

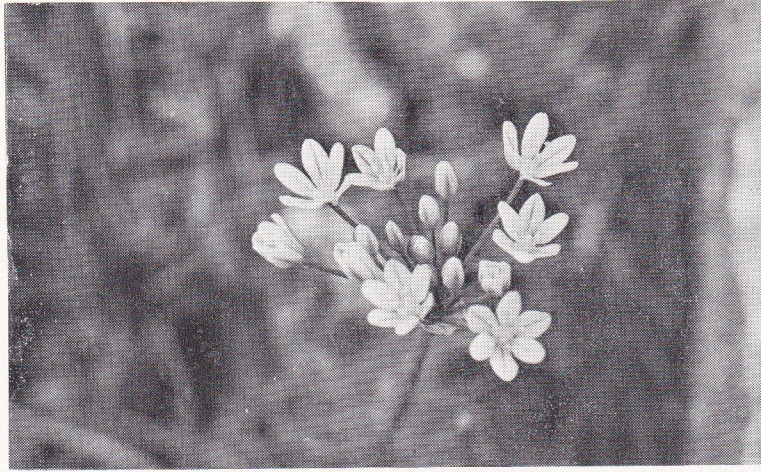


Of the April flowering irises, *Iris xiphium* (above) is well known in European gardens by its cultivar "Wedgewood." Its colour is electric blue marked canary yellow on the falls. *Iris filifolia* (right), with characteristic narrow leaves, has sumptuous dark violet flowers with gold centre blotches on the falls. It is usually darker than the Gibraltar form shown on page 49.



The Tongue orchids grow in a variety of habitats. *Serapias cordigera* (above) a plant of sandy places, presents a most luxurious appearance with its large velvety maroon lip. *S. pseudocordigera* (right) is, by contrast, an orchid of damp meadows. Its colouring is paler, being a combination of flesh pink and brick red.

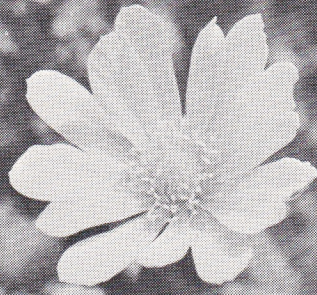




The "onions" are well represented in Andalucía. In moist and shady localities the triangular stemmed *Allium triquetrum* (above) with white bells, lined green, is very common. The yellow flowered *A. moly* (upper right) prefers sunnier localities, as does the Rose Garlic, *A. roseum* (bottom right).



Many species of Star-of-Bethlehem are common. (Above)—*Ornithogalum narbonense* produces tall spikes in damp fields. The green and white *O. umbellatum* (upper right) grows in similar habitats. However, the more graceful *O. unifolium* (right) forms sheets of glistening white in drier sandy areas.



The golden yellow *Anemone palmata* (upper left) is common in damp localities in open woodland. Of the many *Convolvulus* species, the rambling pink *C. althaeoides* (above) and the indigo blue *C. tricolor* (left) with white and gold throat, are the most likely to be found.

103



Probably there are more members of the *Leguminosae* in Andalusia than of any other family. They cover a wide range of form from trees to annual herbs. One of the most beautiful is *Astragalus lusitanicus* (upper left) which is handsome even if its large white flowers with maroon calyx are not out. (Lower left)—*Physanthyllis retraphylla* has cream and yellow flowers followed by a bladder like calyx. The Pitch trefoil, *Psoralea bituminosa*, carries globular heads of violet coloured flowers.

when a strong breeze is blowing the grain is separated from the chaff by tossing the mixture high into the air and the latter is blown aside into a great heap—a very tiring, dusty and thirsty job.

MOTRIL

Continuing along the *corniche* one cannot but be struck by the marvellous displays of pelargoniums which I have never seen bettered. Some of the hillsides are literally turned blue when *Convolvulus tricolor* flowers in April and, when nearing Salobreña, there is a first glimpse of the snowy Sierra Nevada the cup is indeed full. From Salobreña to Motril it is all sugar and the fortress town of the former, set on its great rock, is a fine picture surrounded by green canefields in every direction.

It is well nigh impossible for a reasonably well educated person to travel through this part of Spain without feeling slightly overwhelmed by its 2,500 years of recorded history because, at practically every town, bay or headland, there is something left to remind one of it. Whilst perhaps some imagination is needed to picture crafty Odysseus and his weary crew clawing their way up the coast fearful that still worse befall them, the dark skinned Phœnicians require somewhat less. As skilful navigators and traders they knew what they were about and very probably they were after the gold, this being one of the main producing areas of the ancient world. Production would have been entirely from alluvial deposits now long worked out, but it has always appeared curious to me that no attempt has been made, using modern methods, to find the mother lodes that presumably exist in the heart of the mountains. Three hundred years later an onlooker might have seen some desperate encounters between the Roman and Carthaginian galleys. Then came *Pax Romana* and the great Roman argosies, some nearly two hundred feet long, broad-beamed with deep holds and large sails, peacefully plying between the homeland and the outposts of the empire with their cargoes of corn from Morocco, wine from Cádiz and maybe slaves from Britain. The eclipse of Rome saw some three hundred years of Visigoth dominance until the coming of the Moors in A.D. 711. At this period the latter showed no particular ability as seamen and, indeed, had no real need to maintain any sizeable naval forces because their power in Spain was virtually paramount for three hundred years and then, when the great surge of the reconquest began, their enemies mounted their attack by land from the north. Finally, ejected after the fall of Granada in 1492, the Moors took to the sea and, as the Corsairs or Barbary Pirates, became the scourge of the Mediterranean for nearly two centuries. Brilliant admirals like Barbarossa and Dragut had few peers in their time and, when the former entered the service of the Grand Sultan, a shudder ran through the capitals of Europe and their power was unchecked until Don Juan won his signal victory at Lepanto in 1571. It was by no means unusual for a pirate fleet of a hundred ships, carrying ten thousand men, to descend on a coast like this, to burn and pillage every town and village within striking distance and return with two or three thousand prisoners, the males destined to end their days in the galleys and the women as concubines. Little wonder then the line of watchtowers every few miles to sound the alarm, sending the civilian population scurrying away out of danger inland, or into their strongholds built to withstand siege.

Motril I like. It is a bustling friendly market town with a fine 16th century collegiate church on the hill and it is but a short run through the canefields to the port where there is usually an ore ship and the colourful fishing fleet.

CALAHONDA

Ten miles to the south-west we once spent a lovely weekend in camp near the picturesque fishing village of Calahonda built beneath the lee of a towering cliff. A mile or so out on the Almeria road there is a wonderful stretch of *corniche* and a few unfrequented little coves beneath the cliffs where there is fine swimming and sunbathing on smooth marble slabs. It is something of a scramble down and, on the way, one would almost certainly see the first spiny yellow tufts of *Euphorbia spinosa*. Also growing in these cliffs is a very fine-leaved lavender,



The Mandrake, *Mandragora officinarum*, a member of the Nightshade family, produces violet flowers amongst a rosette of heavily wrinkled leaves. It is found in stony places, is usually autumn flowering and the flowers are followed by large yellow berries.

Lavandula pedunculata, and a *Santolina* species, a little treasure with grey green foliage and tiny yellow buttons for flowers.

MOTRIL TO GRANADA

Along the forty-five miles of road between Motril and Granada there is some of the most varied and beautiful scenery to be seen in Andalucía. There is too a great climatic contrast between these two places. It is perfectly possible to be sunning oneself on a sub-tropical beach near Motril in February and, barely less than two hours later, to be walking through the snow in Granada or ski-ing up in the Sierra Nevada: only in the Lebanon at Beirut or Cyprus can one do much the same thing.

The arid hillsides above Motril are a sea of pink almond blossom during February. There is not much change in this landscape until half way down the steep descent into the verdant valley of the Rio Guadalfeo at Vélez de Benaudalla, a pretty village with a fine avenue of planes and a grim old castle unusual in having hexagonal walls. A mile or so on by the bridge there is a turning off which is a useful short cut to Orgiva and Las Alupujarras country. It follows the contours below the steep pine clad slopes of the Sierra de Lujar, past the terminal station of the cable railway from the iron mines, then joins up with the tortuous Albuñol road at Los Tablones. With the exception of the Caper plant, *Capparis spinosa*, there is not much to see beyond the typical shrubs of the *garigue*. The former is quite common by the roadside or trailing down the banks and is easily recognised by its straggly spiny stems carrying fleshy oval leaves and large white flowers with conspicuous purple filaments which remind one somewhat of a passion flower. It is the flower buds which are pickled and called capers.

It is a long climb of nearly three thousand feet from this other Vélez—Vélez de Benaudalla, to the top of the divide near Padul and the whole of this district is highly cultivated because of the ample supplies of water provided by the melting snows of the Sierra Nevada. Between Beznar and Talará there are citrus orchards that produce the juiciest of oranges and, a little higher at Dúrcal, endless terraces of almond and peach which are a painter's composition in early spring when pink blossom and red soil have the snowy *sierra* rising behind them.

The Rio Dúrcal has cut a deep canyon through the soft lower hills of the Sierra Nevada which have been eroded into a lunar landscape and I would dearly love to follow this up into the heart of the range.

This chapter can be suitably ended at the Puerto del Suspiro del Moro where a first glimpse may be caught of Granada, still some ten miles away over the plain. Here it was that Boabdil, the last Moorish King, cast his final glance at his lost capital in 1492.

CHAPTER VI

GRANADA AND DISTRICT

Granada—The Alhambra and Generalife—Guadix and Gipsy Cave Dwellings—Huescar—Jaén and District.

GRANADA—THE ALHAMBRA AND GENERALIFE

Granada is, I suppose, the most delightful city I know of and there would be no trouble quoting the opinions of many illustrious persons in support of this view. On any count it is very difficult to find a chink in her armour; the climate is near perfect with just that blend of summer heat and cool days in winter to suit northerners; the lovely setting with the snowy crests of the Nevada is unique and the gay Granadinos themselves are prosperous, sophisticated and kindly to visitors.

Of course, Granada's pride is the Alhambra but there are other outstanding buildings of great beauty such as the cathedral with the tomb of the Catholic Kings in the Capilla Real, and the Sagrario and Sacristia in the Cartuja.

There is so much to see and wonder at in the Alhambra that it is all too easy to be satiated and it is sound advice to spend a couple of days over it. The site is supremely beautiful and it needed a creative genius, the monarch Mohammed Ben Alhamar, to perceive its possibilities in about 1250 and bring the waters of the Rio Darro to the top of the hill and so turn barrenness into a paradise of unmatched palaces and gardens. It is near impossible to single out any particular portion of the Alhambra as being the best because one would soon run out of superlatives but, personally, I found the glorious view down on the city from the Court of the Myrtles entrancing and the Court of the Lions, with its superb centrepiece and filigree pavilions, out of this world.

Then there is the Generalife which should have a special appeal to gardeners for this must certainly be one of the oldest gardens and lays strong claims to being the fairest in the world. This was the summer villa of the Moorish kings and a balance has been struck between the needs of privacy, good taste and beauty that is as near to perfection as can ever be achieved. Mellowed by time and, most unobtrusively attended, the nooks and beds in the gardens are filled with roses, jasmynes and tree paeonies that waft their scent into the warm air in delightful contrast to the resinous esters exhaled by the graceful lines of the Cypress. Water, so loved by the Moors, plays from fountains, trickles down in grottoes and splashes down the balustrades, so that one can never move from earshot of it. Then there is the unforgettable view, down over Granada and past the red towers of the Alhambra, across the ravine of the Rio Darro to the fantastic gipsy quarter in the Albaicín and, finally, southwards to the huge mass of the *sierra*, its icy summits glinting during the day to turn slowly pink in the setting sun.

The Generalife inspired the Spanish composer Falla to write some of his finest music and the Moors, ever heartbroken at the loss of Granada, still remember her in their prayers.

The main streets of the city are spacious and lined with orange trees and Crepe Myrtle and, at the western end, there is an incredible array of fountains which become a glistening fairyland at night when they are colourfully illuminated. Below the fountains are terraces planted with the finest roses I have seen outside the Chelsea Show; obviously the climate is ideal for them and there is an excellent nursery nearby.

Round the cathedral there is a first-class shopping area of narrow streets and arcades with a choice selection of small bars and eating places which are extraordinarily cheap. Accommodation presents no trouble in Granada. There is a very complete range from the enchanting Government Hotel, the Parador de San Francisco beside the Alhambra, to lots of small hotels or rooms to let in the city. There are also two excellent camp sites on the edges of the city.

If I was a millionaire one of my villas would undoubtedly be in Granada where I would spend the early part of every summer and, in such a climate, within easy reach of the sea and a fascinating hinterland, life would indeed be bliss.

GUADIX AND GIPSY CAVE DWELLINGS

Of the four main roads radiating out from Granada those to Loja and Motril have been described previously leaving the northern and eastern sectors unremarked upon. If there be time, a visit to the town of Guadix, thirty-five miles to the east, will be found extremely interesting. The road winds its way up above the city and then crosses an upland region until the crumbling village of Huétor-Santillán, where starts a long climb up to the Puerto de la Mora. This is a highly afforested area where the big plantations of pines extend almost up to the summits of the *sierra*. In April a beautiful little daffodil, *Narcissus concolor* is very common and is easily recognised by the drooping primrose flowers, sometimes two on a stem. Another choice plant but infrequently seen in England, is *Adonis vernalis* with feathery foliage and large clear yellow flowers somewhat similar to an anemone. There follows a tortuous passage through rocky defiles and jagged limestone country to the more open *vega* above Guadix where *Lithospermum fruticosum* grows by the roadside. Guadix lies in a big depression that the geologists say was once the site of an ancient lake, since when the sedimentary deposits have been carved by wind and water into an extraordinary landscape of hillocks and pinnacles which could aptly be called lunar. This strange country starts at the bottom of a long descent during which the purple spikes of *Moricandia moricandioides* and *Cistus clusii*, a shrubby rock rose with white flowers may be seen in cliffs of clay.

Three miles from Guadix the road passes through the village of Purullena where one will see the first of the cave dwellings scooped out of the banks of earth in which many of the villagers still live. Living thus has many advantages for the caves are warm in winter and cool in summer but, although electricity is easily laid on, plumbing must have its problems.

Guadix itself is a typical sleepy Andalusian town with quite an attractive cathedral but it is the picturesque gypsy suburb at the back that is quite remarkable. Called the Barrio de Santiago, this cave town must possess the largest troglodyte population in the world. The caves have been hollowed out from the perimeter of a large amphitheatre and also in the little castles and turrets poking up in every direction. The cave entrances are white-washed, as are the chimneys, and this must be quite the weirdest conurbation in the world and it seemed quite ludicrous, walking past chimneys sprouting mysteriously out of the ground, knowing that human beings were living and dying beneath.

HUESCAR

I once drove on through Baza to Huéscar, stopping on the way at yet another astonishing cave town at Galera. This is a terrible, bare, dry country and almost indistinguishable from parts of Southern Arabia and Morocco that I know. The mountains have a stark cruel look about them and it is hard to believe that anything can live there. I penetrated some miles along a track into the mountains beyond Huéscar and even scrambled up one of them. Such plants as there were, were nearly devoid of interest, barring a white flowered rosemary and some leathery rosettes in a fissure that might have been a *Globularia*. It was quite a relief on the return journey to have forty miles of the glorious scintillating Sierra Nevada in full view during most of it.

JAEN AND DISTRICT

The Madrid road leads northwards from Granada past the Pantano de Cubillas, then through thirty miles of gorges to the city of Jaén built on a rocky mountainside of the Sierra Morena. Jaén is more austere than other Andalusian cities, a breath of the north perhaps, but anyway it lacks the usual charm and languor and its citizens are more reserved. Although I have been there several times I do not pretend to know this region at all well. Botanically, I believe it is very interesting. Near Jaén may be found a tiny yellow hoop-petticoat daffodil *Narcissus hedraeanthus*, whose almost sessile flowers and leaves grow at an angle close to the ground. Not far away in the Sierra de Cazorla there is found another daffodil, *Narcissus longispathus*, belonging to the *Ajax* section and a rare beauty *Viola cazorlensis* that forms a dwarf twiggy shrublet carrying long-spurred flowers deep rosy-lilac in hue.

The towns of Baeza and Ubeda, lying five miles apart, are in the centre of a hilly area under intensive olive cultivation and are well worth visiting for their fine old renaissance buildings and churches mellowed golden by time. In Ubeda there is a splendid *Parador* in an old palace which has been most imaginatively converted to its new use.

CHAPTER VII

THE SIERRA NEVADA

General description of the Range—The Ascent in Spring and its Plants—The Albergues—Ski-ing Facilities—Camping in August—The Laguna de las Yeguas—Pico Veleta.

GENERAL DESCRIPTION OF THE RANGE

As a plant lover, one of the things that delights me about Granada is the enormous range of plants that geography and nature between them have been able to provide for my pleasure. On the one hand we have the splendid gardens containing many fine half-hardy plants and on the other, nine thousand feet above, an alpine flora containing arctic species.

There are two good times to visit the Sierra Nevada; in late April or early May when the spring flowers appear in the wake of the snow melt and in August when the alpine plants are found on the top two thousand feet are at their best. Due to the geographical seclusion of these mountains, a large number of genera have produced endemic species.

At 11,370 feet, the highest point, Mulhacén, tops the Pyrenees by a head and the range second only to the Alps in Europe. So high and isolated a mountain mass is bound to be very windy, especially during the winter months and tremendous quantities of snow accumulate between November and April yet, due to the southerly latitude, the summer heat is so intense that almost all has melted away by the middle of September.

The gradual melt during the summer months is of vital economic importance to what is largely an agricultural region for, without the water, most of it would be barren. The range is crossed by several mule tracks which were, until recently, much used by the people in the Alpujarras on the southern side to visit Granada in the summer and what a grand holiday one could have exploring them now on a donkey. There are eagles, still an occasional lammergeier, herds of wild goats but, fortunately, no wolves. The last of these were killed only thirty years ago but horrific stories are still told of the packs that, on occasion, attacked lone shepherds leaving only boots and bones behind them.

THE ASCENT IN SPRING AND ITS PLANTS

Over a distance of just under thirty miles a road climbs up from Granada to the summit of the Pico Veleta (11,090 feet) and so is the highest in Europe. Starting at the south-eastern side of Granada by a spacious public park, it follows the valley of the Rio Genil for some miles and the plantations of poplars, orchards and steep sides of the valley remind one singularly of Switzerland. At Pinos Genil the climb really begins and one passes through terraces of olives which look lovely when there is a dusting of snow on their grey leaves. In April *Ophrys lutea* is common by the roadside, and so is a Grape Hyacinth, *Muscari neglectum*, other plants like *Helianthemum hirtum* and a purple honesty, *Lunaria rediviva*, grow on stony banks. For the first five miles the roadsides have been imaginatively planted with trees like *Ailanthus altissima*, the so-called Tree of Heaven, the Indian Bead Tree, *Melia azedarach*, laden with clusters of yellow berries in autumn and the White Mulberry, *Morus alba*. This first section is very steep and there are plenty of sharp hairpin bends with startling views down to the valley beneath and the picturesque (but smelly) village of Güejar-Sierra.

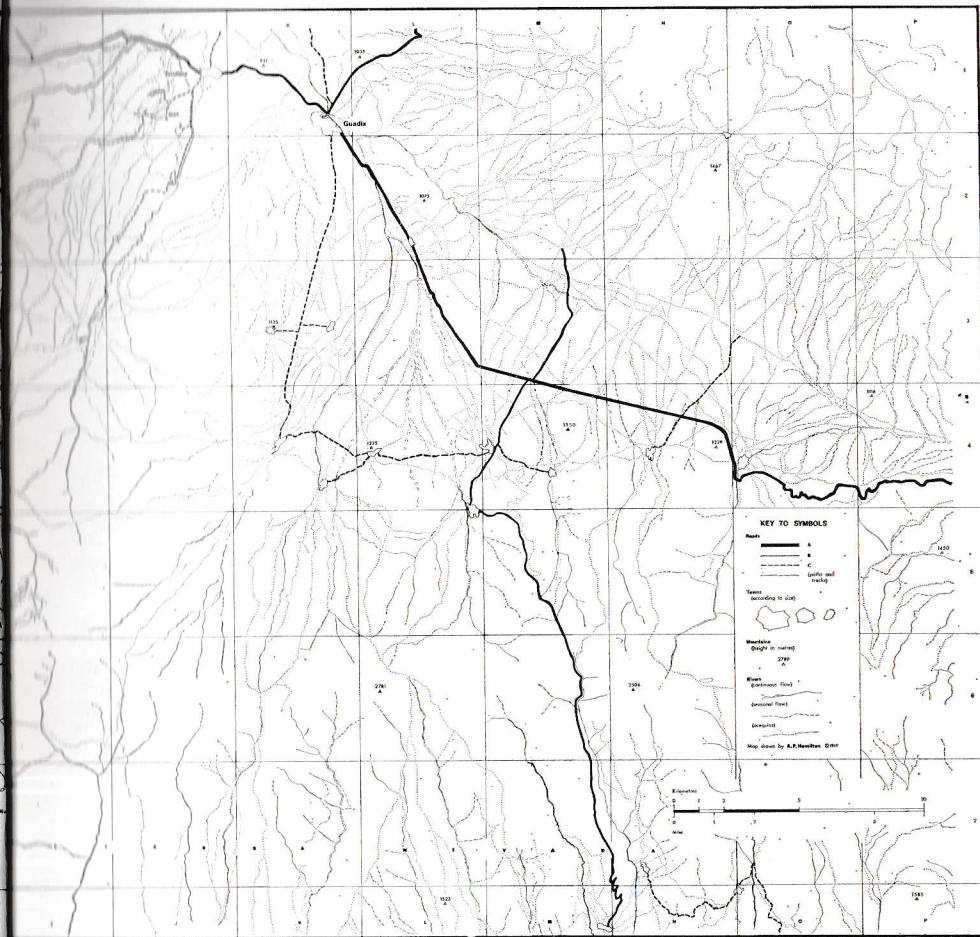
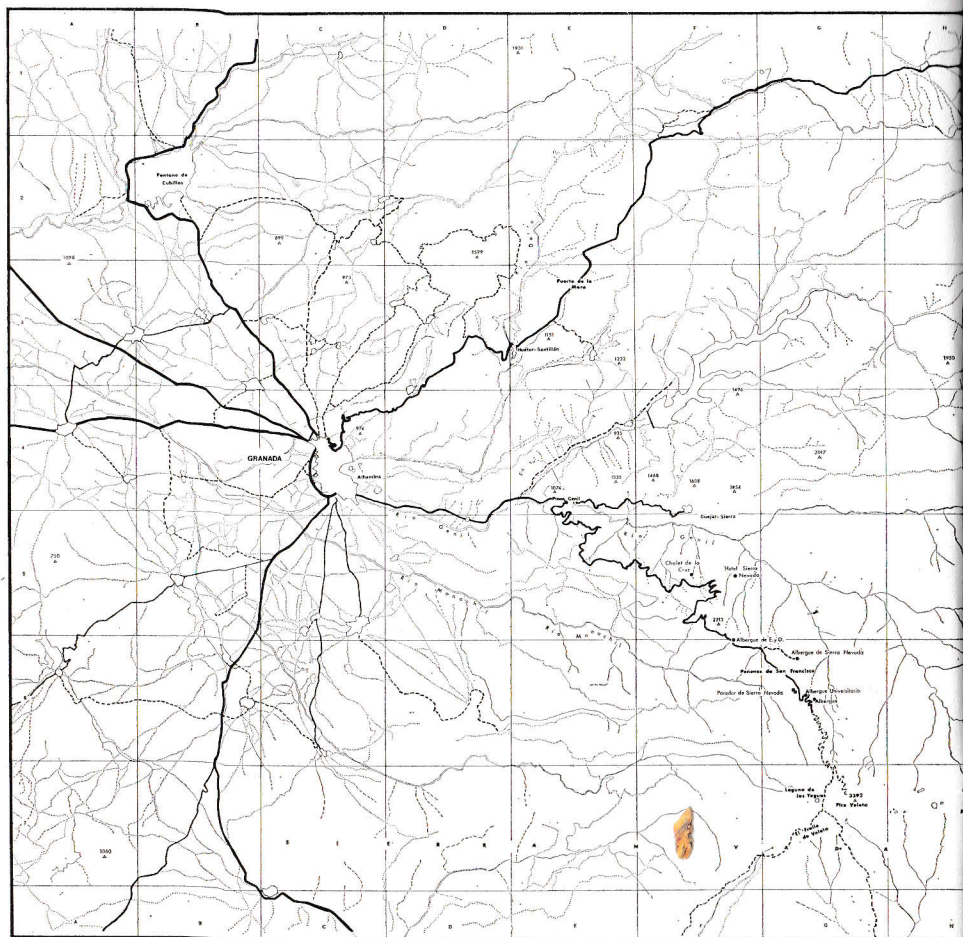
A fine place to halt is half a mile below the first Camineros house where there are several interesting plants on the dry scrubby slopes. In early April cream-coloured flowers of *Narcissus concolor* and yellow stars of *Gagea hispanica* peep out from the rhizomes of a perennial grass which affords some protection from the hateful goats. I only found the *Narcissus* when, after having descended on the south side of the range and returned to Granada, I had then to walk up again to retrieve my car; it took a long time and was hot work. Stumbling off the road to allow some unsympathetic blighter in his Mercedes to sweep past I suddenly saw the daffodil at my feet; a delightful discovery and a critical one too because when flowering is over they are quite impossible to find. Nearby in *terra rossa* there is the white-flowered *Saxifraga dichotoma* in plenty and *Orchis mascula* subsp. *olbiensis* in its usual range of colours.

A mile or so above, the road enters into a much more arid region and starts a long traverse winding in and out of the bare ribs of the mountain; it is no place for the timid driver as the slopes fall steeply and protection is minimal. There is a distinctive floral zone in an area of rocky ground and outcrops of fissured limestone and some good plants are to be found between the spiny shrubs of *Berberis hispanica*, *Ulex parviflorus* and *Genista hispanica*. The large form of *Helleborus foetidus* is very common and, dotted here and there, are magnificent clumps of *Paeonia broteroi* boasting flowers over six inches across in late May. I have not found the sister species *P. coriacea* but it is said to grow in this range. Grey-felted plants, such as *Andryala lanata* and *Lavandula lanata*, are well represented. Here also are occasional bushes of *Daphne oleoides*, *D. gnidium* and *Adenocarpus decorticans*. A number of small bulbs flower in May, like *Tulipa celsiana* that differs from *T. australis* in its smaller size and stoloniferous habit, and the egg-shaped purplish-green heads of the Spanish fritillary poking out from the protective embrace of a *Berberis*. There are plenty of spurges and the best, *Euphorbia characias*, forms clumps of three foot stems with green to bronze foliage and greeny-black terminal flowers encircled by cup-like bracts.

Yet further on the road cuts deeply into steep cliffs beneath some imposing rock towers where *Draba hispanica* with clear yellow flowers and a cushion saxifrage, *Saxifraga boissieri*, dwell in the crannies. Sprouting from minute cracks in the sheer rock face are tufts of *Sarcocapnos crassifolia*, a most attractive and unusual member of the Poppy family with fleshy-grey leaves and quantities of orange flowers that turn purplish with age. Below members of the grey-leaved fraternity in flower were *Santolina virens* with yellow button-heads and the goldylocks, *Helichrysum serotinum*, whose silvery foliage and golden flowers are a most attractive combination. Halfway up there are turnings off to the Chalet de La Cruz and the Sierra Nevada Hotel which I do not know but theirs is a wonderful position. In this vicinity there are, surprisingly, a few silver birches and *Echium albicans* flowering in June.

At about 6,000 feet this wonderfully engineered road finally reaches the long long ridge leading to the summit of the Veleta, and at this juncture there are some really gorgeous views of the range and surrounding countryside, especially in early summer. At daybreak the plains are often hidden by a billowing white blanket of cloud whilst, up above, every depression, curve and valley on the icy slopes glints and sparkles as they are touched by the rays of the rising sun; then, in the evening, they pass through shades of gold to pink and slowly fade to a dim frigid white.

Colchicum triphyllum will be found near here in early May in company with *Crocus nevadensis* between the spiny blue hummocks of *Erinacea anthyllis* and *Astragalus massiliensis*. The delicate shell-pink petals surrounding the chocolate-coloured anthers make the spring-flowering *Colchicum triphyllum* a most desirable species and easily identifiable. Further up, between patches of melting snow, the Nevada crocus grows in veritable thousands and what a dainty thing it is. I noted a number of big forms with colours ranging from lilac veined and pure white to a clear blue-mauve.



THE ALBERGUES

At 7,000 feet a curious black domed structure is a hostel (Albergue) run by the Ministry of Education mainly for summer school parties but, occasionally, it is possible to stay there, the accommodation being quite comfortable and the fare simple. One day whilst returning from a ski-ing trip in May I made some exciting discoveries below the Albergue. Here there are numerous wet flushes and, between the rushes, where a yellow oxlip *Primula elatior* subsp. *lofthousei* and a blue forget-me-not, *Myosotis sylvatica*, flourish, I found a most unusual trumpet daffodil. This species, *Narcissus nevadensis*, is odd in that there are up to three trumpets on each scape. The plant is found in tightly knit clumps of about a dozen bulbs which are extremely floriferous and the combination of leek-green leaves and semi-nodding flowers is, to my mind, most attractive. Its station is the most southerly of the *Ajax* section and is, I think, a very localised one, for I have not found it elsewhere in the range and only one other site for it has been reported. It should naturalise well in England and a number of bulbs have been distributed. Editor's note—The recent development of much of this area for the new Parador de Sierra Nevada and the terracing and afforestation of the surrounding slopes with exotic species, has taken a considerable toll of the endemic plants. This can only continue as the forests, which are totally foreign to this habitat, gradually shut out the light to the ground flora. Further, due to the indiscriminate dumping of refuse from the Parador, the headwaters of the Rio Monachil are now polluted and should not be drunk.

Further down in the deep valley of the Rio Monachil many other plants were seen. A lady's mantle, *Alchemilla* sp., and a purple foxglove were prominent; blue pea flowers of the pretty *Vicia onobrychioides* were threading their way through low shrubs and a small violet flowered snapdragon grew in shaded clefts. More daffodils grew here in some quantity, there being quite distinctive clones sporting single, double and triple-headed blooms. On the occasional green alpine pasture the crocuses were still in flower and there were fine tufts of *Gentiana verna* with blue flowers of the deepest intensity.

Above the Albergue the road climbs slowly up the ridge and after May there is really very little to see here except *Salvia lavandulaefolia*, a grey-green sage with blue flowers in July and pink *Ptilotrichum purpureum* until the Albergue Universitario suddenly appears. This is a capacious building constructed for the benefit of the cheerful students where I have often stayed. A number of named pressed plants have been prepared by a Professor from the University and are well displayed in a show case inside.

I remember once climbing the Peñones de San Francisco, a conspicuous ridge of rocks nearby. The snow had not long melted and, in the screes beneath, the first pink buds of *Ranunculus acetosellifolius* were opening; this buttercup is a local endemic. Higher up in the rocks such plants as the tufted silvery *Artemisia granatensis*, greyish *Arenaria armerina* and *Sempervivum nevadense* had their homes, but were not yet in flower.

SKI-ING FACILITIES

A few words here on the ski-ing possibilities of the Sierra Nevada will not be made amiss, as there may well be skiers amongst my readers and others too may be keen to have a go. Generally equipment can be hired fairly easily in Granada. Although there is snow from November onwards it is generally too chilly and windy until the second half of March but, from then on, conditions are ideal until the end of June. Ski-lifts and other facilities are available and there are some grand runs. Conditions tend to be very icy first thing in the morning but, by midday, the surface has softened into spring snow and splendid running. The range should make a special appeal to ski-tourers and those who like to go off by themselves. The mountains are very safe with the weather so settled, the avalanches all down and no glaciers and crevasses to contend with. I have thoroughly explored the western end of the *sierra* on ski as far as the Alcazaba by way of Mulhacén, and count those days amongst some of the finest I have spent in many mountain ranges.

CAMPING IN AUGUST

I have visited this side of the range several times in August when it was decidedly pleasant to exchange the intense heat of the coast for the cool mountain air for a few days. With the exception of the handsome lavender *L. lanata* and the striking yellow sage, *Phlomis lynchnitis*, the lower slopes were parched and devoid of flowering plants. In a few places off the road, above the Albergue Universitario, a purply-blue harebell, *Campanula macrorrhiza*, makes a cheerful patch of colour and a dwarf cherry, *Prunus prostrata*, with tiny pink blossoms may be found between the rocks of old moraines.

THE LAGUNA DE LAS YEGUAS

At about 9,000 feet a track branches off down to the right and, if this is followed carefully as it is winding and steep, it will lead to the Laguna de las Yeguas, a small icy tarn in a glaciated valley. It is a delectable spot, a green oasis surrounded by the gaunt and barren slopes of the Pico Veleta which sun and frost have turned into a wilderness of shattered rocks and scree. Here I have camped and was a little disconcerted to find that it froze in the early mornings and those who follow are advised to remember it. The distant views over the plains each evening were superb and the sunsets very beautiful. There are still many snowdrifts about and small streams gurgle cheerfully from them down into the lake, their banks sprouting azure trumpets of *Gentiana alpina*, while pale blue mats of *Veronica repens* grow half submerged in the running water. Near our tent vivid blue tufts of *Gentiana brachyphylla* were interspersed with silvery-grey rosettes of *Plantago nivalis* and a pink thrift, *Armeria splendens*. In stonier ground grows *Tanacetum radicans* with silky-grey foliage and golden daisy flowers on two-inch stems, *Eryngium glaciale* bearing spined steeply-blue flower heads and, everywhere, dense grey-green mats of *Arenaria tetraquetra* studded with tiny white flowers. I have already briefly mentioned *Ranunculus acetosellifolius*, a little beauty with rosy-pink flowers and grey hastate upcurled leaves, that favours shingly soil percolated by running water. On damp ledges I found a dark blue form of the common harebell named *Campanula herminii* and, of many handsome thistles, *Carduus pyrenaicus*, with grey leaves covered by indumentum and rosy red flowers, was the best.

PICO VELETA

I drove to the summit one day, finding the last mile a real test for the car and was rewarded by the sort of view that one only sees once or twice in a lifetime. Southwards, at eyelevel, stretched the long ridge leading to Mulhacén; lower down the tiny white villages of the Alpujarras could just be discerned through a blue haze and, still further, between the gap in the coastal range, the Mediterranean shimmered. In other directions the mountain ranges of Spain, brown and barren, rolled away to the horizon and Granada lay like a toy town at my feet. Within a few yards of the summit, *Gentiana alpina* was found wedged in pockets of soil between loose rocks, together with a delicate endemic, *Viola crassiuscula* (*V. nevadensis*), that produces large blue pansies on tiny foliage.

Early one morning I climbed up to the rocky ridge of the Fraile de Veleta which runs a mile up behind the lake. This proved well worth while since, in addition to those plants already mentioned, I found a reddish catchfly, *Silene boryi*, and a poor mauve form of *Saxifraga oppositifolia* in scree, surely the most southerly station in its wide range. Growing out of cracks in the cliffs was a mossy saxifrage, *S. nevadensis*, with tiny white flowers and *Erigeron hispidus* carrying purple daisies on stout stalks. In deep shade, beneath the overhangs of embedded slabs, was a tiny member of the figwort family with oval hairy leaves and numerous flowers, each with a mauve corolla and white throat, which I believe to be *Chaenarrhinum supinum*. Further down a yellow ragwort, *Senecio tournefortii*, was quite attractive in its setting of jagged boulders, while two little toadflaxes, *Linaria glacialis* and *L. nevadensis*, with pale lilac and yellow-violet striped flowers respectively were pretty too; as was a Sheep's Bit, *Jasione amethystina*, liberal with blue buttonheads.

CHAPTER VIII

LAS ALPUJARRAS AND THE
SOUTH SIDE OF THE SIERRA NEVADA

The Approaches to Las Alpujarras—Pampaneira and Capileira—The Road to Trevélez—Trevélez—Los Siete Lagunas—Ugijar and Berja.

THE APPROACHES TO LAS ALPUJARRAS

For the adventuresome here is a region almost unknown and unspoiled, yet withal beautiful in the extreme with a softness in the landscape not found elsewhere in southern Spain. Added to these attractions is the friendliness of its industrious inhabitants still pursuing their original way of life and relatively unaffected by the worst aspects of progress. I say this sincerely and in no patronising manner, because I envy them the simplicity of their lives and wish that mine could be the same.

The flowers are very similar to those on the northern side though there are differences. The overall impression is one of the lushness of everything, compared with the northern slopes which have not had the benefits accruing from several centuries of mostly undisturbed cultivation.

The Alpujarras are well served by buses from Granada and, once there, it seems quite practical to journey through the district on a donkey in the classical manner. The gateway to the Alpujarras is Orgiva which can be reached easily in less than two hours from Motril. Approaching from Granada the route branches off south of Beznar and leads to the pleasant watering spa of Lanjarón which is much frequented by French families from Morocco. There are several good hotels and the famous mineral waters, tasting unpleasant as might be expected, are bottled and distributed all over Spain. Orgiva is only a short distance away, the somnolent provincial centre of a rich agricultural area and note worthy for its fine town hall with twin towers in the Mexican style. This is lovely country in spring, masses of wild flowers, orchards and waving corn and, seemingly floating above in the blue sky, the snowy *sierra*, the source of such fertility.

PAMPANEIRA AND CAPILEIRA

At Orgiva there starts an untarred road in good condition which slowly winds its way up to the line of mountain villages lying three to six thousand feet on the southern flanks of the range. This is a superb drive with unmatched vistas and, in May, made fragrant by yellow thickets of the Spanish Broom, *Spartium junceum*, that line the road. After a climb of about eight miles the first village, Pampaneira, is reached and it is a good place to stroll round, as is Capileira higher up.

These villages are quite fascinating and remind one closely of their counterparts in North Africa. Each is built on a slope (there being no option) and consists of a conglomeration of flat whitewashed houses built on different levels with a few winding cobbled alleyways between them. The houses are generally built in two or three stories, the storerooms and living quarters above the animals stalled at the bottom. We were most amused to see a fisherman up from the coast

walking across the flat roofs hawking his wares, and even shouting down the chimneys.

The people are direct descendants of the Moors and have been largely left unmolested since the reconquest. Nevertheless, they now seem to be completely assimilated into the Spanish way of life but their industry and efficient agricultural methods point quite clearly to their origin. The labour of centuries and good husbandry have won the battle against nature and resulted in excellent crops of corn, maize and groundnuts being produced, and fruit like apples, apricots and peaches are delicious with a flavour all their own. This has all been achieved by the construction of an intricate series of canals that bring snow water from the torrents down to the descending succession of terraced fields. The main canals, or *acequias* as they are called, are considerable feats of engineering, in some cases being driven through cliffs and following the contours for several miles before delivering their precious contents to the fields.

The village of Capileira is particularly attractive and has a small hydro-electric plant, many more of which could usefully be built hereabouts and will be. I once spent an interesting night here after having been driven off Mulhacén by a blizzard and slept soundly in a room full of deliciously fragrant hams suspended over my head. Before the Second World War hams from the Alpujarras were imported into Britain and considered a great delicacy. Above the village is a track of sorts, up which I believe one can drive to somewhere near the summit of Mulhacén in August.

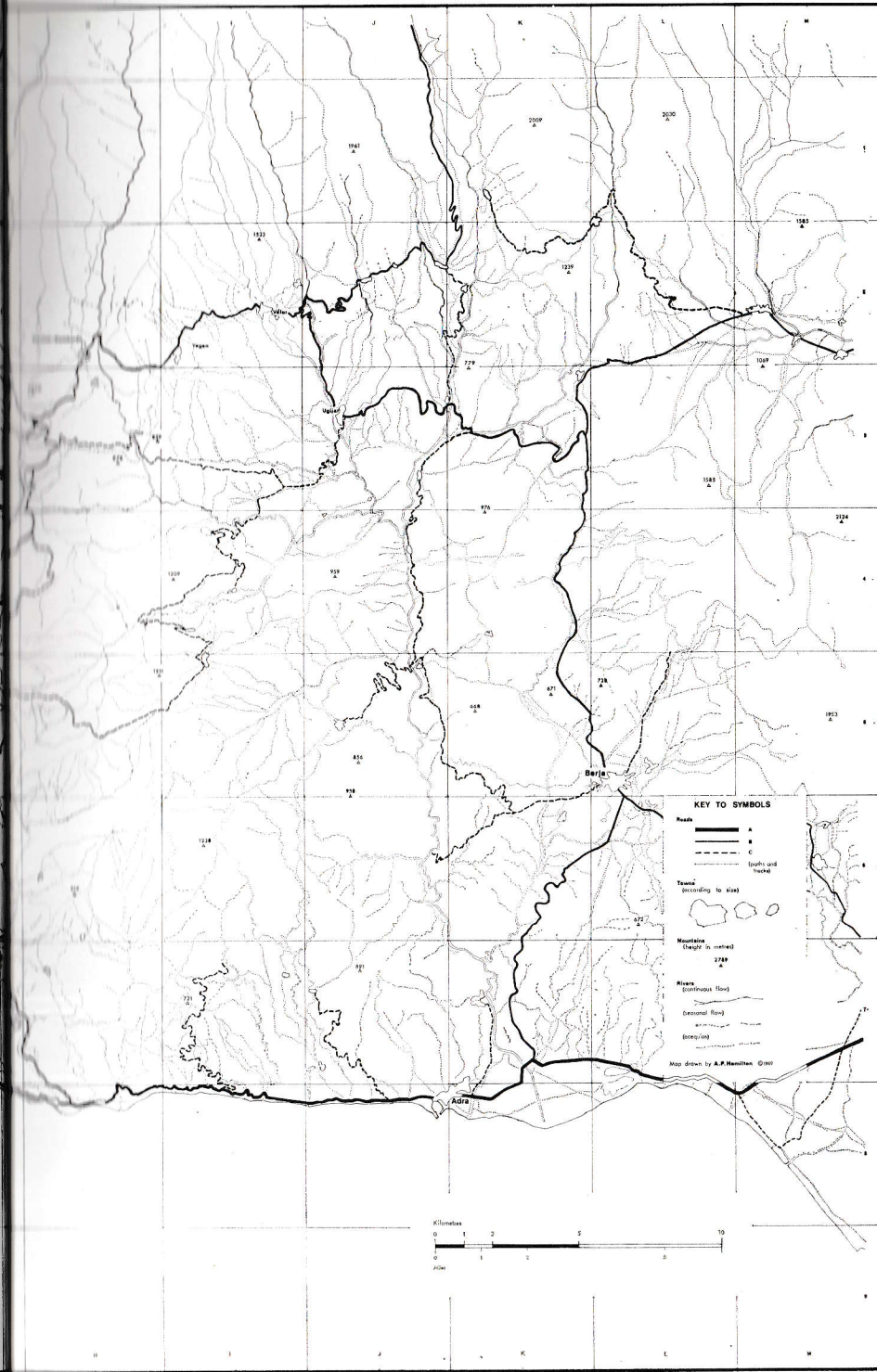
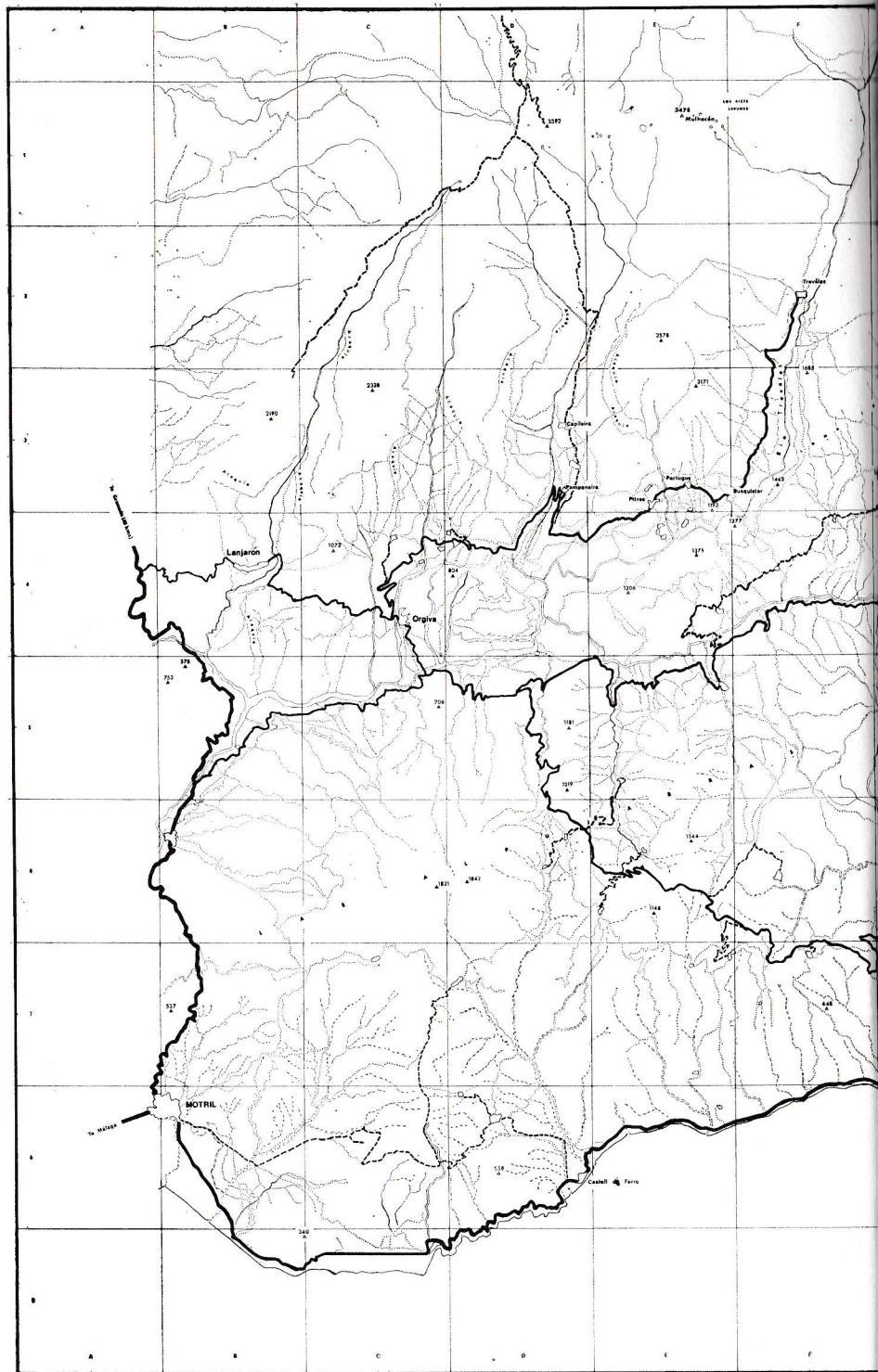
THE ROAD TO TREVELEZ

Continuing onwards the road climbs steeply and in several places there are abrupt views of the main valley three thousand feet below. The white stony bed of the river below is strongly reminiscent of one of those torrents one sees so often in Lombardy, and a prominent feature of the landscape is the line of pylons carrying iron ore on conveyor buckets from the large open-cast mine above Trevélez. The ore actually reaches Motril by truck where it is shipped all the way to Bilbao, a somewhat circuitous route whose economics must surely be marginal.

The village of Portugos is rather scruffy but Pitres and Busquistar are delightful and, one July, I watched fascinated as the villagers did their threshing on a circular stone floor by means of a heavy roller drawn round and round by three horses in tandem. Both sexes work in the fields using home-made tools which, although primitive, are ideal for a terrain that is hardly suitable for tractors. Young lads are employed as shepherds of the cattle, sheep and goats that are driven up behind the melting snows to the lush green alps above the 8,000 feet level.

The road is very dusty and it is therefore pleasant to halt frequently. A pink dodder, *Cuscuta epithimum*, grows by the roadside with two pretty species of snapdragon, one the well-known *Antirrhinum glutinosum*, mat-forming with whitish-yellow flowers, and the other, *A. barrelieri*, whose purple flowers are carried on slender three-foot spikes. A rather attractive bindweed, *Convolvulus ultidus*, forming cushions of rosy white flowers was also rather common and there were sweet-scented carpets of the white *Clematis flammula*. Near any of the watercourses the grass is particularly verdant and amongst it the claret-red spikes of *Orchis laxiflora*, the common foxglove, and a yellow meadow rue, *Thalictrum flavum* subsp. *glauca* were found.

Between Busquistar and Trevélez there is a belt of oak and chestnut forest where I once had to abandon my car during a snowstorm in February and, just short of the latter village, I made an ascent in June up to the snowline. This led me up beside a small stream, through a prickly underbrush of brambles and dog rose, to the drier slopes above this little valley where there were various old friends like *Digitalis obscura* subsp. *laciniata*, *Helianthemum aegyptiacum* of the pink flowers and the white buttons of a thrift, probably *Armeria mauritanica*. All this proved pretty hot work and I was glad of the chance to have a cool douche in the frequent small waterfalls. In some cliffs of a small gorge I found



the reddish flowered houseleek, *Sempervivum nevadense*, again and a woodruff, *Asperula hirsuta*, poking red flowers out of cracks. The source of the stream proved to be an enormous snow drift irrigating a large bowl shaped alp dotted with cattle. After a roll in the snow to cool off I set off to examine the flowers and, in addition to the two splendid gentian species, *Gentiana brachyphylla* and *G. alpina*, found a tiny lilac butterwort, *Pinguicula lusitanica*, and a small white *Ornithogalum*, not yet identified. During my descent I crossed a beanfield hopelessly infested by a broomrape, probably *Orobanche crenata*, with the most beautiful coral-red flowers.

TREVELEZ

Trevélez, the highest village, sprawls down the lower slopes of a deep valley to a rushing river of the same name and is frequently under snow during the winter. A walk up towards the Puerto del Lobo in summer is a great treat after the heat of the plains and the scenery is quite remarkably similar to one of the Scottish glens or high Swiss valleys. It is possible to obtain spartan accommodation in the village where they are very friendly. During their little *feria* there is a donkey race round the village up and down the cobbles of the steep narrow streets and a pretty desperate affair it is too.

LOS SIETE LAGUNAS

Starting here I have ascended Mulhacén twice in summertime by way of Los Siete Lagunas, a string of small lakes in the big glaciated basin just east of the summit. It is a steady steep climb that will take five or six hours but well worth while on account of the scenery and can be accomplished by mule if required.

Above the village there is a terraced area of fields and fine specimens of walnut and chestnut. In late May any rough ground in this vicinity is coloured by a beautiful leguminous shrub, *Adenocarpus decorticans*, which bears scented lemon flowers in great profusion. The soft hairy leaves are silvery grey and it is such an attractive shrub that it deserves to be seen more in the south of England where it should prove hardy, although it might find our damp winter mists trying. At about 8,000 feet *Prunus prostrata* occurs in quantity amongst rocks and on ridges, the procumbent gnarled stems covered in tiny pink blossoms; altogether a very desirable plant for a hot corner of the garden. Higher still, I came across a yellow crucifer, *Rhynchosinapis cheiranthos* (this could be the distinctive local race, subsp. *nevadensis*—Editor), a little yellow cinquefoil, *Potentilla hirta*, and the small rose pink *Dianthus subacaulis* (presumably subsp. *brachyanthus*—Editor).

In August a surprising find was *Gentiana pneumonanthe* var. *depressa* growing a few inches high in boggy ground, a fine form too with a deep blue corolla. *Prunus prostrata* now bore scores of wine-coloured carnellians which proved good thirst quenchers in spite of their bitterness. Below the *lagunas* a stream cascades down a steep escarpment in a welter of spray. Apart from a three feet clump of a blue monkshood, *Aconitum nevadense*, and the minute pink *Leontodon boryi* growing half submerged in melt-water, there were no plants that I had not seen before. The green sward round the *lagunas* was a mass of gentians and, protected by its cirque of cliffs, this is the most perfect place for a camp site and an ideal starting place for exploring the long summit ridge of the range which rises above 10,000 feet for almost ten miles.

UGIJAR AND BERJA

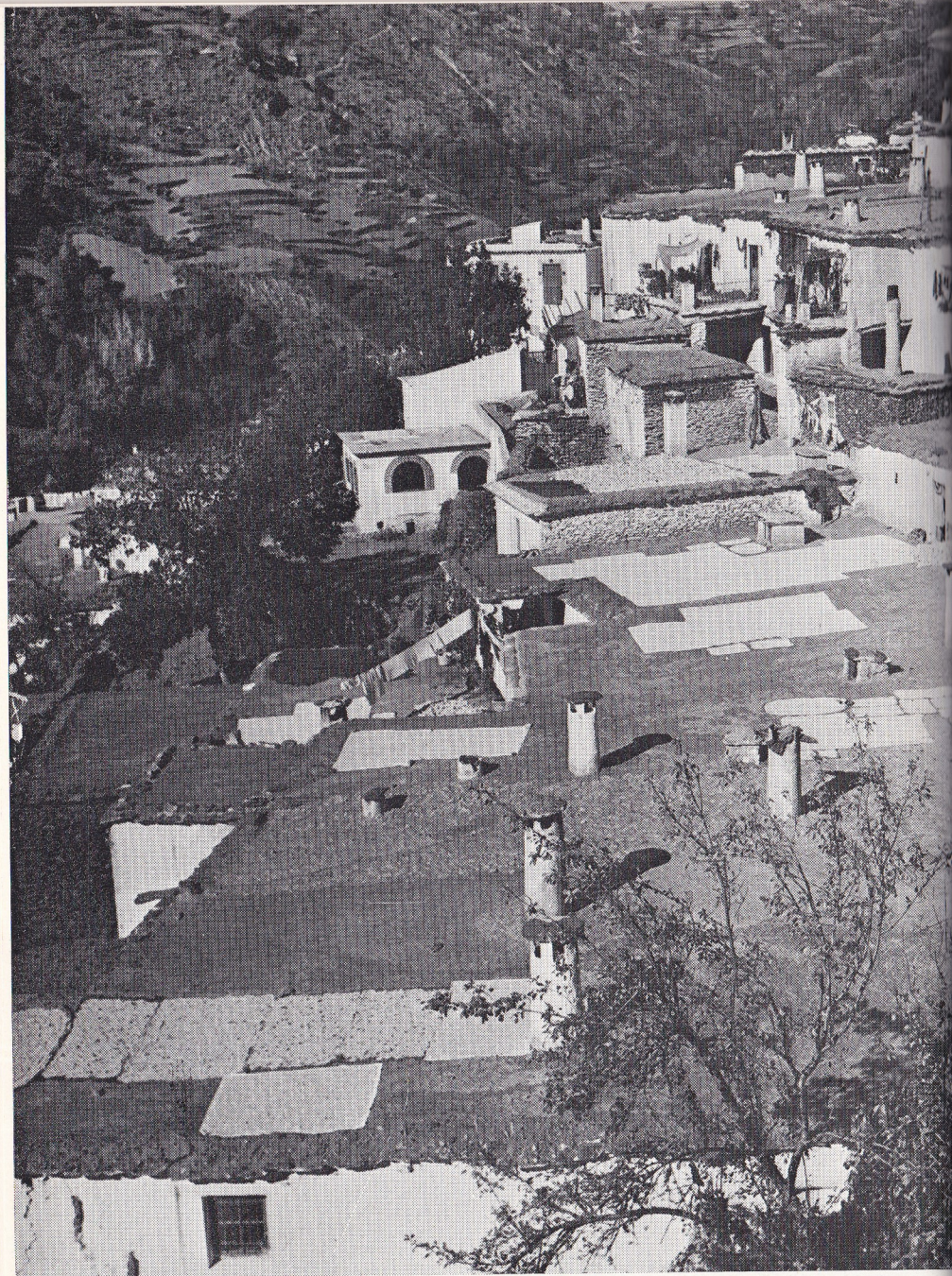
From Trevélez a narrow road climbing slightly traverses round the edge of the mountains to another string of villages on the flanks of the Loma Jubiles and passes close to the big mine on the way. These easterly villages, Berchules, Mecina-Bombarón and Yegen, are poorer through being less well endowed by nature. The mountains behind are lower so there is less snow water and rather



Viola cazorlensis has a very local distribution in Andalucía which, as the specific name implies, is centred on the Sierra de Cazorla in Prov. Jaén. Apart from its rareness and attractive appearance, it is something of a botanical curiosity, since it is a relic of the tertiary geological period (1,000,000 years +). Its only relatives from the section *Delphinopsis*, *V. delphinantha* and *V. kosaninii*, are found 1,500 miles away in the Balkans. The Sierra Nevada also have an endemic *Viola*, *V. crassiuscula* (*V. nevadensis*). This belongs to the section *Melanium*, grows at about 8,000 feet and carries violet flowers in late summer.



The Hedgehog Broom, *Erinacea anthyllis* (*E. pungens*), is a characteristic shrub of the higher mountains of Andalucía. It grows on dry sites, usually limestone, between 4,500 and 7,000 feet and produces a profusion of violet pea flowers from its heavily armed branches during May and June.



The village of Pampaneira in Las Alpujarras shows a strong North African influence. As Stocken says: "Each (village) is built on a slope (there being no option) and consists of a conglomeration of flat whitewashed houses built on different levels . . . in two or three stories, the storerooms and living quarters above the animals stalled at the bottom. We were most amused to see a fisherman up from the coast walking across the flat roofs hawking his wares, and even shouting down the chimneys."



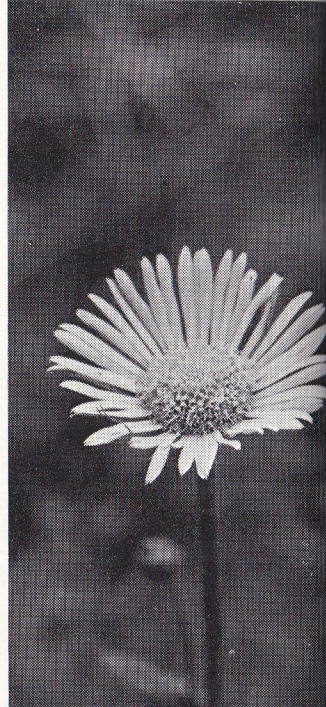
The road from Granada to the top of the Sierra Nevada follows the valley of the Rio Genil for the first eight miles. Here seen on the other side of the valley, the village of Pinos Genil lies beneath the Guejar-Sierra road. The dramatic hills above it are part of the Loma de las Jarales system. Note the intensive use for agriculture of all but the steepest slopes.



The Sierra Nevada are taller than the Alps than many other European mountain ranges. Although reaching 14,770 feet at Mulhacén, these mountains are characterized by rolling and somewhat forested slopes by deep river valleys. The water here is taken from the road that leads from Granada to the peaks of the range. When the snow melts, the water is carried to the city of Granada.



In 1238 Mohammed Ben Alhamar began developing an old castle into this complex fortress-palace known as the Alhambra (meaning red castle). Water was brought from the nearby Rio Darro and made the dominant feature of its gardens. Successive generations have added to the gardens of the summer palace of the Generalife until, at the present day, the original Moorish parts are difficult to separate from those built by the conquering Christians.



Three species that are characteristic of the spring flowers of the Rio Monachil valley in the Sierra Nevada are the green and red *Helleborus foetidus* (top), the white and mauve *Crocus nevadensis* (above) and the yellow *Doronicum pyrenaicum* (right).



The road from Motril to Almería follows an exciting route along the sea shore and under headlands as it nears the end of the *Costa del Sol*. Prominent here is one of the fortified lookout towers that dot the coast: a reminder of a troubled past. By the roadside is an invader of another sort; the long willowy stems of *Nicotiana glauca* from South America which is common all along the coast.

more unproductive land. A little beyond Válor there is a long steep descent and fine views across the lower country to the gaunt *sierras* behind Almería.

Ugijar is a strange place, literally the back of beyond and in its approaches there are some fine roadside plantings of white mulberries. The traveller Richard Ford, who is well worth reading in his book *A Handbook for Travellers in Spain*, published in 1845, described Ugijar as being—"inhabited by a half Moorish race, whose women had apricot cheeks and black eyes and hair, who gazed wildly at strangers from little porthole windows scarcely larger than their heads." I cannot say that I saw any of these but the people are certainly very dark-skinned as would be expected in a place where the summers are so scorching.

It was quite hot enough for me in May and I decided that the sooner I immersed myself in the sea the better it would be, and took the winding road that leads to the coast at Adra. This crosses some pretty barren and desolate country until nearing the mellow old town of Berja, the centre of a prosperous wine-producing district.

Quite unique to Andalucía, the vines are grown overhead on acres of wire trellis and one could be forgiven if on first sight they were mistaken for hop fields. The wine is a most refreshing *rosé* which I considered to have much merit but it is extremely difficult to get hold of anywhere else, either through being a bad traveller or perhaps it is all consumed locally. After such a long drive it is a relief to see the Mediterranean again, even though the coastline is most unattractive until in the vicinity of the little town of Castell de Ferro it begins to assume some character. At this place there is a fine camp site and, being so remote and unspoilt, it is an ideal spot to spend a few days quietly.

We have now come full circle and I feel that I have achieved my aim if some of my readers follow in these tracks; they will most surely feel rewarded and return again.



A few miles east of Motril, the small fishing village of Calahonda is a fine example of the harsh scenery and splendid beaches of the *Costa del Sol*. The dominant vegetation in the picture is not natural, consisting as it does of Australian *Eucalyptus* species and *Phoenix dactylifera*. The dwarf fan palm in the foreground, *Chamaerops humilis* shows the typical "pollarded" appearance of this species in mainland Spain. Compare it with those found on Gibraltar—page 23.

CHAPTER IX

MOROCCO

General Description of Country and Flora—Tanger, Rabat and Casablanca—Marrakech—The High Atlas—The Anti-Atlas—Agadir, Essaouira and Safi—South of the High Atlas—The Middle Atlas—Chechaouèn—Tetouan—Ceuta (Sebta).

During my sojourn in Gibraltar I paid several visits to Morocco and was so taken by this fascinating country that I feel another chapter to say a little about it is well justified.

GENERAL DESCRIPTION OF COUNTRY AND FLORA

Like most Englishmen I had conceived Morocco as a land of rocky wastes and hot sandy deserts but of course nothing could be further from reality. Even to the far south, in the confines of the Sahara, there are intensely fertile tracts and it is extremely mountainous. The dominating features of the country are four great mountain ranges, the Rif and the Middle, High and Anti-Atlas which, running east to west and parallel to each other, are, with the exception of the Middle Atlas, precipitous and relatively unknown to most Europeans.

Geologically there are representatives of all the main periods. There is a great variety of rocks noticeable to all who travel through the land; granite, schists, limestone and other hard rocks in the mountain regions: clays, sands and gravels chiefly in the lower lands. To the north the wild Rif mountains are formed of hard Jurassic limestone and extend as far as the Middle Atlas, a well-wooded plateau of 6,000 feet where there are still signs of ancient volcanic activity. Further south there are more igneous rocks; the high summits of the High Atlas are porphyritic and then there are the extraordinary outcrops of granite in the Anti-Atlas near Tafraoute.

The northern half of the country receives a very appreciable rainfall each winter, so much so that the low plains between Larache and Rabat are severely flooded every January. The long Atlantic seaboard too is well watered but, in the south, the great wall of the High Atlas drinks up most of the moisture from the incoming depressions, leaving the eastern end of the range gaunt and arid. The fertility of the coastal areas is incredible, little wonder that it was once known as the granary of Rome and, since achieving independence, the Moroccans have made further additions to the fine legacy of canals and barrages built by France.

The flora is an extensive one and was almost unknown until described by Sir Joseph Hooker, who made a short and perilous expedition there in 1871. Since then French botanists have covered the country with a fine comb and produced excellent floras.

An overall impression is the astonishing quantity of composites and leguminous plants, with members of the *Umbelliferae* and *Labiatae* almost as numerous. It was fascinating too, seeing the desert species of well-known genera disguised in spiny or succulent forms and the wide variations in colour of such genera as *Anagallis*. *Compositae* were most prominent in wide open spaces where they are very colourful, especially *Chrysanthemum* species and thistles of all shapes and sizes; *Centaurea*, *Echinops* and *Calendula* are ubiquitous on the lower levels and many long stretches of roadside are traced out in gold by the noble umbels of *Ferula* and *Bupleurum*.

Outwardly the Moroccans appear to be a happy people, proud to stand on their own feet, and everywhere one is met with a courteous and friendly reception. Many people are bilingual and it was amazing to find a shepherd in the middle of nowhere comprehending our English brand of French.

In this jet age Morocco is practically on our doorstep and Casablanca can be reached in a few hours by way of Paris. Alternatively, it is possible to drive ashore at Tanger in a Gibraltar-hired car only five or six hours after leaving London. The recent introduction of a fast hydrofoil service between Gibraltar and Tanger will cut down the time even more. The Spaniards also run a car and passenger ferry service from Algeciras to Tanger and Ceuta (Sebta) and the latter is much the quickest and cheapest route available.

With the exception of a small stretch in the far south, Moroccan roads are excellent and it is not difficult to reach Marrakech in half a day's driving from Tanger. On a good day the crossing of the Straits of Gibraltar must be one of the finest anywhere; always there is something to look at, be it the never-ending stream of ships, the fabulous pillars of Hercules so often wreathed mysteriously in white clouds, or just the ever-changing contrast between the deep blue sea, a brilliant sky and the jagged sierras of the northern shore, flanked by their dark green cork woods.

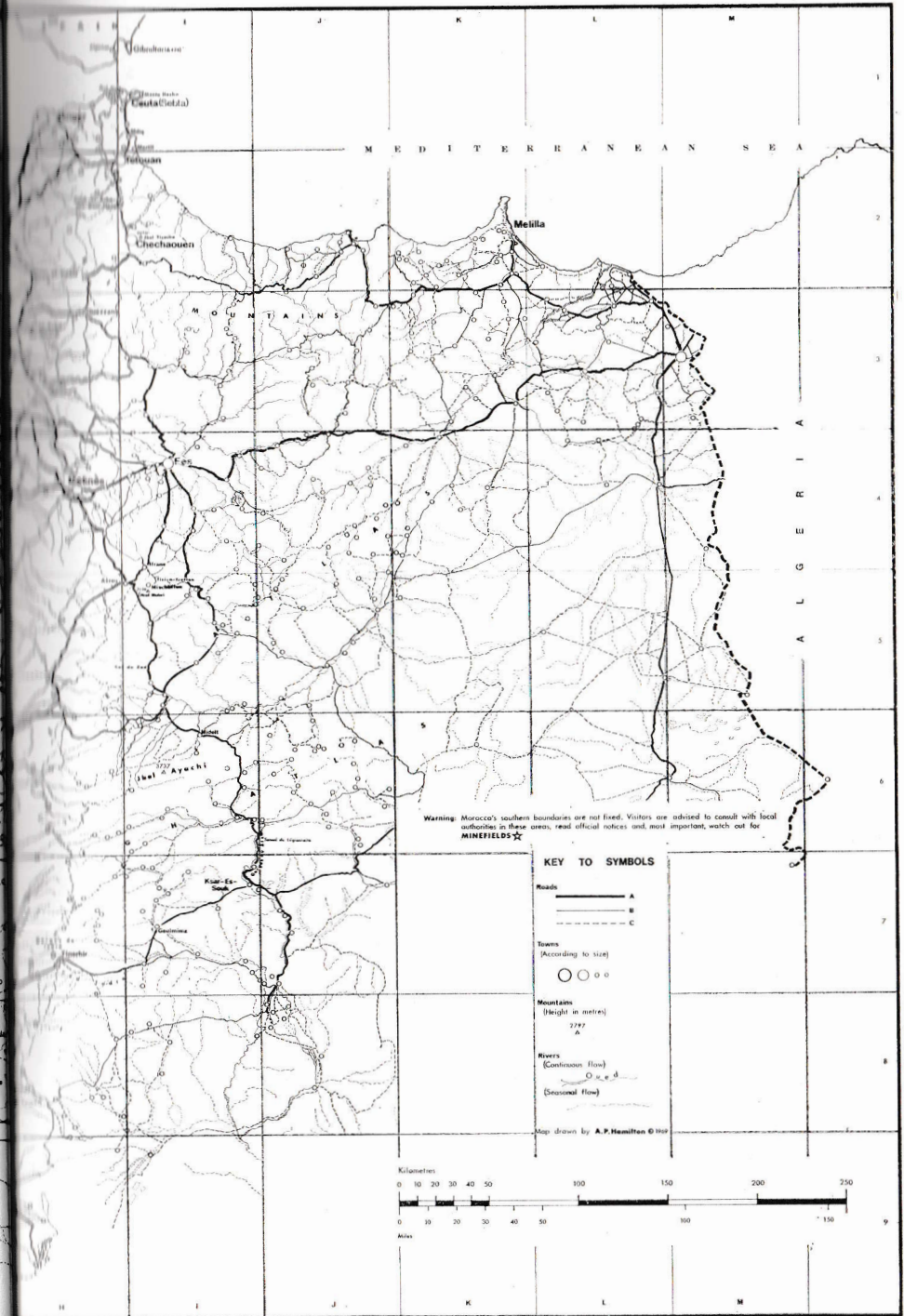
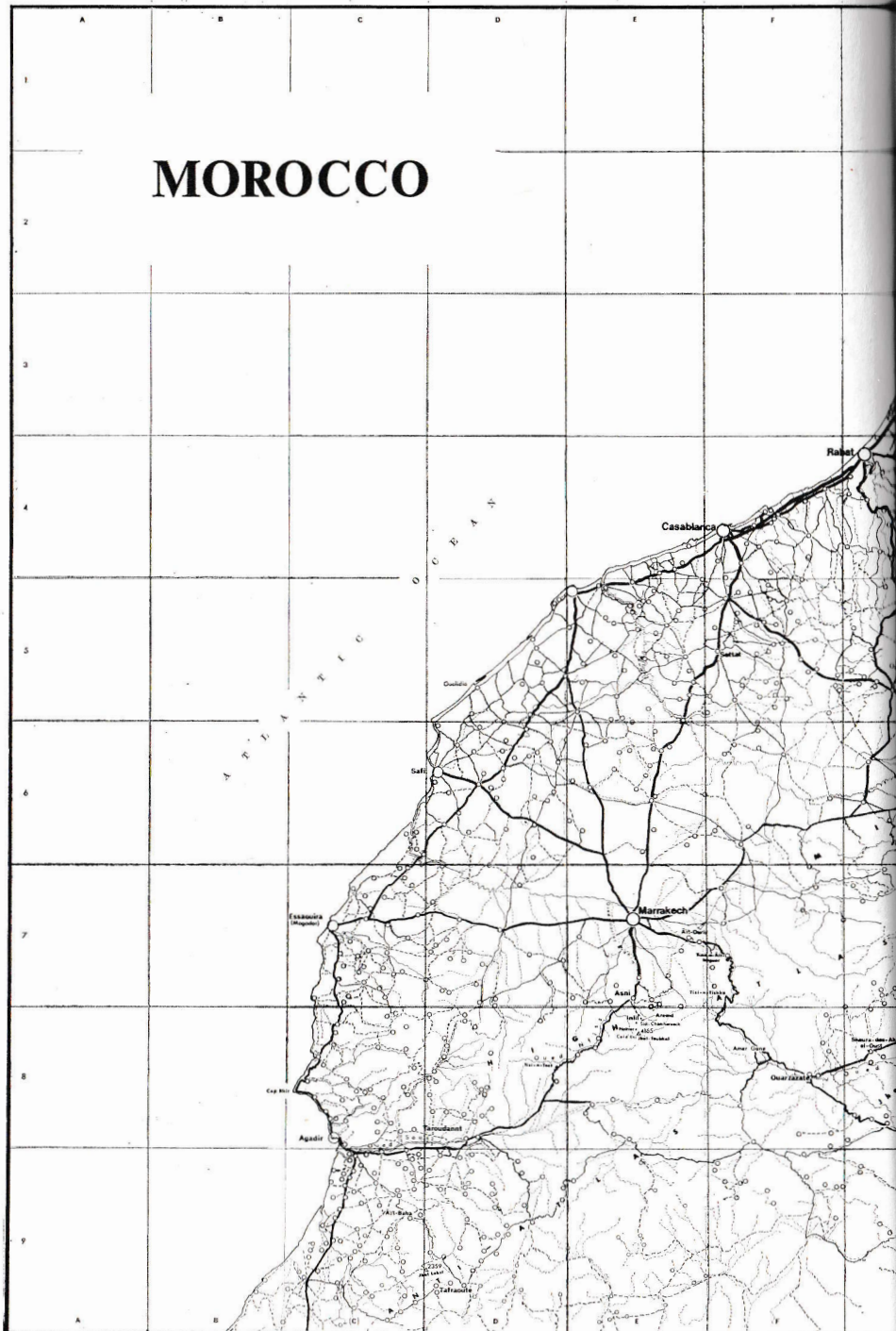
TANGER, RABAT AND CASABLANCA

The landing arrangements at Tanger are speedy and efficient and, after politely telling a host of importuning gentlemen that their various services are not required on this occasion, one is soon heading south. For the first 30 miles the road undulates over cultivated plains and low hills until it meets the sea again at the old Barbary town of Larache. In February *Iris tingitana* is found all over this stretch, a splendid dark blue iris but, alas, doomed if the ruthless picking for market—bulbs and all—continues for much longer. Beyond Larache stunted cork forests cover hilly country, *Leucosium trichophyllum* is common, and *Cistus salviifolius*, *Erica arborea* and *Lavandula stoechas* are found in the *maquis*. That fine heath, *Erica umbellata*, is locally abundant, turning complete hillsides a deep red; if only it were so floriferous in England! Near Ksar-el-Kebir a long plain is reached which is often badly flooded in winter and there is little to see except waving corn, but I can remember a fallow field scarlet and blue with *Malva maroccana* and *Convolvulus meoanthus*. In late February a worthwhile diversion is to take the side-road west from Souk-el-Arba-du-Rharb to Kenitra which, after a few miles, runs closely parallel to the coast. Here the soil is sandy, and there are thickets of graceful white-flowered *Lygos (Retama) monosperma*, numerous colourful annuals like *Linaria maroccana* in many shades and, a real prize, *Leucosium tingitanum*. This may or may not be just a large form of *L. trichophyllum* but the foliage is upright, the pure white bells almost the size of the larger snowdrops and it is worth a place in any bulb collection. Returning to the main road the capital Rabat is soon in sight. The spacious modern city makes a sharp contrast to the old walled town of narrow twisted souks and thronging inhabitants. The gardens in the modern quarter reach a very high standard; there is a wealth of climbing shrubs and I have never seen finer specimens of the scarlet and yellow Trumpet honeysuckle, *Lonicera sempervirens*. If there is time, the biggest of the local nurseries should be inspected for it must boast one of the most extensive collections of sub-tropical plants anywhere.

From Rabat it is but an hour's drive along a dual carriageway to Casablanca, a great modern city of many attractions but not a recommended haunt for simple plantsmen! So it is better to turn inland towards Marrakech. For much of the 150 miles between the two cities the road is dead straight so that extraordinary speeds may be achieved but this is hardly the objective. In February a fine violet form of *Gynandrisis sisyrinchium* graces the verges near Settat and a scarlet pheasant's eye, *Adonis microcarpa (A. dentata)*, is offered in large bunches by small boys.

Wheat-fields stretch as far as the horizon and on any uncultivated ground there were eruptions of arrestingly gay annuals; *Calendula maroccana* deep orange and dark centred, *Echium creticum* in pink and blues, and *Chrysanthemum carinatum* and *C. segetum* were just a few of the best. A small range of hills must be crossed not far from Marrakech and here, if one is lucky, the first glimpses of the High Atlas may be obtained; the line of snowy summits seemingly float above the morning mists as does Monte Rosa seen from the plains of Lombardy.

MOROCCO



MARRAKECH

Driving through the surrounding date forest our first sight of the city is the lovely Koutoubia Tower and then one enters the European portion whose wide boulevards lined by big jacarandas are one of the sights in May. It is a fabulous place indeed and much of it little changed materially from Hooker's day but, fortunately, the beheadings and mutilations that were then daily occurrences under a cruel and despotic regime are now almost forgotten. Marrakech conjures up many personal memories: walking round the lush botanic gardens where there are fine specimens of many rare plants; getting lost whilst finding the souk of the dyers, whose vivid wools hang out overhead like curtains to dry; or just the great square (Place Djemaa El Fna) where water-sellers, snake-charmers, story-tellers and eagle-faced blue men mingle among the gathered evening crowds, relics of the old Africa doomed soon to disappear.

THE HIGH ATLAS

The High Atlas is most readily accessible by way of the road to Asni which lies in the foothills less than an hour's run from Marrakech. A good halting place is the gorge of the Oued Moulay Brahim where there are several plants worth seeing. By the riverside *Ormenis scariosa* showing conspicuous golden disks and blue *Psoralea bituminosa* grow in the silt, and an expanse of bell-shaped pink flowers is where *Convolvulus althaeoides* rambles over the boulders. Above the stream large specimens of *Catananche caerulea* carrying upwards of forty blue composite flowers cling to the crumbling banks by means of a single thick tap root and, growing in cracks in the cliff above, I spied tight silvery mats of a desirable little everlasting flower, *Phagnalon atlanticum*, which has pinky white bracts. The road now climbs steeply to outflank the gorge, where were thickets of *Genista triacanthos* laden with golden flowers and in one place I stopped to examine the caper plant, *Capparis spinosa*, a curious thorny Rambler with purplish and white flowers, not unlike a *Passiflora* which, as already described, is also found in similar hot rocky situations in the coastal areas of Andalucia.

Asni lies in a pleasant fertile valley full of orchards and boasts an excellent hotel. A side-road leads up to Imlil, the highest accessible Berber village which should certainly be visited if one wishes to see this region properly or has mountaineering ventures in mind.

Shortly after leaving the village the long yellow racemes of *Adenocarpus anagyriifolius* may be seen in the hedgerows and the track then passes through some splendid walnut groves, before descending to the torrent bed which winds up into the heart of the range. It is worth stopping here to examine the steep sides of the valley whose rocky slopes are dressed with juniper and other shrubs like *Coronilla viminalis* and *Colutea arborescens*, both carrying yellow pea flowers. Amongst these grow such choice plants as *Polygala balansae*, in appearance not unlike a Spanish broom carrying purplish-red flowers; *Chrysanthemum mawii* (named after one of Hooker's companions) which is a beautiful little perennial with pink flowers and grey silvery foliage; and *Convolvulus mauritanicus* whose blue trailers hung in festoons over huge rocks embedded in the banks. At Imlil one can go no further by car and the scenery is distinctly Himalayan. The snowy massif of Jbel Toubkal (13,680 ft.) blocks the head of the valley and on either side brown slopes rise abruptly to rocky ridges. Only at eye-level is there relief in the patchwork of green terraced fields and the groves of silvery walnuts. A mule track can now be followed which climbs up to the upper valley and leads eventually to the Col D'Ijni but in springtime this is normally blocked by snow at Sidi-Chamharouch. It is a delightful walk with always something to see. In numerous damp courses a charming daisy, *Bellis coerulea*, almost succeeds in achieving a respectable shade of blue and, in drier positions, there was yet another showy *Chrysanthemum*, *C. catananche*, which, from a branched rootstock, produced tufted grey foliage and partly reflexed cream and pink flowers.

After a steep initial climb the path levels off and there is a fine view of the highest village, Aremd, lying perched on some cliffs above the torrent. These extraordinary Berber villages are veritable fortresses; each a conglomeration of triple-storeyed flat-roofed houses made of mud and stone. The path now descends to the Cirque D'Aremd where I found yellow *Linaria broussonnetii* and some vivid orange-red patches of *Anagallis monelli* subsp. *collina* before starting the long climb to Chamharouch. It was hereabouts that the snow-white *Narcissus watieri* and blue *Convolvulus sabatius* were first found in rough terrain studded with *Juniperus thurifera*, now much reduced by woodcutters. From Chamharouch it is some 3 hours on ski to the Neltner Hut where I spent 8 superb days during which practically every peak in the vicinity over 4,000 metres was climbed. On one day I found an *Arenaria* (probably *A. pungens*) actually in flower on a summit ridge and plants of a *Draba* and a giant houseleek, *Sempervivum atlanticum*. The finest of the few alpine meadows in these mountains lies below the Tadaft but, in February, this was a huge snowbowl where there was magnificent ski-running. However, I gather from Mr. J. C. Archibald who collected here recently that, in July, the grass is studded with tiny yellow *Narcissus bulbocodium* subsp. *bulbocodium* var. *nivalis* and that such rarities as *Gentiana atlantica* and *G. torneyana* were also found. For those who follow in these footsteps it is well to remember that at all times of the year there are huge variations between day and night temperatures, and to be prepared accordingly.

THE ANTI-ATLAS

At this juncture it seems a good moment to describe briefly a visit I paid to the Anti-Atlas in early May, 1964. Early one morning I left the Climber's Hut at Imlil and drove down to Asni and then southwards towards the Tizi-n-Test pass. The mountainsides, clad in forests of *Juniperus* and *Tetraclinis*, were very dry so there was little else of interest; however, I did have two grand bathes in the Oued Nfiss which the road follows for many miles before making the steep ascent to the pass. Here the main feature was a low dense forest of *Quercus faginea* and thickets of *Cistus albidus* and *C. laurifolius* var. *atlanticus*. There were some colourful pinkish splashes of *Chrysanthemum catananche* but I was in fact searching for *Narcissus watieri* which was found in seed growing in leaf mould underneath the oaks. This was surprising because the habitat was so markedly different from that of another recorded station near Imlil.

Driving on I started on the descent to the valley of the Oued Sous, far below, in a series of sweeping hairpin bends. Near one of these I stopped for lunch beside a small stream where there were clumps of a wonderful yellow broom *Genista florida* var. *maroccana*, also *Campanula filicaulis*, and a startling cherry red *Dianthus* which I am sure the hybridists could make good use of.

At the bottom of the wide Sous valley I found myself in a torrid heat assailed by a scorching blast, blowing down from the interior which forced me even to shut the car windows. A brief halt was made at Taroudannt, a typical unspoilt Moorish walled town surrounded by huge plantations of citrus and a fine legacy from French initiative. I then made a dash for the coast with but one thought in mind, to cool off in the sea, which was unexpectedly cold and refreshing.

This visit to the Anti-Atlas region in the vicinity of Tafraoute and Ait Baha was highly successful as I escaped right off the beaten track and saw some wonderful country. However, it was not so interesting botanically as elsewhere, because spring had passed by and already it was uncomfortably hot. Several sea lavenders are found in the coastal areas about Agadir; *Limonium fallax* appears everywhere in shades of blue and green and, on the seashore, *L. thouinii* and *L. mucronatum* adhere to dry crumbling cliffs, the latter carrying great curving blue sprays must be one of the finest in the genus.

One night was spent beneath an ancient Argan tree (*Argania sideroxylon*) beside a torrent bed filled with pink oleander. *Argania* is a rare monotypic genus closely allied to the tropical ironwoods but it is very similar in appearance and uses to the Mediterranean olive. It is unknown elsewhere in the world and only found in the sub-littoral zone of south-west Morocco. There was little other

vegetation except for a few succulents like *Kleinia pteroneura* and I well remember another of them, *Euphorbia echinus*, a ferociously spined fellow that I encountered in the dark.

The road from Tafraoute to Ait Baha, whose only *raison d'être* is a means of reaching some isolated iron and manganese mines, is no more than a boulder-strewn track in places. It passes through country not unlike Arizona and there were moments when we wondered whether we would ever escape out of the mountains to the coastal plains.

On the flanks of Jbel Lekst the lovely dark-centred form of *Catananche caerulea* was seen, as was *Lavandula dentata*, a prickly white *Convolvulus*, *C. trabutianus* and, of several fine knapweeds, *Centaurea incana*, sporting spiked flower heads of burnt sienna, was most ornamental.

Picturesque Berber villages were seen every few miles nestling on the rocky flanks of the Jbel and, although it was only May, the corn was already being gathered. The harvesters were all women colourfully clothed, veiled, and laden with innumerable amber beads and copper amulets. There was no sign of the men who were doubtless comfortably gossiping up in the villages.

AGADIR, ESSAOUIRA AND SAFI

I walked round Agadir where there were few signs of the disastrous earthquake, everything having been levelled and a new town built on an adjacent site. It certainly seems that the epicentre was extremely local because I was told by people living only ten miles up the coast that they had barely felt the tremors. I camped near Cap Rhir in a pleasant, but windy, site beside a fine beach where we enjoyed good swimming although, due to the heavy surf, this is an extremely dangerous coast where great care is needed.

Essaouira (Mogador) I thought delightful; the combination of Portuguese and Moorish architecture being a particularly happy one. There are some splendid beaches round about and a number of comfortable looking hotels run by French Moroccans. In the city a tramp through the thronged markets and into the cavernous maze of narrow streets in the old quarter can be fascinating. I spent some time in a carpenter's shop where I was able to watch them at their exquisite marquetry work in which tables of a beautifully whorled wood were being inlaid with mother-of-pearl, ivory and other woods. Although this type of furniture is hardly suitable for our English drawing rooms, a small side table or box makes a pleasant memento. On the seaward side the old Portuguese battlements are perfectly preserved and one can walk almost half a mile along them admiring the polished brass cannon cast in Holland during the fifteenth century.

Safi is yet another old Portuguese enclave with a fine castle and huge ramparts. The coastline nearby is high and there are more fine beaches at the bottom of the cliffs. Although of course interesting, the town is very typical but a visit to the famous potteries just outside is strongly recommended. Here they turn out a unique brand of hand-made vases, bowls and so on, that are most artistically shaped and then painted with colourful intricate designs before firing.

A few miles to the north there is a choice of routes to Casablanca, of which I have found the coastal one the most interesting. I was most impressed by the little town of Oualidia lying at the mouth of an estuary that empties the big lagoon formed along this stretch of coast by the Atlantic breakers. *Linaria maroccana*, in a rainbow of colours, grew in quantity and this place with one hotel but great possibilities, seemed a perfect place for a quiet sunny holiday.

SOUTH OF THE HIGH ATLAS

I shall now go back in time to early May 1963, when I crossed the High Atlas south of Marrakech and drove eastwards to Ouarzazate. After leaving Marrakech the highway starts climbing beyond Ait-Ouir and I stopped not far short of the Tizit-n-Ait Imguer pass below a limestone escarpment. There were many annuals flowering in *terra rossa* and such good plants as *Iris tingitana*, scented wine red *Thymus ciliatus*, a dark blue germander, *Teucrium fruticans* var. *azureum*, and, most intriguing, a small pink composite with a tuberous root still



(Left) *Adenocarpus bacqueti* one of the half dozen species of golden brooms which are centred on the western Mediterranean. The sweet scented flowers are produced in May and the shrubs in this photograph are growing at 5,000 feet near the Col du Zad in the Middle Atlas.



Paeonia coriacea (upper left) is a characteristic forest plant of limestone and siliceous mountains. Here seen at 5,000 feet near Azrou in the Middle Atlas, the April and May flowers are also found in the Rif and High Atlas between 3,000 and 6,000 feet. The violet flax (upper right) is usually associated with the European Alps. However, this variety, *Linum austriacum* subsp. *mauritanicum*, is here growing near Jbel Hebri in the Middle Atlas. The forests of *Cedrus atlantica* (lower left) frequently have a sparse ground flora which may have a short flowering season of spring annuals scattered amongst more drought-resistant shrubs. *Chrysanthemum catananche* (lower right) is a summer flowering plant of the High Atlas, here shown at the Col d'Ifni near Jbel Toubkal.

