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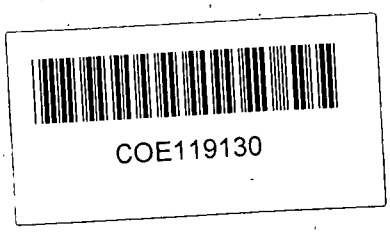
Strasbourg 29 January 1976 CE/Nat/DE (76) 14



EUROPEAN COMMITTEE FOR THE CONSERVATION
OF NATURE AND NATURAL RESOURCES

WORKING PARTY - EUROPEAN DIPLOMA

WELTENBURGER ENGE

APPLICATION PROPOSED BY THE
FEDERAL REPUBLIC OF GERMANY

43.052
09.3

NAME: Naturschutzgebiet Weltenburger Enge
(Réserve naturelle de la Gorge de Weltenburg)

NAME AND ADDRESS OF THE BODY RESPONSIBLE FOR ITS MANAGEMENT:

Bayerisches Staatsministerium für Landesentwicklung
und Umwelt Fragen,
8000 München 81,
Rosenkavalierplatz 2

COUNTRY: Federal Republic of Germany

1. TYPE OF NATURAL AREA, SITE OR FEATURE

Nature reserve

Summary

The relatively small area of the Danube Gorge between Weltenburg and Kelheim owes its significance and its claim to preservation not only to its natural and cultural history, but in particular also to the closely neighboring coincidence of numerous varied elements extending from the charm of the landscape through the diversified manifestations of its geology, its plant and animal life both in the remote past and in the present up to the traces of human activity which reach back far beyond the dawn of history.

1.) The reef limestones of which the steep pillarlike cliffs on both sides of the Danube are composed, with numerous lithological varieties from organogenous sponge-algae limestones to the coral-bearing hydrozoan limestones of the reef detritus facies, are of extraordinary interest to the geologist; as are the contact zone of massive and Kelheim limestones (rare outcrop!), the - even in European terms - unique Kelheim limestones themselves (similar formations are not encountered again except in Moravia, in the vicinity of Vienna and in southern France) with their abundance of fossils and their petrographic variety of types (5 main types with 20 different varieties in the area of the Weltenburg Gorge alone), and finally the phenomenon of the dolomitized limestones.

2.) The importance of the Kelheim limestones for paleontology is based on the quantity, the good state of preservation and above all on the variety of species of their fossil fauna (more than 300 species from 7 phyla of the animal kingdom) with a number of very peculiar, in some cases new forms.

3.) The impressive geomorphological appearance of the gorge is caused by the contrasting change of stone types from the platy limestones of the Hienheim Basin to the Weltenburg reef mass. The morphological effects of the down-cutting by water erosion are unique in this nature and magnitude even for European conditions. The displacement of the Danube (from the Altmühl Valley) at the end of the Riss Period into the present Danube Valley is

regarded as one of the greatest river course displacements in Central Europe.

4.) Thanks to the variety of microclimatically and edaphically different biotopes, a number of plant societies flourish in the area of the "Weltenburg Narrows", which are of outstanding interest for the study of vegetation and plant ecology. The area provides habitats for a number of endangered, rare and thus particularly protected species; it contains dells with characteristic plant communities: in the tree stratum numerous yews, epiphytic, highclimbing ivy, on the wooded northern and southern slopes sedge beech wood; in the transition zone from the thick woods to the open rock, abundantly developed bluegrass beech wood, on crags and precipices turf with many varieties of bluegrass steppe heath and oak wood (in the marginal zone between beech wood and dry grass stretches) with a varied and colorful herb stratum having remained of the earlier postglacial Jura vegetation - and now become rare and thus all the more valuable in the cultivated regions of the subcontinental climate zone; on the cliff edges and platforms exposed to the south, steppe heath with in some cases rare xerophytic and photophilous grasses herbs and shrubs of the southeastern European steppes and the rock heaths of southern Europe, living documents of the immigration of their ancestors during the warmer periods of the postglacial era.

Besides habitants of postglacial steppes and pine forests (amethyst fescue grass), glacial age relics have survived in climatically suitable locations (shady, cool) principally on the north slopes, such as the auricula (which otherwise is now found only in the Alps) along with several Alpine companions. The moss societies of the steppe heath are of scientific interest primarily because of the broad spectrum of physiological and morphological adaptations to the extreme conditions (high temperatures, deficient moisture) of their locations; whereas the scientific interest of the water moss societies that have settled in the area of the steep rocky banks derives from the ideal conditions presented for the study of zoning phenomena. One moss society (the Distichietum capillacei), interesting because of its dealpine species, contains one of the greatest biological rarities of the southern Franconian Jura: Myurella julacea, a subalpine limestone moss with circumpolar distribution.

5.) The importance of the area both for the indigenous and the European fauna arises from its specific suitability as the habitat of rare species of birds whose existence is highly endangered either in parts of Europe (little owl) or all over Europe such as the peregrine falcon and the eagle owl. These latter two bird species have here one of their few remaining refuges with adequate living conditions thanks to the nest and aerie opportunities satisfying their particular requirements and to the abundance of bird and mammal species available as prey. In view of the problems that are encountered in renaturalization attempts, the successful repatriation of the eagle owl in the area of the "Weltenburg Narrows" is of particular scientific interest. The spectrum of animal species living in the area is enriched by members of the fish fauna found in the stretch of the Danube between Weltenburg and Kelheim. These include two severely threatened fish species that have already become rare in Bavaria.

6.) Finally, the outstanding archeological and cultural-historical significance of the area between Weltenburg Monastery and Kelheim is one of the particular features distinguishing this conservation area from others. A multiplicity of finds and archeological monuments, from the caves of the Neolithic period used for religious purposes, through the tumuli of the Bronze Age and the Hallstatt Epoch, to the excavated pit fields and the impressive ramparts from the time of the Celtic settlement pass over into historic times. The presence of the Romans has left its traces (in the form of a quarry) just as have the martial disturbances of the Early Middle Ages (as evidenced by fortifications). For over 13 centuries from the Middle Ages until modern times Weltenburg Monastery has been a nursery of occidental culture, adorned today with renowned examples of the art of the 18th century, closely fitting in the surrounding countryside.

II. CHARACTERISTICS AND SCIENTIFIC, AESTHETIC, CULTURAL OR RECREATIVE VALUE JUSTIFYING CONSERVATION

1. Geological importance

The "Weltenburg Narrows" conservation area lies in the southeastern part of the Franconian Jura, an object of geological research for centuries, which surpasses other sedimentary areas (red marl , molasse) so much that it can be placed on a level with the Alps as far as the geologist' s interest is concerned. Its international scientific importance is derived principally from its good paleontological classifiability and the possibility of correlating the ammonite sequence with the key fossils of the Jura districts of the entire earth from northwestern Siberia through southern England, southeastern France to Mexico and Madagascar.

The conservation area begins in the west at the point where the Danube leaves the stratified limestone of the Hienheim Basin to cut through the Weltenburg reef mass and ends in the east on the edge of the Kelheim Bay. The area of the conservation district is composed principally of two facies of the Upper White Jura, the reef facies (massive limestone) and the reef detritus facies (Kelheim limestone), which occupies an intermediate position between massive and stratified facies. The area also displays examples of dolomitization.

1.1 Massive limestone

The massive limestone contributes essentially to the unmistakable landscape character of the area. Between the Altmühl and the Danube and in the Weltenburg Forest south of the Danube it forms a continous area. It includes the strikingly high and steep cliffs, often disintegrated into solitary pillars, which line the Danube on both sides, e.g. the cliffs of the Danube Gorge near the Klösterl, on the right bank between Wipfelsfurt and Klösterl, or the typical, for the most part massively and unarticulately separating sponge limestones in the vicinity of the statue of St. Nepomuk in the "Lange Wand" and the sponge limestone of the "Petrified Virgin". It reaches its greatest height of around 110 m above the surface on the north slope of the Wurzberg.

The massive limestones of the area are not uniform. They display instead numerous lithological varieties ranging from organogenous sponge-algae limestones, whose typical domelike structure can be recognized in the cliffs of the northern side of the Gorge adjoining Weltenburg Monastery and in exemplary fashion on the Wilhelm Cliffs opposite the "Lange Wand", to coralbearing hydrozoan limestones in the transition area to the reef detritus facies.

In places, the massive limestones, in particular the sponge limestones contain siliceous formations in the form of bizarre, honeycombed, porous concretions which differ very characteristically from those of the other facies. Occasionally, massive limestone (for example, in the Monastery Garden) is streaked deep yellow to brown as the result of being stained by descending iron solutions.

It was used extensively in the Monastery Church and is known as "Weltenburg Marble".

1.2 Kelheim facies

Near Weltenburg Monastery, e.g. in the "Stone Pulpit" southwest of Wipfelsfurt, massive (reef) facies come into contact with Kelheim (reef detritus) facies in a transition area with manifold alternation in horizontal and vertical directions. The cliff opposite the Klösterl (Affeckinger Stein) may show one of the rare outcrops of the boundary of two Jura facies, on which the more greatly inclined Kelheim limestones thrust against unstratified massive limestone. The Kelheim limestones are unquestionably the most peculiar and most interesting facies of the area. They are almost unique. Similar ones are not found nearer than in Moravia, in the vicinity of Vienna and in southern France. The reef detritus limestones are sometimes hid in clusters in the massive limestone (to the north below the Hall of Liberation), and sometimes can be recognized as stratified banked deposits of limestone containing abundant fossils between blocklike massive high cliffs of the reef facies (at the "Beehive" near Wipfelsfurt, the waters of the Danube have worked on the softer sections within

the banked part to form a honeycomb pattern). Their main deposit within the conservation area is located in the Weltenburg Forest. The reef detritus facies is renowned all over the world because of its wealth of fossils which is accompanied by an extraordinary petrographic variety displayed in close proximity so that no outcrop and no type of rock are repeated. Even though in the different varieties no basic differences can be detected, they are still remarkable items of evidence for the abundance of local singularities of an ecologically manifold differentiated reef.

Contributing primarily to the type variety (20 different varieties in the area of the "Weltenburg Narrows" alone) are the crude detritus limestones, the fossil detritus limestones with very well preserved fossils (particularly when they are deposited in strata between white splinter limestones), the gap limestones (with up to 6 dicerates in the handpiece), the crinoid limestones (thick-banked, blocklike disintegrating rocks) and the white splinter limestones (typical for the transition area to the massive limestone facies).

1.3 Dolomitizations

The dolomitizations occasionally encountered in the area of secondary nature. Both massive limestones, primarily sponge limestones, and Kelheim limestones can be affected, the latter less frequently though.

Dolomitized massive limestone is found on the path from the Hall of Liberation to the Klösterl. Small portions of dolomitized massive limestone can be found in all levels of the precipice, the cliffs southwest of the Klösterl contain patch-shaped dolomitizations. At the foot of the Michelsberg ("Albertswand") even dolomitized platy limestone extends into the conservation area from the east. Scientific interest in the dolomitized limestones is kept alive by a series of unanswered questions, for example, the origin of the magnesium, the principles governing its occurence (which have not been discovered as yet) and the process of its development (participation of bacteria?). The Kelheim Region provides a wealth of clues for these and other scientific questions.

2. Paleontological importance

The Kelheim Region including the Kelheim limestones in the conservation area has been of importance to the paleontologist for decades.

This importance is based not only on the quantity and the good state of preservation of the fossils, but rather primarily on the abundance of fossil fauna species in which in addition to the foraminifers (Phylum of Protozoa) and sponges (Phylum of Porifera) the phylum of the coelenterates is represented by corals (83 species), the phylum of the mollusks by mussels (72 species), cephalopods (13 species), gastropods (55 species) and brachiopods (22 species), the phylum of the echinoderms with 38 species, the phylum of the arthropods with 3 species and finally that of the vertebrates by fish (3 species) and reptiles (6 species). These include a number of very independent, in some cases new forms.

3. Geomorphological significance

The present impressive geomorphological pattern of the Weltenburg Gorge has its actual cause in the richly contrasted change of the rock types from the stratified, softer platy limestones of the Hineheim Basin to the reef limestone, whose structure forced the water to downcutting. The Gorge was not created by the Danube itself - up until the Neopleistocene, the present Altmühl Valley carried the waters of the Danube into the Kelheim Bay - but rather by smaller autochthonous streams (Schutter, Neuburg River, Danube Moss River, Paar, Ilm).

It was not until the end of the Riss Period that the Danube itself made use of the present Danube Valley. This displacement and shortening of the Danube at the close of the Riss Period is rightfully regarded as one of the greatest and most remarkable river course changes in Central Europe. The morphological effects of the downcutting are unique in their nature and magnitude in Germany, indeed in the entire European area. But the working of the water has not only left geological traces, it still continues. Flow rates and turbulences produce differences of 4 to 5 meters between the depth of the stream before entering and after leaving the Narrows and the deepest point in the gorge area.

4. Significance of the flora and vegetation.

Because of the variety of microclimatically and edaphically different biotopes, the plant world of the "Weltenburg Narrows" Conservation Area is characterized by a number of plant societies - from the tree stratum to the moss stratum - which are of outstanding importance both for vegetation history and chorology as well as for plant ecology and sociology.

Several (just under 10 %) of the plant species ascertained in the area are specialties since they belong to the severely endangered or the attractive species which without the existing legal protection would be seriously endangered (Aster linosyris, Bupleurum rotundifolium, Cephalanthera damascn ium, Convallaria majalis, Daphne mezereum, Dictamnus albus, Epipactis atrorubens, Festuca valesiaca, Helianthemum nummularium, Inula hirta, Inula salicina, Lilium martagon, Minuartia fastigiata, Minuartia setacea, Neottia nidus-avis, Primula auricula, Pulsatilla vulgaris, Sedum telephium, Taxus baccata; Red List of Threatened Ferns and Flowering Plants in Bavaria, Status as of March 1974).

The plant societies encountered in the area include dingle plant communities, beech wood (sedge beech wood), steppe heath wood (steppe heath oak wood), steppe heath, steppe heath-moss societies and water moss societies. The dealpine elements in the herb and moss stratum should be particularly mentioned.

4.1 Dells

At the foot of shady cliffs and in larger recesses and clefts growths of del communities have developed. The most noteworthy dwellers of locations of this kind are the numerous yews distributed in the area, very old in some cases and often very different in habit, Ivy climbs up cliffs and, as an epiphyte, trees as well. In subcontinentally determined climates it developes in this mode of growth only in locations characterized by high degrees of atmospheric humidity, such as exist in the immediate vicinity of the water in the deep narrow valley of the Danube.

4.2 Sedge-beech wood and bluegrass beech wood (Carici-Fagetum, Carici-Fagetum seslerietosum)

Sedge beech woods with mountain sedge (Carex montana), white and red helleborine (Cephalanthera damasonium et rubra) and honey balm (Melittis melissophyllum) grow on the wooded north and south slopes. Usually, the herb stratum is rather loose, similar to that of beech forests on the edge of the Central German arid district. On the other hand, the bluegrass beech wood on the transition area from continuous woods to bare rock is well developed on shallow-grounded, rocky sections on the slopes exposed to the north. The most noteworthy representatives in the herb stratum include bluegrass (Sesleria varia), ground sedge (Carex humilis), asphodel (Anthericum ramosum), and Alpine thistle (Carduus defloratus). In the places where the forest must disappear entirely - on crags and precipices - provided that higher plants can grow at all, many species of bluegrass turfs settle.

4.3 Steppe heath and steppe heath wood

All associations of the steppe heath and the steppe heath wood must be regarded as locally determined final stages of the vegetation development of the area and therefore as permanent societies. In Bavaria, they posses their best floral differentiation in the southern side (Danubian stretch) of the Franconian Jura. The relics in the area of the "Weltenburg Narrows" belong to the scanty and therefore all the more valuable remaining growths which (initially the steppe heath, then the steppe heath oak wood) settled here in wide extension during the postglacial period, later, under changing climatic conditions, however, increasingly gave way to the advance of shady beech woods. The cultivated regions in the area of the subcontinental climate today have only very few locations (ridges and flanks of limestone and dolomite crags, rocky terraces, precipices with exposure to the sun) which are appropriate as biotopes for these plant societies by virtue of their special, often extreme, surface, microclimatic and soil conditions. These locations can still be frequently encountered in the "Weltenburg Narrows" Conservation Area.

4.3.1 Steppe heath wood
(Lithospermo-Quercetum)

In the area of the "Weltenburg Narrows", the steppe heath wood occurs exclusively as steppe heath oak wood, often only bushily developed, in the narrow southerly exposed marginal zone between the beech wood and the underwood dry grass meadows, for example on the sunny boulders and rock terraces on the precipices of the left bank of the Danube between Weltenburg Monastery and Wipfelsfurt. Among the species of the extraordinarily colorful herb stratum, the purple gromwell (Lithospermum purpureo-coeruleum), the locally distributed erect clematis (Clematis recta), and the rare colored melic grass (Melica picta) deserve particular mention. On the fringes of the steppe heath wood, flaxinella (Dictamnus alba), blood-red cranesbill (Geranium sanguineum), deer sulphur weed (Peucedanum cervaria) and others thrive

4.3.2 Steppe heath

In comparison to the steppe heath wood, the steppe heath occupies even more desiccative, shallow-grounded locations on the cliff edges and platforms exposed to the south. One of its characteristics is the high proportion of chamaephytes for other than Alpine locations. Its physiognomy is distinguished by xerophytic and photophilous grasses, herbs and shrubs of the southeast European steppes and the rock heaths(chalk heaths) of southern Europe, species which still provide the vegetation historian with living documents of the great migratory movement of their ancestors during the postglacial period. The steppe heath in the "Weltenburg Narrows" area is composed of elements of the dry turfs (Pulsatillo- Caricetum humilis) such as the great pasqueflower (Pulsatilla grandis), grooved fescue grass (Festuca sulcata), spiked speedwell (Veronica spicata) and of the rock heath (Diantho-Festucetum) such as the blue fescue grass (Festuca pallens), mountain leek (Allium montanum) and the very rare bristle chickweed (Minuartia setacea), which in southern Germany is indigenous only to the southern Franconian Jura. On the outermost edges of the overhanging projecting limestone cliffs, the Diantho-Festucetum, usually in its Sesleria-varia subassociation, is particularly well pronounced, in physiognomical, floral and ecological respect.

Among the southeast European floral elements, a native of postglacial steppes and pine woods, a special form of the rare amethyst-colored fescue grass (Festuca amethystina var. austriaca) recently found in the Regensburg floral area has steadfastly maintained its position since the early postglacial warmth period at its northwestern outposts to which also the upper edge of the Danube Gorge Valley belongs.

4.4 Relic plants

The glacial age relics found in the area, whose main habitats are in the Alps and the Scandinavian mountains, settled here, escaping from the glaciers and snow, even before the southern and southeastern floral elements. They have held their ground principally in the climatically favorable positions of the north slopes, and on the left bank of the Danube exposed to the south only in the deep, shady crevices of the precipices. The auricula (Primula auricula) (which otherwise is found only in the Alps) may be regarded as the principal relic in the cliff walls of the "Weltenburg Narrows". It was discovered once at the beginning of the last century, and afterwards not again until very recently with a telescope in a 30-40 m high inaccessible cliff wall facing north/northeast. It can be assumed almost with certainty that this is not a recent introduction by man or flood but rather an autochthonous glacial relic whose ancestory probably used the Danube as a migratory route, considering the inaccessibility of the location, its considerable elevation above the current water level and the circumstance that the auricula occupies this location not as an isolated single plant but in association with numerous Alpine companions such as Aster bellidiastrum, Erica carnea, Draba aizoides and Carduus defloratus.

4.5 Moss societies of the steppe heath

Most of the moss societies of the steppe heath described for the area of the "Weltenburg Narrows" are able to assert themselves only on the open spots of the dry turfs, only a few strongly competitive species penetr ate into them as synusia. Because of the extreme conditions of the locations (temperatures of the open earth are frequently above 50° C; moisture deficiency) all species are forced to manifold

physiological and morphological adaptations, for example in growth and development rhythms: immediate further growth with every rainfall; shifting of vital activity to the moist winter half-year; survival of the summer drought in the spore state; for protection against wind and better water retention :pad growth and development of glass hairs, curled, serpentine, squarrously backwards-bent leaves, leaf chalices, which bend inwards and close during dryness, succulence and many other features. Above all, it is the differentiation of the adaptation performances and methods of reaction to the same conditions which make the species living here an extraordinarily interesting object of study for the scientist.

4.6 Water moss societies

It seldom occurs that the moss flora of an area have such differing habitats available in such close proximity as in the area of the "Weltenburg Narrows". It presents particularly favorable conditions for the study of water moss societies. The zoning of the individual societies as a function of the height stratification (water depth;height above the surface of the water; distinct zoning, e.g. of Cinclidotetum fontinaloidis in the underwater and flooding area, in the upper zones interlocking with epipetrical rock crevice societies) can be ideally observed on the vertically descending rocky banks.

4.7 Dealpine moss societies

On the north slopes of the right bank of the Danube, on shady, open, fresh rock locations, in small clefts, cracks and holes, a very exclusive moss society is found, the Distichietum capillacei, which is of particular interest because of its dealpine species. Among these is found also one of the greatest biological rarities in the southern Franconian Jura: Myurella julacea, a subalpine limestone moss with circumpolar distribution, extremely rare in Germany except in the Alps, which has here a narrowly restricted habitat and differentiates a subassociation of the Distichietum capillacei limited to this location. In the immediate vicinity of the Myurella subassociation, another rare moss, Neesiella rupestris, has one of its few locations known in the southern Franconian Jura.

5. Faunal significance

The "Weltenburg Narrows" Conservation Area's faunal significance is due primarily to its suitability as a habitat for birds. Numerous species of birds find in the area of the nature preserve both ideal nest and aerie opportunities and a sufficient basis of nutrition. In addition to such frequent and widely distributed species such as the jackdaw (Corvus monedula), buzzard (Buteo buteo), kestrel (Falco tinnunculus), and tawny owl (Strix aluco), species that have become very rare and are threatened with extinction such as the peregrine falcon (Falco peregrinus), the eagle owl (Bubo bubo) and the little owl (Athene noctua) have obtained here one of their few remaining refuges.

5.1 Rare bird species

The last three mentioned species,after years of drastic reduction in numbers caused by direct human persecution, destruction of their habitats, poisoning and exhaustion of their subsistence basis, have today shrunk to a critical size.

No exact figures are available on the numbers of the little owl still in existence, but in at least two Federal States it is highly endangered. Peregrine falcon and eagle owl are already numbered among the species endangered in all of Europe. In view of this situation, the "Weltenburg Narrows" Conservation Area is of inestimable value for the preservation of the peregrine falcon in Bavaria (where there are only around 20 breeding pairs left). It possesses a number of features which are particularly favorable for meeting the requirements of this bird: wooded and free areas, inaccessible cliffs as hunting grounds; a subsistence basis consisting of jackdaws (Corvus monedula), crows (Corvus sp.), magpies (Pica pica), sky larks (Alauda arvensis), pigeons (Columba sp., Streptopelia sp.) and starlings (Sturnus vulgaris) from the neighboring settlements and squirrels (Sciurus vulgaris), shrews (Sorex sp.), harvest mice (Microtus arvalis) and meadow mice (Microtus agrestis). The situation of the eagle owl is similar. Its numbers have declined in Bavaria to less than 50 breeding pairs (a reduction of around 20 pairs since 1957).

This bird,which lives in concealment, disappeared temporarily from the "Weltenburg Narrows", but became repatriated several years ago as a result of the suitable nest and prey conditions: hedgehog (Erinaceus europeus), carrion crow (Corvus corone: corone), partridge (Perdix perdix), domestic pigeon, also littel owl, buzzard and kestrel, squirrels, young hares and meadow mice. The fact that it was possible to overcome the manifold and difficult problems, which elsewhere brought failure to attempts at repatriation and integration of the eagle owl in its former community, is a reliable indication of the existence of intact biotopic conditions in this area.

5.2 Fish

Among the communities settled in the area of the "Weltenburg Narrows" members of the fish fauna have the greatest difficulty in escaping from the damaging consequences of technical civilization (which originate from numerous and far-removed places along the upper river). Nevertheless this section of the river still is the home of typical representatives of the bream region including, besides the bream itself (Abramis brama), the pike (Esox lucius), the roach (Rutilus rutilus), the perch (Perca fluviatilis), the carp (Cyprinus carpio) and even some representatives of the barbel and grayling region such as barbel (Barbus barbus), ide (leuciscus idus), chub (Leuciscus cephalus), nose fish (Chondrostoma nasus). Two of the fish species found here , Rutilus pigus virgo and the pond loach (Misgurnus fossils), are among the species which have become rare in Bavaria and whose survival is severely endangered.

6. Significance for archeology and cultural history

The archeological importance of the area encompassed by the conservation area is so closely connected with the natural conditions of this stretch of land that it constitutes an essential component of their value and their special claim to preservation. At the same time, archeology is recognizing nature protection more and more as an important ally.

There are only a few stretches of country in Germany with such a treasure of the most varied archeological monuments in such a narrow space as the region between Weltenburg and Kelheim. Even if the numerous valuable finds from prehistoric and early historic times are left our of account, and only the existing and recognizable monuments on the ground are considered, there still remains a unique archeological situation.

6.1 Caves

The numerous caves located on the right bank of the Danube Gorge (for example , in the Robber Cliff opposite the Klösterl) have been, in contrast to the dwelling caves of the paleolithic hunters in the neighboring Altmühl Valley, ascertained as neolithic sites having more of a religious ritualistic character by virtue of their completely different cultural relics.

6.2 Tumuli

The tumuli originating in the Bronze Age and the Hallstatt Epoch are best preserved where the woods have spread out protectively over them up to the present. They are found as individual tumuli and in groups at various locations on both sides of the Danube. (The largest of these complexes, located on open cultivated land on the Frauenberg near Arzberg between the outermost (fourth) and third sectional rampart has already been leveled so that it is no longer recognizable.

6.3 Mining pits

("Ore pit holes", "ore pit fields")

These are man-made holes of various structure and function (not to be confused with the natural round depressions which are also found in the region) from the time of the Celtic settlement. They are found spread out over a large area and closely located to each other on the Michelsberg between the middle and the outermost sectional rampart, in the Klosterwald, the Herrenholz and on the Wurzberg between the ramparts. Along with a number of slag heaps, they bear evidence of an extensive iron industry in prehistoric times (which was recommenced in the Middle Ages).

6.4 Ramparts

of the Celtic Oppidum Alkimoennis on the Michelsberg

Besides Manching, they form the greatest Celtic fortification system in the southern German region, consisting of a triple rampart barrier between the Danube and the Altmühl. The outermost rampart is over 3 km long and is accompanied by a trench between 10 and 15 m wide. It is certain that the system also encompassed the river loop (Frauenberg and Wurzberg) on the other side with another three ramparts (in late Celtic times).

Dating from Roman times, there is a quarry in the hydrozoan limestone on the left steep bank east of Weltenburg Monastery.

6.5 Early medieval ramparts

The innermost of the four ramparts visible today on the Frauenberg, the Wolfgang Rampart, erected in the first half of the 10th century against the Hungarian incursions, and a 5 m high earthen rampart with trenches from the 10th century are eloquent documents of the martial threats of that age.

6.6 Weltenburg Monastery

The sequence of extraordinary cultural monuments in the midst of a landscape so individually and richly endowed by nature cannot be completed without mentioning Weltenburg Monastery, the oldest monastery (founded around 620 A.D.) on Bavarian soil, with its baroque church and high altar by E.Q. Asam, one of the most beautiful architectural and sculptural achievements of the 18th century.

III. EUROPEAN INTEREST JUSTIFYING THE APPLICATION

European interest in the maintenance, special protection and particular care of the "Weltenburg Narrows" Conservation Area appears to be well established by the facts listed in the expert opinion (No. 2) of the application form of the Bavarian State Office for Environmental Protection. These facts are:

- the particular geological situation of the area, above all else the unique nature of the Kelheim limestones (reef detritus facies) in the German area and their rarity value for European geology because of their origin and wealth of petrographic varieties;

- the scientific value of the extraordinary abundance of fossils and the large number of species of the fossil fauna in the Kelheim limestones and the existence of independent and new forms for paleontology;

- the geomorphological effects of the downcutting of water which in this nature and size are unknown in other locations in Europe;

- the various plant societies of interest for research into European vegetation history and arealogy (e.g. southern and southeastern European immigrants, dealpine elements);

- the rarity of some of these societies (relic societies) in the cultivated regions of the subcontinental climate;

- the versatile propinquity of plant societies with very different ecological requirements within a smal area (from xerophytical, photophilous elements of the cliff heaths through umbraticolous and frigophilous glacial relics to the water moss societies of the cliff bank);

- the specific suitability of the area as a biotope for two bird species already threatened with extinction in all of Europe and its importance for the preservation of these species;

- the variety of archeological monuments preserved in the area, from the neolithic period up to the early Middle Ages, which in some cases are impressive even by European comparison, and their significance for archeological and historical research.

IV. DESCRIPTION OF GEOGRAPHICAL POSITION AND/OR SKETCH OR OUTLINE ON A MAP

The Weltenburg Gorge is about 30 km south-west of Regensburg.

Map (1 : 25,000) in possession of the Secretariat
(1 : 50,000)

Weltenburg narrows conservation area (green and blue area with black border)

Scale: 1 : 25,000

Duplicate from the Decree of 13 May 1970.

Weltenburg narrows conservation area (green and blue area with black border)

Scale: 1 : 50,000

Duplicate from the Decree of 13 May 1970

V. PHOTOGRAPHS ILLUSTRATING TYPICAL ASPECTS OF THE NATURAL AREA

Different photographs are in the possession of the Secretariat

VI. CONSERVATION MEASURES TAKEN SO FAR OR CONTEMPLATED

Bavarian Bulletin of Decrees and Laws No. 14/1970

State Decree concerning the "Weltenburg Gorge" conservation area, dated 14 May 1970

Under the authority of paragraphs 4, 12, paragraphs 2, 13 paragraphs 2, 14 paragraphs 2 and 15 paragraphs 1, 2nd sentence of the Nature Conservation Act of 26th June 1935 (Bay BS Erg B, p.1) in combination with paragraph 1 of the Decree on the Responsibility of the State Ministry of the Interior in the field of Nature Conservation of 13 September 1948 (Bay BS 1, p. 209), the Bavarian State Ministry of the Interior as the supreme office for nature conservation issues the following decree:

§ 1

The Danube Valley from Weltenburg to Kelheim in the Weltenburg, Stausacker and Kelheim communal districts and in the communally exempted "Heinheimer Forst" forest district in Kelheim Rural County is entered into the State Nature Conservation Register for a total length of 4.6 km and an average overall width of 1.5 km in the area described in greater detail in paragraph 2 on the date this decree goes into effect and is accordingly placed under nature protection.

§ 2

(1) The conservation district with the included water surface of the Danube has an area of around 560 hectares;

(2) To the north-east, the boundary is formed by the border of the woods at the foot of the Michelsberg. The boundary extends with this along St. Michael's Church and the former Franciscan Monastery northwards to the footpath leading to the Hall of Liberation, leaves this again at the first bend of the path northwards and

proceeds to the end of Keller Lane. From here it proceeds continuing along the border of the woods in a northwestern direction, crosses the county road to Hienheim and runs westward to the Celtic Rampart (= Roman Redoubt) where a forest path coming from the southwest reaches the border of the woods. The boundary now follows the base of the Celtic Rampart until the rampart ends at the forest path from the parking lot of the Hall of Liberation to the "Anthony Shrine". The boundary follows this forest path to the Anthony Shrine and from it proceeds along the path descending westward down to the monastery valley path. It follows the monastery valley path upwards to the southern tip of the "Langwiese" (long meadow) and then follows the "Hienheim Ascent", the path entering the woods in a southwestern direction. After 750 m at point 479, the boundary turns following a path descending southwards which also marks the community boundary. At the first bend after 75 m, the boundary leaves this path again and continuing southwards follows a ditch which also forms the community boundary until the latter runs into a forest path after 125 m. Leaving the community border, the boundary now follows this path southwest to the border of the woods, then skirts this in a southern direction further to the southernmost tip of the woods and then continues to the road coming from Stausacker. The boundary runs northward along this road until a forest path (community boundary) runs into it from the left. The boundary reaches the left bank of the Danube here and runs along it upstream to Stausacker. Here, it crosses the Danube at a right angle and reaches the opposite bank at the point where the road to the monastery enters the narrow locat on betwee the Danube and the cliffs. After proceeding eastwards for 35 m along the road, the boundary runs up the almost vertical slope in a north-northeast direction where it intersects the path to Frauenberg just to the west of the Celtic

rampart. The boundary follows this path southeastwards for 50 m and bends here with a field path, just to the east of the Celtic rampart, to the north and then in a broad bend to the southeast. At a distance of 100 m from the Celtic rampart, the boundary runs northeastward to the path coming from the northern end of the Celtic rampart. It now follows this in a constant eastern direction for 1000 m until this path runs into the "Weltenburg Path" running northeast to Kelheim, which the boundary then follows. Where this path after 2.2 km runs into the State Road 2233, a forest path branches off in the direction of the valley at almost right-angles to the "Weltenburg Path" - initially parallel and directly adjacent to the road - which leads downhill to the southeastern corner of the meadow at the old quarry. The boundary follows this forest path to this meadow, and from there follows the border of the woods westwards and runs in a straight extension down to the Danube. It runs downstream along the south bank of the Danube to the middle of the great bend (stream kilometer 2415.5), crosses over there to the north bank and follows the northern side of the Klösterl path to the first property on which buildings stand. The boundary follows here the border of the woods of the Michelsberg to St. Michael's Church.

(3) The boundaries of the Conservation Area are marked in red on the maps with 1/25,000 and 1:50,000 scale, which are filed with the Bavarian Ministry of the Interior in Munich as the supreme office for nature conservation. Further, copies of these maps are on hand in the Bavarian State Office for Nature Protection in Munich, the Government Office of Lower Bavaria in Landshut and the County Executive's Office in Kelheim.

§ 3

Within the Conservation Area it is prohibited according to § 15, par. 2 of the Nature Protection Act to make any

changes without approval, in particular:

a) Destruction of ground elements, laying new paths or ascents or changing existing ones, making excavations, explosions or borings or changing the nature of the ground in any other manner;

b) erecting building structures as defined in Art. 2, par. 2 and 3 of the Bavarian Building Code, even when these are not subject to approval according to building regulations;

c) altering the natural water courses and bodies of water, their banks, the level of the ground water or the inflow or outflow of the water;

d) erecting cable-car lines or wire lines;

e) falsifying the flora or fauna by introduction of species alien to the location;

f) exercising any commercial activity other than that permitted by § 5;

g) felling more than 0.25 hectares.

§ 4

Further, it is forbidden in accordance with § 15, par. 1, 2nd sentence of the Nature Conservation Act

a) to remove more than a hand bouquet from wild-growing plants or to pull out, dig out or damage roots, root stems, tubers, bulbs or rosettes, the prohibition against plucking, pulling out, digging out or damaging completely protected plants (Art. 5 of the Nature Protection Supplementary Act of 29th June 1962, GVBL, p. 95) remains unchanged in full force;

b) to lay snares for, to deliberately disturb, to lay contrivances for the capture of, to capture or to kill animals living wild, even when they are not specifically protected under the Nature Conservation Supplementary Act, or to remove or damage pupae, larvae, eggs or nests or other brooding places, without prejudice to defense against injurious pests;

c) to discard or deposit trash, clarified sewage slurry, stones, building rubble, scrap metal, junk, inoperative vehicles, packing materials, containers or other rufuse or to pollute or adversely affect the grounds in any other manner;

d) to pitch tents, to make use or to use sound-transmitting or sound-reproducing appliances if others could be disturbed by them; the provisions of the State Penal and Decree Act in the version of 3rd January 1967 (GVBL, p. 243) concerning protection from damaging influences remain unaffected;

e) to drive or to park motor vehicles of all types and home trailers other than on the roads provided for public traffic or to park them other than on the places provided therefor.

f) to operate motorboats for sport on the Danube;

g) to practice shooting;

h) to put up pictorial or lettered signs for any other purpose except to point out the protection of the area or as forest markings of the sections of the woods; path markings, place information and warning signs may only be put up with the approval of the Kelheim County Executive's Office as the subordinate nature protection authority;

i) to climb in the cliffs.

§ 5

(1) The following remain unaffected:

a) legal hunting and fishing;
b) orderly agricultural and forestry use of the land including felling up to 0.25 hectares. However, buildings (Art. 2, par. 3 of the Bavarian Building Code), further fences and enclosures for which concrete is to be used, may not be erected without permission as provided for in paragraph 2, drainage may not be carried out without this permission, even when this is in the interest of orderly agricultural and forestry use of the land or the legal exercise of hunting and fishing rights;

c) the maintenance of the waters in the framework of Art. 42 of the Bavarian Water Act;

d) passage of sport motorboats through the "Weltenburg Narrows" provided that specific approval has been granted therefor by the responsible county administrative authorities in accordance with Art. 27, par. 4, 1st sentence of the Bavarian Water Act.

(2) As the supreme nature protection authority, the Bavarian State Ministry of the Interior can for important reasons allow exceptions to the provisions of §3 of this Decree. The Government of Lower Bavaria as superior nature protection authority is empowered to permit exceptions to the provisions of § 4, letters a) to h) of this Decree for important reasons. The Kelheim County Executive's Office can allow exceptions from the provisions of § 4, letter i of this Decree for the purpose of promoting mountain climbing training. The approvals for the exceptions can be made dependent on the adherence to certain conditions.

§ 6

Willful and negligent violations of a prohibition of §§ 3 or 4 of this Decree and the willful or negligent failure to comply with conditions in accordance with §5, par. 2 of this Decree will be punished in accordance with § 21 of the Nature Protection Act.

§ 7

(1) This Decree will become effective on 1st July 1970.

(2) The Decree of the Government of Lower Bavaria and the Upper Palatinate of 18th June 1938 concerning the "Weltenburg Narrows" Conservation Area (Bavarian Government Herald No. 186 of 5th July 1938) is rescinded; the Conservation Area described in it and listed under No. 1 in the State Nature Conservation Book for Lower Bavaria is canceled.

Munich, 14th May 1970

Bavarian State Ministry of the Interior
Dr. Merk, State Minister

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We wish to thank Dr. J. Pätzold, Bavarian State Office for the Protection of Monuments, Department of Prehistoric and Early Historic Times, and Dr. Schmidt-Kaler, Bavarian State Geological Office for their professional advice, supplying us with material and for reading the manuscripts.