastabia Nephrite Jade with a yellow green color and staining by iron containing water



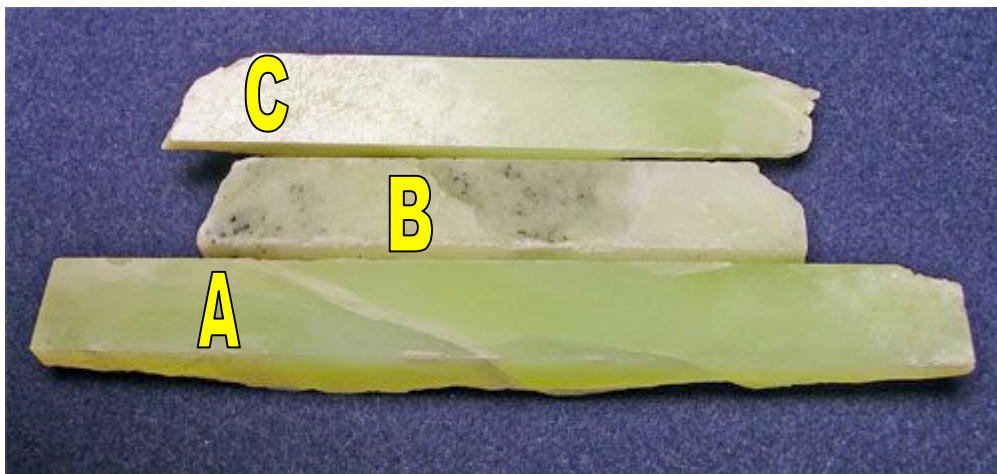
Typical areas of a more intensive green color in a Mastabia Nephrite piece



The core of the vein like deposit of the Mastabia Nephrite is not infrequently characterized by a distinctive stripe of opaque iron minerals in its very interior.



15cm sized Mastabia Mountain Jade specimen with residues of Talcum and Tremolite.



Polished 1cm wide strips of Mastabia Nephrite Jade showing good translucency and the yellowish-green color (A), localized black inclusions (B) and areas with coarse Tremolite crystals (C)

After exploring the site, with fog and rain closing in, we then continued with about 10Kg of samples in our backpack toward the Alpine Hut Rifugio C. Bosio about 1½ h westward and at 2086m so to pass the night there.



Rifugio C. Bosio in the midst of a Larch and Pinion pine forest and framed by the Serpentine peaks of the 2995m high “Corni Bruciati”(burnt horns) to the West and the 2274m “Corni d’Airale” to the North.

From there we then descended next day early in the morning via Alpe Lago to Chiesa in Val Malenco and continued by car to the Valais region of Switzerland and the Talcum mines of Haudères with the hope to find also there some Nephrite in the mine tailings.

How this went we will report in another contribution.

H.Giess and Doug Nichol
August 2005