

The Archaeological Excavations in the Castel Corno Caves (Isera, Trento, Italy)

Burial Places and Settlement of a Small Alpine
Community Between the 25th and 17th Centuries BC

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Contents

List of Figures	iii
1 – Historical and Geographical Introduction	1
Geographic and geomorphological framework	3
History of the research	5
Summary of research, excavations and surveys in Castel Corno Caves.....	9
2 – The Rovereto Civic Museum Excavations	10
Excavation campaign 1998	10
The stratigraphy.....	11
Excavation campaign 1999.....	15
Inspections between 2016 and 2018	18
3 – The Material Culture	21
The pottery.....	21
Forms, accessories and typology	22
Pottery technology.....	27
Fired and baked clay	28
Stone tools.....	31
Artefacts made out of stone other than flint.....	33
Shell, bone and antler artefacts	35
Metals	36
4 – The Burial Places	37
5 – Paleoenvironmental and Economic Aspects	45
Archaeozoology	45
Archaeobotany.....	46
Reconstruction of the environment.....	49
6 – General Discussion and Conclusions	52
Settlement, cemetery or place of worship?	54
Settlement in Vallagarina between the Copper and Early Bronze Ages.....	58
The cultural context	61
Catalogue of Finds	64
Catalogue Entries	65
Plates	95
Appendix	133
Bibliography	136

List of Figures

Figure 1: Localization of the site of the Castel Corno Caves.....	2
Figure 2: Panoramic view of Castel Corno and localization of the caves	3
Figure 3: Chambers plans and cross sections	4
Figure 4: Excavation photos from 1974 (left: Chamber 1; right: Sondage 1 in Chamber 1).....	7
Figure 5: Chamber 3, Zone 1: cavity entrance	11
Figure 6: Chamber 3, Zone 1: Tomb 1 plan	14
Figure 7: Chamber 3, Zone 1: cumulative section	14
Figure 8: Chamber 3, Zone 1: Harris matrix.....	14
Figure 9: Access corridor to Chamber 1.....	15
Figure 10: Chamber 1, 1999 sondage: composite plan.....	17
Figure 11: Chamber 1, 1999 sondage: sections A-B and C-D.....	18
Figure 12: Chamber 1, 1999 sondage: Harris matrix.....	18
Figure 13: Chamber 1: cave plan with placement of 1974 and 1999 sondages (black dot-dashed line) and of the recent illegal excavation (red dashed line)	19
Figure 14: Correlation between surfaces and fabrics color	22
Figure 15: Correlation between vessel and quality classes.....	24
Figure 16: Mug from Chamber 1, US 5	24
Figure 17: Baked clay platform fragments (a: from Riparo del Santuario (Lasino), b and c: from the Chamber 3 of Castel Corno).....	29
Figure 18: Baked clay platform fragment with traces of vegetal interweaving.....	30
Figure 19: Shapeless baked clay lump with traces of handling	30
Figure 20: Place of discovery of flint tools	31
Figure 21: Colour of flint tools and chips	32
Figure 22: Metal artefacts. a: small copper residue (or of a copper alloy), b: piece of smelting slag	36
Figure 23: Distribution of human bones.....	39
Figure 24: Individual 3's skull and hypothetical position of it at the time of burning	41
Figure 25: Reconstruction of the original position of individual 3's skeletal remains	41
Figure 26: Calibration made with the software Oxcal v.4.3.2 (Bronk Ramsey 2017) and IntCal13 atmospheric curve (Reimer <i>et al.</i> 2013).....	43
Figure 27: Determination of tree species of US 9 and 10 (Chamber 3)	47
Figure 28: Determination of cereal plants of US 9 and 10 (Chamber 3)	48
Figure 29: Determination of fruit remains of US 9 and 10 (Chamber 3).....	48
Figure 30: Localization of hypothetical flat cultivable fields near the site.....	50
Figure 31: Vessel potsherds from US 9 and 10 (Chamber 3).....	52
Figure 32: Vessel potsherds from Chamber 1 in order of excavation: US 5, 2 and 3.....	53
Figure 33: Distribution of the vessel classes in the site.....	57
Figure 34: Distribution map of Copper Age finds (orange) and sites (yellow). 1. Le Corone, 2. Vico e Bojom, 3. M. Altissimo, 4. Bersaglio, 5. Lizzana, 6. La Torretta e Dos Pipel, 7. Grotte di Castel Corno, 8. Passo Bordala, 9. M. Stivo, 10. Balteri e Laste Rosse, 11. Paludei, 12. Acquaviva, 13. S. Andrea Island	59
Figure 35: Distribution map of Early Bronze Age finds (orange) and sites (yellow). 1. Serravalle, 2. Castel Tierno e Montecatini, 3/4. Bersaglio e Colombo, 5. Monte Albano, 6. Molina, 7. Castel Pradaglia, 8. Grotte di Castel Corno, 9. Dosso Alto, 10. Rovereto city centre, 11. San Colombano, 12. Pizzini di Castellano, 13/14/15. Le Ville, San Rocco e Dos Destor, 16. Monte Corona, 17. Dos Alt (Nomi), 18. Castel Beseno, 19. Corona di Sachiel, 20. Becchetta	60
Figure 36: Facial reconstruction of Individual 3 created by Viviana Conti.....	62

1 – Historical and Geographical Introduction

Wenn sich aber die Nebel zwischen die Felswand und den Sclossberg schieben, dann hebt sich dieser zerrissene Felszacken mit den Ruinen, wie ein Riesenzahn, als Silhouette von der hellen Wolkenbanck ab.

But when the fog pushes between the cliff and the castle, then this steep boulder comes out with its ruins, like a giant tooth, and outlines its profile against the clear background of the clouds.¹

The ruins of Castel Corno are to be found in the eastern Alps, along the Adige valley (province of Trento, Italy) near Isera, on the mountain side to the right of the river at an altitude of about 800 metres above sea level (**Figure 1**). It was a well-fortified castle, skilfully built on gigantic, upwardly stretching teeth of rock. At the foot of the castle, amid the boulders of the great landslide on which the castle proudly stands, there open numerous cavities, chambers, gullies and tunnels from which archaeological evidence has emerged showing them to have been occupied between the end of the 3rd and beginning of the 2nd millennium BC.

The first superficial investigations go back to the end of the nineteen-sixties, but up until 1999 a great number of excavations of varied importance and approach were carried out. The finds recovered in the various investigations and during the excavations are all preserved at the Civic Museum at Rovereto.

In this volume we wish to provide a complete picture of all the interventions so far undertaken on the site, analysing the stratigraphy, the chrono-typological aspects of the materials found and, in general, all the archaeological evidence emerged.

The work in question has been hampered by the poor quality of documentation due to the poor integrity of the contexts, disturbed and seriously compromised by an intense and highly visible looting activity, but also by the arduous conditions in which the excavations were carried out: artificial light, high humidity, extremely restricted space, difficulty in moving the earth and relative slowness of the operations. This difficulty was in part compensated for by the exceptional state of preservation of both artefacts and bones, maintained by the stable microclimate typical of cave settings.

The Vallagarina, a stretch of the valley of the river Adige which, starting from the village of Besenello (10 kilometers south of Trento) reaches almost to the gates of Verona, has given us important evidence of the prehistoric settlement from the Middle Paleolithic to the Iron Age. As regards specifically the basin today occupied by the town of Rovereto, overlooked by Castel Corno, very few sites have been the subject of modern and methodological archaeological investigations. Most of the finds, in fact, were made in the nineteenth century and, later, between the 1960s and 1970s. Regarding the site in question, study of the documentation which emerged in the excavations conducted by the Civic Museum of Rovereto between 1998 and 1999, occupies therefore a significant role in the attempt to organize the sporadic and incomplete data previously collected and published about the site.

This study starts from the data which emerged in Elena Regola's degree thesis,² expanding the field of investigation with new research, laboratory analyses, radiocarbon dating and reassessment of the resulting data.

¹ Ausserer 1911, p. 5.

² Regola 2005.

THE ARCHAEOLOGICAL EXCAVATIONS IN THE CASTEL CORNO CAVES



Figure 1: Localization of the site of the Castel Corno Caves.

Considering the limited number of archaeological evidences referring to the Copper Age and the rare edited documentation for the Bronze Age from the lower Adige valley, we hope that this volume, partly bridging this gap, may make a useful contribution to the reconstruction of the settlement dynamics and funerary practices between the end of the Copper Age and beginning of the Bronze Age in an area of particular interest, an important point of contact and exchange between northern Italy and central Europe.

Geographic and geomorphological framework

The site of the Castel Corno Caves is found just to the south of the castle of that name, on the hydrographic right of the river Adige near Isera (Trento, Italia), on a terrace a little over 800 masl, precisely half way between the villages of Isera and Patone.

The origin of the caves of Castel Corno is not to be traced back to the destructive or constructive action of exogenous or endogenous agents as usually happens in the formation of natural cavities, but rather was due to the effects of a landslide of great proportions, detaching itself from the western slope above the castle (Croz de Naranc, at the foot of mount Biaena). This caused enormous blocks of calcareous rock to pile on top of each other and consequently the creation of a maze of chambers and gullies, often interconnected, and numerous rock shelters. The castle itself was erected on cyclopean vertical boulders which had fallen from mount Biaena and slid to here, now soaring skywards like mighty teeth or, exactly, stone horns (meaning of ‘*corno*’).



Figure 2: Panoramic view of Castel Corno and localization of the caves. (Image taken from Google Earth Pro V. 7.3.4.8642, on 31 August 2021).

Mount Biaena is a mountain situated to the north-east of Lake Garda on the slope of which can be seen landslide niche and, at its feet, the commensurate heaps of rock. Around 13,000 years ago, when the glaciers retreated, the valley sides underwent alterations: deep effects of erosion and collapse followed consequently by instability when the glacial mass ceased to push.³ The origin of the landslide of Castel Corno is thus traceable to this phenomenon: it is probable that a mass of rock, already destabilized, fell from the slopes of mount Biaena and slid to the valley side,⁴ leading, as a consequence, to the formation of the caves.

Observing the area in question, an elongated ridge can be noted with two prominences at either end: the higher one to the north is the one the actual castle was built on; the lower one to the south is where we find the complex of caves and underground tunnels which are the subject of this book (**Figure 2**).

The four chambers so far investigated (see **Figure 3**) are linked together by tunnels, pits and narrow passages. Access to the area of the caves is possible by road from the villages of Lenzima or Patone, near Isera. Once the castle has been reached, continuing to the south, in the small valley between the slopes of mount Biaena and the top of the landslide, an imposing mass of boulders with its system of caves is arrived at.

From the first chamber (Chamber 1), the easiest to access, you enter the second (Chamber 2) through a passage which opens out at the end. Chamber 2 also has a direct access to the outside which, though very tight (entered by crawling), was used during the most recent excavations. This chamber, much narrower than the first, is positioned slightly higher and proceeds in a northern direction. The third chamber (Chamber 3) can be reached via a narrow, vertical pit, which from the second chamber drops

³ Perna 1974.

⁴ Avanzini et al. 1987.

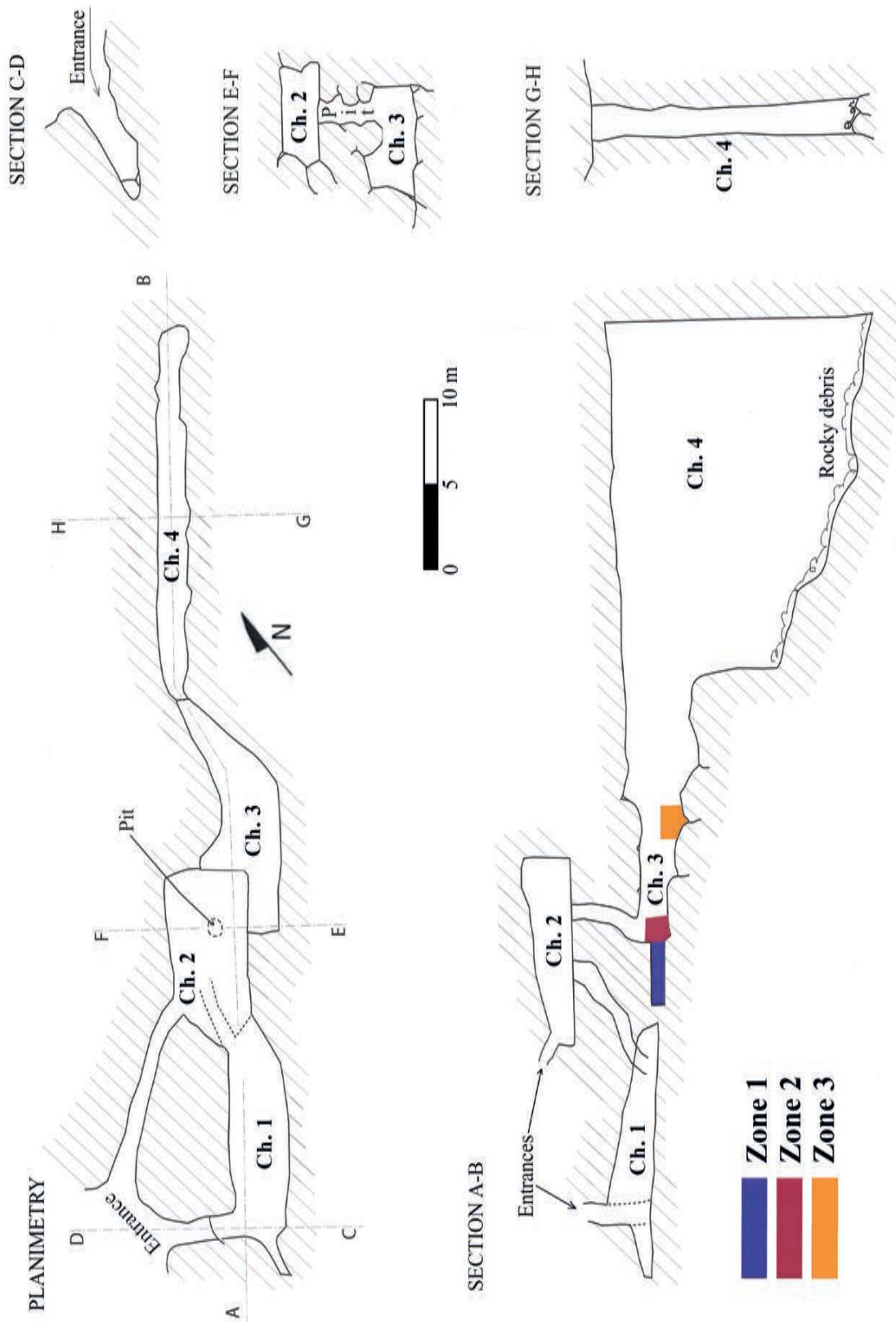


Figure 3: Chambers plans and cross sections (image modified from Chiocchetti 1985).

vertically towards the third. Finally, at the end of the third chamber, the fourth and last chamber (Chamber 4) opens out, in reality a deep, long, narrow gully.

More innumerable small caves exist around this area, rock shelters, narrow clefts and cavities of various dimensions, largely till now unexplored, also because they are almost entirely full of earth and covered with vegetation.

History of the research

The research into this archaeological site has been quite sporadic, often occasional and, in many cases, not so well documented. Furthermore, the site also has its own ‘history of looting’, unfortunately not quite as discontinuous, parallel to more or less official studies; looting that continues to this day. These illicit activities have caused serious damage to the original stratigraphy and made the task of those who tried to conduct more methodical digs even harder in a situation which was already difficult because of the extreme environmental conditions typical of the caves.

Here it has been attempted to reconstruct, as in a puzzle, the events which have characterized the troubled history of the studies of these caves. It has thus been possible to reassemble a synthetic chronological outline at least concerning the interventions which have left some documentary evidence.⁵

Altogether, in a period of time going from 1960 to 1999, at Castel Corno Caves a good fifteen different interventions were documented, between proper archaeological excavations, chance finds, and field surveys.

The discovery of the site happened by chance, at the end of the 60s, thanks to Dario Candioli, at the time just a boy. Immediately some more intense research followed, carried out by Valentino Chiocchetti, professor of philosophy, interested in archaeology, who became, in 1969, curator at the Civic Museum of Rovereto. To this first research is owed not only the recovery of archaeological artefacts,⁶ but also the realization of a map and a cross-section of the caves.⁷ The finds recovered all come from Zone 1 of Chamber 3.⁸ Among the various artefacts, the most important are a fragmentary truncated-cone shaped tuyère (**265**)⁹ and a fragmentary loom weight with a sub-cylindric body (**264**). Few flint tools and animal bones were found: among these were some flint sickle blades and teeth and joints, mostly belonging to herbivores. Of great importance is the find, again in Chamber 3, of the first human bones and the only complete skull, which was found entirely covered by stones. Exactly next to the human bones were found the terracotta tuyère previously mentioned.

Further investigations, begun in the 1970s by local associations of amateurs, were more methodical and systematic. In 1970, in fact, is dated the first of numerous interventions promoted and carried out by the Roveretan Archaeological Group (G.A.R., an association which then took the name Centre of Studies Lagarini - C.S.L.) under the guidance of Adriano Rigotti. These explorations, all undertaken inside the caves, led to the discovery of mostly ceramic finds with some flint tools, a jaw and teeth of herbivores.¹⁰ The fragment of red deer antler, cut and burnished with a small through hole (**308**) found in Chamber 3, is particularly noteworthy.

⁵ List of the documents, for the most part unpublished, conserved at the Civic Museum Foundation of Rovereto through which it was possible to reconstruct the history of the research into the site: two work journal books of the Roveretan Archaeological Group, dated 1972 and 1974; archaeological site recording sheet of Castel Corno Caves of the Centre of Studies Lagarini, dated 22 September 1974; letters registered 3/8/AR and 3/9/AR with the Autonomous Province of Trento – Office for Cultural Activities, dated 1 October 1974; Article from the newspaper *l'Alto Adige*, dated 3 October 1974; Articolo from the newspaper *l'Adige*, dated 4 October 1974; Report, unpublished, of the investigation by Marco Avanzini in 1985; Protocol 5/5/AR of the Autonomous Province of Trento – Office for Cultural Activities, dated 5 November 1974; Protocol 5/6/AR of the Autonomous Province of Trento – Office for Cultural Activities, dated 11 November 1974; Inventory of entries Civic Museum of Rovereto; Inventory archaeological finds Civic Museum of Rovereto (Regola 2005).

⁶ See in the Plates finds 4, 31, 35, 36, 45, 72, 86, 130, 134, 227, 228, 229, 230, 233, 264, 265.

⁷ Chiocchetti 1985.

⁸ See map and general cross section in **Figure 3**, extrapolated by Chiocchetti 1985, modified by the authors.

⁹ The identification number of the find is indicated in bold and in brackets (Catalogue entries and Plates).

¹⁰ See finds 8, 9, 41, 44, 71, 125, 137, 164, 171, 234, 276, 308.

In 1972 two different interventions made by the Cave Group (Gruppo Grotte) of the S.A.T. of Rovereto (G.G.R.)¹¹ were documented: these involved an in-depth exploration of the caves and removal of several artefacts. These explorations are documented not only in the entry register at the Civic Museum of Rovereto (n.1078/1972), to which the finds were eventually consigned,¹² but also in some unpublished notes of the G.A.R. which, in the person of Adriano Rigotti, monitored the situation. The valuable activity of inspection on land carried out by the latter and his association permitted, in many cases, the documentation of the activities of other interested groups or associations in Vallagarina. It also resulted in the Civic Museum of Rovereto being indicated as the place for collection and conservation of the finds otherwise dispersed among private collections and those of various associations and minor institutions unable to guarantee their conservation, inventory and research. The research involved above all Chamber 2 and, secondly, Chamber 3. It is thought to have been in this phase that the narrow access passage connecting Chamber 2 with the outside was opened.

Two documents of the Autonomous Province of Trento (protocol numbers 5/5/AR of 5 November 1974 and 5/6/AR of 11 November 1974), mention, among the activities conducted by the C.S.L. in 1973, investigations at Castel Corno, preliminary to and serving the excavation to be carried out the following year.

In fact, in 1974 the first real archaeological and stratigraphic survey took place. On the 22nd of September 1974, with the authorization of the Superintendence and on the indication of Dr Bernardino Bagolini, the first registration of 'archaeological site' was compiled for the area of Castel Corno. The ground was defined as '*steep wooded zone 50 metres south of the ruins of the castle of Castel Corno*' and localized '*at an altitude of c. 800 masl, above Isera, half way between Patone and Lenzima as the crow flies*'.¹³ Following the recognition of this zone's archaeological importance, a collaboration between the Cave Group of the SAT and the Centre for Studies Lagarini (ex G.A.R.) was set up to implement an excavation campaign, this cooperation was also made official approved by the Autonomous Province of Trento.¹⁴

The excavations of 1974, carried out in the last ten days of September under the direction of Adriano Rigotti, concerned above all Chamber 1, even if a further exploration with a consequent field survey involved all the other chambers, as well as the terrace above them (top of the landslide) and some cavities in the immediate vicinity. Inside Chamber 1 two small sondages were performed: the first (80×50×110 cm) near the entrance to the chamber, the second (100×100×40 cm) at the end of it, inside a small cavity opening to the east (see **Figures 4 and 13**).

The dig, made in spits (arbitrary levels), revealed a carbonaceous level rich in pottery, flint and bone finds. Among the numerous potsherds found during this brief research there was to be noted a small bowl with three handles vertically developed, two of which were pierced horizontally (**77**), found in an upper layer of Chamber 3. The works of 1974, which led to the recovery of several artefacts,¹⁵ contributed substantially to a greater knowledge regarding the human presence in the zone under examination and in general to the Early Bronze Age (hereafter referred to as EBA) in Vallagarina. The event had a certain resonance locally, reawakening an interest in the prehistory and protohistory of the place, such that it was reported in articles in the major newspapers of Trentino.¹⁶ The systematic and careful approach with which this intervention was executed led to a better, more detailed identification and description of the finds, and consequently to the compilation of a more complete documentation of the excavation phases.

¹¹ The Gruppo Grotte 'Emilio Roner' was officially founded in 1927 as an organ of the S.A.T. Centrale and of the then Natural History Museum of Trento. Later, since essentially constituted by Roveretan speleologists, it passed into the section S.A.T. of Rovereto.

¹² See finds 2, 5, 46, 61, 64, 65, 68, 78, 80, 85, 96, 136, 203, 206, 210, 215, 222, 224, 235, 306.

¹³ Unpublished report of the archaeological site n. 9/74 of the Centre for Studies Lagarini.

¹⁴ Protocols 3/8 /AR and 3/9/AR of 1st October 1974 of the Autonomous Province of Trento – Office for cultural activities.

¹⁵ See finds 7, 9, 34, 40, 41, 77, 88, 95, 98, 108, 131, 169, 238.

¹⁶ 'Alto Adige', Thursday 3rd October 1974; 'Adige', Friday 4th October 1974, p. 9.



Figure 4: Excavation photos from 1974 (left: Chamber 1; right: Sondage 1 in Chamber 1).

In 1975 more research followed, carried out by Tullio Pasquali, a local amateur archaeologist who worked in collaboration with the Civic Museum of Rovereto. The investigations were related to a zone outside the caves, in the open, enclosed by two boulders, overhanging Chamber 1: brought to light were potsherds, lithic tools and animal bone remains, mainly of domestic herbivores.¹⁷ We have no written documentation of these small sondages but fortunately all the objects found here were marked and are easily identifiable. Moreover, the investigations made in the area by one of the authors of this contribution (M.B.) have permitted the identification of superficial, still present, traces of the sondages conducted in the southern part of the natural corridor formed by the rock walls at the side.

Further surveys, of both inside and outside the caves, were carried out some years later, in 1983, by Pasquali and his collaborator and member of the Society Civic Museum of Rovereto, Barbara Raus, who also made the first technical drawings of the finds from this site.¹⁸ The surveys involved both the interior and exterior of the caves and the finds, exclusively pottery, were consigned to the Civic Museum of Rovereto.

Another exploration took place in August 1985¹⁹ carried out by Marco Avanzini, a geologist interested in history and archaeology, now curator at the Museum of Sciences in Trento (MUSE). On that occasion potsherds and two human jaw bones identified as burial remains belonging to two young people were found. The report on this exploration,²⁰ together with graphic and photographic documentation, also reveals the location in Chamber 3, of a further burial of a youth *in situ*. Visible among the human bones were forearms, part of the rib cage and the spine, fragments of the pelvis and the proximal part

¹⁷ See finds 1, 6, 33, 39, 63, 73, 91–93, 112, 113, 115, 116, 126, 138, 154, 160, 231, 232, 266–275, 284, 287, 292, 293.

¹⁸ Entry register number of the Civic Museum of Rovereto: 1083/1986; e.g. find 94.

¹⁹ Entry register number of the Civic Museum of Rovereto: 1054/1986.

²⁰ Avanzini 1985.

of a femur. These latter human remains, clearly still partially connected, were left *in situ* for future investigations.

Between 1986 and 1987 two more explorations were carried out by Tullio Pasquali and Barbara Rauss outside the caves and one by Marco Avanzini in Chamber 3. Those explorations taking place externally led to the find of numerous flint artefacts, comprising several sickle blades and some arrowheads, of a carved bones and a few potsherds.²¹ Avanzini's exploration produced a spindle whorl and a potsherd (a wall with an elbow handle²²).

In 1988 a new exploration by Pasquali-Rauss involved the area outside the castle, adjacent to the eastern walls. Among the Medieval finds brought to light, there were also two prehistoric artefacts, coming from the place defined as 'Dumping places A and B'.²³

Between 1995 and 1997 the Civic Museum of Rovereto undertook a series of preliminary explorations in the field, authorized by the Superintendence for Archaeological Heritage of the Province of Trento, in order to make a complete plan of action for the excavation. The first took place in 1998, under the direction of Umberto Tecchiati, one of the authors of this contribution and at the time curator of the museum for the Archaeology section. Surveys was carried out both outside and inside the caves and a sondage was made for the interior of Chamber 3, in the area already involved in the find of human bones in previous decades.

The excavation in 1999 was directed by the curator Barbara Maurina with the collaboration of Maurizio Battisti, the other author of this contribution, and of Simone Cavalieri. In this case a sondage was opened in the interior of Chamber 1, an area where it was possible to put a more complete and detailed documentation together, thanks to better accessibility, greater available space, better environmental conditions and a stratigraphy less damaged by looting.

The preliminary results of these two excavations were, between 2004 and 2005, the subject of a degree thesis in which all the artefacts found in previous excavations, from 1969 on, were examined.²⁴

In the first twenty years of the 21st century several investigations on the part of one of the authors of this contribution (M.B.) have been carried out, partly in order to monitor the possible prosecution of looting activities. Between 2016 and 2020, in particular, while carrying out examinations for technical and cartographic reasons in order to improve the graphic documentation for the publication of the archaeological site, the presence of some new illegal activities was discovered and reported (see the following chapter).

As regards printed publications about the site of the Castel Corno Caves until now, the first article appeared in 1980, written by Corrain and De Marchi.²⁵ In this brief contribution of an anthropological nature the human bones found during the excavations of 1969 were examined. After five years another brief article came out, in which were published, as already mentioned, plans and sections of the caves, written by Valentino Chiocchetti. Besides the publication of the studies on the ruins of the nearby castle, which includes various contributions,²⁶ between 1996 and 2007 the archaeological site of the nearby caves was previously described in two notes written by one of the authors of this volume (U.T.)²⁷ and was the subject of two degree theses.²⁸ Furthermore, between 2010 and 2012 an archaeozoological

²¹ Numbers of entry register of the Civic Museum of Rovereto: 1083/1986 and 1166/1987; see finds 55, 161, 163, 277–279, 298, 299.

²² Entry register number of the Civic Museum of Rovereto: 1096/1986 (finds 51, 259).

²³ Pasquali and Rauss 1988, fig. 3:1; Pasquali and Rauss 1990, 60–63, fig. 4:31, fig. 5:43.

²⁴ Regola 2005.

²⁵ Corrain and De Marchi 1980.

²⁶ Avanzini *et al.* 1987; Pasquali and Rauss 1987; Avanzini 1988; Avanzini *et al.* 1988; Pasquali and Rauss 1988; Avanzini 1990; Chelidonio 1990; Pasquali and Rauss 1990.

²⁷ Tecchiati 1996b; Tecchiati 2005.

²⁸ Regola 2005; Fontana 2007.

study was published on the animal remains found inside the caves.²⁹ Finally, recently an article has been published which analyzes the human remains found from an anthropological point of view³⁰ and anthracological and botanical analyses of the remains found with flotation and sifting are in press.

Summary of research, excavations and surveys in Castel Corno Caves

1969: research Candioli (Grotta 3);

1970: research Rigotti (survey in Chambers 1, 2, 3 and overlooking terrace);

1972: research of the Gruppo Grotte E. Roner di Rovereto (chiefly inside Chamber 2);

1973: preliminary investigations of the Centro Studi Lagarini (Rigotti) for excavations in the following year (for the first time they had the authorization of the Superintendence of Padova);

1974: excavations by the Centro Studi Lagarini in collaboration with the Gruppo Grotte Roner (Rigotti is the director of the excavation. They only excavate in Chamber 1; survey in the other chambers, outside and above the caves);

1975: research Pasquali (external zone);

1983: research Pasquali-Rauss (a few potsherds probably from the caves);

1985: research and documentation of Marco Avanzini (Chamber 3, Tomb 1);

1986: research Pasquali-Rauss (terrace overlooking the caves); research and documentation of Avanzini (Chamber 3, Tomb 1);

1987: research Pasquali-Rauss;

1988: research Pasquali-Rauss (at the foot of the castle);

1998: Excavations by the Civic Museum of Rovereto (in particular Chamber 3, Tomb 1);

1999: Excavations by the Civic Museum of Rovereto (Chamber 1);

2005: inspection by the Civic Museum of Rovereto (Battisti-Regola); collection of a few finds on the surface inside the caves and verification of continuing looting activity);

2016 and 2020: inspection by the Civic Museum Foundation of Rovereto (M.B.). The continuation of looting in the caves was verified and several potsherds and bones abandoned by the diggers, left at the sides were picked up. Laser surveys made for 3D mapping inside the caves and a topographical survey made of the area of access to them.³¹

²⁹ Fontana *et al.* 2010; Fontana *et al.* 2012.

³⁰ Mazzucchi *et al.* 2020.

³¹ Measurements made by Michele Zandonati of the Gruppo Grotte E. Roner CAI SAT Rovereto and the I.T.E.T. F.lli Fontana of Rovereto.