guida alle escursioni
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PROCESSI PALEOCARSICI E NEOCARSICI E LORO IMPORTANZA ECONOMICA NELL'ITALIA MERIDIONALE

ISTITUTO DI GEOLOGIA E GEOFISICA DELL'UNIVERSITA DI NAPOLI
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3 – first excursion: paleo-and neokarstic processes in the alburno-cervati structural-stratigraphic unit

3.1 The Alburno-Cervati structural-stratigraphic unit.

The karstic phenomena to be observed in this first excursion are all located in the Alburno-Cervati structural-stratigraphic unit.

This unit derives, as already mentioned, by the deformation of the original Campania-Lucania Carbonate Platform, a large Mesozoic-Tertiary paleogeographic unit.

The Alburno-Cervati unit largely outcrops in Campania (Avella-Partenio Mountains, Picentini and Lattari Mountains, Alburno-Cervati Mountains, Mount Marzano); in western Lucania.

The original carbonate platform was a large carbonate body mainly formed during the Mesozoic in shallow and very shallow waters, with widespread generally early dolomitization processes (Trias-Lower Lias) and rare clayey intercalations (lower Cretaceous-Paleocene).

The mesozoic sediments of the back reef lagoons were mostly micritic muds; their organogenic contentis given mainly by algae,forams and molluscs. The mesozoic sediments of the tidal flats were generally stromatolitc, often cyclically alternating with the former (cyclothems).

In the original rim belts true reef complex are very rare (frequently the platform margins were dissected, downfaulted and/or dismantled before the Miocene).

The platform scarp sediments are clastic and bioclastic calcarenites and calcirudites, sometimes very coarse grained, up to megabreccias. The latter evidence moments of particular activity of the synsedimentary tectonics.

The sequence is carbonatic from Triassic to Miocene and terrigenous (flysch deposits) during the Miocene. The total thickness may exceed 4.500 m.

In Campania the sequence is the following (De Castro, 1962, 1968; Scandone and Sgrosso, 1963; Selli, 1957):

- Massive white dolomites with rare clayey intercalations and cherty lenses, thickness 350 m;
- Myophoria marls; limestones, marls, shales with black cherts and which Myophoria, Avicula, Esteria, (Carnian), thickness 150 m;
- Bedded whithe and gray dolomites with marly intercalations, thickness 600 m;
- "Scisti Ittiolitici", thin bedded bituminous carbonates with brown coal lenses, thickness 30 m;
- Gervilleia dolomites, whitish, poorly bedded sucrosic dolomites, with Gervilleia, Megalodon, pleuotomarids, thickness 300 m (Norian);
- Dolomites and dolomitic limestones, with Megalodon and pleurotomarids, alternating with stromatolitic dolomites, thickness 200 m (Norian-lower Lias);
- Calcilutites and calcarenites with Palaeodasycladus Mediterraneous, Orbitopsella praecursor, Lithiotis problematica, thickness about 800 m (Liassic);
- Calcilutites, oolitic and onkolitic limestones with Clypeina, Pfenderina, Cladocoropsis, thickness 800 m (Dogger-Malm);
- Calcilutites and calcarenites, sometimes dolomitic limestones, with diceratids; in the upper part a clayey Orbitolina bearing level is known; thickness 700-800 m (lower Cretaceous);
- Rudistid bearing limestones, thickness 500-600 m (upper Cretaceous);
- Calcilutites and calcarenites with Alveolina and Spirolina, thickness few dozens of m (Paleocene-Lower Eocene).

Upon a disconformity surface which cuts upper Cretaceous and Paleocene limestones follow:

- greenesh calcarenites and calcirudites with Miogypsina upward grading to turbiditic sandstones and siltstones (Aquitanian-Langhian).

Some hundred meters of slightly metamorphosed phyllites with diploporid limestone intercalations (Middle Triassic) and prasinites outcrop at the base of the above sequence in the Catena Costiera (Western Calabria) north of the so-called Sanqineto Line.

3.2

a. The Vesuvius (from Naples to Pompei)

The High way between Naples and Salerno in its first part, crosses an area where morphology and human geography are very interesting. Before the raising of the Somma-Vesuvius volcanic edifice (about 25.000 years ago) there was here a wide plain, stretching until the first calcareous reliefs. Thanks to the great fertility of the land (soils derived from potassic pyroclastites), until some years ago the area was still supporting the richest italian production of vegetables. Nowaday a great conurbation has taken the place of this farming.

Approaching Vesuvius we can see some of its morphological characters, like the ancient caldera ring of the trachytic Mt. Somma and the thephrytic cone of Vesuvius: between them the Antro del Cavallo, from where came down the dark lava flow of 1944 last eruption.

The roadcut allow to see the older flows which sometimes are utilized as quarries for paving roads material. At the 14 th Km are also visible some eccentric cones, the most evident of which is that of Camaldoli.

b - From Pompei to Salerno and Battipaglia: the Cava Furrow, and Picentini Mountains

On the right hand stands out the Sorrento Peninsula. which is the Campania physiographic unit where mainly the structures control the landscape.

The Peninsula is a calcareous block belonging to the Campano-Lucanian carbonate platform and it is nearest one to the volcanic area. It appears to have been dislocated in a great homoclinal structure dipping to the Gulf of Naples. At its foot, near Castellammare di Stabia sprays a series of springs variously mineralized. Approaching the massif we can recognize the stages of its uplift, which are marked by two series of suspended morphologies. One of these is visible at the 37 th Km., on the right hand.

Between Nocera and Cava the road crosses a wide structural depression corresponding to a fault set; some of the faults, which can be seen on the right hand, developed into triangular facettes as the Mt. Finestra. This fault set separates the base of the Peninsula from the Picentini Mts.

After passed the watershad between Naples and Salerno Gulfs, the road crosses first a wide, strongly dissected pleistocenic fan coming from the Lattari Mts., then a valley whose right slope clearly shows the scars made by the landslide of 1955.

The sliding body was the pyroclastic cover of the dolomite limestone, highly affected by the pedogenesis and so easily mobilized by the over 500 mm. (about 20 inches) of rain fallen in less than 24 hours. During this disaster the talwegs of the streams received detritic masses several meters thick. The solid charge of the Bonea stream, in one night only, raised of 150 meters the beach of Vietri, that we can now see on the right side of the village (Ilario, 1976).

The base of this landscape is made of the oldest rocks of the structure (upper Triassic).

The last view of the Sorrento Peninsula shows the niches of the Amalfi coast, which correspond to the faults of the Quaternary uplift.

After the viaduct on the Irno stream, we can see on the right the characteristic gray columnar tuffs. The columnar shape of these campanian ignimbrites, produced by a Flegrean explosion of some 30.000 years ago, is due to the cooling joints. We may note that the tuffs filled the pre-existing valleys with a flat terraced surface.

On the left hand the marginal relief of the Picentini Mts. is visible. Here outcrops a part of the carbonate sequence, well stratified and ranging from the Aptian-Albian (green marlstones with Orbitolina) to the upper Cretaceous.

Fig. 6 - Somma-Vesuvio.

Very interesting is the morphology of the slope, controlled by a fault that dislocated this margin, following the Lehman law of parallel rectilinear recession with total ablation of the wastes at its foot (Richter's denudation slope), (Bakker, Le Heux, 1950), where the present day linear erosion is very active. Indeed, a great part of the slopes controlled by marginal faults is seemingly shaped.

At the 8 th Km outcrops the Eboli formation (Baggioni. 1973) consisting of lower-middle Pleistocene conglomerates deposited by the streams flowing from the Picentini Mts. These sediments were faulted in the Quaternary.

Near the Battipaglia road station, on the left hand we can see some remnants of the old morphological surface shaped on limestones. These remnants stand out of the actual plain and are bounded by fault-linescarps.

The hills in the foreground are also formed by the conglomerates of Eboli formation, and they connect each other thank to fault steps which lowered these conglomerates in relation to the plain.

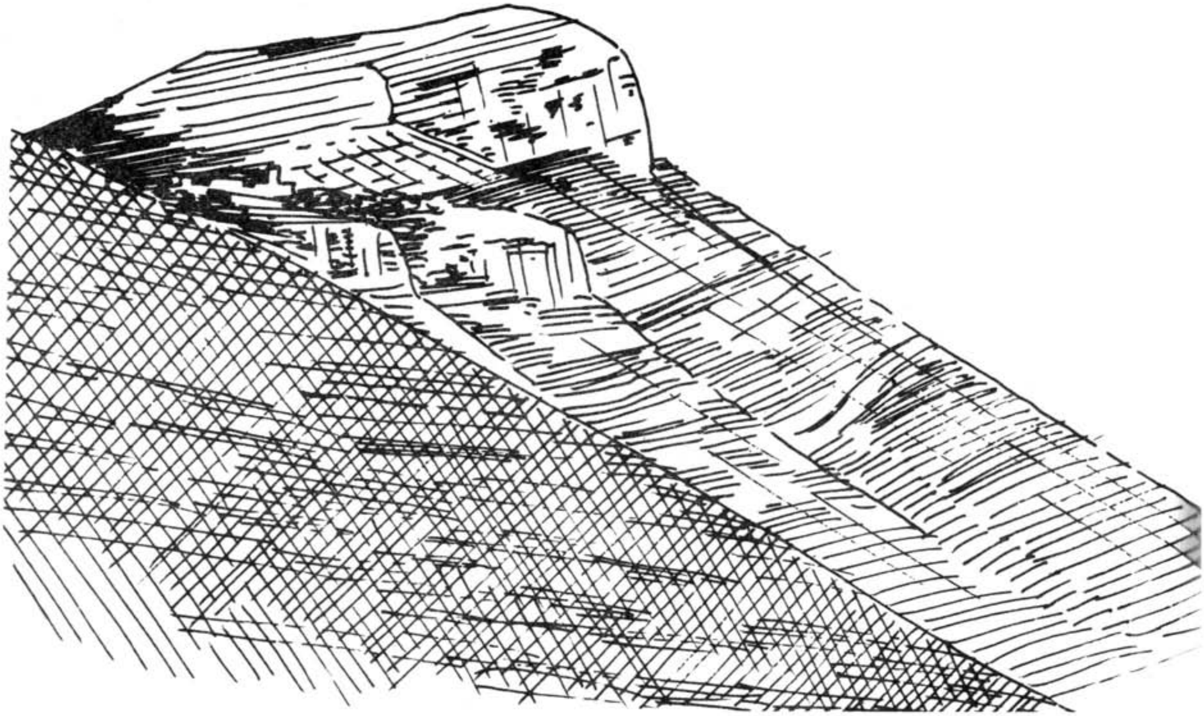

Fig. 7 - Monte Tobenna. Richter's denudational slope.

c - From Battipaglia to Campagna and Capaccio crossroads: the Sele River Plain

After Battipaglia we find the hills of Eboli (407 meters a.s.l.), formed of loose, more or less stratified sediments of mainly dolomitic pebbles. This is the Eboli formation, probably originated in a cold morphoclimatic system , which shows almost two stages coinciding with the plio-quaternary tectonics (Baggioni. 1973), that raised the relief surrounding the plain.

Between the two cold stages (Günz and Mindel ?) probably a period of intense alternation with formation of paleosoils tooks place.

Leaving the highway at Battipaglia we drive to the Nr. 18 road until the Capaccio crossroads, and we are in the Sele River alluvial plain.

Here the sediments have a fluvio-lacustrine and lagoon-cycle facies with an alternation of sand and gravels, sometimes volcanic materials.

The regular structure of the agricultural landscape is the product of the human presence. The territory, once swampy and unhealthy, was completely drained and a new regulation of waters, land and cultivations tooks place.

In the eastern part of the plain the Sele and Calore rivers eroded more ancient and dislocated conglomerates. which dip under the alluvial sediments for some 1.000 meters (Ippolito, Ortolani, Russo, 1973).

Morphologically these conglomerates are shaped on a series of glacis delimited by two orders of terraces evident in the area between Eboli and Altavilla Silentina.

The lagoon-cycle and fluvio- lacustrine facies are distinct in two units, each delimited downstream by a dune ridge. The inner unit shows recasted Volcanic heavy minerals, which are also found in the Würmian dune delimiting the unit (west of the Capaccio station). The inner lagoon-cycle deposits, containing heavy volcanic minerals from the Vesuvius eruptions, are in turn delimited by a flandrian dune which is imminent on coast (Baggioni,1975).

In the lower part of the plain two large plates of travertine outcrop. This formation, which supports the old greek town of Paestum, spreads beyond the enclosure walls and is partly covered by the quaternary and present day alluvial sediments, never reaching a great height. Vertically we find an alternation of compact and porous travertine, with some interbeds of sands, clay and peat.

On the northern and eastern sides of the enclosure walls, a few meters below the ground, between two layers of travertine we can see a level of soil bearing volcanic minerals, whose thickness increases eastawards.

More eastwards, at a deeper level, interbeds of white-yellow, calcareous, fine-graned sands, often cemented showing Helix, other similar terrestrial gastropods and calcareous fragments are known. Some levels of travertine are rich of leaves and/or lacustrine plants patterns.

The plates of travertine are located (turning back on the sea) on the right hand of the remnants of the Gromola dune (some 80.000 years, Würm I - Würm II).

If we lengthen the dune, we separate two coastal plains. the older one in the back, which were filled essentially by the travertine deposits. Therefore, the travertine plate more distant from the sea was deposed before the nearest one. The dune itself was probably eroded by running waters.

Some wells, drilled for water supply near Capodifiume (about 2 kM. downstreams from the spring), found at 25 meters and 12 meters beneath the surface two fossil shores intercalated in travertine layers. They represent two standstills of the sea level during the flandrian transgression. We can therefore state that the Paestum travertine is surely younger than the Gromola dune (i.e. younger of Würm I - Würm II).
The water is cold, with a carbonate and alkaline chloryde content varying from a spring to another. Where the southern plate of travertine outcrops other springs of mineralized water pour out.

At the Capaccio station we take the Nr. 166 road for the Alburni Mts. Opposite stand out two calcareous homoclines: that of Mt. Soprano (1083 meters a.s.l.) on the

A most important factor in the genesis of travertine is the underground water circulation, probably the same feeding the springs of Capodifiume river pouring at the foot of the nort-western part of Mt. Soprano (3.000 l/sec.).
left, and that of mt. Sottano (632 meters a.s.l.) on the right, dipping north-westward. Where the layers dip against the slope, there is a thick cover of debris cones

and detritic breccias probably of rissian and würmian age.

d - From Capaccio crossroads to Castelcivita: the Calore Graben

Coming back on the Nr. 166 road, we go round of Mt. Soprano, leaving on the left the last edges of the travertine originated by the springs of Capaccio.

On the northern slope of Mt. Soprano homocline are visible thick layers of green calcarenites of lower Miocene (Roccadaspide formation) starting from 15 th Km. of the road.

This formation, of Aquitanian age, is transgressive on limestones of Paleocene age, with a gap recording the emersion stage during which karst processes started. Calcarenites are used from ancient times as building and decorative material (see, for instance, freizes, capitals and metopes of the most part of the temples of Paestum).

Upward sedimentation passes to argillaceous-arenaceous terms with calcareous-marly interbeds with flysch facies.

Here we can have a complete view of the Alburno Mts.. which form an homocline gently dipping to the south and delimited by fault line scarps. The top is shaped by the karst processes and costitutes a surface suspended on the present day valleys.

From Roccadaspide we take the Nr. 488 road and, after the crossroads of Laurino (some 58 Km. far). we can observe several pockets of kaolinic red clay overlaying paleocene - partly pseudoconglomerate - limestones.

The pockets underlay organogenous calcirudites of Miocene that are not visible here but outcrop distinctly near Felitto village. We can also see disconformity between Paleocene and Miocene without any bauxitic pocket. From Felitto we come back to Roccadaspide.

Leaving Roccadaspide the road penetrates in the lucanian Calore valley, having here a NW-SE direction which correspond to a structural low (graben) actually occupied by the terrigenous Cilento flysch.

Morphology shows gentle features due to the softer lithology. Very important in the landscape are the landslides, whose scars are visible, mainly where the "argille varicolori" (Sicilides units) outcrop.

The hydrographic pattern of Calore, according to the main fault lines, consists of talwegs where the streams cannot remove the weastes of the slopes. The last section of the road custs a fluvial terrace at the same height of the opening of the Castelcivita Caves (about 90 meters a.s.l.).

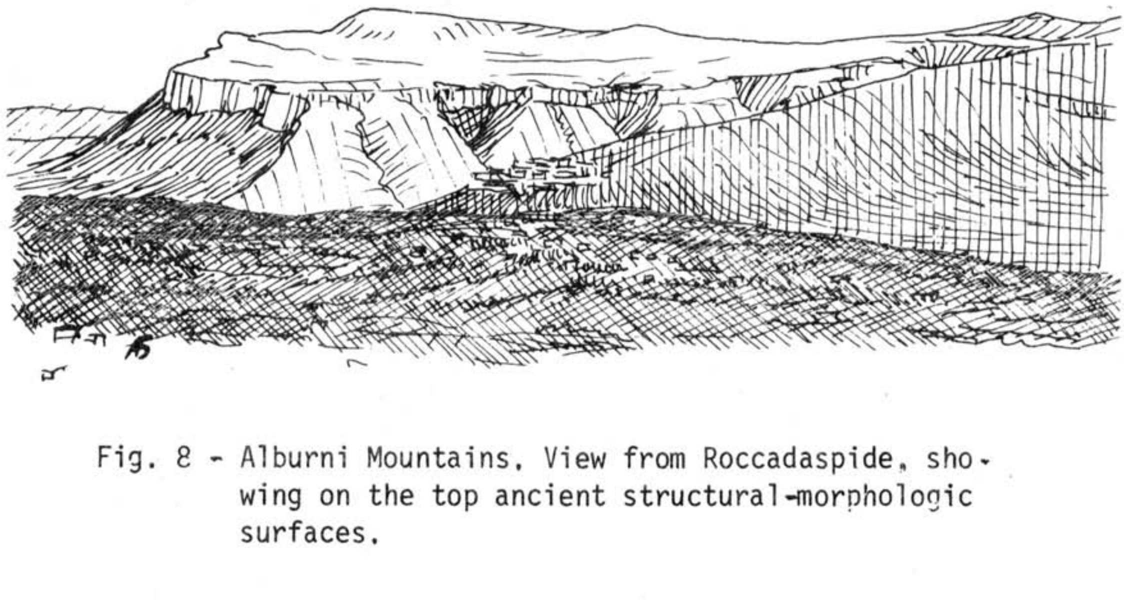

Fig. 8 - Alburni Mountains. View from Roccadaspide, showing on the top ancient structural-morphologic surfaces.

3.3 Paleokarstic features of the lower Tertiary in the Trentinara Mountains.

The carbonates of Mt. Soprano, Mt. Sottano-Trentinara and Mt. Vesole belong to the structural-stratigraphic unit of Alburno-Cervati, deriving from deformation of the

Campania-Lucania carbonate platform (D'Argenio et al., 1973; Ippolito et al., 1975).

They are essentially formed by Cretaceous to upper Paleocene-Eocene (?) backreef carbonates (Trentinara formation, Selli, 1962), as well as by lower Miocene calcarenites (Roccadaspide and Capaccio formation, Selli, 1957).

The biostratigraphical analysis (Sgrosso, 1968) shows that in the Mt. Vesole sequence there are sediments of upper Cretaceous (Cenomanian-Senonian) to upper Paleocene (Eocene?) and Miocene. Between Senonian and Paleocene two regressive episodes are supposed, probably connected with short gaps allowing the formation of very hard (flint clay) kaolinic clays (T politype, (Boni, Stanzione and Zenone, 1978).

From a lithological point of view, the overlying Trentinara formation (Paleocene- lower Eocene ?) is formed by compact limestones, calcarenites and calcirudites, sometimes breccias, with frequent intebeds of shales and marls; the environment changes from brackish-marine to lagoonal.

The upper part of the paleocenic sequence shows some reddish levels with a poorly developed karst consisting of superficial pockets of 5 meters maximum thickness. Such features are related to an emersion preceding the miocenic transgression, which is also responsable of the local thick deposits of red "bauxitic" clays, very rich indeed of allochtonous materials.

The outcrops of these clays, which are not really bauxitic because they contain very small amount of alumina hydroxide, constitute a discontinuous level even if relatively frequent, that marks everywhere in the Campania-Lucania carbonate platform the period of continentality preceeding the transgression of the miocenic calcarenites (Boni, 1974).

The thickness of the pockets is various, as well as the arrangement and percent of minerals. either authigenous or allocthonous.

In this case, we could refer to the rearrangement of the mainly illitic clays present in the marly layers and in the breccias of the Trentinara formation. This rearrangement colud have caused the loose of cations and consequent change into kaolinite with a low crystallinity index.

The texture of red clays is quite similar to that of typical bauxite, with oolithic structures in a argillaceous-ferrigenous finegrained matrix. It is supposed to have had a sequence of almost two successive cycles during the recasting of continental sediments.

In this time the environmental factors (continental waters like those of coastal swamps or swampy lagoons) remained relatively unchanged (Boni, 1974).

The forming minerals, of a supposed authigenous origin, are: kaolinite (40-50%), hematite-goethite (20-25%), argillaceous minerals, mixed-layer-illite (10-20%), anatase (1-3%), gibbsite (1-2%) and calcite (1-10%).

We are not sure of the authigenous origin of illites. mixed-layer and maybe also of kaolinite whose crystallinity is lower than that of the clays present in the Senonian limestones.

In all the outcrops allochtonous detritic minerals in a variable percent, as quartz (15-30%) with included rutile, feldspar (1-3%), tourmaline and zircon are also found.Also silt size particles of metamorphics (essentially of quartz-muscovite association, sometimes quartz only) have been noticed.

In the genesis of the outcrops we cannot avoid the hypothesis of an authoctonous origin for the red clays, which could represent the insoluble residue of a partial solution of the underlaying carbonates: in other words, the same process that develops in many deposits of "terra rossa" and bauxite.

We must in any case note that in the shales of the Trentinara formation detritic elements as quartz. feldspar zircon and tourmaline, are absent, whereas they are aboundant in the red clays. This lead us to infer that the red clays are of different origin.

On this ground, we can imagine, during the period between upper Pleocene and lower Miocene, a terrigenous detritic contribution (of unknown origin, maybe from the already impinging allochtonous nappes), related to weathering of silicate rocks.

3.4 Karstic features of the Alburni Mts. (Castelcivita Caves).

The Castelcivita caves are situaded near the village bearing the same name at the foot of the southern side of Alburno Mts. The square of entry, derived from the excavation of a detritical fan, corresponds to a terrace 91 meters a.s.l.

Looking at left side of the entry, we note in the upper part a pyroclastic body of unknown origin, in the lower part the detritical fan formerly hiding the entry itself. In the fan can also be found some paleolithic artifacts recording the presence of man in the open-air stations.

<u>Description of the caves</u>

I) From the entry to the section Nr. 4.
Evident is an old graviclastic morphology with a strong chemioclastic evolution. The relative thinness of the cover demostrates the marked influence of the external environment. Due to collapses of the floor, the siphon of the last part of the section is now at the same height of the N branch.

Many branches are visible, penetrated by some interstrata passages and frequently characterized by ortovacua and presence of water (northern branch, CAI I and CAI II passages).

II) From section Nr. 4 to section Nr. 17.

An interstrata situation prevails here as well, while the diaclasic morphology of E-W direction is secondary. Two levels of interstrata character are always: an upper one morphologically old, with large sized stalactites and stalagmites; a lower one morphologically younger and sometimes hydromorphic, with well-developed isolated concretions, mostly located on the southern wall.

From the Bertarelli cavity on, we can find external material formed by calcareous and marl-calcareous rounded pabbles, fine to medium grained sands and pyroclastites. Their sequence is characteristic, with disappearence of pebbles but never of sands and pyroclastites, always to be found either in the upper or in the lower level.

Corresponding to section Nr. 15 the vault shows a bell-shaped formation due to the crossing of two tectonic directions (NW-SE and NE-SW). At the point where fractures become plentiful, the vault shows a vast ortovacuum once communicating with the outside, representing in the past a

a path for alimentation of the cave by external material.

Branches

The P branch is the tallest of the caves and shows an interstrato morphology with some old collapses. It ends in a well, deriving from an ortovacuum.

The A branch is tectonically disturbed along the E-W direction. The M branch after a very steep first part, presents a typical hydromorphic section with some collapses. The morphology of the CAI III passage is perfectly correspondent.

The E branch presents columnar concretions in the walls. On the floor are some concretions "a vaschetta" where water coming from interstrata persists. In the upper part the morphology is very old and shows great flows and columnshaped stalactites and stalagmites.

In the middle part there is a chaotic mass of rocky blocks, while the lower part finally shows large blocks of rock with concretions. The two levels previously mentioned and corresponding to the Nr. 15 section, are also evident.

"Il Deserto", at a higher level, shows a characteristic interstrata section with few isolated concretions. In its last part, the control of tectonics, truncating the interstrata section itself, is evident.

III) From section Nr 17 to section 29.
Apart from the "Principe di Piemonte" cavity the entire strike shows a typical diaclasic morphology. The "Boegan" cavity, which is at a higher level that the former, shows a very old morphology with large concretions.

The "Principe di Piemonte" cavity corresponds to a fracture stretching E-W, successively widened by chemioclastic and graviclastic action. The only branch is here, "Il Tempio", corresponding to the upper level above mentioned. In the first part an hydromorphic section is evident, then the passage widens and a great stalactitic flow appears, recording an important water flow from the north through interstrata.

The strong erosion of the water flow is recorded by a 20 cm thick calcareous blade, in the central part of the cavity, eroded on both sides.

After its broadening the branch shows the diaclasic section connected with the main cavity near the "Grande cascata", a white flow of concretions "a vaschetta".

IV) From section Nr 29 to the end.
This area is the most difficult strike. The sections are always of graviclastic type in the upper part, while in the lower part they are hydromorphic, either on limestone, or on the filling material.

The only branch is the "Orrido", with an upper gravi-clastic and a lower hydromorphic section. The passage ends with a large well containing water, derived from the lateral association of two ortovacua. The "Orrido" constitutes the principal entrance for water penetrating the main cavity.

A series of great stalactites forms the "Anelli terrace" which continues until the "Salto dei Titani". The small passage north of "Salto dei Titani" shows a characteristic dome-shaped formation, filled by pebbles, sands, clay and tuffs.

The last strike has interstrata and collapse characters along the E-W tectonic direction. The northern part of "Redivo" cavity shows interstrata characters corresponding to the upper level, the southern part, on the contrary, has hydromorphic characters.

<u>Genesis and evolution of the cavities.</u>

The evolution is connected with fluctuation of the water table, as we noted for the Ausini caves, and we can state that the development of both caves was contemporary. Such a conclusion is based, on the morphology, trend of layers and position of sediments exsting in the caves, and as well on the possibility of correlation of the evolution stages of the two caves.

The sequence of the evolution of Castelcivita caves results as follows:

- development of the upper level as an interstrata or diaclasic cavity;
- formation of the lower level also as an interstrata cavity;
- formation of ortovacua out doors passage ways and partial filling;
- collapse of central part of the vault with partial filling.

An additional evidence of the common genesis of the Ausino and Castelcivita caves is the analytical determination of the supplementary calcium dissolved by corrosion in the water.

The ratio between the $\Delta(Ca^{++})$ of the caves is constant.

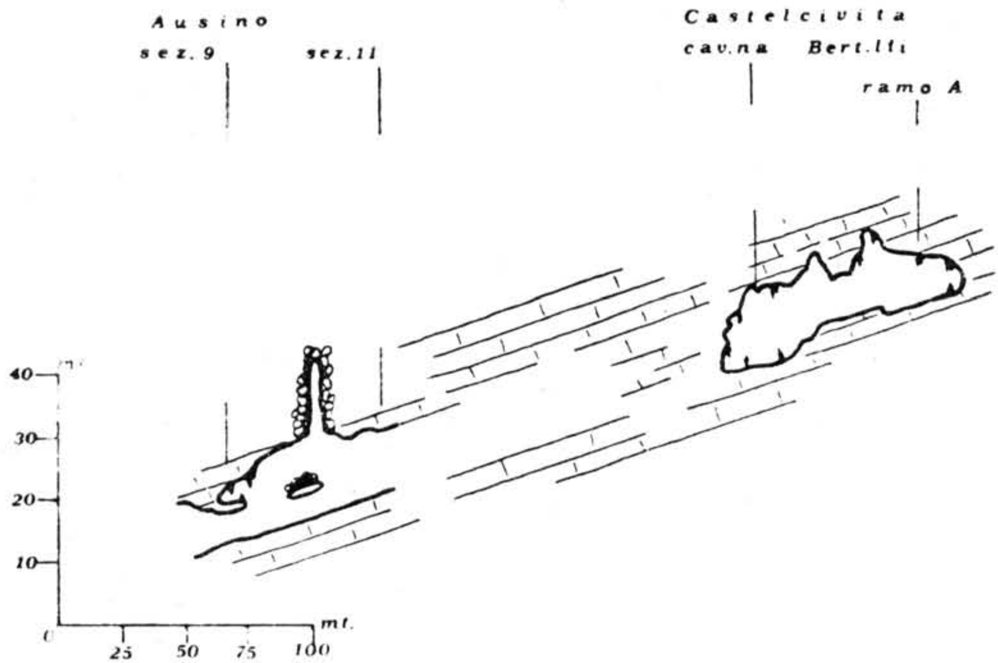

Fig. 9 - Schematic section trough the Ausino and Castelcivita Caves. The section shows the location of the cavities in the same group of beds.

3.5 Paestum: the ancient Greek town

First named Poseidonia by the Greeks and later called Paîstum and Paistas by the Italic populations and Paestum by the Romans, this ancient city, collocated in the most eastern area of the Golf of Salerno about 9 to 10 kilometers from the mouth of the Sele River, of the northern border of the region called Magna Grecia in the Fourth Century a.C., was one of the richiest and most flourishing Greek colonies in Southern Italy.

The essential reason for its foundation was the primary need of the Greeks of Sibari to open a path for commerce between the Ionic and Tirrenian Seas across the Apennine Mountains, thus avoiding the necessity of circumnavigation of the Calabrian coast and passage via the Strait of Messina of maritime commerce.

The only surviving evidence of the Greek period consists in monuments such as walls and temples, the rests of the Herion uncovered in 1934, and selections of coins. When, in the later part of the Fifth Century a.C., the vast movement of the Italic races broke out against the Greek colonies of Campania and Lucania, Poseidonia as well as other cities fell under Lucanian hands. More than a century later (273 a.C.), Rome rushed in establishing her own colony at Paestum.

The City Walls: The surrounding wall, circa 4.700 meters in circumference, is considered one of the greatest and best preserved defensive works of the Greek cities in Magna Grecia, including Sicily. The fortification is in the shape of a pentagon having its smallest side toward the coast line. Turrets are inserted onto the wall, which is crossed by numerous small gates ("postierle") of the Greek and Lucanian eras.

Temples: Paestum is still alive in the spheres of art and culture above all for its marvelous three temples, which represent the most organic architectural complex left of cities in Magna Grecia. The three temples have come to portray three periods in the evolution of Doric architecture in Italy, from the fully-developed Archaic era (the so-called Basilica) to the full maturity of the Doric style (the temple of Poseidon) and the intermediate stage between them (the temple of Ceres).

The Basilica: Was mistakenly given its name by designers and men of letters of the Eightenth Century due to the almost total disappearance of the walls of the cella, of the upper façade, and of the trabeation, as well as for the low and uniform aspect of its colonnade. Nine columns characterize the front façade while 18 columns enclose each side. The chief archaic element lies in the building measures, the lenght of which scarcely prevails upon its width.

The Temple of Poseidon: Is considered the best example of Doric temple architecture in both Italy and Greece. The cella, composed of pronaos and opistodom, has a naos divided into three naves by two double ordered colonnades, upon which the beams of the roof rest.

The Italic Forum: With its covered colonnades, public buildings and countless taverns arrayed under its porticos, the Italic Forum clearly mirrors the divergent character of the Italic and Roman city, which began its formation from the time of the Lucanian conquist and particularly after settlement of the Latin colony.

Among other civic and sacred buildings at the center of the greater sides of the Forum, the Temple of Peace was a religious area resting on a high podium, with Corinthian columns having figured, composite capitels. The Italic and Roman Curium buildings were outside the Forum area, where the perimeter of the Roman amphitheater can still be distinguished.

Archaeological findings from the entire area of Paestum are contained in a rich museum, presently being restored group of Italic tombs, including that of the Diver, which have been recently discovered, offer an important series of beautiful frescos.

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