

"Ostello Natura Alpe Adria"



The new accommodation facility, operating as from June 2001, numbers about sixty beds, with extra fifty beds under tent during the Summer. Equipped with boarding facilities, it offers comfortable accommodation at low cost - thus appealing particularly to organized groups, sports and scout teams, schooltrips and parish trips excursionists as well as nature-holiday lovers.



Information and booking:
AMIS (Associazione Amici delle Iniziative Scout)
"Ostello Natura Alpe Adria" - tel. and fax 040-225562
e-mail amis@retecivica.triest.it

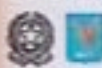


Comune di Trieste
Assessorato all'Economia



Carso

An Old World to Discover on the Adriatic Sea
and in the Heart of Europe



Trieste

Within the sphere of measures designed to enhance tourism on the Carso, a unique natural environment situated where the Mediterranean and Central European ecosystems meet, the Commune of Trieste - in cooperation with AMIS - has launched a transfrontier project aimed, on the one hand, to encourage and boost youth tourism and, on the other, to promote an environmentally-sustainable tourism for the entire Carso.

This booklet is part of a project that has made possible to restructure a former refugee camp in Prosecco and to convert it into a tourist facility. In carrying out the project, the Commune of Trieste was supported by the generous cooperation of Italian and Slovenian persons and bodies, in particular the Commune of Sezana, the official partner in the project.

The new form of transfrontier and environmentally-sustainable tourism adds to the other forms that have already long been flourishing along the coast, such as holiday tourism, scientific tourism (Research Area, the International Center for Theoretical Physics, the United World College, etc.), conference tourism, as well as tourism linked with bathing and boating activities (Portorose, Trieste, Sistiana, Muggia, etc.) and with other sporting and cultural events.

The creation of the "Ostello Natura Alpe Adria" and the new form of transfrontier tourism involved are intended to appeal particularly to the young, for its new facilities specially designed to offer low cost accommodations, as well as to all those who enjoy peaceful holidays in touch with nature.

Thus, organized groups of young - and even not so young - holiday-makers can obtain either package offers from the AMIS Associazione Amici delle Iniziative Scout, which runs the "Ostello Natura Alpe Adria", or custom-made offers from Italian or Slovenian tourist-nature organizations which may combine excursions on the Carso with sightseeing tours in the city.

Prof. Fabio Neri
Councillor for Economy

Its geographical position on the Adriatic Sea makes of the Carso, the limestone highland stretching in Italy and Slovenia for almost 700 km., a meeting point between the diverse ecosystems of the Mediterranean and of the Central European area.

This area has long been referred to and identified by scientists and speleologists all over the world as the "classical Karst".

The uniformity of its landscape and the specific characteristics of its morphology and hydrogeology, its wildlife and wildplants, together with its historic, ethnical and cultural features form a very precious environment.

The environmental continuity of the Carso or Karst highland, the hinterland of Trieste, coupled with the

new geo-political situation allow this long-time frontier land to be seen in the Europe of the New Millennium as an ideal example of a peaceful and balanced development of human activities in a habitat of extreme natural beauty.

Today it is all-important to offer new integrated transfrontier opportunities in the field of tourism and naturalism so that the Karst's distinctive features may be fully appreciated in all its components.



1. The Carso and Trieste.
On the edge of the cliff the Tempio Mariano (St. Mary's Temple) at Monte Grisa



Much has been written and said about the Carso; the verses sung by famous poets in the course of ages (Virgil, Slataper, Saba, Ungaretti, Kosovel, Kugy, Goethe, etc.); the site of bloody battles during the Great War; the deliciousness of its food and wine; the quality of its marble.

Its international fame undoubtedly comes from the peculiar morphological features of its surface and underground limestone. In the second half of the 19th century, this land reared "karsism" as a science into its own and witnessed the early development of speleology owing to the extraordinary concentration of caves of all types and sizes (thousands are known to exist); indeed, the extension and recurrence of these caves constitute the most typical feature of the local natural environment.



2. Speleology pioneers in 1900

3. One of the most important recent discoveries: the Gualtiero Savi cave



Ardent research by speleologists has continued for

over a century and discoveries still occur. The Škocjan-ske Jame, one of the 300 natural wonders under the UNESCO protection, and the Grotta Gigante, the largest tourist cavern in the world - for all their incomparable beauty - are but two of the more than 3000 underground caves in the Karst.

Agriculture and livestock-raising engaged mainly on the highland in the course of centuries and the development of the port and its trading activities that marked the city of Trieste in the past century led to two widely diverse worlds, the Carso and the city, to co-exist on a brief stretch of land. This situation today appears to be a further distinctive feature of interest, as the Carso constitutes a meeting point between the "Slav" and the "Latin" worlds.

Geology, karsism, and the Timavo

Present-day morphology of the highland is the result of long and intense erosion and corrosion processes of the surfacing limestone caused by rainwater, as well as of the varying erosive and resolution qualities of the surfacing rocks.

Karst rocks first formed



4. Organogenic limestone with many rudistids, one in close-up view

about 100 million years ago, in the Cretaceous Period, in a sea environment much similar to that of the coral reefs, which consist of an enormous quantity of building animals, as corals and bivalves, living in colonies. In the course of time, the action of the sea, the disintegration of the cliffs basically composed of lamellibranchiates (rudistids), the washing

been discovered in the vicinity of Duino; the skeletons of a Hadrosaur and of other reptiles that inhabited this area 78 million years ago were found in an excellent state of preservation.

Compacted limestone, often containing clearly-visible colored fossils fragments, can nearly always be highly susceptible to resolution in water



5. Skeleton of Hadrosaur recovered near Duino

away of fragments, the precipitation of overlying material and the resulting compression caused carbonate fragments to compact and convert into rock. Recently, a fossil deposit of extraordinary scientific importance has

since it is extremely pure owing to a calcium carbonate content of 95-99%. Minor susceptibility to resolution is displayed by a few stretches of terrain containing thin layers of bitumi-



6. The Timavo at San Giovanni di Duino, before flowing into the Adriatic

7. The Timavo-Reka at Škocjan in the final tract of its subaerial course

nous limestone of sea-lagoon origin, as occurs in the Komen vicinity and in the valleys of Gorizia, and by the horizontal Dolomite layer running north-south along the State border between Malchina and Sežana. These areas show minor rock surfacing and greater soil cover.

Only limited areas contain flysch, a thick succession of non-karstic marl and sandstone deposits. These rocks are more susceptible to alteration and erosion, particularly where marl deposits prevail over sandstone ones.

A surface stream system hardly exists in the Karst. Only the short Raša and Rosandra streams flow on the surface.

Water circulation in karstic environment flows mainly underground and has long constituted one of the most puzzling and yet fascinating natural features. Locating the discharge point of underground streams constitutes still today one of the major scientific problems in karsism. It is in this regard that the karstic phenomenon reveals all its greatness: the Timavo-Reka, the most studied underground stream. Its waters plunge into the

Škocjanske Jame, reappear in a "karst window" in the abyss of Trebiciano and re-emerges at the mouth of San Giovanni di Duino.



After thirty years of research and laborious speleological excavations, another "karst window" has recently been opened on the underground course. The waters of the Timavo have been found to flow in the vicinity of Monrupino, at a depth of 270 m. at the base of the drainage system known as "Lazaro Jerko". Yet, the Timavo is not the sole case of karstic streams; other major examples are the blind valleys of the Beka-Ocižla and Lake Dobrdo.

A wide range of formations are also to be found

both at the surface, as "dolines" or sinkholes, limestone pavements, uvalas, etc., and in the underground, as drains, galleries, different-sized cavities. The smaller surface formations, as grikes, basins, solution holes, grize are produced on the more soluble limestones that are directly exposed to atmospheric agents. These formations often appear together on vast surfacings called limestone pavements or lapiés surfaces, one of the most conspicuous features of karst phenomenon.

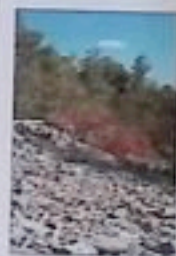


It is an extremely slow process of chemical solution acting on limestone. The

karstic process results from complex reactions and phenomena which take place in the course of time through a three-phase system: the gaseous phase, air; the liquid phase, water; the solid phase, rock.

The setting in and the development of karstic phenomenon are determined primarily by the composition of the rock and by the chemical activity of circulating water; but many other factors, as fracturing and climate, also effect the intensity of karstic rock resolution and thus the development of either surface or underground karstic formations.

Climate in the Carso varies according to distance from the coastline, namely the farther the distance, the more continental features it takes up. The most distinc-



8. Surface karst phenomenon: grize

9. Left: scheme of karst process

10. Surface karst phenomenon: lapiés surface and solution basin

11. Landscape in 1912, at the beginning of reafforestation



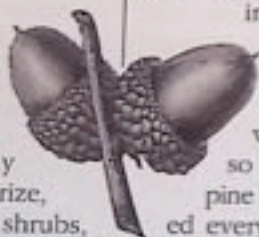
12. The landscape today



At times the Bora may be irritating and troublesome; yet, when it does not blow at high speed, it reduces humidity and thus forms such clear visibility that the Carso landscape reveals all its beauty

Vegetation

The Karst landscape is commonly (and mistakenly) thought to be characterized by stony ground, called grize, surfacing rocks, shrubs, rather arid soil and by the lack of surface water. Poets and writers in the 18th and 19th centuries usually depicted it as a barren and stony wasteland.



In historical times, instead, this stretch of land was covered by such thick vegetation as forests and mainly by oak forests.

The development of villages caused forestland to yield to pastureland. Deforestation for the supply of timber continued at such an intensifying pace that in the 19th century the landscape actually turned into a "barren and stony wasteland".

In the course of the 19th century, other two factors contributed to altering the natural features of the Carso. Firstly, the stones removed from pastureland were used to build the typical dry walls, to allow a better cutting of the grass. Secondly, planned reafforestation initiated by the Hapsburg Administration introduced the black pine.

Reafforestation was conducted so successfully that pine forests proliferated everywhere and that now for nearly two decades spontaneous re-introduction of indigenous shrubbery has been encouraged instead. As the reafforestation of the black pine

has been completed for decades and sheep-rearing has greatly decreased, today thickets have gradually spread and taken up meadowland and pastureland, thus reducing the surface area covered by typical karst moorland.

Natural vegetation displays an enormous diversity of species, varying in different zones in relation to phytoclimatic factors. This gives rise to many vegetational associations which often constitute the local remnants of Illyrian-Mediterranean flora (the karstic *Centaurea* endemism found on the cliffs of Duino is internationally famous) or the early local associations of Central European flora.



The Mediterranean maquis, the sea-cliff vegetation, the lower Karst woodlands, the Karst mountain woodland, the vegetation found in doline, the karstic moorland, the vegetation on heaps of

rubble and along karstic ponds are various examples of vegetational associations of naturalistic importance. Diverse vegetational associations have been gathered in a condensed setting in the Carsiana Botanical Garden, created in a dolina near Sgonico. Here visitors can view the characteristic vegetational associations of the Carso highland.

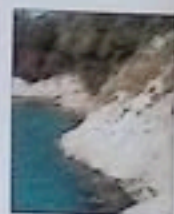


Fauna

The wide variety of vegetational associations is matched by peculiar forms of wildlife of great interest to naturalists and scientists. Changes in the Carso ecosystem, namely the gradual growth of thicket and the reafforestation of the heathland has caused a decrease in the number of individuals in many species (for example, hares), whereas many species that have been missing for many years, even centuries in some instances, are reappearing (for example, bears and jackals).

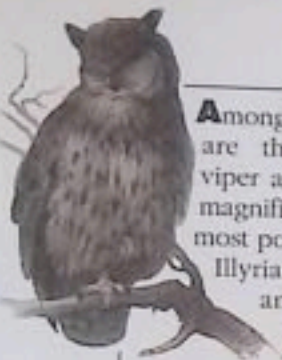


Buzzard



13. Mediterranean vegetation. Holm oak on limestone slopes of seacliffs

14. Karstic heathland. Hyssop flowering on Monte Steno



Owl

15. Owl

Among reptiles, there are the horn-nosed viper and the algiroid magnificent (northernmost population of the Illyrian species); among birds, there are sparrow-hawks,

goshawks, buzzards, tawny owls and owls. On the cliffs off the sea, the peregrine falcon builds its nest.

Mammals common in the area are roe deer, badgers and foxes, while boars, lynxes, deer, bears and jackals have also been seen.

Given the many caves in the Karst, bats can easily be found everywhere.

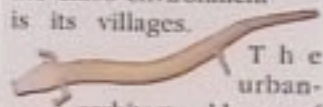
Especially important are organisms that live in caves, in particular, the highly specialized ones that live along the underground course of the Timavo. While crustaceans, mollusks and decapods are widespread, the

most characteristic dweller of the karst underground waters is the olm, an amphibian native

to the Dinaric region which has set its northernmost habitat in the Carso.

The man-made environment

A further typical feature of the Carso environment is its villages.



The urban-architectural layout of the Carso village is marked by an essential simplicity, proper to the old rural world. Many villages preserve the original setting of the old Carso villages which date back to the 19th century.

The typical house of the Carso is surrounded by a high wall, with an entrance to the inner courtyard. Usually the stone portal of the entrance is engraved with the date of construction, the owner's name and very often a symbol of the Christian faith, as IHS.

The courtyard contains a well, whose cistern gathers rainwater from the roof by means of gutters, which originally were made of stone. The old Carso house usually had two floors; many houses still today maintain an outside stone



16. Roe deer

17. Carso village: Smarje



stairway which leads to the upper floor and its typical wooden gallery.

Houses are built of stone, just as its ornaments, and the roof is covered with limestone slabs set side by side. Still today many representative examples of these old buildings can easily be found in any village.

The old Carso villages are to be appreciated not so much for their artistic or architectural features as for their representing a solid link with the nature that bestows on this environment a unique landscape: limestone is the distinctive element that identifies both the Carso landscape and the culture.

The oldest forms of buildings are often found outside the very villages and consist in the "Tabor" (fortified strongholds dating to the time of the Turkish invasions), churches and castles.

Churches, once the center of religious and community life, are numerous. In some cases, they rise within the village, while more often they stand isolated on hill-tops, thus adding their touch to the peculiar Carso landscape. The older churches bear lintels engraved with dates back to 1500-1700, though often the original buildings



18, 19. Typical Carso houses: in Dane and, left, in Dicaža

20. The Church of Saint Andrew with surrounding graveyard, in Merce

date to earlier centuries. The Gothic Church of San Giovanni in Tuba, for example, partly rebuilt after WWII, stands on the remains of an Early Christian basilica, of which it still preserves a wonderful mosaic of the 5th century A.D. and marble ornaments and fittings of the Early Christian Age and the early Middle Ages.

A special mention must be made of the modern, imposing Shrine of Monte Grisa, which was built right on the edge of the Carso tableland in the early 60's



21. The Castle of Rifembergo (Ribemberk)



22. Above, the prehistoric "castelliere" of Rupinpiccolo

23. The Roman aqueduct in Val Rosandra

24. Right, prehistoric fibula (collection of Museo di Storia Naturale)

25. Vineyard in Autumn

and each year attracts tens of thousands of pilgrims.

Strongholds and castles on the Carso are the remaining traces of the Dark Ages and late Middle Ages and of the raids conducted upon this territory, particularly by the Turks. While the Castles of Duino and Stanjel are the most well-known, many other fortified constructions are worth mentioning and making a pleasant visit to, though some are not open to the public: the towers of Lokev, the fortresses of Monfalcone, Socerb, Ribemberk, Castel Rubbia, and the ruins of Scolj.

An integral feature of the Carso landscape are the dry walls that run along trails, mark boundaries between fields and rise on the slopes of doline. The land plotted into parcels this way is still today a peculiar characteristic of the area.

The Carso also preserves traces of ancient civilizations that flourished from the 10th-9th centuries B.C. to the Fall of the Roman Empire. Signs of the ancient

settlements are to be found in caves and in the so-called "castellieri"; artifacts recovered from necropolises are on display in many museums.

Remains of the Roman civilization (public buildings, roads, stone quarries) recur

plentifully, as are located on the coast and are better

preserved, especially in the area around the karstic spring of Timavo (the lacus Timavi described by Virgil).

Special mention must be made of the battlefields of the Great War, where the Italian and the Austrian armies engaged in a wearisome trench warfare for over two years. Many of the military works, some are the result of high engineering, can be seen throughout western Carso still today. In memory of the appalling sacrifice of



human lives stand the great ossuaries of Redipuglia and Stanjel, while many other small cemeteries gather the remains of the fallen soldiers of the two armies.

Traditional activities

Till the beginning of the 20th century, Carso inhabitants worked as peasants, herdsmen as well as quarrymen in the marble quarries and workshops.

For centuries farming was regulated by feudal laws. Few nobles, upon collecting taxes, often in kind, allowed cultivation and animal-raising. Peasantry's subjection to noble families lasted till the beginning of the 19th century when the Austrian Empire abolished a number of taxes and recognized townships a great degree of freedom in the right to cultivation and



to gathering firewood.

Peasants mainly grew grapevines, vegetables and also fruit trees.

Given the rocky nature of the ground, pastureland was gained by freeing it from stones through arduous toil.

In recent years, agriculture has gained new impetus by applying business-like criteria in promoting "niche" products (honey, dressed pork-products, cheese). Selection of vines and accurate processing in cellar have led to an increase in vine-growing and wine-producing and to an enhancement of high-quality produce (terrano, vitoska, etc.), as widely appreciated also on foreign markets.

A close relation to wine-growing is the opening of "osmizze", namely places or taverns where farmers sell directly the wine and other specialties they themselves produce.

The word's origin, "osem" Slovenian for "eight", indicates the length of time the wine-cellar was allowed to be opened to the public



26. Typical Carso dry wall

27. Grape harvest

28. The Südbahn railway viaduct, with its 48 spans, at Aurisina, as seen in a postcard in 1913



(Imperial Decree issued by Joseph II von Hapsburg in 1784).

A recent spin-off of traditional agriculture has been the development of farm-holiday activities.

Traditional stone quarrying and processing has ancient origins in the area and represents a major element in local social and historic heritage. The flourishing quarrying activities on the Carso and the resulting need for labor spurred the development of many villages particularly in the early 19th century.

Following the Roman period, when stone from the Carso was employed in the building of a great part of Aquileia, the second most important period for the history of local stone quarrying was represented by the construction of the Southern Railway connecting Vienna to Trieste, har-

bor of the Austrian Empire. Writers and historians of the time reported that in the 1890's stone quarries and workshops on the Carso employed at least 3000 workers, in addition to the many cart-drivers, businessmen and merchants.

Thousands of tonnes of marble were forwarded from the train station of Nabresina to the various cities of the Empire.



29. "Frusco", a typical leafy branch indicating an "osmizza"

30. The quarry of Aurisina: an activity that has been continuing for 2000 years

Environmental tourism

The Classical Carso offers several opportunities to tourists thanks to its excellent link network.

Motorways, railways, airports and the presence of towns (such as Trieste, Gorizia, Nova Gorica, Koper and Monfalcone) offer different types of accommodation and many interesting opportunities.

All kinds of needs can be met ranging from educational and food-and wine tourism to sports, speleology, ecotourism and historical-cultural tourism. Indeed, in addition to the most famous environmental attractions, people can find some less famous but still interesting spots in this area, which is nearly 700 square kilometres wide and has 50,000 inhabitants.

The Carso rises behind the sea and is not far from the Julian Alps. Its position and varied morphology offer charming views and wide horizons, especially during windy and cloudless days.

The blue Adriatic sea can be spotted from the highest ranges beyond the Carso.



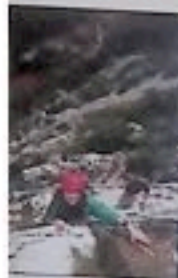
Some of them can be easily reached by car, some others by different paths which are usually well indicated. Other panoramas can be admired from the areas overlooking slopes and cliffs.



31. "Napoleonica": a walk from Opicina to Prosecco

32. On the right: inland Karst landscape. In the background, the outline of Mount Nanos

33. The sage path between Aurisina and Santa Croce in autumn



34. Climbing course in Rosandra Valley

35. Speleologist descending Bonetti abyss

36. Cyclists on the outskirts of Kobjeglava

37. Taken from the Prosecco cliffs: the castle commissioned by Maximilian of Habsburg on the Miramare promontory

There are many sports facilities in Carso, which are managed by clubs and associations where it is possible to do different kinds of sports such as tennis, golf, horse-riding, football etc. Moreover, its environment and infrastructures especially give many opportunities to walk, hike, climb, visit caves, cycle etc., with the help of tourist guides and experts if required.

As for refreshment and accommodation, the usual taverns, osterie and holiday farms scattered in the various villages are coupled by three refuges located on the Mounts Trstelj and Kokos and in Rosandra Valley (Rifugio Premuda).

It is hard to give a full outline of the possibilities offered by tourism and environment in the Italian-

Slovenian Carso. There are guidebooks, leaflets and maps on different scales in Italian, Slovenian, English and German which fully deal with specific subjects, such as hiking, natural routes, war paths, mountain-bike tracks etc.

Reference is made to them to choose itineraries and to have further information. Apart from the specific offer provided by the Alpe Adria Hostel, any information can be given by local tourist boards and associations.



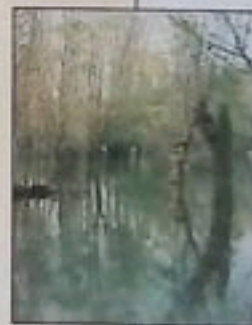
Doberdò Lake *****

Doberdò Lake and the neighbouring Pietrarossa Lake are one of the few examples of permanent surface waters in Karst areas.

Doberdò Lake fills the bottom of a "polje" and its waters come from the Karst aquifer.

The lake regime changes according to rainfall and hypogeous inflows coming from the North (mainly from the Isonzo river, but also from the Timavo river in flood). The rare and precious habitat is made up of a series of springs and "estavelles", that is hollows alternatively serving as springs and swallow-holes.

The lake and its surrounding area make up the Doberdò Natural Reserve and are subject to the relevant protection regulations.



38, 39. On the left: low lake and lake in flood

40. Above: hygrophilous vegetation

Several initiatives to develop tourism and the natural environment are under way in the framework of a project financed by the European Social Fund. Initiatives also include the building of a Visitor Centre, where a multimedia exhibition on Carso environmental features will be set up.

Grotta Gigante

Grotta Gigante is the biggest tourist cave in the world. Its hall could hold St. Peter's Basilica and, thanks to its size, it was put in the 1995 Guinness Book of records.



The cave was discovered during the search for the underground course of the Timavo river, that was carried out in the mid eighties to meet Trieste pressing water needs. The cave was opened to the public on 5 July 1908. It is one of the most extraordinary examples of hypogeous Karst phenomena, and it is basically made up of one single and wide hall. It roughly has an ellipsoid plan and the hall, whose bottom is at a depth of 120 meters, has an overall volume of nearly 600,000 cubic meters. The vault is 107 meters high.



The hall width is interesting and astonishing, but there are other elements exciting visitors' curiosity. Indeed, the cave is full of calcite concretions, stalactites and above all stalagmites. Some of them are palm-shaped and have different sizes ranging from a few meters up to more than 12 meters in length.

Nowadays it is possible to admire the cave and its beauty from different points of view thanks to the new "Carlo Finocchiaro" path, that is built on a ledge, and the use of a second entrance.

41, 42. Ruggero's column and the hall of water lilies on top

The cave underground system is actually wider and more complex than the one used for tourists, and it has been the perfect ground for research and experiments for a long time.

Geodetic pendulums hanging on the vault of the main hall are used to study earth tides and other movements linked to the earth crust.

Other attractions include the skeleton of "Ursus Spelaeus", the biggest cave mammal, and the museum displaying fossils, minerals and speleology equipment of the past.

The cave can be visited all year round. The programme includes 6 to 15 daily visits according to the season.

Grotta Gigante information tel. +39 (0) 40327312 e-mail address: boegoratti@it

Lipica

The noble white-coated steeds that were once intended for the Hapsburg Court in Vienna have been bred and trained in Lipica for more than four centuries, in a haven that was already green when the Carso was still dry and bare.



In 1850 Karl from Styria created these wonderful animals by crossbreeding six blood lines: the Italian, the Spanish, the German, the Danish and the Arab one.

In particular, a magnificent Arab stallion that was bought at the beginning of the eighteenth century set out the purity of the Lipizzan breed which is still surviving today. Every horse in the stud-farm descends from its prestigious ancestors, whose names are written in the eighteenth-century stables.

Its proud carriage, its mild and lively character as well as its sturdiness are the main features of the Lipizzan breed. Born dark or brown, Lipizzans turn white after nearly three years.

This horse center of world-wide importance is surrounded by various tourist and sports facilities - hotel, golf course, tennis court, swimming pool etc. -, which also take advantage of the wonderful environmental surroundings. The area also hosts a small hollow on the bottom of a doline with an old statue of the Virgin Mary, which is particularly worshipped by the Carso population.

In Lokev, near Lipica, it is possible to visit a rich exhibition of weapons and uniforms of different times and parts of the world. The exhibition is organized by a local history lover and is located inside an old tower dating back to the time of Turkish invasions. The Vilenica cave is not far from here.

43, 44, 45. From the left: Free horses, horse show and Vilenica cave, the first cave in Carso to be equipped for tourist purposes in 1633

Kobilarstvo Lipica information tel. +386 (0) 57391580 e-mail address: lipica@iol.net

Monrupino

Monrupino, which is called Repentabor by the locals, is certainly one of the most characteristic villages of Carso. The fortified church of Assunta stands on top of the stronghold (named Tabor), where local inhabitants found shelter with their livestock and possessions at the time of Turkish invasions. The Tabor of Monrupino is one of the few well-preserved examples in Europe of this type of medieval defensive works. Today it is the pilgrims' destination on the day of the Assumption.



46. Carso wedding

The Carso old wedding traditions are evoked every two years, in August, during a folk festival in costume, which is known as "Carso wedding" and always witnesses the participation of thousands of tourists. On this occasion the oldest local cookery specialties can be tasted.

One of the most interesting examples of Carso architecture, which is poor but still extremely important, is given by the "Carso House" in Rupingrande, that was turned into an ethnographic museum in 1968.

"Monrupino towers" stand in front of the stronghold. These Karst structures are more than 10 meters high: they indicate an old surface and show dissolution strength in limestone rocks.

The most precious Karst marble (Repen) is mined in this area and is known all over the world for its resistance and chromaticity.

Monrupino and its outskirts have long-standing food-and-wine traditions and offer the local products of this land such as "Terrano" red wine and "Tabor" cheese.



The fortified stronghold of Monrupino

"Monrupino towers"

The Duino Cliff and the Rilke Path

The upheaval of the Carso tableland has led to an incredibly beautiful landform along the western area. A limestone rib runs for more than 10 kilometers from Duino to Prosecco and falls directly into the Adriatic sea with drops of 150-200 meters. In particular, the Rilke path winds on top of the cliff between Sistiana bay and Princes Thurn und Taxis' castle. The path is named after the Prague poet Rainer Maria Rilke, who stayed with the princes in Duino between 1911 and 1912. Traditionally,

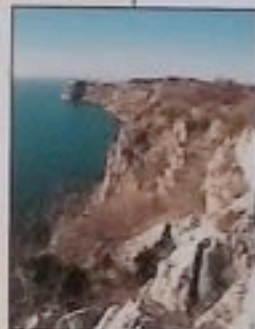


he drew inspiration from these cliffs dropping into the sea to write the lines of his "Duino elegies".

Limestone layers heavily slope to the sea and are characterized by clear karstification phenomena on their surface. The geographical position influenced by the cold Bora winds of the Duino cliff explains the presence of the endemic consociation on the sea rocks, which turns into Mediterranean Maquis on top. The difficult access to the cliff enables different bird species, including peregrine falcon, to nest. The cliff and the sea below make up a rare environment and landscape which are situated on a natural balcony, from where you can take in the entire Gulf of Trieste from the Isonzo river outlets to Salvore Cape in Istria at a glance.

Beautiful shades and charming effects are the result of the contrast between the different shades of gray, that are typical of Karst limestone, and those of the vegetation ranging from green to red, brown and yellow that can be seen at the turn of the season.

It is not allowed to go out of the Rilke path and reach the sea from the cliff below as the whole stretch of coast is part of the regional natural reserve area.



49. The cliff seen from the Rilke path

50. On the left: the old Duino stronghold and Thurn und Taxis' castle

Škocjanske Jame



Škocjan caves are among the 300 natural wonders protected by UNESCO and were included among the protected wetlands under the Ramsar Convention a few years ago. The Škocjanske Jame Park has been set up on an area covering more than 400 hectares to safeguard its considerable natural beauty.

Timavo-Reka - the most famous underground river in the world - sinks into the Škocjan caves from where it starts its underground course.



51. Waterfall in the caves



52. On the right: pond-shaped calcite concretions

The presence of Timavo-Reka alone would be more than enough to justify the naturalistic interest for the Classical Carso. Despite the long-standing research carried out by explorers, hydraulic engineers, speleologists and geologists, a large part of its underground course (from Škocjan to San Giovanni di Duino) is still unknown.

Škocjan caves are made up of a system of underground galleries which are nearly 6 kilometres long. The maximum difference in height between the outside and the bottom of the cave is slightly higher than 200 meters. This hypogeous complex is certainly the widest and most famous natural phenomenon in the Classical Carso. Its genesis has been influenced by a series of contributory

geo-structural elements, such as jointing faults between limestone rocks and Flysch (marly and sandstone deposits) and a series of offset ridges which have influenced the course of the river. This situation has facilitated underground erosion and dissolution by the river and has led to the collapse of vaults in old galleries, which has in turn led to the formation of a wide complex of large dolines that are crossed by the stream.

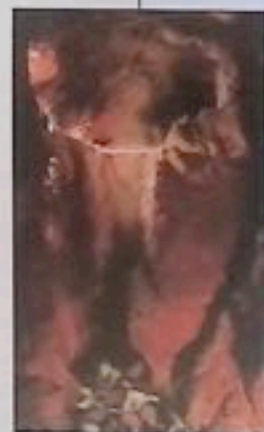
The view of the two big dolines, the natural arch and the turbulent river waters, nearly 100 meters below, is extraordinary.

Stalagmites, stalactites, columns and calcite concretions with very strange shapes and curious names given over the years alternate in a spectacular series of balls and galleries. The overlapping of morphologies linked to Karstism and those deriving from river moulding is particularly striking. The most charming aspect is given by the deep and wide underground ravine (up to 90 meters in height and nearly 40 meters in width) where turbulent waters flow.

The caves can be visited all year round and guided tours last 1.30 h. The programme includes 7 daily visits from June to September, whereas in the other months visits are limited to 2 to 3 a day.

Although the caves are the biggest tourist attraction of the park, other elements are worth mentioning. Indeed, the area hosted important prehistoric settlements and several finds were recovered in the cave and in the surrounding area. An example is given by the "Tesoretto di San Canziano", which is exhibited at the Museum of Art and History in Trieste. The villages of Škocjan, Betanja and Matavun fit in very well in the park, thanks to their typical Carso structure and their stone wells and bouses. The ruins of the old mills located along the Timavo-Reka ravine, that are situated upstream from the cave and Scolj castle standing on the edge above, are also interesting though they are not in good repair.

Park Škocjanske jame information tel. +386 (0) 57632840
e-mail address: pgj.info@pgj.gov.si



53. Hanke bridge in the Cerkevnic cave: the Timavo river flows rapidly below

Štanjel

Štanjel, the most typical village of Carso, is located in the northern area.

This ancient fortified village dominating the area is mainly built in stone and has a classic medieval structure. The buildings lean against terraces on the side of the limestone hill and are placed in a semicircle looking to the south.

The village was built at the foot of an ancient fortification standing on top of the hill, whose Roman ruins can still be seen. Some stretches of the very narrow streets are still paved in stone. They run parallel to the slope and meet in three little squares, where some stone



54. The late Gothic church of Štanjel built in the XV century and rebuilt in the XVII century housing Counts Cobenzls' tomb

55. On the right: the fortified village

wells that were once used by the locals to draw water still stand. Some buildings are covered in

slabs of stone, as well as portals, eaves, opening edges, well curbs etc. Several Gothic architectural elements indicate that the village already had today's size in the past.

The oldest and most interesting buildings include Counts Cobenzls' Baroque Renaissance castle, that was built at the end of the XVII century on a medieval design, and the church of Štanjel.

The castle hosts a permanent exhibition of the works by the artist Luigi Spacal, one of the main representatives of figurative arts in the twentieth century.

Štanjel was fortified in the XV century to be protected from Turkish raids. The boundary wall and the towers with entrance doors surround the houses, the church and the castle.

Even the layman can recognise Max Fabiani's mark standing by the old village structure. Fabiani is a great architect and Art Nouveau representative, born in a village near-by, who designed a system of walks and gardens around Štanjel adding charm and interest to the place.

Turistino Društvo Štanjel information tel. +386 (0) 57690197



Rosandra Valley

Rosandra Valley is an extraordinary and uncommon example of stream erosion in Karst soil.

It is a unique phenomenon as it is a deep valley groove opening on the limestone bank behind Trieste, not far from the sea. It is almost a mountain landscape. Its slopes have different and various morphologies alternating very steep faces, screes, peaks and terraces. The Rosandra stream flows on its bottom along waterfalls, potholes and bends shaped in the limestone rock.

Its particular geomorphologic conditions lead to the presence of distinctive vegetation, which is made up of particular consociations and species that are usually found



in mountain areas. It is a real mix of Illyrian, Central European, Alpine and Mediterranean environments. Hence a mix of different ecosystems

which, as a whole, offer countless opportunities to appreciate such a various natural environment. In addition to natural attractions, the valley hosts the remains of the Roman aqueduct serving ancient Tergeste, the rocky small church of Santa Maria in Siaris and the old villages of Beka and Bottazzo. The route of the Hapsburg railway line Trieste-Erpelle winds along the valley: at the moment it is being transformed into a cross-border cycle and pedestrian path.

At the beginning of the century the valley became a popular practice wall: it is here that Emilio Comici started to practice. Moreover, the valley has been hosting a rock-climbing school since the thirties (in an alpine refuge at 80 meters above sea level), the which is quite unusual for a sea town.



56, 57. The deep ravinement of the Rosandra stream and the waterfall

58. On the left: Rosandra valley

Vremščica

Vremščica is the highest mountain in Carso with its 1027 meters. From its peak, especially during windy cloudless days, you can sweep around the whole tableland and beyond, from the Gulf of Trieste to the mountains of Selva di Trnava e di Piro, Mount Nanos, Postumia plain, Mount Snežnik, Čičarije and, to the north, the Julian Alps and Triglav.

Vremščica stretches to east-west and is characterised by distinctive vegetation and climatic and weather conditions, which are different according to the slopes. The northern slope is covered in a thick coppice of beech, whereas the southern slope is mainly covered in black pine forests. The ridge is gently undulated and is covered in large meadows, which are partly used as sheep grazing land.



59. Autumn on the ridge. The holiday farm at the edge of the beech forest



60. On the right: the top meadows after an early snowfall; in the background the Gulf of Trieste

Vremščica is characterised by consociations that are typical of sub-Alpine ecosystems. Flower species are those of the mountainous Karst area, though blooming a bit later because of the altitude. Late in Spring, meadows covered in narcissus, peonies and wild flowers offer a unique colourful view. The whole ridge is protected as a Natural Reserve.

There are several paths partly running along existing forest tracks. The easiest access is provided by a cart road which is still in good repair and leads to a holiday farm (a sheep farm) located in the pastures above.

The high tablelands can be easily reached and are a perfect ground for paragliding and hang-gliding.

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Things to know

Pending Slovenia's accession to the European Union, borders may be crossed only at international checkpoints on showing documents valid for travelling abroad. Secondary checkpoints are used only by residents of the transfrontier area.

Though different environmental protection laws exist, basic behavior rules must be followed in order to preserve the Carso environment.

IT IS PROHIBITED

to drive cars or ride motorcycles on many unpaved roads (especially in Italy);

damage Karst vegetation and flora (it is absolutely forbidden to pick a number of protected species);

set up free campsites;

light fire;

take away minerals and fossils.

STRICT REGULATIONS

control the picking of mushrooms.

RECOMMENDATIONS

keep off meadows or cultivated land

in your walks and excursions follow trails and roads marked with signposts

refrain from useless noise-making and annoying wildlife

after every walk, make sure no ticks cling to your skin; occasionally, if not rarely, they may cause complications.