I 1 Monte Tabuto
I 2 Bodinizzo I
I 3 Boinizzo II
I 4 Bodinizzo III
I 5 Bosco della Risega
I 6 Coppa di Rischio I
I 7 Coppa di Rischio II
I 8 Cruc I
I 9 Martinetti I
I 10 Martinetti II
I 11 Valle Sbernia

I 12 Calena
I 13 Cruci II
I 14 Mastrotonno
I 15 Valle Guariglia II
I 16 Arciprete “B”
I 17 Caprarezza
I 18 Defensola “A”
I 19 Defensola “B”
I 20 San Marco

I 21 Foresta Umbra
I 22 Scarcafarina
I 23 Tagliacantoni
I 24 Torre dell’Aglio
I 25 Vallone Due Ulivi, Mattinata
I 26 Valle Sbernia/Valle Guariglia I
I 27 Ponte di Veia
I 28 Valle Lagorara
I 27 PONTE DI VEJA (OR VEIA), MONTI LESSINI, VERONA PROVINCE

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GEOGRAPHICAL POSITION

The Ponte di Veia is located in the Monti Lessini which are the southern-most foothills of the Alps in the province of Verona, grid reference 10° 59' 45° 35'. In this area there is an extensive mining field with workshop sites. It is only one locality in a vast area of flint exploitation mainly concentrated between the Progno di Fumane and the Torrente di Squaranto but which extends, less intensively, over a much wider area of the provinces of Verona and Trentino, extending east-west from Lake Garda to the Vicentino and from Lake Garda to Vicentino and northwards into the territory of Rovereto.

HISTORY OF RESEARCH

The Lessian flint deposits were the most important prehistoric sources in the Alps and have been known archaeologically since the 19th century. Indeed, the area was the setting for the long debate on forgeries the selci strani of Breonio carried on between De Mortillet and Pigorini (Vayson de la Pradenne 1932) and the region was a major centre of 19th century gun flint production (Orsi 1886; Chelidonio 1991). No direct research on the flint mining had been carried out before the current project.

A limited extensive survey was conducted in 1987 between the Vaio di Fumane and the Valpantena and a more intensive survey with excavations were conducted in the area of the Ponte di Veia between 1988 and 1989 (Barfield 1989, 1989, 1994; Barfield and Chelidonio 1991–1993)

GEOLOGY

Workable flint occurs in several geological horizons of the limestone between the Jurassic and Tertiary formations. The finest and most abundant quality however is that from the Biancone formation of the Lower Cretaceous. This was sometimes mined directly from the limestone, but mostly quarried in secondary deposition from the terra rossa infilling of fissures in the underlying Jurassic Rosso Ammonitico (Fig. 1). The Biancone flint is mostly of a glossy translucent consistency with a varied
Fig. 1. Schematic diagram to show mining activity in the Ponte di Veia area; Selce — Biancone flint deposit: A — formation processes of secondary flint deposition; B — human activities; 1 — quarrying nodules from terra rossa in fissures in the Jurassic rock; 2 — quarrying secondary nodules from terra rossa in a side valley; 3 — direct quarrying from the Biancone; O — a workshop area (after Barfield and Chelidonio 1991-3).
colouring from black to grey brown and greenish beige. A distinctive feature of this flint is white speckling. There is also a uniform matt yellow to yellow brown flint. Flint from the *Seaglia rossa* is matt red while that from the Jurassic is coarse black and brown. Much work still remains to be done on the flint quality and sources.

**EXCAVATION**

A 2 x 1 m sondage excavation was carried out on one quarry and four workshop sites (Fig. 2).

![Diagram](image)

Fig. 2. Plan of sites around the Ponte di Veia. Drawn by L.H. Barfield and H. Buglass.

**MINE FIELD**

At the Ponte di Veia — South (PdV–S) site pits had been dug along the lower slope of a shallow valley in which nodules and *terra rossa* had accumulated (Fig. 1). Other areas of quarrying were located in similar situations nearby. Mining in the limestone has so far only been recognised from surface evidence at the level on the *Biancone* outcrop.
EXPLOITATION UNITS

Excavation has so far been carried out on only one pit dug into the Terra Rossa at PdV–S. This revealed a pit some 2 m deep and uncertain width, possibly cut by other pits in the quarry field (Fig. 3). The filling of the pit contained mainly flakes from the trimming of precores and two horizons of fine shatter debris related to the testing of nodules. The flint here was all of a dark grey variety.

WORKSHOPS

Several workshops were found along the edge of the Valpantena set against rock steps where there appear to have been lean-to shelters (Fig. 2). Four were excavated of which two represented generalised tool production (Beaker — site PdV–N and undated — site 56) and the other two specialised products: daggers (Chalcolithic — site RO) and rectangular knives (Middle Bronze Age — site PdV–N).

MINING TOOLS

The only possible mining tools came from the area of the southern mining (quarry) field (PdV–S). These were two bifacial discs (Fig. 4:1–2) of a type not found on the workshop sites. They do seem to have been rather small to be digging tools however. A large narrow point and a leaf shaped knife/dagger were recovered from the fill of the quarry pit (Fig. 4:3–4).

Flint tranchet axes (Campignian) were represented on both the mining and the workshop sites. Even though this axe type has a distribution restricted to the flint mining zones of the Monti Lessini and the Roveretano they were certainly woodworking tools, only connected with mining to the extent that they may have been used for the manufacture of wooden digging equipment.

The workshops produced pottery (Chalcolithic, Beaker and Middle Bronze Age), animal bones and utilised tools suggesting the sites were also used as encampments.

DATING

Three of the four workshops could be dated by artefact typology to the Chalcolithic, Beaker and Middle Bronze Age respectively. Charcoal from the flint mine was dated by ^14C to 3650 ± 60 BP (TO-2567) suggesting an Early Bronze Age exploitation for the whole mining field.
Fig. 3. I 27 Ponte di Veia. Section of flint quarry at PdV−S: 1−3 — colluvium;
4−5 — layers of nodule testing shatter; 6−7 — pit fill; 8 — terra rossa.
Worked flints are indicated in black. Drawn by L.H. Barfield and H. Buglass.

SOCIAL AND ECONOMIC ASPECTS OF THE SITE

The Ponte di Veia area shows exploitation of flint between the Chalcolithic and Middle Bronze Age which is typical of the higher areas of the Monti Lessini. Neolithic exploitation areas were focused on the lower, southern margin of the hills (Barfield 1989). This later exploitation appear to have involved quarries in terra rossa and direct mining, with workshops (some specialising in single products) nearby. Larger settlements of the same periods Chalcolithic, Beaker and Early and Middle Bronze Age are found in the same general area but further from the primary sources of the flint. These appear to have been the base settlements for the mining and quarrying.
Fig. 4. 1-27 Ponte di Veia. Artefacts found in the area of the southern mining field (1-2) and in the excavation at PdV–S (3-4). Drawn by L.H. Barfield and H. Buglass.
Flint scatters along mountain ridge route ways used in historical times for transhumance seem to have been the main paths for the transportation of flint from the hills to the plain.

REFERENCES


I 28 VALLE LAGORARA

See Roberto Maggi, Nadia Campana and Fabio Negrino, Valle Lagorara (I 28): a quarry of radiolarite (jasper) exploited during the Copper and Early Bronze Ages, pp. 187-208.