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THE MEDITERRANEAN GARDEN



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Containers in Spring



MEDITORIAL

While membership of the MGS has doubled in the past year, contributions to the journal, far from increasing as we might have expected, have remained constant for most of this period and recently have dwindled. It has been said that if current trends continue the MGS will have a membership of 1000 by the end of this year; extrapolating further, it will be a society without a journal – or at least with a much thinner one. (But bear in mind the dictum that there are “lies, damned lies... and statistics”.)

It is worth pausing to consider what function this journal fulfils. It is not a commercial publication put together in Athens for sale around the world, but a private society journal which (apart from the typesetting and printing) is produced by MGS members. Since the membership is too scattered for everyone to meet under one roof, the journal has to take the place of regular society meetings. At the front of each issue are articles which are the equivalent of talks (usually by members, with the occasional guest speaker), while the second half of the ‘meeting’ – the Letters section – is open for general discussion. In between we give out any bulletins of news or information which are passed on to us. So in theory, whatever you have to say, there is a place for you to say it.

Reactions to this journal have been extremely favourable and much of the credit for this must go to our regular contributors who have done so much to educate (and even entertain!) us over the past couple of years. Not only have they been prepared to share their experience, but we have had the pleasure of getting to know them – which is how it should be in a garden society. Yet the efforts of a few cannot guarantee that the journal will continue in the format in which it has appeared up until now.

Getting your words into print is a task which is worthwhile and satisfying and which we are happy to continue, to the best of our abilities, as long as sufficient members require it. It is really up to you (singular and plural). There are no chiefs or indians in a society like the MGS, only members who are all on an equal footing. Unlike the interrogator in the war film, we

do not have ‘ways to make you talk’ – but if nobody wishes to talk, there is no call for a forum.

You may of course disagree strongly with the tone of this editorial. You may feel that important things have been left unsaid (we have not attempted to answer the question ‘Why?’ – you are better qualified to do that than we are). Whatever your comments or criticisms, please do not confine them to your friends and family: there are a lot of fellow gardeners who would be interested to hear them. This is *your* journal.

Could we use this opportunity to include a plea from your illustrator, whose garden is limited and whose bookshelf is even more so? Illustrations are useful as a means of giving readers some idea of what an unknown plant looks like, but your illustrator is generally as ignorant as anyone else in this respect. If you can possibly supply a slide or photograph with your article, this would be a great help. These do not have to be of ‘publishable’ standard and will be returned if requested. Better still, why not try your hand at drawing plants? Illustrations from members are always specially welcome.

NOT ALL PLANTS ARE EQUALLY THIRSTY

Heidi Gildemeister

As never before, Mediterranean gardeners are faced with lack of water, not always due to summer drought. This may take newcomers by surprise. For my own garden, water being scarce has become a way of life. In summer, our water tank invariably runs dry with many weeks of drought to go. I remember how concerned I was when first faced with this uncomfortable situation and how I cried over the inevitable losses. Meanwhile, I have become confident since I know that my garden will survive. It has done so year after year, turning lusher as time goes by. An array of recipes lets it come through dry summers. Grouping plants according to their water needs is one of the prominent ones.

You will achieve important savings in water if you divide your garden into areas with high, moderate and low water needs. In each of these three areas you group plants with similar moisture requirements and rearrange those areas where drought-tolerant species have been planted next to thirsty ones. By giving your plants the right amount of water, you use the precious liquid where it is beneficial and avoid all unnecessary waste. You can also try to reduce the area with a high water use, especially if it is not essential to your garden. These simple guidelines, sometimes called hydrozoning, are worth gold to gardeners who have to make do with little water.

Many gardeners group their plants by leaf texture and flower colour; they deliberate on height and the flowering period or enthuse about variegation. The specific quantity of water required by each is not always considered. However – even if water were not scarce – this is a crucial aspect.

Plants are frequently irrigated whether it suits them or not – maybe even with the thought ‘the more the better’. But irrigation adversely affects those plants which prefer dry summers, for example the Mediterranean ‘greys and silvers’ or a range of Californian natives. These plants enter dormancy

over summer and should be allowed to do so. But when waterlogging forces the air out of the soil, they asphyxiate as their inoperational roots rot.

On the other hand, bear in mind that, contrary to the above, plants such as *Canna indica* or angel's trumpets (*Brugmansia*), which come from regions where it rains in summer or year-long, continue absorbing water over summer. They will only thrive if given generous supplies.

When you divide your plantings into areas, remember that certain good-humoured plants tolerate life in high- or low-watering zones alike – as long as they are planted according to their requirements. *Abelia* and *Escallonia*, for example, favour dappled shade and that is where they demand the least water. Other plants are less resilient and require specific doses. Providing plants with the water they really require promotes their health and is an important step in avoiding disease.

When you are considering grouping plants according to their water needs, remember that those which over the years have been given lavish watering (while in fact they needed little) cannot be weaned from one day to the next. Their roots need time to adapt to foraging for water on their own – which may require two or three seasons.

Finding out the quantity of water that each plant really needs may call for a bit of research. Often experience helps: you know, for example, that lavender, rosemary and thyme are native to the Mediterranean where summers are dry. So why water them? My book *Mediterranean Gardening, A Waterwise Approach* lists several hundred plants which survive dry summers.

Often it is felt that a rich picture results only from plants which require, or are given, lavish watering. But this is not so. In the garden that I tend, watered and unwatered zones are alike in their colourful exuberance. It all depends on the right choice of plants which will give their best as long as they grow under conditions that suit them well. (This may mean sun or shade, protection from wind, above all generous mulching and well-draining soils.) Visualise a bed of mediterranean-climate plants such as *Artemisia*, *Ballota*, many *Cistus* species, *Coronilla*, *Euphorbia*, *Halimium*, *Helichrysum*, *Hypericum*, together with iris

and countless sunny Cape bulbs. They look as good, sometimes even better, than thirsty plants with a high water use and, closely planted, give your garden a luxuriant, evergreen cover.

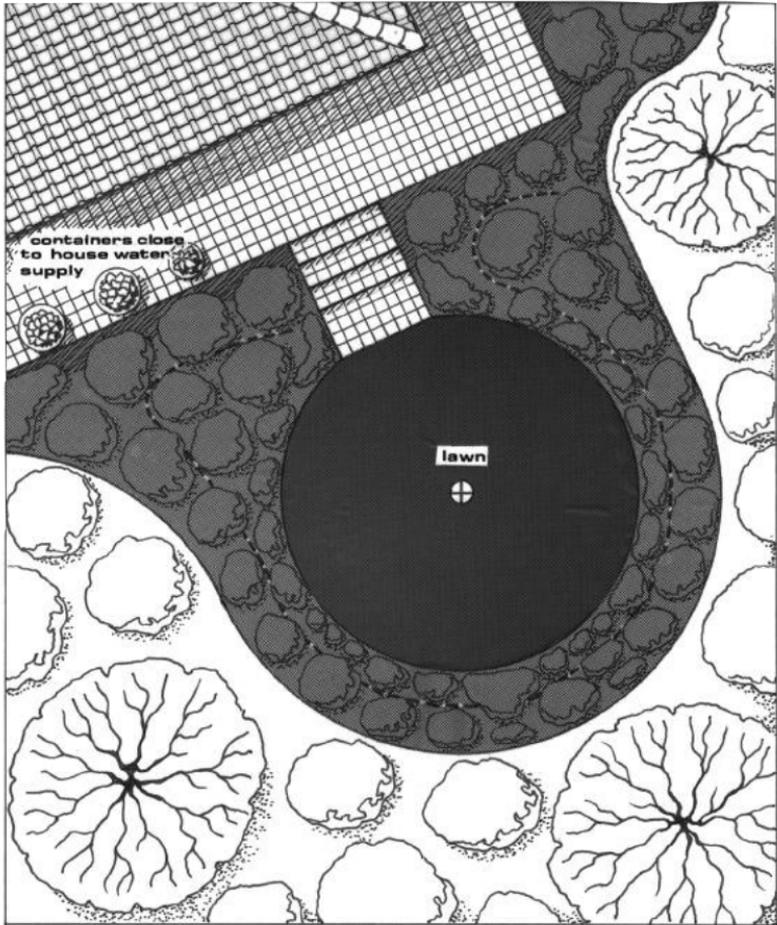
Even if one has all the water in the world, grouping the plants according to their water needs benefits the garden. This so-called hydrozoning facilitates, for example, the installation of watering equipment, since it is difficult to water correctly areas where plants with high and low water requirements live next to each other. Where feasible, all watering equipment should be installed *before* planting. Thus you know how far water reaches and can choose plants accordingly. Less expensive and easier to maintain, such gardens suit those who have little time at hand.

Three different groups are suggested, but your garden does not have to have all three. You may, for example, concentrate the water available to you on a small lawn (the high water area) and, to make up for such an 'extravagance', border this lawn with a no-watering area. You do not have to stick slavishly to the recommended areas. Design your groups to suit your water allowance, your own needs and those of your garden. The three water use areas which follow can be seen as an example.

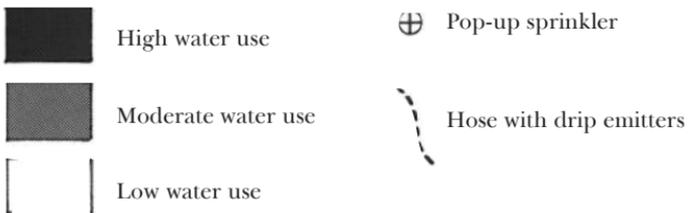
The area with a low water use

This area needs the least water and suits a tight water budget. Here you use all those plants which do not require more than annual rainfall. However, apply additional water until newly planted vegetation has been established. Depending on the size of the specimen at planting time, this may mean a year or so. Remember that drought-tolerant plants require excellent drainage and good ventilation and that most thrive in sun.

Such plantings include a delightful variety of plants whose flowers and fragrance offer pleasure throughout the year. In my garden, I use for this section plants from all mediterranean-climate regions. Winter rain takes care of them and generally carries them through summer without further attention (remember summer dormancy?). Countless unthirsty plants



A Simple Hydrozoning Scheme



such as *Bupleurum*, *Coronilla*, *Ceanothus*, *Cotoneaster*, *Cynara* or *Ruta* qualify to make up the non-irrigated section, for example, in a 'natural garden'. Most herbs thrive in this area. Or take advantage of the native vegetation found locally and reintroduce wild flowers. None of them require summer water. This area could, but does not have to, be situated furthest from the house. Plants on the borderline of your garden need not be as manicured, since mostly you see them from a distance. Should you desire a formal approach, clipped cypress, myrtle and lavender cotton offer themselves.

The area with a moderate water use

The second group includes those plants that need more water than rainfall supplies, but not much more. Depending on the conditions your garden offers and the plants you have chosen, this may mean (in the hottest months) a once to twice weekly watering. In my own garden, I fare well with a weekly summer watering for this zone and maybe an additional application after drying winds. Your own observation will help you to determine frequency and quantity for your own garden.

Many plants you may want to grow in this second group do not come from a summer-dry mediterranean climate and require watering in summer (*Abutilon*, *Fatsia*, *Fuchsia*, *Hebe*, *Hosta*, *Phygellus*). Their healthy growth and attractive flowers do not lag behind those plants which demand ample supplies. Closely planted and generously mulched (to retain humidity in the soil), they will present a cheerful picture which may provide a link between a natural garden area and a thirsty, water intensive zone.

The area with a high water use

In this water-intensive area you grow plants which require the most water. These may come from tropical lands or from regions with summer rain (*Begonia*, *Camellia*, *Hibiscus rosa-sinensis*, *Hydrangea*). It may also mean a lawn of moderate size, thirsty annuals, containers with exotics or a vegetable garden. Place your cherished high water plants next to the lawn and water them together with it for an intimate, luxuriant scene.

To take advantage of every drop of water, plant closely, mulch generously, and place where the least evaporation through wind and sun occurs. Diminishing the size of this zone trims down your water bill effectively. But whatever you decide on, use the water at your disposal how and where it will give you most joy.

Note: This article first appeared in *The Garden*, November 1996, and is reprinted with Heidi Gildemeister's permission.

Heidi Gildemeister's book *Mediterranean Gardening, A Waterwise Approach*, has appeared in English (ISBN 84-273-0749-7), French (ISBN 2-85744-852-X), Spanish (ISBN 84-273-0770-5) editions and a German edition (ISBN 3-8263-3151-6) will be published in summer 1997.

AGAVES FOR THE MEDITERRANEAN GARDEN

Margaret Lynch

Agaves are ‘admirable’ or perhaps ‘handsome’, from the Greek *agavos*. Indeed they should be admired. They are architectural and dramatic – but not pretty – and are not admired as much as they deserve.

Agave americana, the Century Plant, in its type form, is common and well known throughout Mediterranean Europe and the southern USA. Its massive woody flower spike can rise 13 metres high, and it can form impenetrable, dangerous thickets of spiny rosettes. Its straight variegated form, *A. americana* var. *variegata* [now considered a synonym of *A. americana*], with a yellow stripe to the edges of blue-green leaves, is frequently cultivated. There are other *A. americana* varieties which are even more desirable.

A. americana, to many gardeners, is the only agave. However, there are perhaps 300 species, growing wild only in the USA, Mexico and the West Indies. Lots of these are very desirable garden plants, and very different from *A. americana*. Yet most of us ignore them. Why?

To come to the point, or rather to the spine: perhaps it is the spines that put people off. Romping children or dogs can hurt themselves on agaves. They are not a good edging for a path. The warning is important, for some plants also grow very large. But all is not lost. Not all agaves are large (*A. stricta* ‘Minor’), some are hardly spiny (*A. victoriae-reginae*), some form easily handled hemispherical shapes (*A. potatorum*), some have soft leaves (*A. bracteosa*). Most can be contained in a pot and their size limited to suit the gardener’s preference. They are very tolerant and can put up with no end of abuse from us. The tips of the spines can be cut off (collectors regard this as a hanging offence!). Or you can stick a cork on the spines. There is beauty in agaves. And they are inexpensive.

I was looking for pot plants to decorate the paving and steps outside our house in southern Greece when I thought of

Agave. What would forgive intermittent watering, endure baking heat, dramatise the terracotta pots and enhance the architecture? These are some that we grow.

A. albescens Trel.

Named for its pale colour, *A. albescens* has a mealy white bloom on its mature leaves. They are folded above, narrowing at the base, oblong-lanceolate, and up to 45cm long and 15cm wide. Coming from Cuba, *A. albescens* may be more tender than American species, but it is worth growing for its colour contrast and moderate size. The gracefully curving *A. franzosinii* [now *A. beauleriana*] is whitest of all, but is very large.

A. americana L. 'Medio Picta Alba'.

It is impossible to ignore the popular and curvaceously beautiful species *A. americana*. This form, with a broad white stripe along the centre of the blue-grey leaves is slower growing, distinguished and elegant. As in the type, the plant forms freely suckering rosettes of twenty or thirty leaves up to 120cm long and 20cm wide, shallowly scalloped and furnished with strong curved dark spines. My original plant has produced two off-sets for a neighbour who grows them in ancient shallow stone water troughs. They are the envy of the village. The species comes from Mexico but is widely naturalised in Mediterranean regions.

A. americana 'Variegata' – yellow stripe on the leaf edges.

A. americana 'Medio Picta' – yellow central stripe.

A. americana 'Ingens variegata' – pinkish-white leaf edges, few sinuously curving leaves.

A. colorata Gent.

This is a chunky compact plant, which suckers when young. It has few more or less ovate leaves, glaucous light grey-green, sometimes red-tinted, usually cross-banded pink. Leaves 25-60 × 12-18cm, with conspicuously sinuous toothed margins. The spines can be brown or bright red. Juvenile leaves do not always show striped bands, but a well-coloured form is very ornamental. The yellow flowers are red in bud. It is uncommon in nature. Mexico (Sonora).

A. filifera Salm-Dyck

A popular plant which can sometimes be found amongst cacti collections for sale in garden centres, perhaps because of its obliging lateral off-sets. The beautiful hemispherical rosettes grow up to 65cm in diameter with many very narrow 15-30 × 2-4cm spreading leaves. They are dark glossy green, paler at the base, with some white striping on either side. The pale horny leaf margins are mercifully spineless. These strip off to form filaments which can be 5-6cm long. They make decorative thread-like curls. Several clones exist from collections in the last century.

A. filifera 'Compacta' has shorter, broader leaves not more than 10cm long. A plant with black leaf margins has also been described. Flowers greeny-yellow. Mexico.

A. kerchovei Lem.

From Puebla in Mexico, the rosette of *A. kerchovei* can tip to one side, and reach up to 60cm across, but the variety 'Miniata' is much smaller. The leaves are broad based when young, almost diamond shaped, with a narrow median band. Lanceolate older leaves are 40-100 × 5-12cm, gradually tapering to the long terminal spine. They are blue-green hollowed above, convex below. The whitish horny edge to the leaf margins merges with the large leaf spines, also whitish, which bend in different directions. A number of different varieties have been noted with varying leaf shapes. For instance, *A. kerchovei* var. *variegata* is reported as having paler leaves with a very distinctive band. Syn. *A. titanota*.

A. lechuguilla Tor.

Few-leaved agaves are the most architectural, and in *A. lechuguilla* these are light blue-green and stiffly sickle-shaped, arching backwards from the centre, generally 25-50 × 2-4cm. Rather indistinct darker stripes run along the undersides of the leaves which have slender backward pointing spines. The leaves are concave, and close to form a point about 1cm before the brown terminal spine. The downside is a mature rosette of one metre, on a plant which is spreading and hard to handle. It grows widely in Mexico where, named 'ixtle', it is used for rope. Closely related to *A. lophantha* which follows.

A. lophantha Schiede [now *A. univittata*].

Slim red spines and margins edge the dark green and striped leaves. The colours are those of holly and the plant is just as prickly. *A. lophantha* is very variable and a number of forms have been described. *A. univittata* var. *postlegarii* Harworth is probably identical and often grown. Plants with this label are worth seeking, but can make a rosette of one metre. The many leaves are long, tapering, lanceolate, 30-70 × 4-5cm. They are pliant, glossy and spreading. The underside has faint longitudinal lines, while the upper surface, which is concave, often has a paler green central stripe. The leaf margins have a narrow dark red edge which joins the red downward-pointing spines. This is a strong-growing suckering plant which is perhaps best confined to a pot. Mexico.

A. stricta Salm-Dyck (Mother-in-Law's cushion)

A sea urchin with pale green spines, sometimes silver or pink tinged. But don't try *A. stricta* with salt water! The leaves are thick at the base, but narrow immediately to pointed spears, not so stiff as a sea urchin, but with pointed terminal spines. They are 25-50cm by 8mm wide, upturned to straight, the margins concave with a rough edge. In age, plants of *A. stricta* can make many heads from a thick stem dividing several times. Contained to a single sphere, the elegant form of dense upright and spreading spikes is an excellent contrast to the broad-leaved agaves. On a young 7cm diameter plant of tiny *A. stricta minor*, I counted six off-sets, but this suckering slows as the plant ages, and a dainty single rosette of about 15cm can be achieved. Yellowish flowers, Mexico.

A. striata Zuccarini is closely related to the above, but with slightly larger and fewer leaves. They are pale green and D-shaped in section, flat side up.

A. parryi Engelm.

'All the forms are good,' said specialist nurseryman Ray Jeffs, and included *A. parryi* in his Ten Best. In many ways, it is a classic agave. The leaves are a light blue/grey/green – like a decorator's expensive matte paint. They curve stiffly, 25-40 ×

8-12cm, with margins rolling in towards the centre, and at the leaf tips almost meeting to form a cone – a great place for hiding insects. The leaves are broadly oblong, widest at the middle, narrowing at the base, curving sinuously to the tip. The effect is compact, like a giant globe artichoke. It would be good to try this architectural plant in the open border, since it is said to be virtually frost-hardy. The rosettes are relatively small (60-80cm) and the red spines more prickly than dangerous. Flowers red and yellow. Arizona to Mexico.



Agave americana

Agave parryi

A. potatorum var. *verschaffeltii* Lem.

A good *A. potatorum* specimen makes a regular hemispherical shape when it is mature, the leaves folded and symmetrical like an open rose. The variety *verschaffeltii* is frequently cultivated. The leaves, broad in the middle, narrowing sharply to the tip and at the base, are obovate, spathulate. A particular feature

are the sinuously toothed and deeply curved leaf margins, with red or yellow-brown triangular spines. The glaucous white to green leaves have a pale blue-grey bloom easily rubbed off, as I found when I mistakenly cleaned off mud splashes. The mature rosette, many leaved and not suckering, is about 50cm in diameter, with leaves 25-40 × 9-18cm. Mexico (Oaxaca), where the local name is butterfly agave.

A. toumeyana Trel.

With its formal Y-shaped pattern of white on mid-green and its regular rounded outline, *A. toumeyana* would sit happily in a modern art gallery. A sunny window sill would probably prove adequate. Stiff leaves upward facing, narrowly lanceolate, are 20-35 × 2cm. They taper and twist slightly, concave on the upper side with bold white stripes, rounded, slightly keeled, and striped underneath too. The white horny edges at the ends of the leaves peel back to form filaments, and the leaf spines are white. Terminal spines are brown on a rosette of rarely more than 30cm. The flowers are pale yellow. A prettier plant, *A. toumeyana* var. *bella* Breitung has shorter and more numerous leaves, forming a dense rosette. In the wild it forms 'fairy rings'. Arizona.

A. utahensis var. *eborispina* Breitung

Just the ticket for cacti-loving small boys, *A. utahensis* var. *eborispina* is exceptionally well armed with large white spines. The terminal spine is grooved, wavy and about 4-5cm long. The marginal spines are cruelly hooked ivory triangles. Not a plant for the flower bed, where the coarse hooks would grab at legs, but of moderate size, and dramatic in a pot. The leaves are glaucous grey and stiffly upright lances, to 20 × 1.5cm. The whole rosette reaches only about 40cm when mature. It makes off-sets which can be hard to remove from the trunkless base.

Quite a number of varieties of *A. utahensis* have been noted, all fairly similar, with differences of size, leaf and spine colour. *A. utahensis* var. *nevadensis* is a light blue-green, small and slow growing, with a regular, shapely outline and very long terminal spines. Flowers yellow. Utah, Arizona.

A. utahensis var. *discreta* M E Jones [now considered a synonym of *A. utahensis* Engelm.]. Leaves light green.

A. utahensis var. *kaibabensis* Breitung. Rosette to 100cm.

A. victoriae-reginae Moore

As smart as paint, *A. victoriae-reginae* shouts 'must have'. 'Must have' may quickly be followed by 'have I really got?' This species is very variable, and Jacobsen lists eight different forms. One form, *A. ferdinandi-regis* Berger, is sometimes given separate status. It has fewer triangular pointed leaves, which make a more spreading shape.

A. victoriae-reginae is a small, very desirable plant. Classically, it has numerous dark green leaves 15-20 × 4-6cm. They are thick, rigid and leathery, tapering to a blunt end. The upper sides are concave, the undersides convex and keeled. The margins and keels are decorated with horny white lines. These lines are mirrored in most plants with white lines on the upper surfaces of the leaves too – but not always. Toothless-leaved but with dramatic terminal spines either single or in threes, and brown to black. In maturity, *A. victoriae-reginae* will make a dense hemisphere, with the leaves turning slightly inwards. If a tiny plant ordered by post seems to have few of these characteristics, be patient. Immature leaves can be roughened by minute marginal spines and have few white lines. Flowers pale green. Mexico.

A. xylonacantha Salm

Handsome, tough and easy are all good things to say about a plant. *A. xylonacantha* is a doer. Too many plants in a specialist collection can be bent on death! The rosette will reach about 1.5 metres eventually, with leaves 45-90 × 5-10cm. They are robust, lanceolate, broadest in the middle and shiny dark green – not too many – in a spreading outline. The undersides are convex with thin black lateral lines. The upper sides of the leaves are grooved, also faintly lined, and often with a paler apple green central stripe. (*A. xylonacantha* var. *vittata* Jacobi is said to have a broad median band.) The spines are rich red brown on new leaves, fading to ash grey on older ones, 4-5cm broad, on cushion-like swellings to the leaf edges. A fault to watch for is the

production of too many off-sets, which should be removed. Some other varieties have been noted, and probably all would be worth growing. Flowers greenish, Mexico.

A. xylonacantha var. *latifolia*. Leaf broader.

A. xylonacantha var. *macrantha*. Marginal teeth large.

A. xylonacantha var. *torta*. Leaf irregularly curved.

Every keen gardener knows that ideally plants should be picked up from the nursery. The nurseryman gives instructions about pots and soil, and they are taken home by car. This is possible in America, the U.K., Germany and Italy. I don't know about elsewhere, but wherever you are some plants will come by post. The postman is not a friend to agaves. They will probably be wrinkled (dried out), have broken spines and be somewhat mashed up. The nurseryman will have done his best, but young agaves are tender – yes, tender! – creatures and the leaves are easily smashed. Like the rest of us, they toughen up with age.

A general recommendation is a well drained gritty soil with a low organic content. If available, John Innes 3, a soil-based compost, with one quarter added grit will do very well. Little water is needed in winter. In the growing season, agaves should be allowed to get nearly dry and then given a good soak. At this season a monthly liquid feed is recommended.

Agaves in some public collections, unloved, dusty and wizened, are just saying 'help'. Annual re-potting and tidying is needed in spring. Off-sets should be removed, along with some of the soil. In general though, the plants should be under-potted. Dead roots should be trimmed, and the plant replaced in its old pot, or a slightly larger one, with fresh soil added. With apologies to feminists, this is a two-man job. A big plant is too heavy and unwieldy for most women. Never plant an agave in a bellied pot with a narrow rim. It will eventually burst its pot, for you will never get it out.

Few pests attack agaves. Mealy bug will sometimes cluster round the leaf tips, but can easily be washed off, and scale insects sometimes appear. This is a terrible pest on any plant and will need insecticide. Root rots and leaf spot can be dealt

with by a fungicide. I once found a mole cricket (*Gryllotalpa gryllotalpa*) in an agave pot, but whether it was eating roots or pests I don't know.

For centuries, Native Americans have made use of agaves. In Mexico, the sweet sap which is exuded from the cut flower stalk is fermented and brewed into various strong drinks like pulque or tequila. Various members of the Agavaceae provide important hormones for contraceptive pills. The waxy outer layer of the leaves which protects the plant from sun and wind is peeled off by the Mixe Indians of Oaxaca to use for wrapping tortilla sandwiches, like a plastic bag. Local people use tough agave fibres in many ways for matting, twine, sandals, brushes. Some species provide animal feed, and the pulp can even be used as a soap substitute. Sisal for rope is, of course, the best-known product. It is made from the fibres of *A. sisalana* and *A. fourcroydes*.

Back to the garden, sisal is still in demand. A thick natural rope hung between the posts of a pergola provides the heavy swags needed for climbing roses. The other day I tied the long autumn growths of *Rosa* 'Mermaid' to just such a rope. The backward-facing rose thorns lacerated my arms and hands. At least we don't have to tie in agaves.

Some books and nurseries

Lexicon of Succulent Plants, Herman Jacobsen. First published in German in 1970, in English by Blandford in 1974. Not in print.

Agaves of Continental North America, Howard Scott Gentry. University of Arizona Press 1982. Not in print.

Nutfield Nurseries, Crab Hill Lane, South Nutfield, Redhill Surrey, RH1 5PG, U.K.

Southfield Nurseries, Bourne Road, Morton, Bourne, Lincolnshire PE109 0RH, U.K.

Westfield Cacti, Kennford, Exeter EX6 7XD, U.K. Tel. 0392-83291.

I should like to thank Ray Jeffs of Nutfield Nurseries for his generous help with this article.

A DRY COUPLE

Tom Wellsted

Many years ago I was given, by a kind French plantsman, a fine young specimen of a plant he knew as *Pittosporum heterophyllum*. The evergreen leaves remind me a bit of bay, *Laurus nobilis*, but are darker, tougher, and rather rhombic in outline. The plant did not thrive where I put it. As it seemed so unhappy in what I had thought to be an ideal site, I moved it to a truly appalling position and have been rewarded.

For at least five years now my plant has grown, thrived indeed, at the foot, that is to say about one metre from the foot, of a 30m pine. There are a lot of these pines here, reputedly Aleppo pines, *Pinus halepensis*, with a few Scots pines, *P. sylvestris*, as well, and all are confoundedly ugly, soil wrecking, dangerous plants. What can grow around, under them? Well, yuccas for sure, laurustinus, *Viburnum tinus* too and also this pittosporum. I have read that pittosporums do grow in any type of well drained soil but in this particular site it is so well drained that there is in fact very little soil for it to grow in at all. Besides being under this awful pine it is on a steep $\pm 45^\circ$ slope composed of limestone slabs and stones with little in between. It is a habitat beloved of wall lizards and stick insects; ants of various species career about, some quite madly – I think it must be the pines that drive them to it – and assorted burrowing bugs and beetles readily find homes. The ground is alive with everything that is apparently nearly dead, and except for another shrub, a ceanothus, yuccas and a bit of ivy, perhaps 20cm up its trunk, nothing plantwise flourishes.

The pittosporum is now about 2.5m tall and 3m across, densely packed with branch-hiding leaves, though some odd branches do take off and expose themselves here and there. Usually new, bright green leaves do not appear until spring, with the flower buds, but sometimes autumn growth occurs. Generally pittosporums have purplish or yellowish flowers, this is one in the latter category, and many are well scented. Indeed, the creamy yellow flowers, though a bit retiringly pale,



Pittosporum truncatum

make up for their lack of bright colour with an intense scent which, if not voluptuous, is most certainly of sumptuous richness. Now, if Scheherazade had had this scent handy at the right time I'm sure she could have saved herself a great deal of exhaustion telling her tales. No bottled mix equals this – and yet I must take care, for while I can smell the scent on a good day at least 100m away, my wife cannot smell it at all, even close up! Such are noses today. This plant seems to be widely available in this region under the name of *P. heterophyllum*. This is strange because heterophyllum means variously shaped leaves, and all the leaves on these plants are much of a muchness. Dr. Thornton-Wood, of the RHS, Wisley, suggests that the plant is in fact *P. truncatum*, also of Chinese origin, which he writes 'intergrades' with *P. heterophyllum*.

Given current world affairs, it seems reasonable that the bedfellow of this Chinese pittosporum comes from the United

States. This partner is *Ceanothus thyrsiflorus* var. *repens* [now considered a synonym of *C. thyrsiflorus* Eschw.], which, I have read, is also known as creeping blue blossom in the U.S. Smaller, bright, glossy green rugose leaves contrast well, all year, with the sombre, flat, matte, dark green leaves of the pittosporum. They seem to bubble out from under where the two plants overlap. Flowering time also overlaps to some extent and this is a great delight. Not only do the colours of the flowers, creamy yellow and blue, pleasantly mingle, but the ceanothus, whose smell is not, to the human nose, very attractive, gets the perfumed overlay from its Chinese neighbour. While perhaps 3m across, after eight or nine years this blue blossom is only 60cm tall at its tallest. As a neighbour it is planted in similar soil but further away from the pine than the pittosporum. Both plants survive well from drift water from other plants only, and naturally from rain. Some like it thin.



Ceanothus thyrsiflorus

GROUNDCOVERS

Sue Goumas

Groundcovers are low growing and spreading plants which form a dense leafy mat. They can be used in narrow strips, in dense shade, on steep slopes, and in hot dry areas exposed to wind and salt spray. Besides offering their own display of foliage and flowers, they are used to suppress weeds, act as a transition between lawn and shrubberies, aid in erosion control and hide unsightly stumps and manhole covers.

In my garden I am always on the look out for low maintenance plants which can fill in awkward spots in the garden while at the same time adding aesthetically to the overall picture. I use them to cover the bare ground beneath jasmine and climbing roses which line one wall of my property, I use them to break up the barrenness of a brick path, as well as to fill in gaps under and around shrubs and in the many raised beds which house my flowering perennials.

Cerastium tomentosum

Although groundcover plants can include shrubs which reach the height of one metre, I am concentrating on those of an herbaceous nature which rarely exceed 30cm. One very useful plant is *Cerastium tomentosum*, commonly known as snow-in-summer. It forms a creeping mat with silvery-white foliage and a mass of pure white flowers which are produced in May and June. It is invaluable for rock gardens and borders and will carpet any sunny spot, growing to a height of approximately 10cm. I find it most attractive when planted under green shrubs such as *Cistus monspeliensis* or when allowed to wander over a brick edging. It spreads easily and needs to be cut back almost to the ground once or twice a year to maintain fresh growth. At the same time rooted cuttings can be dug up, planted and watered in elsewhere at approximately 50cm apart. It can also be propagated easily by seed.

Thymus serpyllum

Another low-growing plant is *Thymus serpyllum* or creeping thyme. This is an ideal plant for paved areas, forming a mat of aromatic bright green foliage and bearing throughout the summer a profusion of pinkish-purple flowers. It reaches a height of between 6-10cm. I have put it to good use by planting it under a hedge of *Viburnum* where it reaches out for the light and extends over a narrow strip of bare dirt next to the paved driveway, where it can handle a fair amount of foot traffic. Thyme can be sheared to the ground after flowering when necessary. Not having been able to find these plants available, I started mine from seed and planted them out 30cm apart. A variegated form is also available and this can be obtained from the Springfield Herb Nursery whose address is given below.

Geranium macrorrhizum

A third species that is to be found in my garden is *Geranium macrorrhizum*. It produces a weed-smothering groundcover. Although it is stated to reach a height of 30cm and to have aromatic foliage, I have neither seen it grow higher than 15cm, nor have I found it to be scented. As with the two aforementioned selections, it is grown primarily for its foliage which is deeply cut and becomes tinted bronze and scarlet in the autumn. The magenta-pink flowers are held slightly above the leaves. Since I was not able to locate a supplier of these plants, I decided to grow them from seed, which germinated easily. I now increase my stock by taking cuttings. I have used this plant in the shrub border where it creeps about on rooting stems, enlivening a dark corner with its flowers. It flowers from February until the autumn. It is particularly lovely in February and March when *Anemone pavonina* [now *A. hortensis*] blossoms nearby. There is also a white-flowered variety.

Osteospermum fruticosum

For a larger scale groundcover *Osteospermum fruticosum*, hopelessly confused – at least in my mind – with *Dimorphotheca*, is a good choice. There are two varieties, one exhibiting purple and the other blue-white flowers. Both have dark centres. The

leaves are fleshy. The plant grows to a height of 25-45cm and forms wide mats of creeping stems that should be planted out one metre apart. It flowers in the winter and spring and sporadically throughout the year. It needs to be cut back once or twice a year since otherwise it has a tendency to get straggly. It is widely available and since it roots along the stem can produce a limitless number of cuttings. This is what I grow along the eastern border of my plot. It overflows here and there on to the path of crazy paving and contrasts nicely with the grey stone. I also use it as a filler spreading beneath shrubs in my raised beds where it can cascade over the stone walls.

Aptenia cordifolia [now *Mesembryanthemum cordifolium*]

Another choice for covering an extensive area is *Aptenia cordifolia* which is a low-growing, evergreen trailing succulent with glossy green leaves and small red flowers. It is a choice groundcover for a steep slope in a hot dry location. It is widely sold in nurseries and can easily be propagated at home from cuttings. A very similar plant, although more invasive, is *Carpobrotus edulis* or Hottentot Fig. Also a succulent, it has triangular-shaped leaves and boasts magenta flowers which can reach up to 10cm across. It can easily be grown from seed or propagated from cuttings.

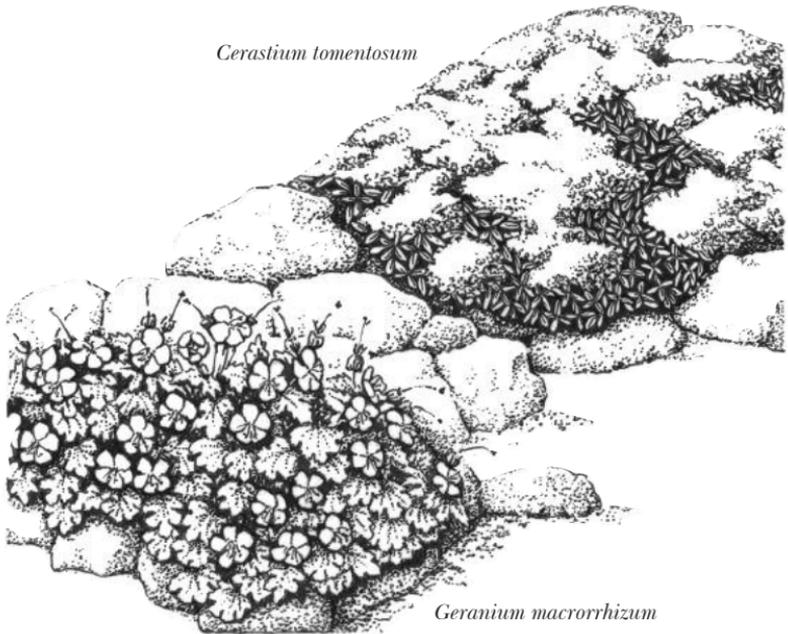
Festuca glauca

A groundcover with an entirely different nature is *Festuca glauca*. It is a grass which forms thick blue-green tufts up to 30cm in diameter and reaching a height of 25cm. Once again, due to local unavailability, I grew it from seed, which presented no problem since it germinates easily. It is very drought-tolerant. The colour changes towards grey as its need for water increases. I use it in spaces left in brick paving and as an edging. Once a year it can do with a light clipping.

The above plants have proved to be successful in my garden because they fulfil certain necessary prerequisites. They maintain their contrasting foliage all year round and form a dense enough cover to restrict weed growth and conserve moisture. All, except for the *Festuca*, put on a floral display as

well as spread rapidly. All are readily propagated from cuttings or seeds, and since groundcover plants are needed in relatively large numbers this is a definite advantage. Finally, it should be remembered that if groundcover plants are to do the job laid out for them, the soil into which they are planted must be properly prepared. This means that all perennial weeds must first be removed, either by chemical means such as spraying with Glyphosphate or by manual means which would include pulling out every last bit of root. All in all, they are certainly worth a place in everyone's garden.

Note: All the seeds that are mentioned above can be obtained from Chiltern Seeds, Bortree Stile, Ulverston, Cumbria LA12 7PB, U.K. Herbs available by mail order from: Springfield Herb Nursery, 61 Springfield Lane, Ipswich, Suffolk IP1 4EW, U.K.



SOME MAPLES (*ACER*) SUITABLE FOR GARDEN USE IN MEDITERRANEAN CLIMATES

Philip McMillan Browse

The maples are a large group of trees and shrubs which occur chiefly in the temperate climates of the Northern Hemisphere. The genus contains some of the most variable and selected of woody plants, and indeed this latter activity has provided a great variety of plants of considerable garden merit.

In general the maples do not tolerate cultivation in the arid summer environments of mediterranean climates, even with the availability of irrigation water. The atmospheric aridity is sufficient to cause a check to the normal growth patterns as water loss from the leaves increasingly exceeds water uptake during the summer which, in turn, when water stress becomes critical, causes the development of a disfiguring marginal leaf scorch.

However, in such a large and diverse genus it would not be unreasonable to anticipate that there will be some species, which have evolved at the climatic margins, which will succeed in hostile climates. In arid summer conditions this will have been achieved by the evolution of strategies to reduce water stress, both by the development of a more resistant leaf structure and by producing a sufficiently extensive root system capable of tapping into available reserves. Some species, and especially those which have a wide geographical distribution, have spread into a variety of such environments and among these have developed certain populations which are capable of tolerating low winter rainfall and hot dry summers. Frequently these climatic conditions are also coupled with the confounding problems of alkaline and saline soil conditions. These features, together with mild winter temperatures, are also conventionally unsuitable for the cultivation of maples and in particular the expression of autumnal colours.

Thus the use of maples as garden or landscape subjects in mediterranean climates is largely ignored because of the assumption that the desirable characteristics of the maples – i.e. soft green summer foliage and autumn colour – cannot be achieved. Maples are chiefly sought after because of the brilliance of their autumn tints; however, the brilliance of this feature, and its intensity, is usually associated with cultivation in cold temperate climates and acid soil conditions. These characteristics are not normally manifest in warmer winter climates and in alkaline soils, but a few species have adapted to growing under such conditions and still produce an unexpected variety and intensity of autumn colours.

The Sugar Maple (*Acer saccharum*) is conventionally regarded as being the primary constituent of the fall colour picture of New England and Eastern Canada and as such would not even be considered as a suitable subject for Mediterranean gardening; it is, however, a variable species with a wide-ranging distribution across the eastern half of temperate North America. As it progresses to the south and west of its range, it varies sufficiently from the normally accepted catalogue of characteristics so that certain more or less geographical variants can be designated and in some cases at their extremes have been given specific recognition, despite the fact that they intergrade across the distribution of the whole species.

In such a wide-ranging distribution it would not therefore be surprising if extensive variation occurred not only in the more obvious morphological attributes but also in tolerances of soil conditions and climate. A typical example of this adaptability to adverse climatic and soil conditions is demonstrated by the so-called Caddo Maple – an extreme variant of the species both geographically and physiologically.

In several of the small canyons of Caddo County in Western Oklahoma, more than 240 km to the west of the usually accepted limit of the range of the Sugar Maple, occurs a discrete population of trees which grow on alkaline soils, receive only about 450mm of (winter) rainfall a year and experience regular hot, drying winds during the summer. These trees are characterised by thick, small, medium-green,

leathery leaves which have a high capacity for water conservation and a tolerance of water stress. They grow into acceptable, single-leadered trees which maintain good foliage condition throughout the summer (without leaf scorch) and ultimately develop the typical autumn colours associated with the Sugar Maple. Such an ecotype represents a distinct potential for mediterranean-climate gardening where this particular autumn colour is required, and especially when alkaline or saline soil conditions may be a problem.

The Canyon Maple or Big Tooth Maple (*Acer grandidentatum*) has an extensive range in the Intermountain Region of the United States from Utah in the north to Arizona and New Mexico in the south and thence east into Texas where it extends across on to the Edwards Plateau and then as far south and east as San Antonio; a disjunct population also occurs in the Wichita mountains of Oklahoma. *Acer grandidentatum* has been included by some authorities as a subspecies of *A. saccharum* but is currently regarded as sufficiently distinct to merit specific status, as indeed its culture and appearance would warrant. Ornamentally it does certainly resemble a diminutive Sugar Maple – being smaller in all its parts. Although growing on a wide variety of soils, in dry arid conditions it will produce an amazing diversity of quite brilliant autumn colours – from scarlets and oranges, through apricots and pinks to gold and yellow even on alkaline bases. It is a cold-hardy plant and will survive, in its native habitat, temperatures down to -35°C in winter and conversely will tolerate summer highs to 40°C or so. It is a variable tree in habit and stature; on xeric sites it is normally a multi-stemmed bush to 3 or 4m, while under mesic conditions it will develop into a tree to 7 or 8m. Autumn colours are inevitably variable even on the same site but expression in any particular tree is constant from year to year. The species grows typically on the lower slopes and in the bottoms of canyons and on lower elevation mountain slopes where it may occur in loam soils or on limestone areas with alkaline soils; it is rarely found in thin rocky soils or in exposed situations but it does tolerate summer aridity.

Acer grandidentatum is relatively slow-growing in its early years while it develops an extensive, water-seeking root

system, but once this is established growth rates increase dramatically – this is a typical adaptation of plants from arid situations. The populations from the higher elevations of the Big Bend Country of Texas – the Trans-Pecos Region – grow into the largest trees (to 10m) found in the species and these have a strongly dominant leader; they also have relatively fast growth rates, which presumably reflects the longer growing season than that further north. The population from the south-east of the Edwards Plateau towards San Antonio experiences only some 280mm of annual rainfall and develops into a small tree to 5m tall, in the bottoms of, and on the lower slopes of, canyons in alkaline soils. This variant is recognised as the Uvalde Maple. The total variation within this species undoubtedly offers many opportunities for selection, not only for size and habit but also for a wide variety of tolerances.

The Trident Maple (*Acer buergerianum*) is a genetically variable species from Eastern China and Japan; it may develop into a small shrubby tree to 4m or so, or it may grow into a single-leadered tree to 12m or more – the habit and size being a genetic function and not an environmental response. Hence there is considerable significance in the selection of a seed provenance in relation to the type of specimen required. As a specimen it grows into a lightly foliated, shapely tree of narrow conical habit and light green leaf colour. On a mature tree the furrowed bark can develop shades of pink and beige and is a highly ornamental feature. The leaves are characteristically three-lobed but in some specimens are entire (although still three-veined), while in others both shapes of leaves can be found; in the variety *formosanum* (from Taiwan) the leaves are typically unlobed. The Trident Maple rarely develops autumn colours of any note, normally just a clear yellow, and indeed leaf fall is invariably late, usually into the New Year period, although depending on the severity of the winter it may well delay until approaching bud break. The Trident Maple succeeds well in the arid summer conditions of a mediterranean climate and once established will manage with minimal irrigation.

Acer oblongum is a semi-evergreen Asiatic maple which does not drop its leaves until well into the winter. It has a wide

geographical distribution through the Himalayas and into western and southern China – it is from these latter provenances that it will develop as a small round-headed tree with an adequate hardiness for mediterranean climates. The leaves are hard and leathery and are capable of withstanding considerable summer aridity; they tend to vary in shape from tree to tree but are basically oblong in outline.

Acer paxii (sometimes *A. oblongum* var. *biauratum*) is a Chinese species, somewhat similar to *A. oblongum*, but remarkable and distinct for its evergreen habit – the past year's leaves falling as the new season's leaves expand. It occurs chiefly in Southern China and in consequence is only marginally frost-hardy, but it does succeed in arid summer environments provided that an occasional deep watering is available. This species is relatively slow-growing and naturally develops into a small, bushy, round-headed tree to 8 or 9m; however, it can be trained with a single leader in order to make an elegant tree on a standard stem. The leaves are roundish to oblong in shape, three-veined and three-lobed but sometimes virtually entire; they are light green and glossy above and glaucous underneath, with a tough and leathery texture. The tree tends to have a compact appearance and to be densely foliated. Although of relatively slow growth habit, this virtually evergreen maple is a valuable tree for mediterranean landscapes.

Acer truncatum is colourfully described in North America as the Purpleblow Maple or the Shantung Maple. It is a small, elegant tree emanating from the desert plains of Northern China where it experiences biting cold winters and hot dry summers. It has proved to be remarkably adaptable and has succeeded well in various mediterranean climates. It develops into a small, single-trunked tree of roundish to pyramidal shape to a height of 7 to 10m. The leaves are in proportion to the size of the tree – about 10cm across – and are five, sometimes seven, lobed, the base being rounded or 'truncate' and the lobes triangular. They are dark green above and glaucous beneath and this combination provides the basis for the descriptive 'shantung' as they ripple in the breeze. They are distinctly leathery in texture – a characteristic which aids in

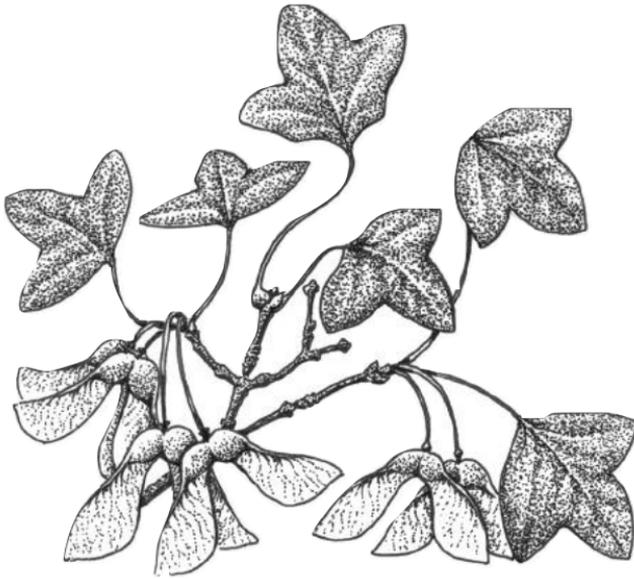
water conservation and allows the species to tolerate dry summer conditions without developing leaf scorch. The young, vigorously growing shoots in the early season produce leaves which will usually unfold a brilliant orange but as the vigour of the shoot growth declines as the season progresses the new leaf colour devolves to a purplish red. As is common with most maple species, the variation and intensity of autumn colour is a function of the individual tree but it is generally reliable on virtually all soil types and is manifest in shades of red, blood red and purple red, which in the clear, strong light of a mediterranean climate can be exceptionally striking. Its value as a garden tree is due to its small stature, compact habit, full foliage and colourful autumn tints which develop even with limited or no irrigation.

Acer morrisonense [now *A. caudatifolium*] is a small Snake Bark Maple from the mountains of Taiwan and as such would be an unlikely candidate for success in an arid summer climate; however, it has been grown successfully in California – at least since 1968 – with virtually no summer water after establishment. It grows into a small, spreading tree to a height of 7m or so with a similar spread. The leaves are typically maple-like, light green with little or no leaf scorch. They fall in the autumn at the conventional season with a strong yellow colour to expose the green and white striated bark. Altogether an unexpected bonus among the ‘drought-tolerant’ maples.

Acer hookerianum is a very decorative Himalayan maple species – which can hardly be classed as a drought-tolerant tree but which, as it will tolerate atmospheric aridity and high summer temperatures if irrigation is available and is such a strikingly beautiful subject, is worth the effort. It is a frost-tender species with large leaves with bright red petioles and a distinctly geometric effect to the foliage arrangement.

One cannot conclude a discussion of such maples without some reference to those species which are native to the Mediterranean area itself, although few of these can claim a place in the forefront ornamentally – despite their undoubted tolerance of summer aridity.

Acer sempervirens is the so-called Cretan Maple from the Eastern Mediterranean – a very variable tree ranging from a



Acer sempervirens

small, multi-stemmed, thicket-like shrub, 2 to 3m tall, to a single-stemmed tree to 10m or more with a spreading crown. Selection of seedlings from parent trees with a desirable habit and size could provide specimens with characteristics suited to a particular purpose. It is another species with a very variable leaf shape, sometimes three-lobed, sometimes entire. The leaves are small and bright green and glossy on both surfaces and have a tough, leathery texture. Like other maples of this climatic adaptation, this species retains its leaves until into the New Year and develops only a negligible autumn colour. As might be expected from such a variable species, a variety of names have been used to describe particular forms of geographical variants – and thus *A. creticum* and *A. orientale* belong here.

Acer monspessulanum is related to *A. sempervirens*. It is also of Mediterranean provenance and thus possesses all the assets for survival in arid summer environments; however, it has little to recommend it ornamentally and is unlikely to figure in any landscape recommendations unless perhaps for boundary hedging.

Acer hyrcanum is another Mediterranean maple species which, although well adapted for survival, has little ornamental merit for gardening purposes. It is a small tree, rarely exceeding 7 or 8m, although specimens of 15m are seen. It is of variable habit, sometimes multi-stemmed and sometimes single-stemmed. The leaves are generally bright green above and glaucous underneath. Forms with small, leathery leaves are particularly drought-tolerant and a strain of this extreme type, found in Greece, is sometimes attributed to the taxon *A. reginae-amaliae*.

Acer syriacum [now *A. obtusifolium*] is a native of the eastern end of the Mediterranean – usually as a small, shrubby tree to 5m. It is virtually evergreen, keeping its leaves until the new leaves appear. The leaves are tough and leathery and usually entire, although in some populations they are shallowly lobed. The upper surface of the leaves is dark green and the underside is olive green. The species has a wide distribution through Syria, the Lebanon and Palestine, where it occurs as a scrub species on mountainsides to about 800m; it is remarkably hardy for an evergreen species.

Acer opalus is a widely distributed maple through Southern and Central Europe and, especially in the form that occurs in Italy, is a remarkably drought-tolerant tree of large proportions (15 to 20m) with fairly large leaves (15cm+) which are felted underneath. It is remarkable also for its early and profuse flowering habit and the clear yellow of the flower colour. It is a tree of less formal habit and probably best suited for perimeter plantings, although it would have a place as a large, informal shade tree.

The abilities of this selection of maples to survive the atmospheric aridity of the summer climates of mediterranean areas is largely a function of a leaf structure which is adapted to reduce water loss and tolerate a water stress; however, it is also a function of a root system which is adapted to seeking and extracting water against steep pressure gradients. Thus when planting specimens it would be prudent to use seedlings (and possibly cutting propagated material) which will develop typical root systems. Grafted plants should be avoided unless the rootstock can be shown to be suitable and relevant.

LA MORTOLA ROSES



R. 'Mme. Hardy'

Trevor Nottle

Last year good fortune smiled on me and I was offered a pristine copy of *La Mortola Gardens* by Sir Cecil Hanbury. Fortune continued to smile when I opened my purse and found I could (just) afford to buy it from the English antiquarian bookseller who had it for sale. Essentially the book is a record of the development of La Mortola since the Hanbury family bought the estate in 1867. Within the green cloth covers are chapters on the history of the property, some history of the Hanbury family, articles about the furniture and architecture reprinted from *Country Life*, descriptions of the climate and environment, garden maps and extensive plant lists and descriptions of the many rarities grown there. The material was compiled and partly written by Sir Cecil Hanbury. The book was published posthumously by his wife Lady 'Dodo' Hanbury in 1938, the year after Sir Cecil died. Printed privately for Lady Hanbury by the Oxford University Press, the book was intended as a presentation gift to family friends and favoured guests at La Mortola.

One of the chapters contains a list of the roses grown in the famous Riviera garden. You will know quite a few of them:

Bengal rose
'Captain Christy'
'Comtesse d'Anvers'
'Fortune's Yellow'
'Frau Karl Druschki'
'Général Schablikine'

'Mme Etienne Levet'
'Mme Hardy'
'Mme Marie Lavalley'
'Noella Nabonnand'
'Olga de Wurtenberg'
'Ophirie'

'Henriette de Beauveau'	'Paul Nabonnard'
'La France'	'Paul Neyron'
'La France de 1889'	'Perle des Blanches'
'Lady Waterlow'	'Perle des Jardins'
'Lafayette'	'Reine Marie Henriette'
'Mlle Marie van Houtte'	'Rêve d'Or'
'Mme Abel Chatenay'	'Roi du Siam'
'Mme Bérard'	'Tea Safrano'
'Mme Carnot'	'Ulric Brunner'
'Mme Caroline Testout'	'Wisley'
'Mme Ernest Calvat'	'William Allen Richardson'

This list does not include the many species of roses that were also grown among the general plantations at La Mortola. The above were more formally cultivated in rose garden beds or grown as climbers on the great pergola that runs through the gardens.

A recent conversation with an old friend reminded me of an Australian connection with the Hanburys and La Mortola. In the 1920s an Australian rose breeder named Alister Clark bred many roses using *Rosa gigantea* and his hybrids of it as one parent. His other parents were selected from a list of top garden roses made by William Robinson in *The English Flower Garden*. As a gardening gentleman of leisure, Clark was well known among the wealthy English gardeners of the day; indeed he was a Vice-President of the English (now Royal) National Rose Society and a recipient of the Dean Hole Medal of Honour. At some stage he visited La Mortola and stayed as a guest of the Hanburys. My friend recalled that he had given her plants of a pale blue form of *Echium fastuosum* raised from plants he had been given while at La Mortola. There were no plant quarantine laws operating in Australia in those days, so Clark would have had no trouble bringing the plants into the country when he returned from his European holiday by luxury liner. It is a matter of some curiosity that Sir Cecil does not list any of Clark's hybrid *gigantea* roses in his list, since Clark's frequent articles in various rose society journals lead us to believe that some were grown at La Mortola from the days of his friendship with Sir Thomas Hanbury – they were

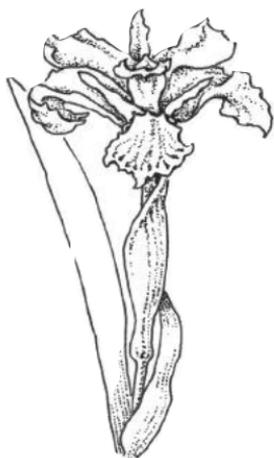
members of a syndicate which bought up the Engelhardt daffodil collection. The explanation may perhaps be that Clark's roses were grown experimentally rather than among the collections of proven garden performers recorded in the list. It would be fascinating to discover if, among the survivors at La Mortola, there are hoary plants of 'Lorraine Lee', 'Squatter's Dream', 'Flying Colours', 'Nancy Hayward', 'Harbinger', 'Jessie Clark' or 'Mrs Richard Turnbull' – all Clark roses with strong *gigantea* blood lines*.

As it is, Mediterranean gardeners keen to expand their rose collections could search out those preferred by the Hanburys. I am not familiar with which of them may be available from European growers, but Peter Beales would certainly be a good starting point. It may even be possible to import from the impressive collections of Teas, Hybrid Perpetuals and early HTs maintained by Trevor Griffiths in New Zealand. Another possibility would be to search out the roses in the great European collections at Sangerhausen (if it is still extant), at Willemshoe and at the Botanic Garden at Lyon. Some years ago I imported from Sangerhausen plants 'Noelle Nabonnand' which remains a strong favourite with me. Even in frosty East Germany such a tender rose was treasured for the silken beauty of its vinous flowers: something worthy of protection and careful propagation. It goes to show you can never tell where old rose survivors may struggle against a hard climate waiting to be found. What 'foundlings' may there be still in the relatively benign climate at Ventimiglia?

Trevor Nottle will be speaking on growing garden roses in warm dry climates at the 7th International Heritage Rose Conference at Cambridge, England in 1997, 29th June to 4th July. His book, *Gardens of the Sun*, was published by Kangaroo Press Pty Ltd., 1996, ISBN 0-86417-664-3.

* For colour illustrations, see *Growing Old Fashioned Roses* by Trevor Nottle, Kangaroo Press, Sydney, 1994.

THE AQUATICS AND THEIR CULTIVATION IN MEDITERRANEAN CLIMATES



Iris pseudacorus

Gianluca Corazza

In the Mediterranean region we certainly know about summer droughts, but this does not mean that aquatic plants are unnatural or out of place. This is true both in nature and in cultivation. One has only to think of the important natural wetlands – rivers, lakes and ponds of every dimension – that are to be found around the Mediterranean, as well as the very beautiful architectural pools, enriched with aquatics, that are to be found in some of the most important Mediterranean gardens.

Aquatics are thus a group of plants that can be cultivated with success in mediterranean climates, for during the summer they can have warm water accelerating their growth while during the winter they have to withstand only light frost or none at all. In addition, they generally like plenty of sunlight.

They usually grow in stagnant or slow-moving water so it is not a problem if not much water is available in summer, as a lot of them can stay in the same water for months and all that is required is to top up occasionally when evaporation makes the water level drop too low. It is not recommended to use tap water for this purpose; it can be scarce, and the chlorine added to it is intended to make it drinkable rather than to foster forms of life!

Once a pond has been constructed and filled it is possible to introduce many interesting plants, ranging from tropical subjects to those from temperate climates. The possibilities of growing tropical aquatic plants are increased if during winter nights a little new water is added to the pond by a pump drawing water from a well. Water drawn from underground is never ice-cold and, since it is at a higher temperature, remains on the surface of the pond thus preventing it from freezing. In this manner I am able to have plants of *Aponogeton distachyos* L.f. in full flower in the nursery pond in January.

Because of their particular isolating habitat, aquatics have few problems with pests. When these appear, however, it is better to avoid using pesticides which could contaminate the water; a strong jet of water sprayed over them is often enough to dislodge aphids and feed them to the fish.

Aquatic plants can be divided into groups according to the different water levels they need. Starting from the margin we find progressively:

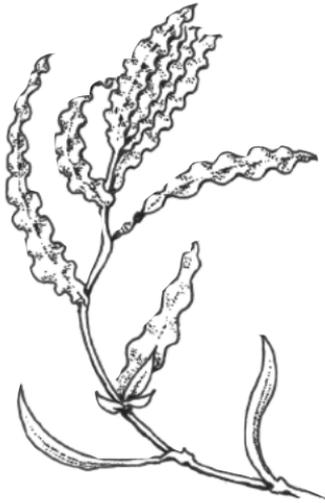
1. Marsh plants: plants that can live in wet soil or in a few centimetres of water, such as *Iris pseudacorus* L., *Iris kaempferi* Siebold ex Lem. [now *I. ensata*], *Cyperus papyrus* L., *Cyperus alternifolius* L., *Houttuynia cordata* Thunb., etc.

2. Emergent plants: plants with only a part of them out of the water, such as *Nelumbo nucifera* Gaertn., *Nelumbo lutea* (Willd.) Pers., *Pontederia cordata* L., *Orontium aquaticum* L., *Sagittaria* spp., etc.

3. Immersed plants: plants reaching the water surface but not growing above it, such as *Nymphaea* spp., *Nuphar lutea* (L.) Sm., *Trapa natans* L., *Aponogeton distachyos* L.f., *Potamogeton natans* L., etc.

4. Submerged plants: plants living completely below the surface of the water, with the exception of their flowers, such as *Vallisneria* spp., *Potamogeton crispus* L., *Hottonia palustris* L., etc.

5. Floating plants: plants not rooted in the bottom but living on the pond surface with bare roots in water, such as *Eichhornia crassipes* (Mart.) Solms-Laub., *Pistia stratiotes* L., *Hydrocharis morsus-ranae* L., *Salvinia* spp., *Azolla* spp., *Lemna* spp., etc.



Potamogeton crispus



Potamogeton natans

However, there are no sharp boundaries between these categories, and in nature too it is always possible to find plants in different situations.

Many aquatics grow rapidly in summer in our climate and so are invasive, tending to exploit all the space available; thus it is necessary to prune them every few years if we wish a part of the pond surface to be plant-free. In order to prevent them from taking over too much of the bottom of the pond we can also grow them in containers, without holes, filled with manured loam and covered with a layer of sand.

The quantity and depth of soil that each species needs varies from about 5cm on the bottom of the pond or a 10cm pot for a small submerged plant, to 30cm on the bottom or a 50cm pot for a large plant such as a wild lotus (*Nelumbo nucifera* Gaertn.). However, giant tropical aquatics such as *Euryale ferox* Salisb. or *Victoria* spp. (cultivated with difficulty in our

climates) and trees require more soil. Small and medium-sized aquatics can also be cultivated in water containers on terraces, but in this case it is usually better to use only one species, and often a single specimen per container.

If we also want animal life in the pond we can introduce fish, terrapins and others. It's always a good idea though to bear in mind the dimensions they can attain, the space they need, the food that they can find in the pond, and the possibility this food has of regenerating, never being completely consumed so as not to force the carrying capacity of this little ecosystem. We should also consider whether these animals damage plants or other animals: a duck, for example, or a large voracious fish can destroy everything in a few days, especially in a small pond. By introducing freshwater gasteropods we provide a food supply for fish and prevent algae from growing too much. In time, frogs, dragonflies, water coleoptera, water snakes, birds etc. and some local aquatic plants will arrive by themselves – and this will mean that the pond is healthy.

A pond is always something attractive in a garden, but it can be more interesting if it is inhabited by aquatics showing the many and often unusual ways such plants have adopted in order to be able to colonise water.

A NATURAL ROCK GARDEN

Caroline Harbourn

For many years now I have been walking on the mountain which looms within a five or six minute drive from my front door: Mt. Pendeli as it is called today, or Pentelicon as it was known in antiquity. At first sight this would seem to be a severely degraded mountain; for the last couple of thousand years marble has been quarried here – indeed, the Parthenon itself is built of Pentelic marble – and as a result one whole side of the mountain is a great white scar, lacking not only trees but even soil of any kind. (Such are the ravages of this quarrying that sometimes it occurs to me to wonder what the original shape of the mountain was before humans got to work on it.) When I first came to know it, ‘my’ side of the mountain – its south-west-facing slopes – was fairly densely covered with pine woods. In 1981, however, a forest fire put paid to them. (And in 1982 another fire raged on the north-western slopes, and in 1995 yet another even more horrendous one destroyed anything and everything on the last remaining unburnt side: but this is another story.) To make matters worse, because of its proximity to human habitation my mountainside serves as an illicit dumping ground for any kind of rubbish one could possibly think of (it’s amazing how many nasty old mattresses people seem to want to dispose of). And, finally, human habitation is itself encroaching; year by year, suburbia stealthily but inexorably spills upward on to Pendeli’s lower slopes.

“How depressing” or at any rate “what has all this got to do with Mediterranean gardens?” you might think. I have started with this admittedly grim overall picture of a degraded landscape in order to emphasise by contrast how much beauty is still to be seen if one narrows one’s focus to a smaller scale. For on Pendeli every spring for years now I have been admiring a magnificent natural rock garden. It lies on a sheltered south-facing slope just above one of the dirt tracks that were created after the 1981 fire in order to provide access for fire-fighting vehicles in the future (as clear a case of locking

the stable door after the horse is gone as ever there was, but never mind). Its total area cannot be more than about 30 square metres. To one side stand five or six pine trees in a hollow which, although barely perceptible to the eye, was enough to allow them to be spared from the fire as it roared over the slope with great speed. Above and to the other side masses of rough hewn marble blocks are piled, quarried but then inexplicably abandoned many years since. And the rocks in this rock garden are of course themselves marble, doubtless pristine white beneath their greyish weathered surfaces; they form rough downward-sloping terraces, interspersed with boulders.

Large bushes of *Phlomis fruticosa* and smaller mounds of pink-flowered *Cistus incanus* and grey-green *Ballota acetabulosa* as well as *Thymus capitatus* [now *Thymbra capitata*] are positioned in an approximate circle around this natural garden with the sort of masterly elegance that few, if any, gardeners are able to reproduce, no matter how we try. At the time of writing – early April – none of these plants is yet in flower, with the exception of the *Ballota* which is just beginning to bloom. The deeply indented, curly-leaved, grey rosettes of *Verbascum undulatum* are growing strongly, though they too will produce their flowering spikes later (much later, in fact, since the mulleins are about the last plants to flower in this region before all plant life starts holding its breath through the hot dry summer until the first rains of autumn set the cycle of growth off again). In contrast, the cyclamens flowered months ago and only their fine marbled leaves are in evidence now, while the anemones (*A. coronaria*) are already almost over, with a scant two or three faded mauvish-pink flowers still to be seen.

But the glory of this rock garden in springtime lies in all its small bulbous and rhizomatous plants. Grape hyacinths (*Muscari commutatum*) cover the ground in such profusion that if one wanted to walk here one would not know where to step. *M. comosum* [now *Leopoldia comosa*], the taller tasselled grape hyacinth, is also to be found, though in smaller numbers; it seems to prefer growing in the shelter of boulders rather than on the open ‘terraces’ like its smaller cousin. And among the deep blue of the grape hyacinths are patches of white star-

shaped *Ornithogalum*. (The word 'white' covers a multitude of qualities: the best way I can describe the whiteness of these flowers is to say that they glisten.) Dark magenta-pink is present too, in the shape of a few orchids.

Loveliest of all are the irises: *Iris pumila* ssp. *attica*. These are only a few centimetres tall and, although the flowers sometimes seem disproportionately large for the plant, their presence is always unobtrusive. Every year on my first springtime visit to this rock garden I experience a few seconds of anxiety as I scan the slope and don't immediately see them: can they all have disappeared, I wonder, or (perish the thought) has someone dug them up? But no, it is my own unobservant eyes that are at fault, and I suddenly spot a clump, then another, then four or five more. Although I have seen purple-flowered *Iris pumila* in other parts of Attica, all the plants on this particular site are pale-coloured, most a light yellowy cream with very dark red blotches but a few greenish-white with rusty brown blotches. All are exquisitely beautiful.

The small scale of this little garden is also beautiful, as is the way in which it belongs within its wider environment of the (albeit degraded) mountainside. One of the things that frequently bothers me in man-made rock gardens is that they lack much sense of connection with the rest of the garden around them; great care may have been taken in placing the rocks – often great blocks of sandstone – so that their strata appear to match and the angle at which they lie is apparently natural, yet if below them is an expanse of greensward and around them tall broad-leaved trees, no amount of careful contrivance can camouflage the jarring note. Of those things called 'rockeries' that I used to come across in the English gardens of my childhood the least said the better: 'rock cakes' might have been a more appropriate name – strange little cairn-like mounds of stones arising abruptly for no rhyme or reason in the middle of a lawn, with various saxifrages and suchlike dotted over them in pockets of soil, like currants.

If your garden is situated on a Mediterranean hillside of poor shallow soil and stones, I cannot help thinking that you are lucky for you already possess the makings of an unjarring rock garden. But wherever your garden may be, and

whatever its size, a good look at the landscape around can suggest alternatives to the verdant lawns or lush herbaceous borders that hot climates and lack of water (or very steep water bills) make impracticable in the Mediterranean region. One of the main lessons that this little natural rock garden on Mt. Pendeli has taught me is that of seasonality. It is a garden whose flowering period begins with the first cyclamens of autumn and ends with the last cistuses and mulleins of early summer; spring is the season when it is in its full prodigal glory, while throughout the hot summer months it is dormant – a quiet place where shape and form take over from colour, where rocks and mounds of grey-leaved *Phlomis* and *Ballota* continue to give pleasure.

Because, year after year, I enjoy this place so much, I can't help thinking of it as my own private rock garden, though in truth I know that it was not designed for my delight (any more than was the princely hoopoe which once we saw pausing here); indeed, it lies on the open mountainside for anyone to see. My lasting hope is that those who walk by will either pause and look and enjoy, or else simply will not look at all, will not see it, will go on walking, so that – in both cases – this natural garden may continue to flourish.



Upupa epops

GARDENING WITHOUT WATER

Clive Blazey

Living in England is rather like living in a perpetually misting greenhouse, which must explain why its plants look so healthy (and its people look so pasty!). Before all this journal's English readers write irritated letters, let me explain that on my last visit to England in the height of summer I enjoyed the sunshine for less than four hours of a 14-day visit. Because the gardens looked so beautiful, the overcast weather didn't concern me until I stopped off in Greece before returning home. The contrast couldn't have been more striking, for during our four weeks in Greece not only did it not rain, but there wasn't a single cloud visible at any time of our holiday.

Of course both countries have vastly differing garden heritages determined largely by the availability of water. The focus of attention in most English gardens is a lush green lawn which forms the foreground for a garden border or the framework of the famous English landscape. Growing a lawn in England is easy, for although the shallow root system needs a continuing source of water a light shower is never more than a few days away.

Because of their English cultural heritage, gardeners in my home country of Australia, and particularly those in its southern states, have imitated the English model – and there can be none finer, provided that there is abundant water. But in country areas farmers and townspeople who are unable to rely on a consistent water supply will find the English model quite inappropriate. Our recent trip to Greece was thus highly instructive, for the 'Mediterranean garden' is a far more appropriate model to follow in all parts of Australia with inadequate supplies of summer water.

I can't remember seeing a green lawn anywhere in Greece in mid-summer, but I well remember enjoying the refreshing coolness provided by the shade of an overhead grape vine or walnut tree. Midday temperatures exceed 40°C every day for six weeks or so, making the cultivation of shallow-rooted plants such as grasses and seedling annuals impossible. At 40°C a

lawn needs water every day, but a tree can survive for three to four months between waterings.

The Mediterranean garden heritage is one which has developed over 2,500 years and is far more appropriate for dry climate areas than struggling with an English approach which is bound to fail. A bare expanse of brown earth is a very distressing sight, but planted with a beautiful range of deep-rooted broadleaf trees produces a very pleasing woodland effect that is both decorative and surprisingly cool. Very few Australian eucalypt trees can produce the dense shade of an elm, a plane or a walnut tree, because the leaves hang down, letting through too much heat and light; thus there are many other trees that should be planted in preference to Australia's native bushland species.

The Greeks are fortunate in being able to plant a surprisingly diverse range of deep-rooted trees which not only provide vital shade but also a bonus of highly valued fruit and nuts, most of which can be stored or dried for the winter larder. Among the list of drought-resistant trees which have been proven in both Australia and Mediterranean countries are chestnut, grapes trained over a pergola, carob, fig, loquat, olive, mulberry (white berries can be dried), persimmon, pomegranate, walnut and almond. If supplementary water is available, the list could include grapefruit, orange, lemon, plum and apricot trees.

There is a good range of drought-resistant flowers cultivated in Greek gardens which will thrive with minimal water in Australia too: oleander, plumbago, carnation, geranium, sunflower, periwinkle, four o'clocks, wisteria and wormwood.

Although the provision of shade is the primary requirement, the availability of such a range of fruits and nuts reduces the necessity of cultivation of a variety of annual vegetables. The Greek gardener cultivates warm climate vegetables, such as capsicums, cucumbers, tomatoes and eggplants, but because much of his produce comes from fruit and nut trees the seasonal effort of tilling and weeding the soil is minimised. Most Greeks living in the country graze a few sheep, goats, chickens and pigs which can be largely sustained

by the surplus from the fruit and nut orchard; thus these drought-resisting trees have provided not only shade and fruit, but also valuable meat with very little effort other than the original planting and routine maintenance. This point can't be overstressed, because the work required to produce food from fruit and nut trees is a fraction of that required to produce the same food from cultivation of an annual vegetable crop – and anyway, no one feels like working when the temperature rises above 40°C. And if it is home-grown you don't have to pay for wasteful packaging and high transport costs (accounting for over 70% of the price of food today), and the food is produced without the wastage of any petrol. A horticultural system based upon fruit and nut trees requires very little work to produce self-sustaining yields with very little water for generations to come.

This article is an extract from an article of the same name first published in *Best Gardening Ideas* and reprinted with permission.

SYNERGISTIC GARDENING

(PART 2)

Jenny Bussey

So how does Emilia Hazelip suggest that we put these rules (discussed in Part 1, *TMG* No. 7) for working together with nature to maintain soil fertility into practice in a mediterranean climate?

It does not matter how large or small your plot is, the Synergistic Method can be used to grow any plant and the wider the variety of plants grown, the better. There is no need to practise crop rotation in space and time, or worry about plant combinations, or the phase of the moon or planets – a healthy soil will produce healthy plants.

However, you must consider the site before rushing to create beds or plant anything. If you are starting from scratch, so much the better, but any established garden can be improved. Each garden and each site is different, and within a garden you may have areas that are very different from each other. Learn to use these differences to the advantage of the plants you choose. Consider the height above sea-level of your site. Do you get frost? Or high humidity? Or cold winds? What range of temperature do you get? How much water is available to use for plants? Ask your neighbours what problems they have found, or what advantages your situation has.

Then look at the soil as it is now. Find out the level of acidity or alkalinity as this will dictate the plants that you can grow successfully (acidity can be corrected by liming, but it is much more difficult and expensive to reduce a high pH level). Test it to see what ratio of clay, silt and sand you have – half-fill a straight-sided jar with earth without stones, add water to nearly full and shake hard for a couple of minutes, then leave to stand for 24 hours. The bottom layer of coarse grains is sand, then a finer grained layer is silt, and the top layer is clay, in which you can hardly distinguish the grains at all. The ideal is about one third of each but this is not often found round the Mediterranean. A heavy clay soil easily becomes waterlogged,

while a very sandy soil loses water very quickly. Both these problems can be helped by increasing the humus in the soil, but all soil benefits from a high humus content.

Look at the colour of your soil – the darker it is, the more organic matter it contains. Usually, if you dig a straight-sided hole in the ground the soil will get lighter as you go down, and that top layer of darker soil is the one where most roots are found and which you will be increasing as you add organic matter to the surface. Check to see what total depth of soil above the bedrock there is. Obviously, the deeper this is, the better.

The aspect of your plot is most important. Most places get sun in mid-summer, but what happens in the winter? Where do shadows fall? Are there areas which get no sun at all for several months? Are there others which have sun all year round? Are there areas where frost might collect? Then, what about wind direction and force? Winter winds usually come from a different direction from summer winds and you may need protection from both sides. Another consideration is what happens when it rains hard – where does the water run to? Does it collect in a dip?

Once you have these details noted, you can decide where to put trees and hedges for windbreaks, shade, and shelter for animals, birds and insects and start to design your beds for flowers and vegetables. Beds must be narrow enough so that you can reach to the middle without stepping on them – about 1.20 metres – and the paths between should be about 50cm wide.

After initial ploughing or digging, if necessary, beds can be made in any shape you like but in the vegetable garden it is probably easier to have mainly straight ones. Once marked out, scrape any topsoil from the paths on to the beds so that the beds are 20-50cm higher than the paths, with sloping sides and flat tops. If your soil is very poor, put a layer of very well rotted compost over the bed. Install two drip irrigation tubes along the top of each bed, then cover the whole bed with an organic mulch. Suitable materials include shredded newspapers, dead leaf litter, shredded prunings, seaweed, sawdust and straw, or a mixture of any of these. Materials to

avoid are anything with seeds or perennial roots from weeds in it, or any resinous material from pines, cypress, thuja or eucalyptus which inhibits soil bacterial activity – these can be shredded and left on the paths until weathered enough not to cause problems. Make the top layer of straw and, if your site is windy, put something over the top to hold the mulch in place until plant growth does this for you.

You can now start sowing seeds or planting out small plants from pots or seed beds. In nature, plants generally grow in groups as well as intermixed, so bear this in mind when planting. To plant, pull back the mulch, dig a suitable sized hole and firm the plant into place, replacing the mulch immediately. For seeds, pull back the mulch and gently loosen the top of the soil; sprinkle the seeds thinly and pat them down so that they make good contact with the moist earth; or larger seeds can be sown individually, just pushing them into the soil; then put a light covering of mulch back over them.

Put the taller or bushier plants in the middle, lower-growers nearer the sides, trailers to grow along the middle under other plants, and upright plants along the sides. Plant sun-lovers facing south and those that like shade on the north side of the bed. Intersperse plants with flowers which attract birds, bees and insects, and also with herbs for their beneficial effects on surrounding plants.

Mix up the plant families and always plant some legumes (plants that produce seeds in pods, such as beans or sweet peas) among the others. Legumes fix nitrogen from the air on their roots which is made available to other plants in due course. Make supports for climbers from two six-metre-long metal concrete reinforcing rods with their ends pushed into the soil and curved across each other, wiring them together in the middle – these will last you many, many years and will not collapse under the weight of the plants and/or wind. Climbers can also be grown against terrace walls, where tomatoes and other fruiting plants thrive too.

In the vegetable garden, some vigorous or invasive plants are best planted in a bed on their own, for instance strawberries or mint. However, onions and garlic can be planted among strawberries. Sweetcorn needs to be planted in

a block to help fertilisation of the cobs, and it can be underplanted with cucumbers that trail among the stems, and with climbing beans or peas for the nitrogen they provide. Lettuce and cabbage stalks, if cut a few centimetres above the ground, will resprout with usable greens for salad or cooking. Leeks can be cut off a little above the roots, watered well and left to regrow – this can be done several times.

Potatoes must be covered with a very thick mulch so that the tubers do not become green, or use cardboard under the other mulch to exclude light, with a hole cut in it for the top growth to come through. The seed potatoes are set in the top of the soil only. When they are ready, pull back the mulch and the new potatoes will be near or just under the surface – take these, but leave the roots and tops to rot down where they are.

When peas and beans finish, break down the stems and leave them as mulch, and their roots undisturbed in the ground. Always leave some plants of each variety you grow to finish their complete cycle until they form seed heads – you can either collect these or let them self-seed. If you choose non-hybrid cultivars, they will breed true next year, though you do have to take care with some plants that easily cross-pollinate with other varieties or even wild members of the same family.

The ornamental garden is treated in exactly the same way: all dead material or prunings are returned to the soil, roots are left to rot down where they are and some flowers are allowed to set seed instead of being dead-headed. As one plant finishes, replace it with another, the same or different, depending on the season. The beds in your garden may not always look very tidy, with plants at all different stages of growth, but you will always be able to find something to eat or flowers to pick for a well-earned bouquet.

Perennial plants, whether grown for flowers (herbaceous plants), vegetables (e.g. globe artichokes) or green manure (e.g. alfalfa), should always be allowed to grow uncut and go to seed in their first year, as completing their natural cycle allows their roots to develop fully, which strengthens them. After this, cut them as often as you wish in the next year, but always allow them time to go to seed at the end of their natural life cycle each year. This way you will have them flourish for many years to come.

Always find room for a mixed hedge of flowering and fruiting trees and shrubs, including leguminous varieties, which will provide food and shelter for small animals, birds and insects, many of which will also help to keep pests at bay. Make the bed in the same way as above and keep it mulched or plant groundcover plants to maintain the same effect. Prunings from this hedge can be shredded and used for mulch throughout the garden.

When planting fruit trees give them plenty of room to grow into their natural shape with minimal pruning; they will live much longer as stress is reduced and give all the fruit you wish. Mulch them thickly or underplant with green manure plants that can be cut and left to decompose several times a year to increase fertility around the tree. Water, when necessary, should be applied in a circle beyond the tree's drip line to be most beneficial. Once established, climbing plants can use them for a support without causing any damage and smaller plants can benefit from their shade.

Kitchen vegetable waste may be used directly as mulch, but it is better to compost it separately to use for raising seedlings to plant out later. For best results, mix it with an equal quantity of straw, newspaper or other material which will break down more slowly and sop up the moisture from peelings, etc., thus avoiding any unpleasant smells. Leave to decompose completely before using.

This Synergistic Method for growing plants has many advantages: first, and most important, you are caring for the soil, nurturing it and improving it so that it will continue to live indefinitely. If your soil is initially very poor and depleted, do not expect marvellous results in one year. But at the end of three years you will see a big improvement and by five years it will be really flourishing. Of course, progress will depend on many things, not least the weather, so do not despair if all does not go well at first as it takes time to create an equilibrium, but if you persevere, you will succeed in improving your little corner of Mother Earth.

Secondly, you will be saving on the expense of fertilisers, pesticides, water, and even equipment, as you need very few tools to maintain the garden in good health. And, after the

initial effort of making the beds, you will have no more back-breaking work to do. You will be able to enjoy your garden and all the fruits and flowers you can collect. Even if you are not totally convinced, please try this method in a small area of your garden and see for yourself what results you get – I think you will be pleasantly surprised!

Further information:

Emilia Hazelip,
Association Las Encantadas, BP 217,
F-11300 Limoux,
France
Tel/Fax: +33 468 31 51 11

Video: “Synergistic Agriculture” by Emilia Hazelip, available in various languages, shows the making of a garden in the French Alps.

Further reading:

Masanobu Fukuoka,

The One-Straw Revolution;
The Natural Way of Farming;
The Road Back to Nature
Soil and Erosion
Biological Transmutation
Permaculture

Mark Bonfils,

C. Lewis Kevvran,

David Holmgren & Bill Mollison,

SEED SEARCH

I am desperately looking for even the smallest number of seeds of *Zantedeschia aethiopica*, form (not hybrid), with pink spathes. I will send, in exchange, seeds of the Mediterranean climber *Solanum dulcamara*.

Luigi Galasso
Via G. Toma, 8
82100 Benevento
Italy

I am after seeds of some plants that are proving very elusive to obtain:

Acanthus dioscoridis
Acanthus syriacus [now *A. hirsutus* subsp. *syriacus*]
Acanthus hirsutus
Acanthus spinosissimus [now *A. spinosus*]
Ferula kuhistanica
Crambe kotschyana [now *C. cordifolia* subsp. *kotschyana*]
Megacarpaea orbiculata

I am also interested in seeds of any of the very beautiful wild peonies of Greece. Can anyone help?

Craig Irving
RMB 4610
Euroa
Victoria 3666
Australia

SUNDRIES

LES JOURNÉES DES PLANTES, COURSON

The 1997 Journées des Plantes will be held on May 16-18 and October 17-19 at the Domaine de Courson, 91680 Courson, Monteloup, France, tel. (00 33) 1 64 58 90 12.

A YEAR IN THE MEDITERRANEAN GARDEN

The MGS is hoping to participate in the publication of a series of small books covering general gardening, season by season, in a mediterranean climate. To this end, a questionnaire has been prepared which is included with this issue. Please spare a few minutes to complete and return it – for the more replies we receive, the better we shall understand the needs of the mediterranean gardener.

THE NEXT ANNUAL GENERAL MEETING OF THE MGS

As the President of the MGS suggested in *The Mediterranean Garden* No. 7, organising a few days of activities around the AGM would be exciting and fun and would provide a good opportunity for members to meet one another. The first such two- or three-day event could be held in Greece in mid-October 1997 if enough members wished to attend it. If you are potentially interested in visiting Greece for a few days and meeting other members of the society, or if you have any other ideas or suggestions to make on the subject, please contact Sally Razelou at PO Box 14, Peania 190 02, Greece, tel. (+30 1) 664 3089.

LIST OF MGS MEMBERS

A list of the members of the MGS has now been prepared and is available (either entire or for a specific country) from The Secretary, MGS, PO Box 14, 19002 Peania, Greece at a charge of £3.00, US Dollars 5.00, Australian Dollars 6.00 or Drachmas 1000 to cover postage.

LETTERS

I am planning to write a book on Mediterranean herbaceous peonies. As a matter of fact, it is in China and the Mediterranean area that the most species of the genus *Paeonia* are to be found, each of these regions possessing 12 species: China has all the tree peony species (six from Central Yunan and Tibet to Anhui and Shaanxi) as well as six herbaceous species, while the Mediterranean area has 12 species, all herbaceous, from Morocco and Portugal to Eastern Turkey. Of the only other four species, two are to be found in the Eastern USA and two in Asia. I have visited and in some cases photographed all the Mediterranean species but I am not an outstanding photographer and sometimes I wasn't on the spot when the plants were in full bloom. Therefore I am very interested in finding good pictures (possibly transparencies) of native Mediterranean species. I am very keen to find good photographs of *Paeonia clusii* (Crete), *P. rhodia* (Rhodes), *P. parnassica* (Mt. Parnassos), *P. coriacea* (Morocco, S. Spain), *P. broteri* (S. Portugal) and *P. cambessedesii* (Mallorca), but all good pictures would be welcome.

All are very nice plants which can stand long periods of drought and which would be a valuable addition to many Mediterranean gardens. Unfortunately they are not easy to propagate, and thus nurserymen prefer to ignore them. It is exceptional to find them on sale; moreover, nurseries which list them in the Plant Finder usually declare that they are sold out when you attempt to order one, and will not accept your order.

*Dr. Gian Lupo Osti,
via M. Mercati 17A,
00197 Rome, Italy*

I understand that one of your contributors has been unable to find out anything about *Grevillea* × *semperflorens*.

It is the result "of a cross made in 1926 or 1927 between what was thought to be *G. preissii* and *G. sulphurea*, the former

being the seed parent. This cross was made by the exhibitor Miss F.E. Briggs, of Fursdon, Crown Hill, Plymouth”.

The above extract from the Journal of the Royal Horticultural Society for 1937 explains the hybrid’s origin. In Britain it is a tender plant which, even with wall protection, needs covering in severe weather.

G. × semperflorens is grown at the Mt. Annan annexe of the RBG Sydney. Presumably it will be described in Volume 4 of *Grevilleas*.

J. Irons,
Heswall, U.K.

Jenny Bussey’s article on Synergistic Gardening, and in particular Fukuoka’s principle number 3 NO CHEMICAL TREATMENTS, brings up a question I have been longing to ask someone!

Due to the considerable moisture in the soil the small garden space fronting my grandfather’s house is overrun by fig trees. Over the years these figs have spread their roots beneath the foundations, both endangering the old homestead and encroaching into the house area and driveway like the baobabs in *Le Petit Prince*.

A friend recommended the following plan: Saw through the thick fig tree trunks and fell the trees. Drill holes into the stumps with a hand drill. Inject a chemical treatment into the holes. It will penetrate all the way to the roots, which will then shrivel so that one can uproot the trunk. My friend said the chemical treatment will not reach the soil. Is this true? Can I proceed, or is this technique incorrect? The soil is clay and damp below the surface but it bakes hard in the summer. How else can I rid myself of these dangerous fig trees?

Yvonne Linardos,
Athens, Greece

In his review of Trevor Nottle’s book (*The Mediterranean Garden* 7) Hugo Latymer suggests that anyone attempting to cultivate *Meconopsis betonicifolia* (among other things) in a mediterranean climate is not in his or her right mind.

Whilst I have never grown any of these plants, I will confess to having attempted to raise Russell lupins in calcareous Mediterranean soil. They germinated well, turned yellow and died, all within a very short space of time, and only later did I read that they do not tolerate lime. (I would no doubt have tried *Meconopsis betonicifolia* if such had been available, but this is a plant I have yet to meet.) This episode may indicate that I have a tendency to egotism but is not, I feel, evidence of an unsound mind. On the other hand I am painfully aware of my ignorance in gardening matters – particularly in the Mediterranean environment – and it is for that reason I turn to this journal where experienced plantsmen like Hugo Latymer have much to teach me. Please do not disparage those of us whose trials are so often in error – we are trying to learn.

Come to think of it, Hugo Latymer also puts *Rhododendron sinogrande* in the same category. Now, I understand that azaleas are really rhododendrons which for some reason are always referred to as azaleas. And surely the idea of trying to grow these in calcareous soils with strong sunlight and lime-rich tapwater is equally nonsensical? Yet every garden centre round here stocks them. Either I am not as sane as I thought or a lot of other people are not in their right mind.

*Russell Read,
Nea Alianthos, Greece*

Can anyone recommend a book on the care and culture of Agrumi lemon and orange trees?

*Maula J. Frankel,
Holybourne, U.K.*

I wonder if you could provide an article some time about how best to protect plants against unexpectedly severe winters. I am the absentee owner of a garden in Umbria – and would really like to know how I can help my New Zealand and Australian plants to survive. Alas, this year even many local plants were killed off... but maybe you have an expert somewhere?

*Jean Mason,
Linz, Austria*

THE CONTRIBUTORS

CLIVE BLAZEY is a self-styled gardener who runs a mail order plant and seed business from historic "Heronswood" on the Mornington Peninsula, Australia.

JENNY BUSSEY founded the Costa Blanca Gardeners' Circle in 1990. She is Chairwoman of their committee and edits their monthly newsletter.

GIANLUCA CORAZZA is a member of the *Associazione per la Diffusione di Piante per Amatori* (A.Di.P.A.) and a volunteer at the Lucca Botanical Garden in Tuscany. In 1995 he established the Vivaio Corazza, a botanical nursery specialising in unusual plants from all over the world.

HEIDI GILDEMEISTER now gardens on a Balearic island. Her particular interest centres on the use of drought-tolerant plants; her book *Mediterranean Gardening: A Waterwise Approach* was published by Editorial Moll in 1995.

SUE GOUMAS started gardening under fluorescent lights in New York. Since settling in Greece 15 years ago, she has been growing things in the soil. Her main interest these days is in raising perennials which can withstand the long, hot summers.

CAROLINE HARBOURI is a translator and editor with a long-standing interest in the flora and fauna of Greece.

MARGARET LYNCH gardens in Southern Greece. She was for many years a member of the Hardy Plant Society Executive and Conservation Committees and of the NCCPG's National Collections Committee. She is the co-author of a monograph on *Campanula*, 1989.

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TREVOR NOTTLE is a garden historian, writer and consultant living in South Australia. His book *Gardens of the Sun* was published in 1996 by Kangaroo Press Pty Ltd, ISBN 0-86417-664-3.

TOM WELLSTED has been involved with garden publishing for many years, as a journal contributor, book editor and author; his books include *Vegetable and Herb Growing* (1977) and *Patio & Window Box Gardening* (1986). He now lives and gardens in Provence.

