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The British Rock Garden in the Twentieth Century

Royal Horticultural Society

Cover illustration:

"Rock primula – *Primula viscosa*",
from Reginald Malby's *Story of my Rock Garden* (1912).

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The British rock garden in the twentieth century

Brent Elliott
The Lindley Library, The Royal Horticultural Society, London

The Wisley rock garden

One hundred years ago, the Royal Horticultural Society was making its first important addition to the gardens at Wisley, which it had been given less than a decade earlier.[1] This was a rock garden, an example of a currently fashionable genre of gardening. George Fergusson Wilson, the original owner and developer of Wisley, had created a small rock garden, and the Society's first thought was simply to augment this; but this proposal was speedily succeeded by plans for commissioning an entirely new structure.

The designer originally selected for the work was Frederick William Meyer, the rockwork designer for Robert Veitch & Sons of Exeter. Meyer had been writing a series of articles on rock gardens for *The Garden*, which were eventually collected for publication after his death (Meyer, 1910) – though not quite all of them; E.T. Cook, the editor, may have felt a bit embarrassed about one article entitled "A Rock Garden in a Week" (Meyer, 1902), which showed that Meyer could have given the *Ground Force* team a run for their money. But his articles were confidence-inspiring, as was his use of before-and-after photographs of the gardens he had designed.

Things did not go as planned, as can be seen in the minutes of the RHS Council:

> 3 April 1906: "to engage a handyman and finish the rockwork adjoining the ends of the Glass Houses".
>
> 1 May 1906: "to invite a more extensive plan for the extension of the Rock Garden from Mr Meyer of Messrs. R. Veitch of Exeter".

[1] The following abbreviations are used in the footnotes for periodicals cited: *AGS*, *Bulletin of the Alpine Garden Society* (from 2001 renamed *The Alpine Gardener*); *GC*, *Gardeners' Chronicle*; *Gdn*, *The Garden*; *GI*, *Gardening Illustrated*; *GM*, *Gardeners' Magazine*; *JHort*, *Journal of Horticulture*; *JRHS*, *Journal of the Royal Horticultural Society* (later renamed *The Garden*).

> 31 July 1906: "that Mr Meyer be authorised to secure for Wisley a quantity not exceeding 500 tons of stone for the Rock Garden".
>
> 14 August 1906: "Messrs R. Veitch of Exeter wrote that on acct. of Mr Meyers death they were not ordering the Stone until the Council had had time to reconsider the whole matter. The Sec.ty was instructed to thank Mr. Peter Veitch & say that it was thought better under the circumstances & with so many members of Council away to allow the matter to stand over at present".

There was then an understandable hiatus. It was not until four years later that a serious move was made to get the project back under way:

> 16 August 1910: "A letter dated August 10th from Miss Willmott was read, offering to construct the proposed rock garden at Wisley. The Council appreciated the proposal but its consideration was postponed … the offer being complicated by reason of the five invitations for tenders already issued."

(Backhouse of York was one of the firms that tendered unsuccessfully for the contract, and they had designed Ellen Willmott's rock garden – could her letter, which does not survive, have had anything to do with this fact?) The successful contractor was the Broxbourne firm of James Pulham & Son, famous for their artificial stone constructions, though the Wisley rock garden was to be constructed purely in natural stone. The commission was noted in Council minutes on 31 January 1911; a light railway was laid across the fruit garden in order to bring stones to the site; on 1 August E.A. Bowles had become involved with supervising various alterations he had proposed. Much more information can be found in the talk that Pulham gave, which was published in the Society's *Journal* for 1912.

> In preparing their scheme, they fortunately succeeded in obtaining the professional advice and assistance of Mr. EDWARD WHITE, under whom they have constructed many rock and water gardens in the past. Mr. WHITE collaborated with them throughout, and advised as to the landscape portion of the scheme, for it was realized that this important work, being for the premier horticultural society, should be not only an example of what a rock garden ought to be, from both

> educational and picturesque points of view, but one that might rank among the finest in the kingdom…
>
> The site selected was a fairly wild spot, about an acre and a half in extent, covered at the top, or south-east part, with rough turf, containing bulbs and a few deciduous shrubs, and a number of apple trees, while along the bottom ran some ponds, picturesquely flanked on one side with Gunneras, Osmundas, Bamboos, and similar subjects… Crossing the larger pond was a rustic Silver Birch bridge, which remains, and from this it was proposed that vistas should be obtained looking upwards through a valley formed by manipulating the intervening ground between this bridge and the principal scenic feature in the rock garden, a waterfall in the highest part of the ground…
>
> The stone adopted was a Sussex sandstone, selected on account of its good bold shapes and sizes, and for its pleasing colour, which harmonizes well with the soil, so that the rock appears to have been discovered and partially exposed in places… Each and every stone was laid on its proper bed – i.e., practically in the same position as quarried, thus adhering as nearly as possible to the natural formation… each stone individually was carefully bedded in soil, at depths to suit the varying requirements of the alpines and shrubs, with a suitable dip and root connexion towards the mother earth (Pulham, 1912: 226–229).

The completed rock garden had a 65-foot descent from top to base, and its generally north-facing aspect provided homes for plants which prefer a shaded position.

The Wisley accession books tell the story of the initial planting of the rock garden, from March 1911 to January 1913. The first donor to be recorded was Sir Josslyn Gore-Booth, who sent stocks of a hybrid primula named after his garden at Lissadell (the Wisley staff comment: "believed to be identical with P. Unique Improved"). Nurseries that sent plants included Veitch (rhododendrons and bamboos), Pulham (dianthus), T.S. Ware (lewisias), Barr & Sons (campanulas and saxifrages), Clarence Elliott (saxifrages), Paul & Son (violas), Reginald Farrer's Craven Nursery (primulas and saxifrages – the only entry marked "Bought"), Bunyard (fuchsias), Cutbush (30 species and varieties), Bee's Seeds (primulas etc.), and the now

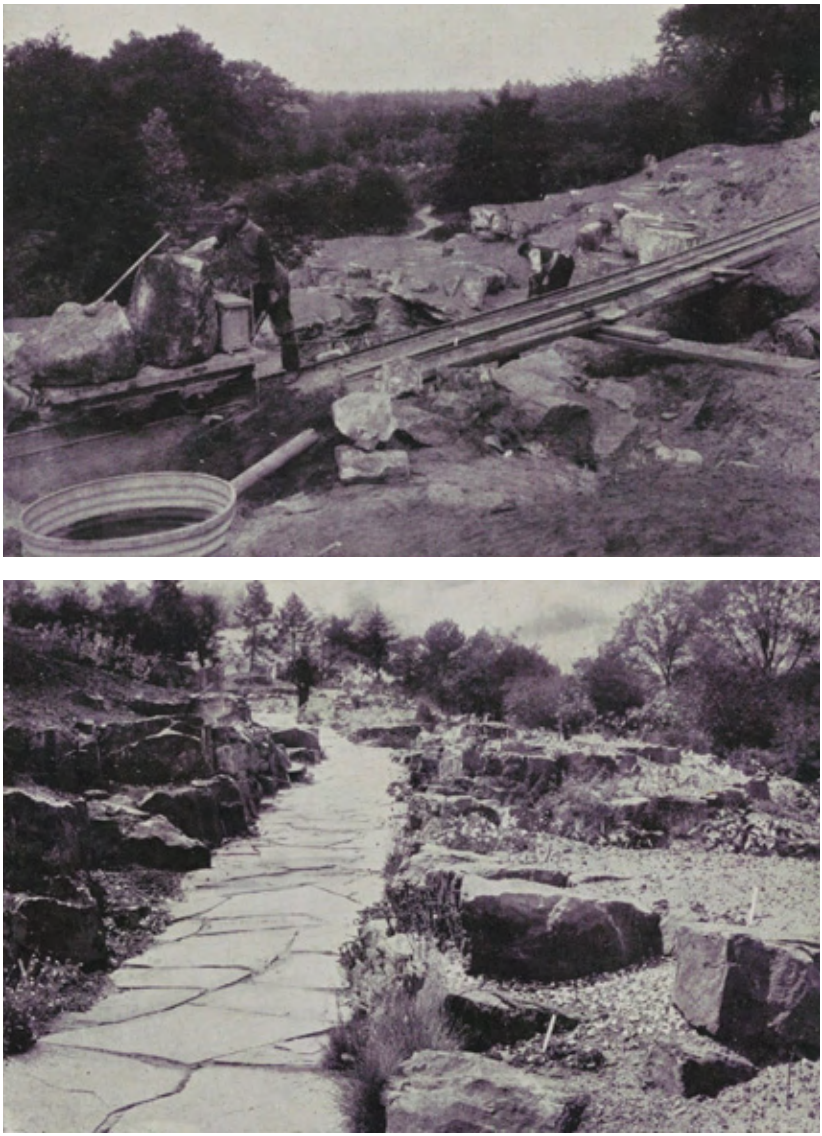

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Fig. 1. **The making of the Wisley Rock Garden, from Pulham (1912).** Above. **Moving the stone.** Bottom. **A path in the Rock Garden.**

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BRENT ELLIOTT

Fig. 2. Above. **The top waterfall, from Pulham (1912).** Bottom. **Wisley Rock Garden in 1978.**

largely forgotten Black Rock Nursery of Bognor (45 sorts of saxifrages). Private gardeners included William Marshall (ferns), A.C. Bartholomew of Park House, Reading (157 species and varieties), Ellen Willmott (44 species and varieties of shrubs), Lady Du Cane (Normandy cowslips for naturalising), and above all E.A. Bowles with two separate collections, the second numbering 155 species and varieties.

The rock garden at Wisley quickly became the garden's most famous feature, and a major asset to its reputation. An interwar commentator, comparing various important rock gardens, concluded:

> Of the gardens mentioned the most unsatisfactory from a pictorial standpoint is Glasnevin;[1] Kew is little better; Edinburgh and Edgbaston shew a distinct improvement; but, unquestionably, the Wisley garden is better designed than any of the others. The greater the pity that it is so very inadequately maintained! ([Woolley], 1923: 131).

Alas, the writer did not spell out the alleged deficiencies of maintenance. Problems of maintenance there certainly were: not only was there a petrol pump mechanism for controlling the circulation of water, which could break down (and was finally replaced by an electric rotary pump in 1959); winters could damage the planting, shrubs grow too large, and wartime circumstances allow incursions of weeds; and the rocks had a gradual tendency over the years to move downhill. Major renovations were carried out in 1929–30 after winter damage, in 1949–51 after the war, in 1963, with the addition of two new pools, in the 1980s, and most recently in 2010–11. The alpine meadow, with sandstone outcrops giving the impression of a gradual continuation of the rock garden, was added on the east side during the 1929–30 renovation (Paton, 1956; Hanger, 1961; Rix, 1989: 21–2, 73–8; Elliott, 2004: 81–2, and sources noted therein).

Over the generations, the rock garden has provided a home and display site for new alpine introductions, most famously *Meconopsis betonicifolia*, planted in 1929. It has benefited from expeditions by Peter Davis, Oleg Polunin, Col. D.G. Lowndes, Kingdon-Ward, Ludlow and Sherriff (details can be found in Hanger, 1961: 72–4), as well as more recent collectors like

[1] See K. 1922: 102 for a contemporary photograph of the Glasnevin rock garden.

Brian Mathew and Chris Brickell. And among its famous superintendents have been Walter Ingwersen, who, interned as an enemy alien during the First World War, was paroled into the custody of the RHS in order to manage it; J.T. Wall, who began breeding gazanias while superintendent of the rock garden; and Ken Aslet, who was to apply his knowledge to the creation of model rock gardens at Chelsea in the 1960s.

The nineteenth-century background[1]

Behind the Wisley rock garden lay a century of development and conflict over the making of rock gardens. At the beginning of the nineteenth century, the terms "rockwork" and "rock garden" could have been used interchangeably; a century later they stood for different, and frequently opposed, concepts.

Rock gardening has attracted its share of historians (Rockley, 1936; Wallace, 1936; Pulham, 1940; Hadfield, 1962; Gorer, 1974; G.S. Thomas, 1987; Ferns, 2005), most of whom have competed with each other in pushing ever further back in time the putative origins of the practice. Miles Hadfield, the most ambitious so far, pointed to Albrecht von Haller,[2] Rousseau (misleadingly described as a "Romanticist"), and Thomas Blaikie among the progenitors, and even cited Conrad Gesner as a 16th-century pioneer of mountaineering (Hadfield, 1962). This is not the place for a detailed discussion of the matter; let it suffice to say that the rock garden developed from the intertwining of three distinct traditions:

[1] This section is largely an abridgement of the material published in my *Victorian Gardens* (Elliott, 1986: 46–48, 94–99, 176–180, 187–192), and in my article on Reginald Farrer (Elliott, 1991). See these for additional references; only passages directly quoted are noted here.

[2] Of Haller's works, Hadfield cited only his *Enumeratio Methodica Stirpium Helveticarum*, 1741, but anyone interested in the early history of alpine enthusiasm should look at Haller's poem *Die Alpen* (1732), which he published at the age of 24. There is a 1959 edition, prepared by Harold T. Betteridge (Akademie-Verlag, Berlin), with notes identifying all the plants referred to in the text. Hadfield did not know Marjorie Hope Nicolson's *Mountain Gloom and Mountain Glory* (Nicolson 1959), now the classic study of the historical development of the aesthetic appreciation of mountain scenery; he could have pushed his account back two centuries more by including Petrarch as a predecessor of Gesner.

1. The decorative assemblage of different types of stones, and other objects thought to be analogous to stones (crystals, corals, fossils), in grottoes, fountains, and cabinets of curiosities, from at least the sixteenth century onwards;
2. The appreciation of rocky scenery, which during the eighteenth century resulted in the incorporation within landscape gardens of quarries, rock faces, rocky cascades, and stone outcrops (Hawkstone, Plumpton Rocks, Bowood, Goodwood, etc.);
3. The attempts to grow rock plants, whether native or exotic.

The attempt to grow such plants was largely limited to botanic gardens until the late eighteenth century; Philip Miller had no discussion of alpines in his *Gardeners Dictionary*, and when he finally got around to including an entry on *Androsace* he dismissed the genus as grown only in botanic gardens for the sake of completeness. But the generation after Miller became more intrigued by a category of plants that required special, and as yet undetermined, conditions for cultivation. Until the second quarter of the nineteenth century, alpines were generally cultivated in pots (Gorer & Harvey, 1979), but even before the end of the eighteenth there were attempts at *in situ* cultivation. At the Chelsea Physic Garden, William Forsyth, who was to be one of the founders of the Horticultural Society, arranged for the construction of a rockwork "for the raising an artificial rock to cultivate plants which delight in such soil"; it consisted of tufa, chalk, flint, corals, and a quantity of Icelandic lava that Joseph Banks had brought back to England as ballast (Minter, 2000: 48–55). At the Jardin des Plantes in Paris, André Thouin created a sixty-foot bank for alpine plants, including species of *Androsace*, *Artemisia*, *Primula*, *Tussilago*, and *Viola*; a translation of his account of the construction was read to the Horticultural Society in 1811 (Thouin, 1812).

In the first decade of the nineteenth century, Humphry Repton advised: "The numerous class of rock plants should have beds of rugged stone provided for their reception, without the affectation of such stones being the natural production of the soil" (Repton, 1803: 101). It should be noted that while Repton showed a strong appreciation of rocky outcrops in landscape scenery, he was not proposing to utilise them for rock gardens; this instruction formed part of a set of rules for formal flower gardens, showing how to create certain distinctive beds. The Chelsea Physic rock garden would have been a practical example. The recommendation of

foreign stone types should remind us that there had been a tradition, since the 16th century, of importing exotic rock into Britain, whether as curiosities, ships' ballast, or, as in the case of Martin Frobisher's 1578 importation of Baffin Island rock, potential gold-bearing ore (McGhee, 2002: 146–7), such stone ending up being used in building works or in cabinets of curiosities.

The rockwork of exotic and miscellaneous stone survived long enough to enter the early gardening magazines. Loudon's *Gardener's Magazine* contained an account by Benjamin Andrews of a rock garden and fountain he had made in Peckham, constructed of brick, flints, spar, and shells, which he described as looking "inartificial" (Andrews, 1838). Andrews was already out of step with the growing trend in rock garden construction, which repudiated the mixture of unrelated stones.

The development of the rock garden through most of the nineteenth century can be regarded as a series of progressive approximations of the effect of genuine geological phenomena, observable in mountainous regions:

Stage 1. The rocks should all be of the same sort: no mixtures. An example is the undated early nineteenth-century rock garden at Bicton, Devon, where a single type of stone is used, but the rocks are all placed with vertices pointing upward.

Stage 2. The rocks should not only be of the same stone, but should be arranged on their own bed, to approximate the appearance of a natural outcrop. Exceptions could be allowed where a known geological model justified them. At Chatsworth in the 1840s, Paxton created a rock garden modelled on the Strid near Bolton Abbey: a tumbled mass of rockwork. Paxton also challenged ideas of authenticity by placing a straight walk with stairs at either end through the middle of his rock garden.

Stage 3. The rocks should emerge from the ground in the sort of position in which a genuine outcrop would appear: no rockworks emerging from a neatly mown lawn or adjacent to the parterre. The allowed exception here was the rockery at Isham Manor, Northamptonshire, created by Sir Charles Isham in 1848: this was within the curtilage of the house, but Isham's success in making it a scale model of mountain scenery, complete with shrubs root-pruned into scale, made commentators forgive its breaking of this rule.

Stage 4. The rocks should be arranged so as to suggest natural stratification. This became the trademark of the most important creator of rock structures in the nineteenth-century garden: James Pulham & Son of Broxbourne. From the late 1840s, the Pulham firm created rock gardens by assembling masses of brick and clinker, pouring a Portland cement mixture over them, and modelling them into boulders that resembled sandstone or limestone (sometimes called Pulhamite stone). So successful were they that the geologist Sir Roderick Murchison was fooled into identifying their rock garden at Lockinge, Berkshire, as made from the local sandstone. With a series of prestigious commissions ranging from Sandringham (for the Prince of Wales) to the cascade in Battersea Park, Pulham advanced the cause of accurate replication of natural geological features.[1] Probably their largest private commission was at Madresfield Court, Worcestershire, in 1878–9, where they signed one of their imitation sandstone boulders (G. S. Thomas, 1987: 36–7; Festing, 1988).

The imitation of nature in rockworks was usually generic rather than specific. There was only one famous rock garden in the early nineteenth century modelled on a particular example of exotic alpine scenery: Hoole House, Cheshire, which had a scale model of the Alps at Chamonix, complete to the inclusion of crushed glass to simulate the ice of the glaciers (Loudon, 1838). For decades, Hoole House stood alone as a rendition of a bit of exotic scenery, but in the 1880s the idea began to spread, if in less dramatic form. The original rock garden at Kew, in 1882, was intended to suggest a Pyrenean stream bed, and the succeeding quarter-century was to see rockworks based on the Khyber Pass, the Matterhorn, and Mount Fuji.

Not all rockwork in artificial stone was made by Messrs Pulham. Once the principle had become known, there was nothing to prevent others from making their own experiments, and by the beginning of the twentieth century advice was available for the amateur. H. Hemsley, "rockwork expert" for Cheal's of Crawley, explained how to make boulders out of cement

[1] James Pulham published a now very rare little book, illustrated with real photographs, explaining the principles of rock-making, and giving a list of the firm's commissions up to 1876. English Heritage have been compiling a database of all known Pulham rockworks, the initial results published as *Durability Guaranteed* (2008). See also Claude Hitching's researches at www.pulham.org.uk.

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Fig. 3. **From Pulham, Stratified Rockwork, *Journal of Horticulture* (1876).**

(Hemsley, 1900: 18–19), while H. H. Thomas, the editor of *Popular Gardening*, offered a formula using clinker, cement, and sand (H. H. Thomas, 1927: 26–28). Reginald Malby's popular *Story of my Rock Garden* acknowledged his use of cement stones for reasons of economy (Malby, 1912: 16–17). It was probably the proliferation of such amateur works that led so many critics in the early twentieth century to reject artificial stone altogether. E. H. Jenkins complained that "The so-called 'artificial rocks' are almost all wholly bad" (Jenkins, 1913: 4), and Reginald Farrer agreed: "all artificial 'stone,' by whatever name described, is invariably and absolutely to be refused. Far better a rock-garden without a single rock than ill-furnished acres of Portland cement blocks or sham stalactites" (Farrer, 1919: I, xxix). This line of rhetoric continued into the postwar years, with Will Ingwersen remarking in the 1950s that artificial stone was permissible but never desirable (Ingwersen, 1952: 160).

Generally speaking, the planting of geologically representational rock gardens was based in part on rugged British vegetation, and partly on ideas of appropriate scale. Conifers, especially junipers, hollies, gorse, brooms, rhododendrons, cotoneasters, with ivies and other trailing plants,

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Fig. 4. **Ellen Willmott's rock garden, from Willmott, *Warley Garden in Spring and Summer* (1909).**

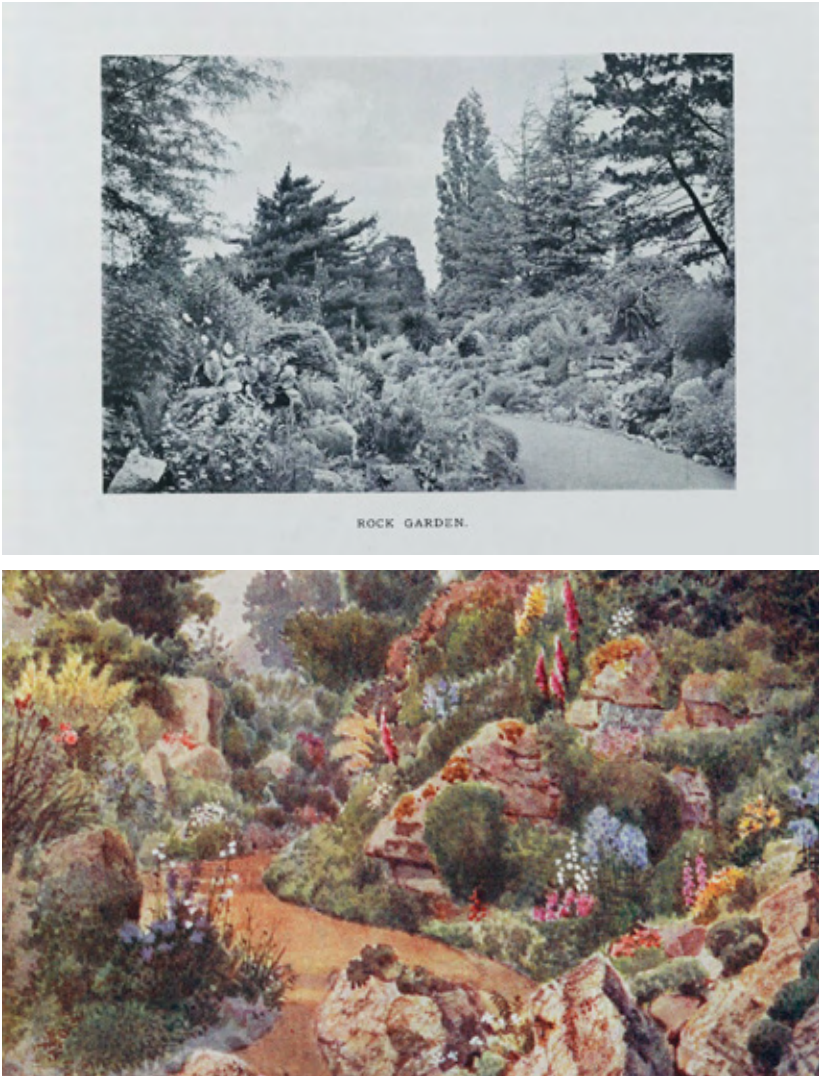

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Fig. 5. **Two views of the rock garden at Kew.** Above. **From E.J. Wallis, *Illustrations of the Royal Botanic Gardens Kew* (1908).** Below. **A painting by T. Mower Martin from Hope Moncrieff's *Kew Gardens* (1908), showing the ridge and bay system praised by Walter P. Wright.**

characterised the majority of rock gardens until the third quarter of the century; after that, the popularity of such planting did not so much wane as chafe under rivalry. Loudon had recommended that stones in a landscape could be turned into works of art by the planting of exotic rock plants, and the interest in collecting such plants was growing: Hoole House had, according to Loudon, the largest collection of alpines in England amid its scale-model Alps. In the 1850s James Backhouse of York issued the first nursery catalogues devoted exclusively to alpines, and towards the end of that decade a rock garden was constructed at his nursery in order to display his wares. This rock garden did not contain any depiction of natural strata, however. Working on the principle that the important thing was to provide a good environment for growing alpines, Backhouse rejected the idea of imitating either cliff faces or outcrops. A supporter of his, C.P. Peach, launched an attack on the Pulham tradition in the 1870s: "Rockwork does not want to be an attempt to deceive, but a picturesque place to grow Ferns and Alpines"; he praised the Backhouse rockery precisely because "there is no attempt to put every stone on its right bed… in the natural dells formed by the disintegration of rock… the stones would not be found on their natural beds" (Peach, 1876). In photographs of some rock gardens designed by Backhouse, such as Ellen Willmott's at Warley Place, the rocks are so understated that a caption may be necessary to identify the scene as a rock garden. Pulham's position was:

> No such effects can be produced by simply scattering stones and *débris* in the way "C.C.P." desires. There must be the origin apparent, cliff or mother rock… It is all very well, pleasing and interesting, to grow the pretty little Alpines or Ferns, and it is in the screens or *débris* at the base of the cliff they will do well and will be seen best; but for the rugged and bold picturesque effect or grandeur we must have the noble cliff, if only as high as our heads (Pulham, 1876).

(Was "screens" a printer's mistake for "screes"?)

This was the first sign of the fault line which was to run through twentieth-century rock gardening, though if William Robinson had had his way there would have been no serious fracture. His *Alpine Flowers for English Gardens* (1871) – if not the first book on rock gardening, the first which gave much detail on alpine planting – contained notes by Backhouse, and was recommended by Pulham as a planting manual. Robinson's later

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Fig. 6. **The Backhouse rock garden in their nursery at York, from their 1898 catalogue.**

work *The English Flower Garden* (1883) was to include notes on growing alpines by Latimer Clark, who had a Pulham rock garden.

The parting of the ways

But a fault line there was, and under the lateral pressure exerted by Reginald Farrer in the second decade of the twentieth century, the landmass shifted, leaving a great deal of debris in its wake. The epicentre lay on the outskirts of Henley, where Sir Frank Crisp had built a massive rock garden at Friar Park,[1] with the assistance of both Pulham and Backhouse for different portions, the *pièce de résistance* being a scale model of the Matterhorn constructed by his own head gardener. Some 23,000 tons

[1] Crisp published various editions of a guidebook to Friar Park, and this and other references may be found in Desmond's *Bibliography of British Gardens*. A few additional references not in Desmond: *GM*, 9 July 1898: 442–4; Robinson, 1910: photograph facing p. 12; *GM*, 2 September 1911: 641–3; Jenkins, 1913: 6; H.H. Thomas, 1914: 14–15.

of limestone went into its creation; William Robinson called it "the best natural stone rock garden I have ever seen" (although it included artificial stone in parts), and he was echoed by E.H. Jenkins: "the noblest example of a rock garden this or any other country has ever seen".

But it also attracted criticism, beginning with Charles Thonger:

> I have seen an example of this recently, and can only regret that the owner of that most precious heritage, an old-fashioned English garden, should be so misled as to convert a sunken court into an Alpine peepshow, which might well serve as a sixpenny attraction at Earl's Court. Until the advent of this pernicious stone work, nothing could have been more beautiful than this sunken lawn with its weathered sun dial, and terraced borders of herbaceous flowers, completely encircling it like the holiday throng at a Grecian amphitheatre. In the time of roses one felt that here indeed pulsed the heart of the English garden. But now all is changed. The turf and roses are swept away, the sundial no longer tells the summer hours. The place is surrounded by an absurd range of beetling crags and frowning cliffs; the ground is strewn with tufa boulders. Small paths and rocky steps suggest a maze, and *horresco referens*, this "garden" is approached by rockwork tunnels, in which there is sufficient light to reveal rows of artificial stalactites! (Thonger, 1907: 12)

Farrer's criticism was more complex. Farrer set himself as an iconoclast of the image of William Robinson, rarely attacking him but focusing instead on others associated with him. Robinson had begun his career attacking the massing of colours in the flower garden, but during the course of the 1880s and 1890s he modified his position, I think under the influence of Gertrude Jekyll, and became an enthusiast for the massing of colours in the landscape, in the rock garden – everywhere except in formal bedding. So, while Farrer included a dig at some of Crisp's ornaments, his main emphasis was on the planting of masses of alpines in solid blocks of colour (a point Robinson had illustrated by using a photograph of massing on the Friar Park rock garden in later editions of his book). He also took delight in making a comparison with carpet bedding; Robinson was by this time notorious as an opponent of carpet bedding, but in earlier days he had been an enthusiast, and was in fact

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Fig. 7. **The Matterhorn at Friar Park, from Crisp's guidebook (1914).**

the first English gardener to recommend the style in a book – somewhat incongruously, in his *Alpine Flowers for English Gardens* (Robinson, 1870: 39–42). Farrer's comments appeared in the preface to E. A. Bowles' first book, *My Garden in Spring*:

> … the rich must have their money's worth in show; culture will not give it to them, nor rarity, nor interest of the plants themselves: better a hundred yards of Arabis than half a dozen vernal Gentians… neither blending nor variety – nothing but a neat unalloyed exhibit like those on "rock-works" at the Chelsea Show. But what a display is here! You could do no better with coloured gravels. Neat, unbroken blanks of first one colour and then another, until the effect is sumptuous and worthy of the taste that has combined such a garden. But "garden" why call it? There are no plants; there is nothing but colour, laid on as callously in slabs as if from the paint-box of a child. This is a mosaic, this is a gambol in purple and gold; but it is not a rock garden, though tin chamois peer never so frequent from its cliffs upon the passer by… (Farrer in Bowles, 1914: vii–viii).

What would Crisp's subsequent reputation have been, had he ignored Farrer's remarks? But he didn't: he wrote a pamphlet scurrilously attacking Bowles (not mentioning Farrer by name), and published it in Robinson's magazine *Gardening Illustrated*; Ellen Willmott, who like Crisp had a Backhouse rock garden, distributed offprints at the Chelsea Flower Show. The long-term result was that Crisp became posthumously notorious as a curmudgeon, and his rock garden as a joke, "a new form of desecration in the gardens of the wealthy" in Thonger's words, distorted accounts of which were retailed in the press decades later by writers who had never seen the actual garden. One who had, Clarence Elliott, summarised it later as "magnificent – but not gardening" (C. Elliott, 1950: 14).

Farrer's activities as a collector and introducer of new alpines, in the course of which he died abroad, and his encyclopaedic knowledge of alpines, displayed with lyrically enthusiastic descriptions in his *English Rock Garden* (1919), helped to make him virtually the patron saint of rock gardening for much of the twentieth century (though his shrine, the rock garden he made at Ingleborough in Yorkshire, where he briefly ran his Craven Nursery, fell into periodic neglect after his death).[1] His satiric force in mocking forms of rock garden construction of which he disapproved therefore had a considerable and long-lasting effect.

In *The Rock Garden* (1912) he illustrated two false methods, and gave them names that have stuck (Farrer, 1912: 8–9). The first was the Almond Pudding system – rocky spikes aligned vertically – a manner which Jack Elliott complained was still around eighty years later (J. Elliott, 1991: 115). The second was the Plum Bun system – "Humpety-Dumpeties" arranged in a "haphazard and disconnected" fashion; Farrer countered that "Stone, in nature, is never disconnected; each block is always, as it were, a word

[1] For some varied reflections on Farrer's standing and influence, see *AGS* **1** (1930): 209–13 (Ingwersen); *AGS* **16** (1948): 202–7; *AGS* **19** (1951): 19; *AGS* **20** (1952): 105–6, and 102–4; *AGS* **29** (1961): 1–16; *AGS* **31** (1963): 199–200; *AGS* **36** (1968): 294; *GC*, 6 February 1970: 6–7; *AGS* 53 (1985): 257–67. For the story of Farrer's garden and its treatment after his death, see *GI*, 1 February 1930: 72–5; *AGS* **10** (1942): 229–32; *AGS* **13** (1945): 149–52; *GI*, December 1947: 1184; *GI*, February 1948: 36; *AGS* **18** (1950) *passim*; *AGS* 21 (1953): 234–6; *GC*, 16 June 1956: 677; *AGS* 27 (1959): 108–10; *AGS* 52 (1984): 7–8; Schulman, 2001.

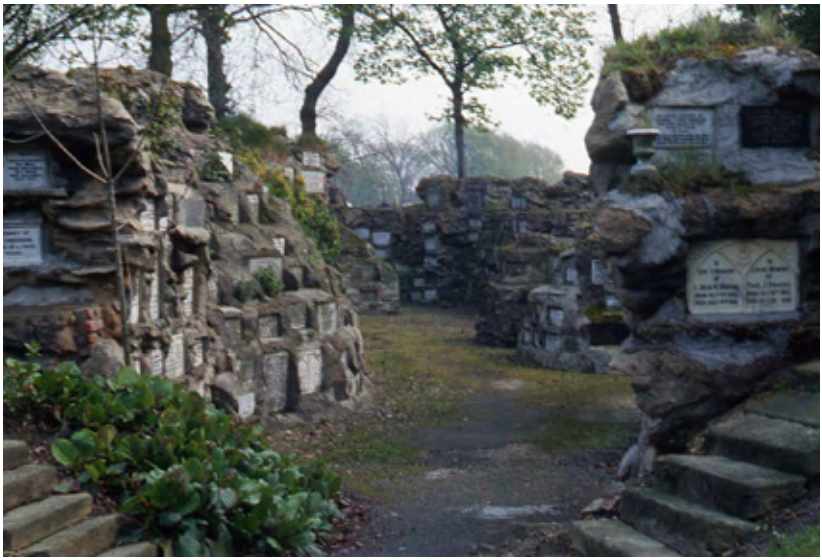

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Fig. 8. **Columbarium at Hedon Road cemetery, Hull.**

in the sentence. Remember that, urgently: boulder leads to boulder in an ordered sequence. A dump of disconnected rocks, with discordant forms and angles, is mere gibberish" (Farrer, 1912: 12).

Farrer also popularised an image of the rock gardens of the past by comparison with which the newer gardens could shine. The following three quotations are arranged in chronological order: first Charles Thonger, to show that Farrer was not alone or even necessarily original in his denunciation; then Farrer; then Paul Rosenheim echoing Farrer a quarter-century later.

> So many miserable failures are everywhere apparent that we may at least know what to avoid. From the small clinker built mounds, hideously studded with shells, which may be seen in those piteous little gardens of the slums, to the vast heaps of vitrified rubbish, which in certain public parks pass for rock gardens, there is a lesson to be learned from all... Why, then, the monotony of these mounds and banks of slag and scoriae, on which only dusty Ivy and rampant Vinca seem to thrive? (Thonger, 1907: 9).

> Times have wholly changed for the rock-garden. Fifty years ago it was merely the appanage of the large pleasure ground. In some odd corner, or in some dank, tree-haunted hollow, you rigged up a dump of broken cement blocks, and added bits of stone and fragments of statuary. You called this "the Rockery," and proudly led your friends to see it, and planted it all over with Periwinkle to hide the hollows in which your Alpines had promptly died. In other words, you considered only the stones, and not the plants that were to live among them (Farrer, 1912: 1–2).

> We understand that you intend making a rockery. Our advice is – don't. Not that upheaval stuck in an odd corner, the soil scratched skin deep, a few odd pieces of burr and felspar [*sic*] stuck in the mound with brickbats forming fours, scallop shells and perhaps the damaged head of the Venus de Milo to crown the misery (Rosenheim, 1937: 82).

By that time it might well have been rather hard work finding a rock garden that fitted Rosenheim's description; but the force of Farrerian rhetoric swept his followers along for decades.

It was harder to derive positive instruction about design from his writings. Graham Thomas said that his own rock garden at Ingleborough did not display "any real observance of geological rules" (G.S. Thomas, 1987: 71). Farrer wrote on occasion about the desirability of Japanese influence, without saying exactly what this entailed.

> English gardening will take its next great leap forward when the R.H.S. prevails on Mr Lutyens to show a model garden, and on Mr Yoshio Markino to collaborate with him in compiling a living proof that a rock-garden can be made very beautifully to go in alliance with house and garden (Farrer in Cory, 1914: 11–12).

Markino was not a rock garden designer but a painter who had a vogue in England during the Edwardian period; so Farrer's remark indicated a desire for a general aesthetic awakening rather than the adoption of a specific style. Japanese influences had already appeared in the rock garden, though, and would continue throughout the interwar years. The Japanese garden as an English style had begun in the 1890s, heavily

influenced though not completely determined by Josiah Conder's *Landscape Gardening in Japan* (1893); the Japanese garden at Bitchet Wood, made immediately after the First World War, was based on a design from Conder. Actual Japanese designers were sometimes brought over to carry out commissions, though most Anglo-Japanese gardens were less than exact in their replications, and usually consisted of some degree of water garden with an accompanying irregular distribution of rocks and the occasional Japanese ornament. Small wonder that some interwar rock gardens (like Wayford Manor, Somerset, by Gavin Jones) were graced with Japanese artefacts. The most stunning of Japanese garden rockworks in England was at Fanhams Hall, Hertfordshire, which included a scale model of Mount Fuji in addition to its rock-studded lawn.[1]

The picturesque rock garden in the public park

The denunciation of Friar Park did not put an immediate end to the geological fantasia as rock garden, and indeed some of its greatest achievements took place after the First World War, in municipal parks.

There had already been half a century of rock garden construction in public parks. The cascade in Battersea Park had been constructed by Pulham & Son in the late 1860s, creating the appearance of a geological fault. In its wake rock structures began to appear in other municipal parks, the most extraordinary being the Khyber Pass in East Park, Hull, made in the 1880s of a mixture of natural sandstone and brick rendered with cement. The effect was amateurish by comparison with Pulham's works, though age and dilapidation have no doubt reduced its credibility. E.A. Peak, the parks superintendent, went on to design a columbarium in the form of a sunken artificial-stone rockery in Hedon Road Cemetery, in 1901: a grateful corporation provided a niche for his remains free of charge.

Of all rockworks in public parks, the most familiar to the public was the Mappin Terraces at the London Zoo, created in 1913–14 by Sir Peter Chalmers Mitchell, the Secretary of the Zoological Society, and the architect John James Joass. The first prominent naturalistic structure to

[1] For the Japanese garden as a style, see Elliott, 1986: 199–202, and Herries 2001.

be made in reinforced concrete, it was partly modelled on features of the Atlas Mountains, and intended to provide a habitat for bears, monkeys, and other animals; while planted to some degree, the planting was not dictated by horticultural considerations.[1] The concrete rocks were basically a shell: the interior of the Terraces housed water reservoirs.

After Battersea, Pulham's major scheme for a municipal corporation was at Ramsgate, carried out in several phases beginning in the mid-1890s; a bequest of funds from Dame Janet Stancomb-Wills allowed the scheme to be extended and completed in 1932. The structures ranged from a façade of Pulhamite rocks incorporated within a retaining wall – carefully stratified at a diagonal from the street level – to the Madeira Walk, a public walk flanked by rockworks with a waterfall and caves.

After the First World War, Pulham & Son received commissions for large-scale construction for seaside resorts, at Blackpool and Folkestone. The Leas, Folkestone, commissioned in 1920, proved to be the firm's largest project ever. A portion of the natural cliffs was to be redeveloped as a series of descending ramps, to allow walkers to descend to the beach: "the natural vegetation is very uninteresting and it is proposed to replace the numerous Elders, Privets, Ashes and similar trees and shrubs with others of a more ornamental nature", though some pines were retained. In effect, Pulham & Son encased a portion of the cliff front in their artificial stone. At cliff-top level, the Leas presents a manicured lawn, with no hint of what is to come: the visitor strolls down the zigzag path, passing a Pulhamite rock face. As the path nears the base, the rocks become more elaborate, eventually incorporating arches and shallow caves. The Leas has never been publicised as well as it deserves: no other public park in Britain can boast such a feat of construction.[2]

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[1] The cultural impact of the Mappin Terraces may be seen not only in Saki's story "The Mappined Life", but in a cartoon by George Morrow, published in *Punch* (4 March 1914: 179), suggesting that the House of Commons should be redesigned on the "Terrace" system in order to keep the warring parties safely apart.

[2] Ramsgate: *GC*, 27 August 1932: 152; Festing, 1988: 99–101; and for a comment on recent restoration works, see http://thanetonline.blogspot.com/2009/08/pulhamite-or-pink-cement-ramsgate.html. The Leas: *GC* 4 December 1920: 272; Festing, 1988: 101.

Pulham & Son found themselves increasingly having to use only natural stone in their commissions; their interwar catalogues emphasise their architectural structures in terracotta rather than their cliffs and rockworks. The firm closed in the 1940s, and with it ended the great age of artificial stone rock gardens. However, the modelling of boulders in concrete and related media has continued on the other side of the Atlantic: American and Canadian aquaria have frequently used artificial rocks for the habitats of otters and seals, and the firm of Colorado Hardscapes has become celebrated for its artificial stone structures, which include the lining of the Evolution House (formerly the Australian House) at Kew with rocks made of glass-reinforced concrete. There is a history here waiting to be written.[1]

Rock gardens at the Temple and Chelsea shows

Throughout the twentieth century, the development of the rock garden on private estates was mirrored, influenced, and stimulated by the annual exhibition of model rock gardens at the Royal Horticultural Society's Great Spring Shows. Far more than with other genres of gardening, these model gardens provided a public focus for debates on the proper mode of creating rock gardens; other types of gardening could develop to some degree away from the public gaze, but the Temple and Chelsea Shows meant that developments in rock gardening were highly visible.

The Great Spring Show was held in the gardens of the Inner Temple from 1888 to 1911. In 1912 the Show was cancelled in order that the RHS could collaborate with other organisations on holding a Royal International Flower Show (RIHE), which was staged in the grounds of the Chelsea Hospital; the following year, the Great Spring Show resumed, but with Chelsea as its new home, and it has been held there ever since. At the time the Temple Show started, displays of plants, whether by nurseries or amateurs, supplied its content; but the 1890s saw the first stirrings of garden-making, in the form of miniature rock gardens laid out on tables within the marquee. In 1893, the Guildford Hardy Plant Nursery (Henry Selfe-Leonard) staged the first rock garden in the open air; over the next few years his rivals began to follow his example; and by the time of the last Temple Show it was described as "a huge rock garden". The custom

[1] See http://coloradohardscapes.com, and for the Evolution House rockworks, see www.nwnet.co.uk/pages/uk/org/bcs/Bcs066.htm.

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Fig. 9, 10 (opposite). **The Leas, Folkestone, showing the progress from the simple path at the top to the elaborate rockworks at the bottom.**

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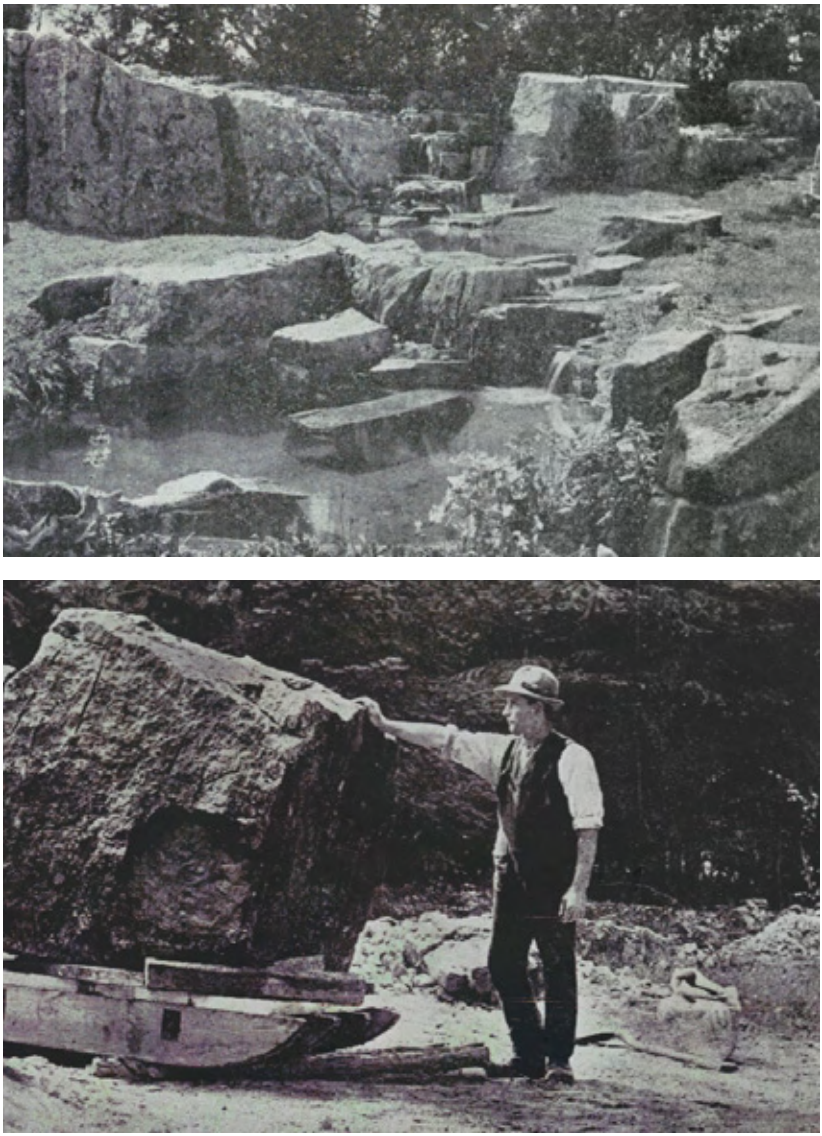
continued at Chelsea, and while formal gardens, tree and shrub gardens, etc., had already been added to the repertoire, rock gardens remained until the 1960s the most prolific form of display garden offered (Elliott, 2004: 136–7, 272–4).

At the first Chelsea Show in 1913, the only garden to receive a Gold Medal was a rock garden by John Wood of Boston Spa. He had shown a rock garden at the RIHE the year before, which Graham Thomas declared the first garden to display the stratification of Yorkshire limestone (G. S. Thomas, 1987: 72). Clarence Elliott was another exhibitor at the first Chelsea Show, and he and George Whitelegg were the most consistent makers of Chelsea rock gardens over the next half-century, with Pulham and Gavin Jones close behind. The accompanying table lists all those who exhibited rock gardens at Chelsea until the end of the century; some of the designers are now quite obscure, and by no means all their works were depicted in the press, so it is now difficult to assess the contributions of several firms to the genre. But the photographs that survive are sufficient to justify Graham Thomas's description of the interwar Chelsea rock gardens as "These great works of art" (G. S. Thomas, 1987: 75).

It is difficult, in the absence of the relevant national statistics, to know whether the styles displayed at Chelsea reflected or led fashion. Certainly by the end of the 1920s some pundits thought that rock garden design was displaying an undesirable uniformity; John Wood complained that "the 1912 rock gardens made a feast of variety compared with our annual monotonous display now". Among the works he singled out from the RIHE was a garden in Purbeck stone by Maurice Prichard, whom he praised for not spoiling it with masses of alpines: he "used the imposing masses of stone to give effect to the Bamboos and fine foliage of his waterside plants" (*GI*, 22 December 1928: 812). By the late 1920s, instead, there was a dominance of mountain limestone – to such an extent that in 1928, Mark Fenwick, who had a rock garden at Abbotswood, Gloucestershire, proposed that Council should deliberately promote the use of other forms of stone:

> In regard to the Medals for Alpines, Mr. Fenwick suggested that, while not wishing in any way to discourage the use of mountain limestone for the alpine rock gardens at Chelsea, the Council should consider whether it would not approve of a prize of some form to be offered



RHS, LINDLEY LIBRARY

Fig. 11. Above. **Gavin Jones' controversial Chelsea garden, from *Gardening Illustrated* 1929.** Below. **Cover picture from his 1934 catalogue.**

> at Chelsea for the construction of rock gardens in stone other than mountain limestone. The Council approved the suggestion in principle and referred the matter to the Shows Committee for drawing up the necessary details (Council minutes, 9 October 1928).

The Shows Committee's decision was not a prize, but a form of injunction, with some significant changes of emphasis; the following statement was published in the press under the name of Colonel Durham, the Society's Secretary:

> As you are aware, for some years the majority of the rock gardens exhibited at the R.H.S. Great Spring Show at Chelsea have been executed in mountain limestone, but my Council feel sure you will agree that, beautiful as mountain limestone is, it is not to be recommended for universal use in the construction of rock gardens. Apart from the generally accepted principle that the ideal course is to use a local stone, the heavy cost of carriage makes it impossible for all except the wealthy to use mountain limestone in gardens remote from a limestone formation. It is believed that many who would like to construct a rock garden, and who seek at Chelsea information as to methods of rock laying and cost, are deterred from doing so by the high, although perhaps reasonable, quotations for gardens built of Westmoreland or Cheddar stone. In the circumstances, it is suggested that the exhibits at Chelsea Show would be much more effective in encouraging the development of rock gardening if more exhibitors used stone other than mountain limestone (*GC*, 1 December 1928: 434).

Weeks of controversy followed in the pages of *Gardening Illustrated*, with much indulgence in personalities and some vigorous assessments of rival rock gardeners' careers. C. Penrose of Taplow complained that:

> There are to-day only two – at the most three – rock builders of the first rank. The others toil along in their wake, imitating, emulating. The sheep-like qualities of some of them are amazing. One artist builds a bold Alpine cliff at Chelsea. The following year cliffs are the order of the day. Another introduces stones of enormous size. Next year every builder has to use sheer-legs to lift his stones (*GI*, 30 March 1929: 213).

The identity of the three was hinted at in a letter by a different writer: Gavin Jones, Symons-Jeune, and John Wood (29 June: 444). Now try Clarence Elliott on Symons-Jeune – "Captain Symonds Jeune [*sic*] originated a manner of his own some years ago, the dramatic cliff of Cheddar, and the mystic pool, and very refreshing it was; but this, too, has been mercilessly copied" (2 February: 70) – or on John Wood:

> Very early in the Stone Age Mr. Wood was a realist, making little Yorkshire pictures in rock in which even his restrained use of Alpines seemed an offence. I twitted him about this, saying that, so like a piece of Yorkshire moorland was his exhibit, all one expected to see on it was a goat. Next year he proved my contention by having two goats browsing on his Chelsea Rock Garden; hence, no doubt, the R.H.S. rule that animals are not allowed on exhibits. His more recent work has been freer, less imitative, and surely better. Not so terribly like scraps of Yorkshire as to make Alpine plants look illogical and out of place (ibid.).

Or how about Penrose on Clarence Elliott? (1 June: 385): "Clarence Elliott must be judged by his plants and not his rock-work, for the latter has been the joke of the show for years – an intentional joke, as many think" (ibid.). It is not surprising that when *Gardening Illustrated* published two photographs that year of the crowds standing before the rock gardens, it entitled them "Mass attack on the Chelsea rock gardens".[1]

Gavin Jones took Colonel Durham's injunction seriously, and at Chelsea that year he exhibited a rock garden made of surface-weathered granite from Snowdonia, in huge massive blocks. The anonymous reviewer in *Gardening Illustrated* described it thus:

> Mr. Gavin Jones has produced in Welsh stone a work that can only be described as gigantic. We admire the temerity of this talented constructor in producing such a magnificent replica of natural effect

[1] For the controversies in the wake of the RHS pronouncement, see *GI*, 8 December 1928: 791; 22 December: 812–13; 29 December: 827; 19 January 1929: 36–8, 39; 2 February: 70–1; 23 February: 120; 2 March: 137–8; 9 March: 158; 16 March: 172–3; 30 March: 213 (Penrose); 25 May: 360–1; 1 June: 385; 29 June: 444; 20 July: 493; 3 August: 526–7; 17 August: 558; 31 August: 594.

RHS, LINDLEY LIBRARY

Fig. 12. **Rock garden by Whitelegg, from the *Gardeners' Chronicle*, 1922.**

RHS, LINDLEY LIBRARY

Fig. 13. Above: **Rock garden by Waterers, from an undated catalogue.** Below. **John Wood's Gold Medal rock garden from the 1913 Chelsea Show, as depicted in the 1914 Chelsea catalogue.**

> at a horticultural show. It is a rock mass upon which we should love to sit and picnic – in Wales, but how should we regard it facing us every day in the garden? Lions, tigers, and leopards are not things to bring to the hearth, and there are some truly magnificent types of rock formation that are better left on the hills, where they are truly at home. We think this effort is one of them. It is Nature grand rather than Nature beautiful.

Other responses[1] included those of Will Ingwersen ("There are few who can afford, or would wish for, a portion of the Welsh granite ranges set down in their gardens merely as an appeal to the aesthetic senses"), C. Penrose ("His work has always possessed a certain rigid severity; he has a penchant for expressing Nature angularly"), and John Wood ("The only fault I had to find with this exhibit was its planting – which I thought rather too pretty. I think other plants should have been used on the lower strata to preserve the note of spiritual and artistic unity").

Eventually one pseudonymous contributor offered a fantasy about the future of rock gardens at Chelsea:

> One feature of the old Chelsea, the rock gardens, are no longer to be seen as after the fatal affray in 1946, when three Gold Medal artist designers were drowned in their own pools and the subsequent disappearance from the country of the Bronze Medal winners, this competition was cancelled for lack of entries. Fortunately, the veteran Superintendent of the Royal Parks, still mercifully spared to us, met the occasion by building the marvellous rockery in Kensington Gardens, where glens and vales of all kinds of stone, from the Jurassian to the lesser Oolite, now form a permanent memorial at once to his surpassing skill and to the memory of the ill-fated horticultural martyrs. To him also we owe the system of flexible and movable freezing pipes which in winter cover the Alpine parts of the rock garden, ensuring a winter covering of snow and the consequent success of Androsaces and other so-called "difficult" plants in the heart of London (Senex, 1929).

After the Second World War, there was an initial return to the norm, but by 1955 it was being observed in the press that gardens devoted to flowering

[1] For discussion of the Gavin Jones garden, see *GI*, 25 May 1929: 360; 1 June: 385; 3 August: 526–7.

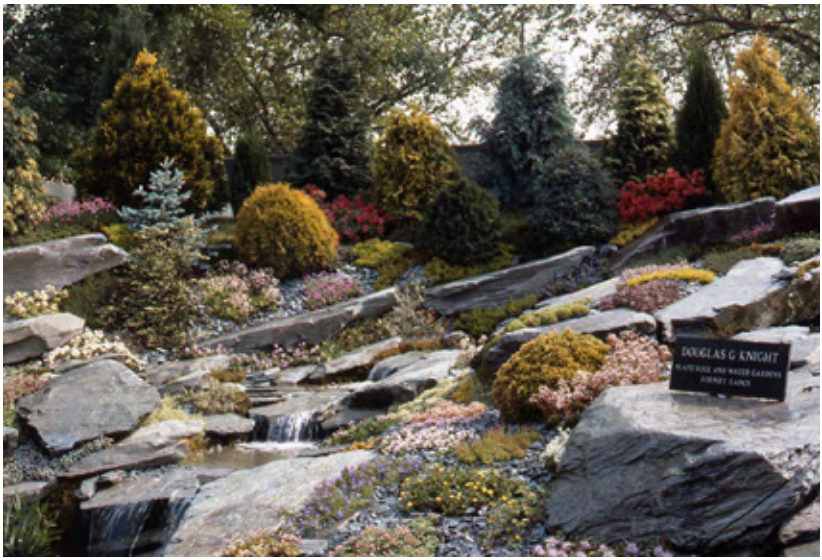


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Fig. 14. **One of Douglas Knight's rock gardens at the Chelsea Flower Show, late 1980s.**

shrubs were outnumbering the rock gardens. In 1967, the only rock garden on display was by Gavin Jones, who frequently exhibited in alternate years; in 1968, the Wisley staff and students were drafted in to make a massive rock garden in the absence of any of the usual competitors. In the late 1970s and early 1980s, the area traditionally known as the rock garden bank belied its name; but from 1987 first Paul Temple and then Douglas Knight revived the rock garden tradition for another decade.

The making of temporary gardens at a flower show, no matter how massive or imposing, is obviously in practical terms a different matter from the creation of permanent structures. When Ken Aslet published instructions about the making of rock gardens, he was obviously basing his account on his years of staging displays at Chelsea:

> I never build rockwork like a wall, or a house, by putting in a foundation and building the whole of the lowest layer. With a spade I chop out a bed for the base of a rock in its selected position, at the angle at which

Table 1. **Exhibitors of rock gardens at Chelsea Show, 1913–2000**
NB Some of these exhibitors alternated between showing rock gardens and staging displays of alpine plants within the marquee, others between showing rock gardens and formal gardens.

Alpine Garden Society (Woking)	1969, 1989, 2000
Astolat Co. (Guildford)	1939, 1947
Atkinson (Plants) & Co. (Bexhill-on-Sea)	1954–6
B & Q (Eastleigh)	1992
Backhouse, James, & Son (York)	1913, 1924
Bakers (Codsall)	1914, 1934
Barr & Sons (London)	1914
Bedford & Page (Cambridge)	1936–9
Brook, Herbert (London)	1925–7
Burton Hardy Plant Nurseries (Christchurch)	1913
Cheal, J., & Sons (Crawley)	1913–14, 1923
Clark, G. & A. (Dover)	1931
Conways Ltd (Halifax)	1936–7
Craven Nursery Co. (Clapham, Yorkshire)	1913
Crewdson-Day, R. (London)	1926
Cutbush, William, & Son (London)	1913, 1924–5, 1927–8
Dartington Hall Ltd (Totnes)	1933–5
De Smet, Marcel (London)	1928
Dixon, Ernest (Putney)	1922–3, 1925, 1929–36
Elliott, Clarence (Stevenage)	1913–15, 1919–39
Ellis, Granville B. (London)	1936–9
Evans, H. & W. (Cardiff)	1929
Fuller, A. & P., & Sons (Chertsey)	1971–5
Gardner, P. (Ilkley)	1931–2
Gaunt, T.H. (Calverley)	1914
Gaze, W.H. & Sons (Kingston-on-Thames)	1923–5, 1932
Guildford Hardy Plant Nursery (Guildford)	1913–16
Hancock, Ralph (London)	1936, 1947–8
Hayes, T.R. & Sons (Keswick)	1920, 1923–4
Henshall & Sons (Matlock Bath)	1937
Hocker Edge Gardens (Cranbrook)	1933–9
Hodsons Ltd (London)	1922–30
Hopkins, Miss (Shepperton)	1914–16
Ingwersen, W.E.Th. (East Grinstead)	1929–39, 1968
Jacobs, E.J. (Oxford)	1938
Jones & Ingwersen (Letchworth)	1925
Jones, Gavin (Letchworth)	1926–9, 1931, 1934, 1936, 1938, 1948, 1951, 1954, 1956–7, 1959–64, 1967

Table 1. **Exhibitors of rock gardens at Chelsea Show, 1913-2000 (cont.)**

Kaye, Reginald (Carnforth)	1938
Kent & Brydon (Darlington)	1914–15, 1921, 1923
Knight, Douglas (Formby)	1987–97
Longford, H.G. (Abingdon)	1931
Old Welwyn Gardens (Welwyn)	1949–53, 1956
Orchard Neville Nurseries (Somerset)	1947
Orpington Nurseries Co. (Orpington)	1929
Pinks Hill Nurseries (Guildford)	1971
Piper, J., & Son (London)	1913–15
Prichard, Maurice (Christchurch)	1913–14
Primrose Hill Nurseries, later Peter Tinsley (Halsall)	1988–9, 1993
Pulham & Son (Broxbourne/London)	1913–15, 1919–39
Redgrove & Patrick (Sevenoaks)	1936–7
Reuthe, G. (Keston)	1913–15
Robinson, J., & Sons [later Robinson's Gardens Ltd] (Eltham)	1937–9, 1951–3
Rogers, W.H., & Son (Southampton)	1927
Royal Horticultural Society (Wisley)	1957, 1969
Savory, H., & Co. (Bromley)	1955–6
Simon, A.J. (London)	1932, 1934
Sims, S (Derby)	1928, 1931
Southall, E.J.A. (Leeds)	1947
Symons-Jeune, B.H.B. (London)	1921–3, 1926, 1928, 1930
Thompson, Arthur D. (London)	1922
Tinsley, Peter (Halsall), later Tinsley Landscapes	1993–5, 1999–2000
Tucker, R., & Sons (Oxford)	1913–15, 1919–23, 1929
Very Interesting Landscape Co. (Stratford-upon-Avon)	1999
Walker, Ian G. (South Godstone)	1935–8, 1947–8, 1950, 1954
Wallace, R., & Co. (Tunbridge Wells)	1913–15, 1919–21, 1936, 1948
Wallace & Barr (Tunbridge Wells)	1956
Ware, T.S. (Feltham)	1913–14
Waterer, Sons & Crisp (Bagshot)	1915, 1921
Whitelegg & Page (later G.G. Whitelegg)	1913–16, 1919–39, 1947–66, 1972
Whitworth, T. (Dorridge)	1921
Williams & Williams (Barnham)	1952–3
Winkfield Manor Nurseries (Ascot)	1947–53
Wood, J. (Boston Spa/Leeds/London)	1913–15, 1919–20, 1922
Wood, William, & Son (Taplow)	1930, 1936–9

> I think it will "sit right", manoeuvre it up there with truck or plank, finally adjusting it with a crowbar and if necessary small stones for wedging. When finally satisfied I ram the soil beneath and behind it very firmly to ensure stability.
>
> I like to start thus by selecting one of my biggest lumps of rock and setting it up as the "nose" of the most prominent outcrop. I call this my "Keystone." I stalk around it, considering all its angles and their implications. Much time and thought are given to this, as it sets the angles of "tip" for all the strata, and all the other main outcrops and any valleys, etc., must "run with it" (Aslet, 1964: 18).

In the latter half of the century, the Alpine Garden Society staged some gardens of its own at Chelsea.[1] The first was in 1969, with Kath Dryden, Fred Buglass, and Michael Upward largely responsible for the arrangement, and plants donated or lent by Joe Elliott, Stuart Boothman, and Valerie Finnis.

> But the plants which caused more interest than any others were the two very fine specimens of *Phyteuma comosum* loaned by Mrs. Dryden and cunningly inserted between clefts in the tufa rockwork – actually in one instance, the rockwork was built around the plant. These particular plants interested Lord Aberconway, President of the R.H.S., who threatened to report us to his Council for exhibiting these plants facing west when as everyone knows, in nature it always grows on east facing cliffs – or is it the other way round?

This is an aspect of geological accuracy that commentators on the rock garden have generally tended to ignore.

The rock garden between the wars

H. H Thomas, the editor of *Popular Gardening*, both expressed the hopes and enthusiasms of interwar gardeners, and indicated the eclecticism that general gardeners accepted on questions of style:

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[1] For accounts of the AGS gardens at Chelsea, see *AGS* **37** (1969): 306–7; **57** (1989): 376–8; **66** (1998): 493–501; and **76** (2008): 369–80.

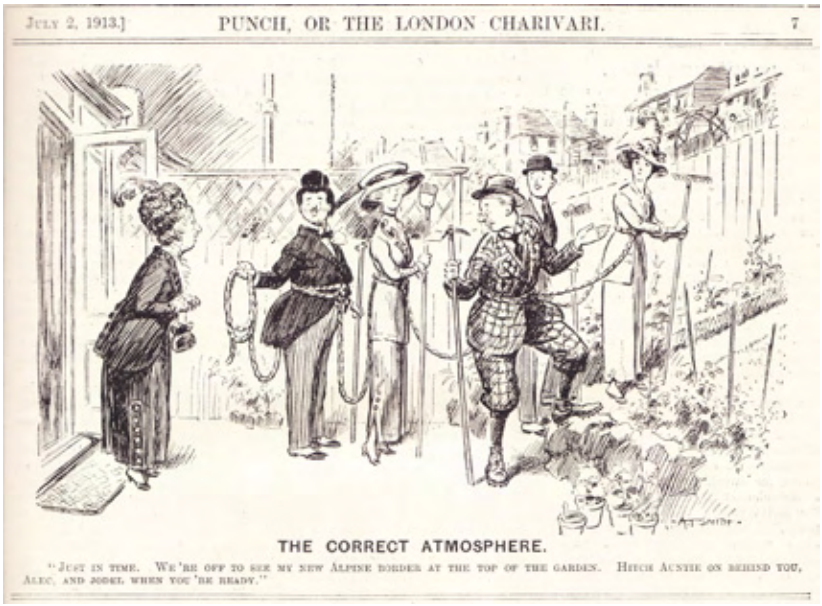

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Fig.15. **Cartoon by Albert Talbot Smith from *Punch*, 1913.**

The ways in which a small rock garden can be constructed are illimitable. It may be simply a low mound of soil broken here and there by bold groups of outcropping rocks such as one may see on many a mountain slope in the highlands of this country. A winding path may intersect it, and where it rises an opportunity is given to make a flight of steps flanked on either side by a rough stone wall, "built dry," that is to say, without mortar, the space between the stones being filled with soil in which many plants will flourish.

The builder with higher flights of imagination will not be content with less than a miniature mountain range with its peaks and pinnacles, its bold rocky headlands, its precipices, rock-strewn gorges, little valleys and gentle slopes that lead to the lowland levels. Every crevice between the rocks may be filled with Saxifrage, or Primula, Stonecrop or Pink or other mountain flower beauties, and the little valleys may be exquisite green carpets of mossy Saxifrage (H.H. Thomas, 1927: 2–3).

The fashion for rock gardens had been growing steadily during the early years of the twentieth century, percolating down the social scale from the country estate to the gardens of terraced houses. *Punch* saw fit to satirise the trend in 1913, with a cartoon of a middle-class rock gardener teaming his house guests up for an alpine expedition in his back garden. The interwar years saw the rock garden at its apogee of fashion, which as far as publications went extended into the 1950s and 1960s, as the established designers summed up their careers in book form: Ralph Hancock, Percy Cane (Hascombe Court; War Memorial Park and Lady Herbert's Garden, Coventry), Russell Page (Flete), all designed rock gardens with greater or lesser degrees of willingness at some point in their careers.[1] The nurserymen who showed rock gardens at Chelsea were busy during the rest of the year doing the same service for commercial clients: T.R. Hayes of Keswick laid out the rock garden at Sizergh Castle in the 1920s; Gavin Jones rivalled his 1929 Chelsea garden with his Gorge at Chelwood Vachery, Sussex, "constructed in the woods to give a hillside effect of rock and water… Huge rock formations, with an incredible look of permanence, have a tumbling stream coursing over them… There is a mountain path leading through it, and the artist has so designed it that one cannot see all at once". Among the most notable rock gardens of the interwar years we can name Exbury, designed by Clarence Elliott for Lionel de Rothschild and completed around 1930 (the young E.K. Balls was Elliott's foreman of works): at 2½ acres, probably the largest rock garden of its kind in Europe, made of Welsh sandstone and incorporating a gravel pit.[2]

An alternative to construction that emerged in the 1920s was excavation. Frederick Hanbury described his rock garden at Brockhurst in 1924 in an article in *Country Life*, the text of which formed part of a broadsheet pamphlet that Hanbury published the following year (Hanbury, 1917; Hanbury, 1925: 6–12). "Only a few years ago [1910] this rock garden was

[1] Hancock *c.*1936: 37–47, 52–3; Cane, 1956: 58–65, 150–2; Page, 1962: 20–1.

[2] Chelwood Vachery: *GI*, 30 January 1932: 65. The article refers to the designer merely as "a well-known and much-discussed artist", but Jones illustrated the garden in some of his catalogues. The article also does not discuss the planting, beyond referring to "a feast of colour". Exbury: Rothschild, 1934; and see *GC*, 19 February 1927: 132, for a list of Reginald Farrer's plants growing at Exbury.

a sweeping grass meadow where cows chewed the grass contentedly of a summer evening." In attempting to make a rhododendron garden, Hanbury discovered that there was a massive ridge of rock underground; he had it excavated to a depth of thirty feet, exposing a cliff which he was able to turn into a series of rocky clefts. The planting made use of ferns, saxifrages, primulas, sempervivums, and gentians. In the wake of this publicity, partial excavation of a site came increasingly to be recommended.

One of the most interesting, and today little known, publications on rock garden construction was a series of articles in *The Garden* in 1923, anonymous but identifiably the work of the magazine's editor, R. V. Giffard Woolley.[1] He presented five rules for the making of a rock garden: it must be in the open, unshaded by trees; it should run from north to south, so as to ensure westerly or easterly exposure; there should be a difference in level between one end and the other; this fall in level should again be on the north-south axis; and there should be "a solid background of trees or shrubs at the northern end".

> As a general rule the difference in height between the valleys and the hills in our rock gardens is insufficient to produce the effect we have in mind. We therefore proceed to accentuate the difference by planting. For the valleys we use plants of a low and spreading habit of growth; on the hills we employ those of upright habit, or shrubs and trees of comparatively large size… It may be argued that the method of planting shrubs – mostly conifers – above our high alpines is unnatural, since, of course, many of these plants in their native rocks grow far above the timber line, some of them, indeed, close up to the permanent snow caps of the mountains. Plants grow in rocks, however, at low elevations as well as at high ones, and we can scarcely hope to portray an alpine mountain-side in our garden; even if we could it would sort ill with other garden features. Readers who visit Chelsea Show will have noticed that even the craftsmen who depict Yorkshire

[1] The articles ran: *Garden*, 10 February 1923: 65–7; 24 February: 94–5; 17 March, 131–3; 31 March: 157–9; 14 April: 181–2. My attribution is based on the style of the drawings and on the rhetoric of the text, by comparison with Woolley's two published books.

> moors so effectively always imagine the highest points to be capped with forests of Fir or Larch! ([Woolley], 1923: 131).

The late Victorian and Edwardian debate about the massing of colour had not been resolved by Farrer's invective. Clarence Elliott, in the 1920s, echoed Farrer in condemning massing, but acknowledged in the course of his denunciation that he engaged in it himself –

> There has sprung up among rock gardeners during recent years a distressing mania for indiscriminate massing. Gigantic slabs of aubrietia are planted, Dr. Mules after his kind and Fire King after his kind, each to each, in a studiously irregular sort of futuristic bedding out. I admit that bold massing of colour can be very effective in the rock garden, and I confess that I often practise it myself...
>
> I once planted 16,00 Erica carneas in one fell swoop on a hillside adjoining a big rock garden that I was planting. But I broke up the mass by adding several big specimens of Erica arborea and an under-planting of thousands of Trillium grandiflorum (Elliott 1924a: 244).

– while rival gardeners could continue the Victorian rhetoric: "Nature abhors dotting as she does a vacuum, and plants in colonies" (K., 1922: 102). Generally, however, the alpine literature of the interwar and postwar years tended to bypass the question of colour schemes. The most novel contribution to the subject came in the 1960s from G.S. Evans, who argued that "unhappy associations of colour are the more likely to occur in the alpine garden, where plants tend to be of the same height and closer together, than in other parts of the garden where such effects can be avoided by interposing broad masses of green or silver foliage or by the judicious introduction of white or cream flowers". The author had no problems with the juxtaposition of red, yellow, and blue, but cautioned against mixing intermediate tones like oranges and purples, and also advised against combining opaque colours and translucent ("flowers whose texture allows light to pass through the petals"). Against the nineteenth-century complementary colourists, he argued: "None of these effects can be compensated by the interposing of some 'neutral' shade" (Evans, 1968).

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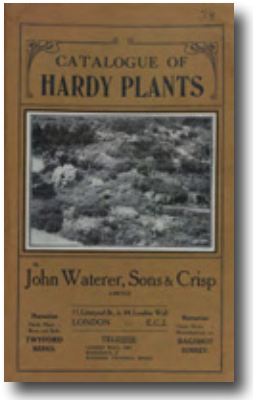
Fig. 16. Above. **An illustration from Hanbury's pamphlet of his rock garden at Brockhurst.** Below. **Chelwood Vachery from the 1937 Gavin Jones catalogue.**

Some prominent alpine nurseries of the twentieth century

Clarence Elliott

Clarence Elliott (1881–1969) opened the Six Hills Nursery in Stevenage in 1907. Accompanied Farrer to the Alps, 1910; later collected plants in South America. Author: *Rock Garden Plants* (1935). Introduced hundreds of plants, and promoted tufa, alpine lawns, and sink and trough gardens. Ran the firm as Clarence Elliott Ltd until retirement, 1947; succeeded by Frank Barker, who ran it as Six Hills until his death in 1954.

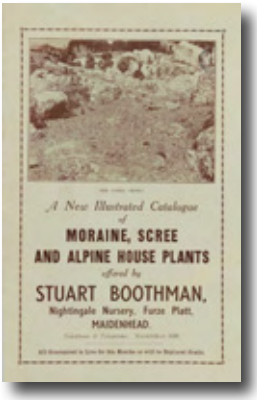


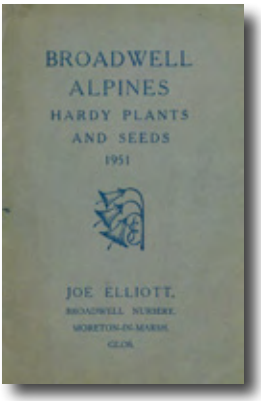
Waterer, Sons & Crisp

John Waterer founded a nursery at Bagshot in 1829. Became Waterer, Sons & Crisp in 1914, on amalgamation with the Wargrave Hardy Plant Farm, whose proprietor Bernard W. Crisp (1875–1963) was the younger son of Sir Frank Crisp of Friar Park. An image of the Friar Park Matterhorn was used as a cover design on the firm's catalogues. After continued expansion, takeovers, and family divisions, the Waterers Group broke up in the late twentieth century, and the original Bagshot site is now occupied by a Notcutts Garden Centre.

Ingwersens

Walter Edward Theodore Ingwersen (1885–1960), interned as an enemy alien during the First World War, was released into the custody of the RHS and administered the rock garden. After the war a partner, first of Clarence Elliott and then of Gavin Jones. In 1927 leased part of William Robinson's Gravetye estate and opened the Birch Farm Nursery. Collected





alpines in Europe and North America. Author: *Wild Flowers in the Garden* (1951). Succeeded by his son Will (1905–1990), also a plant collector and a more prolific author, succeeded in turn by his half-brother Paul (1931–) in 1986. Nursery closed 2008.

Stuart Boothman

Henry Stuart Boothman (1906–1976), one of the founders of the Alpine Garden Society, and its first Show Secretary. After working for Walter Ingwersen, opened the Nightingale Nursery at Furze Platt, near Maidenhead, 1933. Author: *The Alpine House and its Plants* (1938). Nursery closed 1970.

Jack Drake

Jack Drake (1909–1997) worked with Ingwersen and collected plants with him in the Rockies. Started Inshriach Alpine Nursery at Aviemore, Inverness-shire, 1938. Drake retired 1971, succeeded by his assistant then partner John Lawson, breeder of many lines of dianthus, gentians, and primulas. Lawson in turn retired 1999, succeeded by John and Gunnbjorg Borrowman.

Broadwell Alpines

Joe Elliott (1914–1998), son of Clarence, was trained by his assistant Frank Barker. Started nursery at Broadwell Farm, 1946, and managed it for forty years. Bred many cultivars of primulas and gentians, and continued his father's efforts at promoting trough gardening. Author: *Alpines in Sinks and Troughs* (1974), *Alpines the Easy Way* (1987).

The geology of the rock garden

One thing that virtually every writer on the subject agreed was that a rock garden should be limited to a single type of stone. (The botanical garden in Lister Park, Bradford, opened in 1903, was decorated with a variety of specimen stones intended to illustrate the geology of the West Riding, but this was obviously an educational device rather than a pattern for rock garden construction, and the specimens were removed in the 1970s anyway.) The only exception to this rule was Gertrude Jekyll, who recommended the use of a variety of disparate geologies within the same rock garden: "it is both highly desirable and extremely convenient to have different sections of the garden for the plants from different geological formations, therefore we will suppose that a portion is of limestone, and another of granite, and a third of sandstone with peat" (Jekyll, 1901: 12, and see 88). I do not know whether such an effect was ever carried out outside the pages of her *Wall and Water Gardens*.

But if a rock garden should be composed of a single type of stone, there seemed to be little demand that it ought to conform to local conditions. Arthur Edwards could state categorically that it should employ the "stone of the district" (Edwards, 1929: 17), and was echoed by Roy Elliott at the other end of the period (R. Elliott, 1963: 25), but they were in a minority. Reginald Farrer praised his local limestone as the best stone for construction – "the rock gardener will always and only seek for limestone" (Farrer, 1920: I, xxx) – and in this he was widely followed, with consequences we have seen at the Chelsea Flower Show. A later writer was to complain that Farrer's advice had led many of his admirers into error: "one constantly sees limestone formations dumped down on the sands of Surrey or the clays of Sussex; often enough quite artistic creations in themselves, but even more jarring to the eye than badly-framed pictures… For this state of affairs it must be confessed that those artists who design the wonderful limestone gardens on the bank at Chelsea are partly to blame" (Walker, 1948: 202–3). When George Dillistone declared mountain limestone as "nearest to the ideal", John Wood replied: "*What* is 'the ideal?' If you ask an artist which is the 'ideal' colour, he will regard you anxiously and give you something to drink" (*GI*, 22 December 1928: 813).

After limestone, sandstone was probably the most frequently used stone, promoted by John Wood and Symons-Jeune; interwar examples include

Exbury and Heaselands, and George Preston used sandstone for the reconstruction of the Kew rock garden in the late 1940s. But by that time C. F. Walker was issuing a disgruntled pronouncement:

> The chief trouble about sandstone, and one which may have deterred many from using it, is that no one seems to have made a study of its correct method of employment; or if so, he has kept the information to himself… the average gardener is left little the wiser [after Symons-Jeune], beyond the facts: (1) that sandstone never outcrops, and (2) that it is generally found with heather and pines growing on top… [It is] seldom seen at all except when exposed by the hand of man in the form of quarries, road and railway cuttings and the like (Walker, 1948: 203–4).

He further concluded that "sandstone chippings seem to exist only in the minds of gardening authors" (Walker, 1949: 252). Most other stones were used comparatively seldom, and generally in response to local circumstances: A. T. Johnson's slate garden in Wales, Sir Frederick Stern's chalk garden at Highdown. Tufa, having been associated with Pulham and the Victorians, was in decline during the early twentieth century, until Clarence Elliott proposed it in the 1930s as a medium for saxifrages, drabas, and androsaces; F. H. Fisher built a tufa cliff protected by a cantilevered glass roof in 1971, and claimed it as the most successful essay in growing alpines that he had achieved (Fisher, 1967: 229).

The legacy of Pulham and the nineteenth century carried on in the ritualised discussions of the importance of stratification found throughout the Edwardian and interwar periods. Jekyll advised her reader to "set the stones more or less in courses or in lines of stratification, just as we see them in nature in a stone quarry or any mountain side where surface denudation has left them standing out clear in nearly parallel lines" (Jekyll, 1901: 10). E. H. Jenkins warned against placing rocks against their natural bed: "To up-end a stratified rock is to ignore the best teachings of Nature, and is alike an offence to good taste. Moreover, such rocks have no planting value, and are calculated to remain bare for all time" (Jenkins, 1913: 23). He also advised against overhanging rocks and the exposure of rock bases.

> The occasional boulder, projecting ledge or outcrop rock, now exposed, or, anon, nearly mantled from view by the ever-moving *débris*, will all

> be here, ever suggestive of possibilities by their position.. It will be seen how that these rocks invariably lie to the bank – the hillside – for the obvious purpose, apparently, of arresting the downward progress of seed and soil... (Jenkins, 1913: 21).

This view was supported by Arthur Edwards, who recommended "Large masses of stones, two or more feet in length… sunk well and firmly in the earth in a slightly slanting direction – tilted backwards, not forwards, so that the rain may trickle down to the roots of the plants" (Edwards, 1929: 15). Reginald Malby and Walter P. Wright, in two popular works issued before the First World War, accompanied this advice with the proposal that the rock garden should be laid out in alternating ridges and bays, Wright adding that it should be laid out in flat tiers or shelves (Malby, 1912: 28–30; Wright, 1910: 75–7); their advice was widely adopted between the wars, continuing into the postwar years.

One of the most interesting, and geologically imaginative, discussions of stratification was offered by Giffard Woolley:

> Almost all rock gardens are laid out in imitation of stratified outcrops in nature. Such strata were, of course, originally level, but owing to varying causes, natural strata may be found at every conceivable angle. Some strata, indeed, may be found as nearly as possible on end.
>
> If the sole object of a rock garden were to duplicate natural phenomena, such an arrangement might perhaps be reproduced. The principle of a rock garden, however, is to provide a home for suitable plants. This object can only be achieved if we select very carefully the natural outcrops upon which we model our garden. The "lines of stratification" – if we may call them so – must, for instance, be approximately level as they are seen across the outcrop, though a tilt of 10˚ in either direction is quite feasible and one of 15˚ may, with care, be arranged...
>
> Fissures, in nature, are frequently caused by bent strata giving way. Very often, in the result, one side or other subsides after the cleavage – causing a "fault" – but that is not always so. This cleavage, on a tiny – oh! how tiny – scale, the opening through which our simple path or tiny trickle of water finds its way, mimics.

> If it is decided to tilt appreciably the "strata" as seen at the outcrop, care will have to be taken in the arrangement of the paths and the direction of the tilt, otherwise the work may go on "swimmingly" until, at some corner, "strata" come cheek by jowl which are set at entirely different angles and cannot by any stratagem be reconciled ([Woolley], 1923: 94).

Should the rockwork imply a geological history, as Pulham had so often tried to suggest? The "glacial-worn boulders promiscuously placed" around the lake in Phoenix Park, Dublin, were praised by one commentator "as relics of the great ice age, [which] seem to open up a further, albeit far-reaching, phase of the subject well worth consideration…" (K., 1922: 102). Sir James Cotter, whose youth had been spent among Pulhamite rockworks, proposed in a posthumously published book that "The rocks should lie from the top to the bottom of the rockery as if, originally thrown there by some prehistoric avalanche, they have become partially buried in the course of time" (Cotter, 1926: 15). The more rugged works of Gavin Jones belonged to the same tradition, but nonetheless by that time this approach was seen by many as old-fashioned. E.H. Jenkins was more congenial to the twentieth century: "it is not the unyoked savagery of Nature that we require for our purpose, but her choicest bits... Too many rock gardens to-day err on the side of pretentiousness; there is too much rock of too wall-like a pattern too much exposed" (Jenkins, 1913: 20–21; see also Godfrey, 1914: 201). But a residual notion of geological history remained, as can be seen in Ingwersen, writing at mid-century: "The simplest basic rule for use in building a rock garden that I know of is to remember always that the rocks, whether large or small, whether outcropping or in bold and continuous arrangement, should look as if they have been there since the beginning of time, and have merely been uncovered by natural erosion of the soil" (Ingwersen, 1952: 61).

The Backhouse alternative, of considering the rocks purely for their merits as a growing medium and ignoring geological accuracy, still carried on after the First World War, but was increasingly channelled into a new direction provided by Farrer. The rhetoric of Backhouse's supporters in the 1870s had emphasised that alpine plants grew not on cliffs but in the debris at their bases, and continental gardeners were experimenting with replicating those conditions long before the end of the century.

According to Kerner von Marilaun, an Austrian monk named G. Gottwald had made the first successful attempt at creating a "*Schuttfeld*" in 1835 (Kerner, 1864: iv, 69); in 1889 the nurseryman Karl Sündermann published a pamphlet, *Alpenwiese und Geröllfeld*, giving practical instructions. It has not been established whether Farrer knew these precedents; but by 1910 he was building what he called a moraine (Farrer, 1920: I, xxxv–xxxvii), and his successors called a scree.[1] Farrer's model was not always followed; he built an underground watering system for his moraine, while Murray Hornibrook and Paul Rosenheim rejected artificial watering; there was debate about the relevance, importance, or propriety of stone chippings, which Farrer had recommended for drainage; but all agreed on the general principle: "an accumulated mass of debris found at the foot, in the centre and by the sides of a glacier" (H. H. Thomas, 1914: 65).

Gertrude Jekyll absorbed the moraine into her repertoire; when advising Lutyens' daughter Lady Ridley on creating a garden in a quarry at Blagdon, Northumberland, she recommended that "They should look as if it was a sort of moraine of debris and pieces of rock fallen from a cliff to be planted with gentians … saxifrages and campanulas" (Brown, 1982: 150). Not all of her designs were carried out. Giffard Woolley took the concept of "moraine" to additional heights, or perhaps depths, by suggesting a subdivision of types:

> A moraine represents the detritus brought down by a glacier and is made up, almost entirely, of pieces of stone of various sizes,

[1] For the shift in vocabulary from moraine to scree, see Pulham, 1912: 232; H. H. Thomas, 1914: 65; *GC*, 12 February 1921: 78–9; *Garden*, 10 March, 1923: 122; *Garden*, 25 October 1924: 730–1, and 15 November 1924: 783; Edwards, 1929: 23; Hornibrook, 1931; Rosenheim, 1934; Rosenheim, 1939; *AGS* **17** (1949): 243–7; *AGS* **30** (1962): 313–14; Fisher, 1967: 227. For the debate on stone chippings, see Walker, 1948: 205–6, and Walker, 1949: 251, which includes the statement that "I have heard of enthusiasts raiding those heaps which the County Councils leave so temptingly by the roadside". The word "scree" itself eventually became ambiguous with age; in 1969 John Brookes used it to describe of a bed of Norfolk Flint Cobbles by Valley Thurrock – "This scree garden is more suitable than a rock garden which involves much work and which looks good for only a few weeks in the year" – thus provoking an outraged squeal from a rock gardener; see *GC*, 10 October 1969: 32 and 7 November 1969: 6.

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Fig. 17. **The scree at RBG Edinburgh, from a 1934 guidebook.**

> watered constantly from below. A "pierrier" consists of detritus which accumulates at the foot of a cliff. Though, naturally, varying with the rock of which the cliff is composed, a "pierrier" contains, as a rule, more soil and humus than a true moraine and has not the stream of ice-cold water beneath it. In the rock garden our "stone heap" may be moraine or "pierrier," or even a peat bed (tourbière) dressed with stone as best may suit the plants we want to grow or it may be a combination of all three ([Woolley], 1923: 94).

But this vocabulary was not adopted by anyone else.

This was the situation in 1932, when Symons-Jeune published the first edition of his *Natural Rock Gardening*. For many people, such as Graham Stuart Thomas, this book changed everything, and made the construction of rock gardens intelligible for the first time:

> In spite of all that had been written over a hundred years, in spite of all the rock climbing and observation, and in spite of Pulham's examples

> and John Wood's earliest attempt at stratification; in spite of Farrer's injunction that each rock laid should look 'as if it belonged to the next, and had been its bed-fellow since the foundations of the hills were laid' – in spite of all this, nobody had really explained how rock garden building was to be done according to the rules of geology until Captain B. H. B. Symons-Jeune wrote his book *Natural Rock Gardening* in 1932… (G. S. Thomas, 1987: 83).

The effect on Thomas was immediate and lasting: "After reading it one looks at rockwork and Nature's rocks with new eyes. I set about photographing outcrops on my travels about the country ... He used to come to me for help in planting his contract work, mostly in Mendip Limestone" (ibid.).

Symons-Jeune had published articles on the subject in *Gardening Illustrated*, in which one can see his concept developing. In 1929 he had yet to develop his vocabulary to the full:

> 1. A natural appearance and disappearance of the rock, and not too much of it. It should be mellowed on top, with no feeble or jagged points.
> 2. The proportion of vigour and plain surface, as made up of rock, shrubs, and open spaces.
> 3. The correct placing of shrubs, on or near the rock, (a) in shelter, (b) in exposed places, (c) for contrast.
> 4. Planting for harmony and aspect.
> 5. Treatment of open spaces, turf, stone chippings, and plants for them.
> 6. A correct and suitable watershed in relation to the rock.
>
> Finally, an arc, with the summit resting on the strongest rock, should contain all rock within that particular outcrop, whether described from back to front, or from side to side (Symons-Jeune, 1929: 775; slightly modified in 1932: 7).

Symons-Jeune, like most of his predecessors, insisted on stratification, but did not restrict himself to talking about the natural bed. Having observed in the field that the parallelism of strata was subject to disruption as a result of geological pressure, he drew attention to the nature of joints in

strata: "The stratum lines never run into each other in such a way that a stone on one bed may rise up into another without a joint being indicated".

> Rock only appears when the stratum has been broken and upheaved, or the ground in front has subsided. The stratum is not all equally solid; parts crumble, and the debris, together with decaying vegetation, covers the remainder wherever it can find a lodging. Therefore, rock only appears on weather-beaten angles. Stone must not be put to show as much on a site as possible. It must only appear when, according to certain rules, it cannot help appearing (Symons-Jeune, 1929: 820).

Other more localised joints or cracks "run through the stone from the top downwards, not necessarily through the hill"; compare the passage from Giffard Woolley on p. 46 to see that geological attention to cracks was not a novelty around the time of Symons-Jeune's first exhibits at Chelsea. By the time of *Natural Rock Gardening*, he was insisting on the rectangular nature of primary joints, and had developed a new vocabulary of "the return" of rock:

> The primary joints are not visible on the "face" of rock because they run parallel to the break and not across it, so that the lines of strata only are visible. In the section, however, the primary joints cut through the strata forming a series of rectangles in all the strata. This is the side or return of rock…
>
> Every single rock or group of rocks has two completely different views, it has a face and it has a return. One as long as you like, the other short. If a line were drawn over and parallel with either the face or the return of a rock or group of rocks, and produced to your eye, it gives you the maximum view of the opposite (Symons-Jeune, 1929: 10, 51).

Symons-Jeune had been experimenting with these ideas at Chelsea since the early 1920s (see the photograph of an early Mendip stone garden in *Garden*, 2 June 1923: 272), and had experienced his share of incomprehension from his rivals:

> Rock gardeners of the old school, while using quite as much or more stone in the aggregate, do not grasp the idea underlying the new and

> "natural" type. When they see (and they often have to judge) stone put without regular "comfortable" pockets for planting, they assume, too readily, that there is no room for plants (Symons-Jeune, 1929: 774).

Whereas, he pointed out emphatically in his book, "as pockets and crevices will be larger than in Nature, a drift or two of a brilliant commonplace of compact growth can be used with advantage, phlox, aubrietia, campanula, etc., to relieve single specimens and half-tones by a definite splash of colour for its season, which at no time will hide the rock too much" (Symons-Jeune, 1932: 151).

Natural Rock Gardening appeared in a second edition in 1936, the only addition being a chapter on "proportion". After the war, Symons-Jeune revised it more extensively for a third edition in 1955, by which time some gardeners regarded it as already a relic of a past generation; Roy Elliott could refer to events "Some years ago, when the cult of 'natural rock gardening' was at its height" (R. Elliott, 1963: 59, and see 37).

The depth of geological understanding in the rock garden literature generally, it must be said, has not been great. Limestone and sandstone have tended to be used as simple types rather than as ranges of types. Differentiation into finer units, when observed, has again been made by a superficial regional variation: Westmorland limestone, Westmorland waterworn, mountain limestone (all meaning roughly the same thing), and generally on the basis of some particular rock garden, such as Reginald Farrer's, which was to provide a model. If we compare lists of suitable stones published some decades apart, we can see the limited horizons of the rock gardening community. The first is from E.H. Jenkins, on the eve of the First World War: Cotswold oolite, magnesian limestone, millstone grit (defined as a carboniferous limestone), Purbeck limestone, red and other sandstones, tufa, granite (Jenkins, 1913: 4–12). Jenkins probably compiled his list from other literature rather than from personal experience: anyone who could define millstone grit as a carboniferous limestone is not a very sound geologist. Forty years later, Will Ingwersen offered only sandstones and limestones, but with a greater number of differentiated sorts: Bargate, Sussex, Forest of Dean sandstones, Aberdeen granite (not quarried), whinstone, millstone or grit stones; Westmorland, Cumberland, Cheddar, and Purbeck limestones, Derbyshire dolomite, Bath stone,

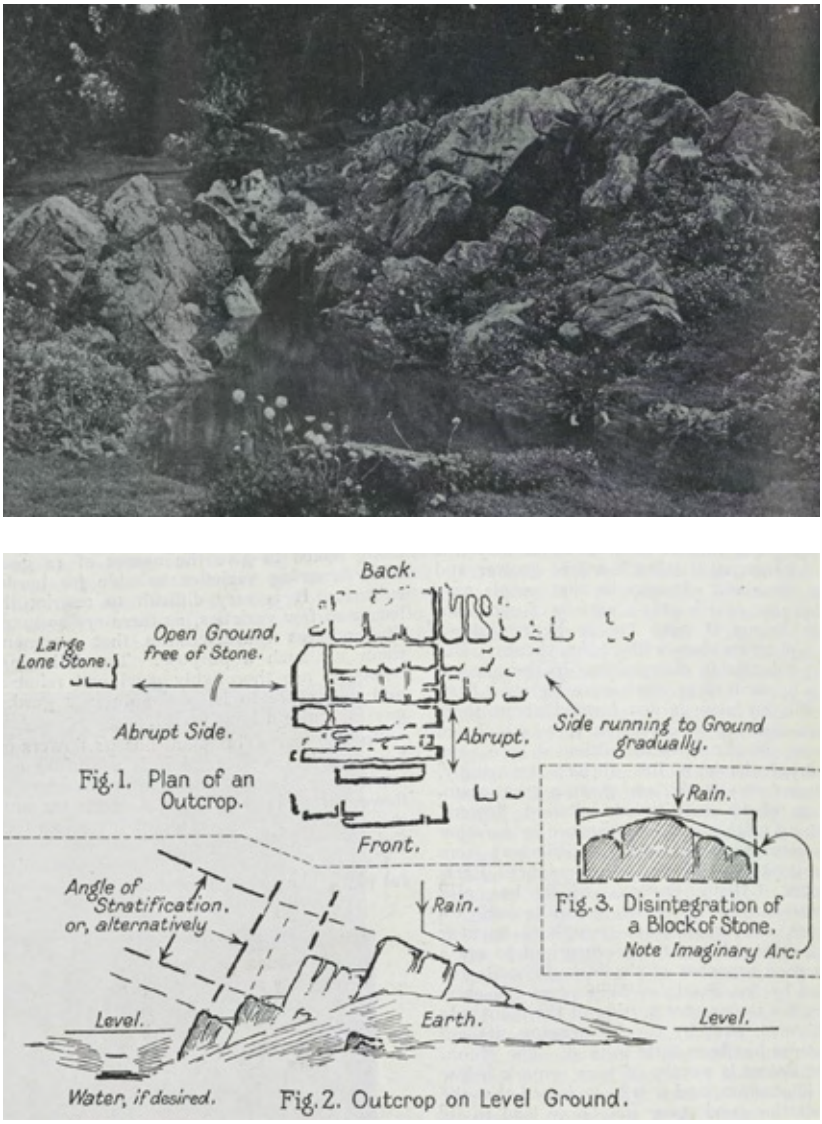

Fig. 18. Above. **From *The Garden*, 1923, showing Symons-Jeune's rock garden from Chelsea that year.** Below. **A diagram from one of Symons-Jeune's articles in *Gardening Illustrated* for 1929.**

Kentish rag (Ingwersen, 1952). A decade later, Ken Aslet's range was as wide as Jenkins', but unsystematically arranged, and couched in a breezy rhetoric for encouraging the amateur:

> SANDSTONE. e.g. Sussex. Excellent; porous; plants like it.
> Kentish Rag. Hard and heavy, but good.
> Old Red. Not so good, Very hard and angular if freshly quarried.
> LIMESTONE. Westmorland. Hard, heavy. The most popular. Easy to lay. Goes very white in town air. Too much of it is used. Try a change!
> COTSWOLD. Lovely! Also good for chippings.
> DORSET. Excellent, especially if weathered rock can be obtained.
> GRANITE. Hard, angular, ugly.
> TUFA. Porous and light. Plants love it and so do I, but so also do weeds! (Aslet, 1964: 21).

Aslet was quick to assure his readers that "There is no need to be a geologist: one need only pause and think of rocks in a quarry, or at the seaside… The art, then, in constructing an attractive rock garden is to build it so that the rocks *look right*" (Aslet, 1964: 17). Jack Elliott represented a further stage in the watering down of geological requirements in the later twentieth century: "Use rock by all means, but make it look like a natural outcrop or – much more simply – use it to make a series of raised beds, with the planting surfaces horizontal, so that the rain will not run off down a slope" (J. Elliott, 1991: 115).

In short, even taking Symons-Jeune into account, the geology of the rock gardening literature has not been very impressive, and since the composition of the rocks can affect the growth of plants, the deficiency is not merely academic. Apart from an article by Colin Field in the Alpine Garden Society's *Bulletin* in the 1980s, the rock gardener had nothing comparable for range or detail to Good and Millward's recent field guide to rock types (Field, 1988; Good & Millward, 2007: 86–96). May we look forward to new rock gardens of ever increasing fidelity to alpine scenery? But V.A. Aspland has recently pointed out that most glacial detritus contains multiple types of stone, irregularly broken, and randomly arranged (Aspland, 2006) – the Backhouse argument all over again. And it is always possible that geologically accurate artificial rockwork will make a comeback. Since the 1970s, the attrition of limestone pavements

has been a conservation issue, and the geologist Eric Robinson published an article in *The Garden* blaming suppliers of garden stonework for the losses, in the course of which he suggested that a return to artificial stone in the manner of Pulham would be a desirable trend for environmental reasons.[1]

Variations on the rock garden

Whether designed as cliffs, shelves, or scree, the rock garden could be assumed to require rock as its structure. But the twentieth century saw a broadening of the concept, as a number of ways of growing alpines in the garden developed by a process of family resemblance. However distinct from the traditional rock garden they might seem, they continued to be discussed in the literature on rock gardens.

First of all, I am going to omit the alpine house, however large a role it played in the cultivation of alpines. Any account of the alpine house must relate it to the question of greenhouse design, which would take us too far afield from the present discussion. Let me confine myself to noting that an alpine house stood at the top of the rock garden at Wisley.

Now let us take the alpine lawn. You will recall that Loudon had called for the ornamentation of rocks in the pleasure ground with exotic alpine plants; the rock garden at Redleaf, Kent, created in the 1830s, had a rocky lawn, studded with outcrops of stone, sometimes treated as raised beds for alpines (Loudon, 1839; Tunnard, 1938: 41–6). Such attempts were probably rare in the mid-nineteenth century, though as more people travelled to the Alps in its later decades, the impulse grew to create what became known as alpine meadows. George Flemwell's 1911 book *The Flower-fields of Alpine Switzerland* provided images that could be used as models. The result was a "sharply sloping hillside covered with rough turf" (Canning-Wright, 1923: 624), planted with more drifts (e.g. anemones, geraniums, doronicums, violas) than allowed by the rock garden *per se* (well, Farrer's rock garden, as opposed to Robinson's). Probably the best-known alpine meadow in Britain is the one at Wisley, created in the late 1920s as an accessory to the refurbishment of the rock garden:

[1] On limestone pavements, see *AGS*, **44** (1976): 3–7; Field, 1988: 35; Eric Robinson in *The Garden* (*JRHS*), **119** (1994): 210–11

> The approach to the rock garden has been improved by the development of an "Alpine meadow," and what was formerly a grassy bank traversed by unnecessary gravel paths has been made attractive by the judicious arrangement of rock masses and suitable planting. Here, in the early spring, the turf is bejewelled by the innumerable golden trumpets of Narcissus Bulbocodium, followed by other species and hybrid Daffodils, Anemones, Crocuses, and Fritillarias. Later appear the Anthericums, Camassias, and other bulbs. Hemerocallis nana, a dwarf, apricot-coloured Day Lily, flowers profusely on the upper slopes (Anon., 1930: 326).

Symons-Jeune was to challenge the alpine meadow on grounds of truth to experience: "Meadow plants, quasi alpines, etc., are not here in Nature, even in the more open parts, for they have been grazed off by rabbits or sheep" (Symons-Jeune, 1932: 152).

Clarence Elliott had a different concept, "an invention of my own, which is not yet universally known and understood" (C. Elliott, 1935: 11).

> Briefly, the Alpine lawn is an open space in the rock garden in which few or no rocks occur, but which is planted with a close, mixed sward of thymes, antennarias, *Raoulia glabra* and several other close carpeting plants, which grow together into a flowery turf which never needs mowing, and which may be walked upon in moderation. Here small bulbous plants may be naturalized – crocus species, *Iris reticulata*, Snakes-head Fritillaries, etc., with here and there a taller Alpine meadow plant, Anemone, Columbine, or the golden *Arnica montana*. The Alpine lawn is beautiful in itself, and is invaluable in the composition of the landscape effect in the rock garden.

The date of Elliott's first alpine lawn is uncertain; in 1924 he said it had been five or six years earlier. "Folk had experimented endlessly with various grasses", he explained, thus acknowledging that his new device arose out of an already established interest in mimicking the effects of the alpine meadow; "I had done so myself, but all to no purpose" since the grasses "thugged the alpines to death". His solution was to omit the grasses and let the alpines themselves form a "turf". He made his first alpine lawn in a stone sink, growing arenarias, primulas, and silenes, and

discovering that the plants had matted together. All that was needed was to develop the idea on a larger scale, and the alpine lawn was the result (C. Elliott 1924a, 1924b).

As the concept of the alpine lawn became more popular, its vocabulary loosened up. In the 1950s, H.S. Wacher complained that "no one who has ever seen this turf in nature would liken it to a lawn, by which one visualises the open spaces of grass in our own gardens" (Wacher, 1953: 216); he then proceeded to rediscover Elliott's concept while renaming it "alpine turf".[1]

The next ambiguously-worded concept is the peat garden. Peat gardens of one sort had existed since the late eighteenth century, known at that time as "American gardens": segregated areas of the garden built up with peaty soil in order to grow ericaceous bog plants from eastern North America such as rhododendrons, kalmias, and gaultherias (Elliott, 1996: 158–63). With the discovery that some rhododendrons could grow in ordinary soil, the popularity of the American garden waned, and the early twentieth-century pioneers of the peat garden may not have been aware of their predecessors. The concept was popularised by Kenneth McDouall, who described in the *RHS Journal* in the 1920s his use of slabs of peat at Logan:

> The peat terrace was made specially for these brilliant-flowered little Rhododendrons, so that they may be seen and appreciated. There are six terraces, with walls 18 inches high, built of peat cut from the bog in large slabs and placed one on top of the other when wet. A walk leads up through the centre of the terraces, dividing them into two portions, with a small path at the foot of each peat wall (McDouall, 1927: 2).

But this was not the first use of peat blocks; Murray Hornibrook, whose wife appears to have been the real innovator, had developed the idea after moving to Knapton, near Abbeyleix in Ireland, in 1906:

[1] For additional discussions of the alpine lawn and meadow and their disentanglement, see *Garden*, 21 April 1923: 201; 1 December 1923: 624–5; 12 April 1924: 244–5; 3 May 1924: 308; *GI*, 19 January 1929: 39; **GC**, 9 February1929: 100; *GI*, 21 December 1940: 624–6; *AGS* **20** (1952): 269–70; *AGS* **27** (1959): 91–8; Ashberry, 1966; Evans 1986: 276–7; *AGS* **71** (2003): 197–89.

> Close beside us was a large peat bog; the workpeople on the various estates had the right to cut peat – "turf" – on it. In doing so they first cut off the top spit which consisted of yard square blocks of peat full of heather roots and exposed to the air for ages. My wife proposed that, failing further supplies of large stones, we should utilise these blocks of peat to retain the ordinary soil in place. We did so with excellent results and next season, finding that the majority of the plants appreciated the peat, we experimented further, making "Rock works" entirely of peat – the retaining "stones" being these top spit blocks and the soil being sometimes peat mixed with leaf mould but more often pure peat… In course of time these peat "rock-works" spread over the remainder of the available space and I ceased to use ordinary soil, anything that did not like the peat being put into one of the Moraines (Hornibrook, 1938: 2–3).

E. B. Anderson was inspired by Hornibrook's example to make a similar use of top-spit peat blocks in Dublin in the years before the First World War (Anderson, 1973: 26). There were other experiments in peat being carried out; Giffard Woolley tried to introduce the word "tourbière" to describe a peat bed, but his version was obviously different from Hornibrook's and Anderson's: "In most English counties a very small area of tourbière will suffice. The only plants for which the writer has found it preferable to the moraine are hardy Orchids and Pinguiculas. Both like shade" ([Woolley], 1923: 157).

Meanwhile, developing steadily through the last quarter of the nineteenth century, was the idea of the dry-wall garden. William Robinson was charmed by the thought of growing alpines in "A mossy old wall, or an old ruin", and spent five pages of his *Alpine Flowers for English Gardens* elaborating the possibilities. Thirty years later Gertrude Jekyll devoted the first eight chapters of her *Wall and Water Gardens* to the subject, followed by F. W. Meyer with an equal number (Robinson, 1870: 32–8; Jekyll, 1901: 1–62; Meyer, 1906: 122–72). The first person to devote an entire book to the subject was Thomas Smith, the head gardener at Coombe Court, Kingston; his *Book of Dry-wall Gardens* bore no date of publication, but included a photograph published in the *Gardeners' Magazine* in 1914, so must have appeared during the First World War. Describing the dry wall as "one of the most virile branches of gardening", he noted the

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Fig. 19. Above. **A dry wall, from Thomas Smith's *Book of Dry-wall Gardens* (1916).** Below. **The pavement garden at Alton Manor, from the *Gardeners' Chronicle* for 1943.**

apparent paradox that it had its origins in decay (Smith 1916: 14) – the idea of softening ruins with ornamental planting had undergone a revival of interest in the late nineteenth century (Elliott, 1986: 178–80). Smith described the autobiographical sources of his own interest in wall cultivation: an old walled garden in Perthshire with *Erinus* growing amongst the bricks; the flora of railway cuttings; dry stone walls in Devon (Smith 1916: 15–16).

> In the case of walls raised by human agency, even where their primary purpose may have had little relation to plants, the substratum is usually of more kindly nature. This we endeavour to express with even greater freedom in the true dry-wall, and it is always strikingly apparent where it assumes the character of a retaining wall. Here in place of such impervious building materials as cement and lime mortar, we substitute soil (Smith 1916: 17–18).

His successors did not feel themselves tied to any notions of neglect and decay, and increasingly regarded the dry wall simply as a growing environment for alpines. [1]

By the First World War, alpines were moving out from the dry wall to colonise adjacent structures. Stairways, for example, whether architectural or rough-hewn: "The steps themselves will become flower gardens" (Jekyll, 1901: 13). Paths, as planting in the interstices of flagged pavements, especially in crazy paving – and sometimes this principle could be extended so that a pavement could be turned into a fully-fledged alpine garden.[2] Table gardens, which had been the first form that alpine gardens had taken at the Temple Show, but which were revived for general garden use after the Second World War: Joe Elliott, the son of Clarence and himself an alpine nurseryman, saw a raised bed for bedding plants at Bibury

[1] For the later development of dry-wall gardens, see *GI*, 5 July 1930: 434; 6 August 1932: 477–8; November 1946: 931–2; *GC*, 8 August 1964: 142; *AGS* **32** (1964): 46–53; *AGS* **37** (1969): 238–40.

[2] Brigadier-General E. C. Walthall's pavement garden at Alton Manor, Derbyshire, was illustrated, as "a somewhat novel method of cultivating lowly, creeping alpine plants" in the *Gardeners' Chronicle* for 17 October 1942: 138/143. See illustration on page 61.

in 1948, and began to promote the idea for alpines (Fisher, 1967: 229). Roofs: according to Graham Thomas (G.S. Thomas, 1987: 74–5), Walter Ingwersen had been the first to cover a shed roof with sempervivums, though there may have been precedents; in the 1890s the *Gardeners' Magazine* ran a feature on a back garden in Chelsea where the proprietor had covered the roof of his chicken-coop with carpet bedding, mostly alternantheras but including patterned groups of echeverias.[1] At any rate, by the end of the 1920s rooftop planting of alpines was attracting attention: "I do not see why roof gardens should not be made into rock gardens" (Wood, 1929: 339).

The most recent addition to the repertoire of special variations on the alpine theme is the crevice garden. Once again, a heavily ambiguous term, that could have been applied generally to the dry-wall garden, not to mention the older habit of designing planting pockets in rockwork, as can be seen when E.H. Jenkins declared that "To the true rock-builder the fissure or crevice is far more precious than the larger planting areas", or when H.H. Thomas referred to "the broken undulating surface of the rockery [in which] numerous little pockets, bays, nooks, and crevices are fashioned", or when Graham Stuart Thomas defined crevice planting as "a crevice filled with some neat and permanent plant" (Jenkins, 1913: 24; H.H. Thomas, 1927: 1; G.S. Thomas, 1945: 685). And the practice to which the name became attached had, as usual, a long background of sporadic experiments, going back to the Backhouse Nursery and to the massive late nineteenth-century rock garden at Cragside, Northumberland, in parts of which thin rock tiles were set at angles with gaps for the growing of ferns; Symons-Jeune had described the use of diagonal "flakes" (Symons-Jeune, 1932: 20–1); Wood & Sons had used vertical slices of slate in a Chelsea show garden of 1939. But when British rock gardeners finally adopted the practice on a larger scale, it was as a result of continental inspiration. As early as 1941 F.H. Fisher drew attention to "the germ of a new idea" observed in Grenoble: "thin slabs of rock placed in parallel with the upper surface horizontal and space between each rock filled with a spartan scree mixture", but despite P. Siviter Smith's experiments in the 1960s, it was not until the last decades of the century that examples from the Czech Republic, where Josef Halda had pioneered the technique, made it

[1] *GM*, 16 October 1897: 646–7

a fashion (Fisher, 1941: 278; Smith, 1967; Page, 2003). At the beginning of the new century the AGS garden at Pershore was the best publicised example of crevice gardening in England, but at the time of writing a crevice garden is being created as part of the refurbishment of the Wisley rock garden.[1]

Fashions in planting

A glance at the catalogues of alpine nurserymen shows that most of the genera of alpines that are currently grown extensively were available in the mid-nineteenth century, and that while today there are far more cultivars available of various genera, the number of species on offer was frequently larger then. Richard Gorer, who was one of the most careful of plant historians, remarked after examining the catalogues of Backhouse of York:

> Few experiences are more humiliating than reading Victorian gardening books and catalogues. They seem to have had many more plants than we have nowadays, in spite of subsequent importations from the Far East, and they certainly seem to have grown them well, if not better. I had always thought that the alpine gardener could be counted an exception to this, but now I am not so sure (Gorer, 1974: 183).

The genera most fashionable in the Victorian period were androsaces, campanulas, crocuses, dianthus, gentians, terrestrial orchids, primulas, saxifrages, sedums, and violas. The RHS held four conferences on primulas between 1886 and 1928 (admittedly not treating them solely as alpine plants), planned two abortive conferences on saxifrages on either side of the First World War, and in the early 1930s seriously considered funding a gentian stud book.

The Alpine Garden Society (AGS) was founded in 1929, and the Scottish Rock Garden Club four years later. At the time, the principal treatise on alpines was Farrer's two-volume *English Rock Garden*, published a decade earlier; it would soon be supplemented by Sampson Clay's *Present-Day*

[1] For the history of the crevice garden, see *AGS* **71** (2003): 257–66; **73** (2005): 236–40, 354–5; **74** (2006): 133–4; **77** (2009) 413–16, 457–60.

Rock Garden (1937), a work half the size of its predecessor and intended simply to describe the numerous alpines that had been introduced since Farrer's day (especially Andean plants, many of which had been around but which Farrer had omitted). Clay sometimes disagreed with Farrer as to which plants merited the name of "alpine"; "I cannot agree with Farrer in considering Paeonies admissible, on any count" (Clay, 1937: x). Clarence Elliott simply swept aside such debates: "my definition of a rock garden plant is a plant which I personally think suitable for growing in a rock garden" (C. Elliott, 1935: 9).

Up until the Second World War, saxifrages were one of the most widely grown alpines, with Symons-Jeune's introduction of 'Tumbling Waters' (Award of Merit, 1920) the triumph of the genus; Clarence Elliott's recommendation of tufa as a growing environment for them no doubt caused another spurt of popularity in the late 1930s, but after the war their popularity declined. Lewisias, which were already being sold in England during the 1870s, climbed into fashion at mid-century; in 1939 Roy Hay could say that "Lewisias… must figure in every rock garden, large or small" (Hay, 1939: 178); Roy Elliott published the first horticultural monograph on the genus in 1966; in 1982 Kath Dryden devoted a stand at the Chelsea Flower Show to a representative display of *Lewisia*, complete with distribution map for the species exhibited. In the immediate aftermath of the war, there was a craze for pleiones; a decade later they were upstaged by dionysias. *Rhodohypoxis* were introduced into Britain by Mrs Garnett-Botfield in the 1920s, with two species receiving Awards of Merit in 1927; her successor Ruth McConnel promoted them vigorously after the war, and Graham Hutchins of County Park Nursery introduced and promoted various genera of New Zealand alpines from the 1970s onward (though Backhouse had been offering some New Zealand alpines as long ago as the 1860s). All such statements about fashions should be kept in perspective, however; in 1972, Will Ingwersen could estimate that the bestselling genera of alpines in the nurseries and garden centres were *Aubrieta*, *Campanula*, and *Dianthus*.[1]

[1] Evans 1986: 277. Saxifrages: *AGS*, **27** (1959): 173–6. Lewisias: *AGS*, **60** (1992): 1–12. For the pioneers of *Rhodohypoxis*, see *AGS*, **16** (1948): 173–4 on Garnett-Botfield, and **49** (1981): 127–32 on McConnel. For County Park Nursery, see Hutchins 1984. Ingwersen: *GC*, 30 June 1972: 24–5.

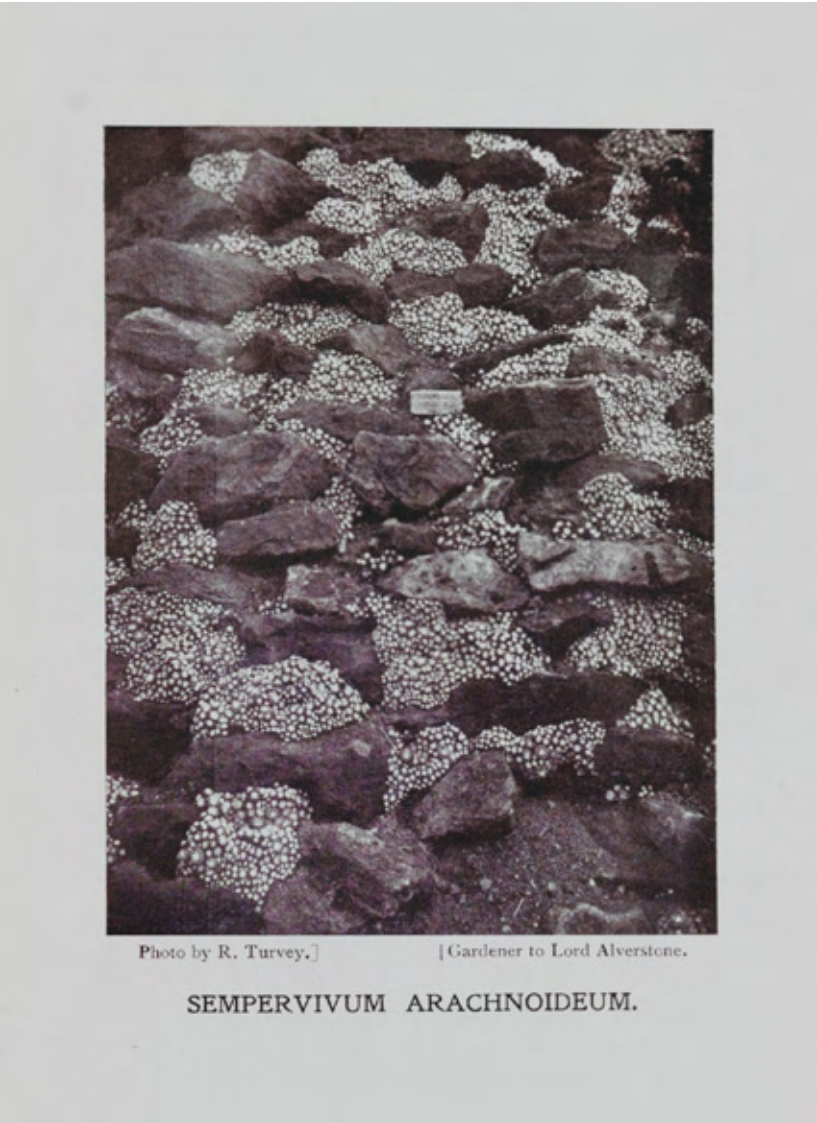

Fig. 20. ***Sempervivum arachnoideum*, from H. Hemsley, *Rock & Alpine Gardening* (1900).**

Certain categories of alpine plants had their own trajectories of fashion. William Robinson had included carpet bedding in his *Alpine Flowers for English Gardens* (1870),[1] and while he eventually turned against alternantheras and iresines, he retained a soft spot for dwarf succulents; he and William Wildsmith, who wrote the chapter on bedding for the early editions of *The English Flower Garden*, made an attempt to promote succulent bedding under the ambiguous name of "mosaiculture". Sempervivums in particular went on to enjoy a long sustained vogue as carpeting and crevice plants; the RHS published monographs by R.L. Praeger on *Sempervivum* and *Sedum* in the 1920s and 1930s. The popularity of sedums declined after the Second World War, possibly because of their invasive qualities, though at the end of the century they returned to esteem with the vogue for green roofs.

From sempervivums it was an easy step to move on to other plants that formed distinct cushion-like shapes. In 1940 R.L. Kitching proposed in *Gardening Illustrated* that a prize should be offered for cushion plants such as Aretian androsaces or Kabschian saxifrages; the editor noted that "Cushion plants have a very real claim to recognition these days". Stuart Boothman proposed a definition: "A hardy, perennial, alpine plant of dense cushion habit growing from a single rootstock without running shoots either above or from below ground, with flower stems scarcely exceeding the foliage", and other writers swept in with suggestions of relevant genera, from *Acantholimon* to *Petrocallis*. Over the years others proposed that the concept be subdivided, with mat-forming and carpeting plants treated as distinct categories.[2]

Finally, what of that legacy from the picturesque rockwork of the nineteenth century: shrub and conifer planting on the rocks? Even the

[1] Reginald Farrer exhibited *Primula farinosa* at a Temple Show in the form of "a queer little sugar loaf hill of turf, a perfectly symmetrical steep mound about two feet high, with plants of *Primula farinosa* stuck into the grass, like pins in a well-furnished pincushion" (C. Elliott, 1948). The description intriguingly resembles one of Robinson's carpet beds (Robinson, 1870:39–42), and the symmetrical mound may have been chosen by Farrer for precisely that reason, as a dig at Robinson.

[2] *GI*, 3 August 1940: 385–6; 24 August: 422; 31 August: 434; 21 September: 470. *AGS*, **22** (1954): 88–95; **28** (1960): 271–6; **32** (1964): 5–6; **41** (1973): 28–34, 151–5; **65** (1997): 277–86.

earlier enthusiasts for alpines frequently felt the need for larger shrubby planting for purposes of composition. Jekyll recommended the use of shrubs with dark foliage: "by using them in bold masses they will give the whole rock-garden that feeling of unity and simplicity of design that often in such places is so painfully wanting" (Jekyll, 1901: 83).

> In those days there were few small shrubs in cultivation which would remain dwarf. This pinpoints a development in which the Alpine Garden Society has taken a major part. The introduction of dwarf and slow-growing conifers has done much to revolutionize the whole art of building a rock garden. A solitary cypress, or a spinney of dwarf conifers helps to create the illusion of space and height (Fisher, 1967: 228).

Murray Hornibrook published the first edition of his *Dwarf and Slow-growing Conifers* in 1923; despite his distinction, gardeners continue to be caught out by the size to which allegedly dwarf conifers can grow, and the usual fate of a derelict rock garden is to disappear from view beneath a canopy of needles.[1]

A new and interesting design issue emerged during the interwar years: if the rock garden was geologically representational, should the planting reflect the distribution of vegetation communities that characterised the type of rock formation imitated? Clarence Elliott's own garden at the Six Hills Nursery near Stevenage contained a series of rock outcrops, culminating in a crag overlooking a small stretch of water (*AGS* 5 (1937): 81). He summarised his planting scheme late in life:

> My own personal inclination is for a rock garden which is reasonably, but not slavishly, near to nature as regards rock formation, and at the same time one which makes a pleasing picture. I like to see the plants in the kinds of positions which they would naturally choose in their native haunts. ... Cliff-dwellers should be planted on cliffs or the nearest approach to cliff formation that can be devised in the rock garden,

[1] For treatments of dwarf conifers by Hornibrook and Edwin Hillier in the Alpine Garden Society's *Bulletin*, see *AGS*, **4** (1936): 282–96; **6** (1938): 375–81; **10** (1942): 3–7.

> and plants which one has always found in short alpine turf... should be planted on the loamy slopes below the cliffs (C. Elliott, 1950: 15).

This approach could be seen as ecological; but there was an aesthetic alternative, which ruled that the scale of the planting of different parts of the rock garden ought to be proportionate to that of the original alpine scenery. The sort of scale-model approach which H.H. Thomas found compelling when applied to rockwork – "building a rock garden is so absorbing because one is following an ideal set by Nature; here rises a peak or dips a hollow, here frowns some miniature promontory or rises sheer some Liliputian precipice" (H.H. Thomas, 1927: 4) – could be applied to planting too. T.C. Thacker, in 1951, laid out the rules for plant grouping on these principles:

> What, then, are the principles of artistic alpine gardening?
>
> First and last we must adhere to the natural scheme of the mountains and any attempt to do otherwise is bound to strike a jarring note…
>
> If high alpine plants are to be grown, the upper rocks should be silhouetted against the sky when seen from the principal viewpoint, this gives a beautiful, ever changing background and more than anything else, helps to recapture the alpine atmosphere. All high alpine plants should be grown in the upper part of the alpine garden above any dwarf shrubs, and are only effective when grown in quantity…
>
> Dwarf conifers and other alpine shrubs … should be planted in groups and miniature forests in the lower half of the garden and at the back and sides, keeping the prostrate sorts higher up the slopes, than the upright kings, which look most effective at the foot of cliffs or drifting down the lower slopes.
>
> Hill and woodland plants look in place only when growing at an below the conifer line, but great care must be taken to use plants of dwarf habit of growth, or the proportion of the garden will be destroyed. The smaller the garden the smaller the plants and shrubs must be (Thacker, 1951).

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Fig. 21. ***Gentiana clusii*** **and** ***Primula longiflora*****, from Walter P. Wright's** ***Alpine Flowers and Rock Gardens*** **(1911).**

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Fig. 22. ***Gentiana punctata*** **and** ***Rhododendron ferrugineum*****, from Walter P. Wright's** ***Alpine Flowers and Rock Gardens*** **(1911).**

During the 1960s, this approach was challenged by Roy Elliott and others. An abridged version of Thacker's piece was published by the Alpine Garden Society as the lead entry in its 1961 anthology *The Rock Gardeners' Bedside Book*, and an American member gave it a mocking review, responding to the notion of a rock garden silhouetted against the sky by asking "what if you garden in Kent, and Canterbury Cathedral peeps over your simulated high alpine skyline?" (Z, 1961: 183). He then waxed philosophical: "I categorically must deny the tenets of artificial naturalism, on the ground that even in this age of post-Relativity there are a few absolutes, or quasi-absolutes, left, and one of these is the scale of nature … One simply cannot scale down grandeur without making it puny and slightly ridiculous" (ibid., 184). Roy Elliott dismissed this aesthetic as part of the superseded age of Symons-Jeune:

> Some years ago, when the cult of 'natural rock gardening' was at its height, it was considered that the rock garden should be laid out to represent a natural formation from the hills: that high alpine plants should grow on the highest places, and that dwarf conifers and shrubs should be sited low down to represent the tree line of the mountains.
>
> … dwarf conifers should be used in the rock garden: not as part of an imaginary tree belt where their individual beauty cannot be appreciated, but to give height, form and character to the rock garden (R. Elliott, 1963: 59).

And "Rhinanthus", the AGS quarterly commentator, spelled out the aesthetic implications of rejecting the scale-model approach:

> I … always have had to struggle with the temptation to build mountains in miniature… what a futile illusion this is! Never can the plant – be it conifer or androsace – fit into any but a life-size background… I have found that the only successful rock-work in my hands is the bluff or outcrop which aims to appear no bigger than it is (Rhinanthus, 1964: 112).

So, as the twentieth century drew to its close, had the aesthetic issues of plant arrangement been resolved? Human history inspires no confidence in such a prospect. One impressive shift in the wider world of

gardening during the 1990s was the trend towards replicating ecological communities, frequently exotic ones, in the garden, seen to greatest publicity in the vogue for prairie planting; and this trend penetrated the alpine world as well.

> To convey successfully a sense of a natural rock garden, or at least a naturally-occurring community of plants, you will have to coax the illusion of random introgression, with perhaps several different-sized plants of a given species at irregular intervals. Even in a patchwork quilt of alpine lawn or so-called "cushionfield" there are intermittent gaps, and certainly no even spacings (Rolfe, 1998: 496).

In a sense, this is the old demand for truth to nature, ratcheted up a notch: after grouping plants according to their accustomed altitudes and environmental preferences, the next stage is grouping according to observed frequency and distribution in their natural ecological community. There is, however, an alternative view, lurking just below the surface and waiting for its moment to re-emerge. The idea of ecologically appropriate planting, so often discussed in terms of invasive aliens, has come under attack as scientifically unsound, and back in 1961 a writer in the Alpine Garden Society's *Bulletin* expressed an analogous sentiment:

> … if the Darwinists and plant geographers are right – the distribution of plants over the globe is largely a matter of accident, not the result of an immutable law or logic. The original home of the Edelweiss, for instance, is said to be the Siberian steppe. If it accidentally became naturalized in the Alps, there is no good reason (if you like it) not to grow it also in Surrey or Missouri, out of which region it was merely kept by another series of accidents (Zollinger, 1961: 186).

So whenever fashion or ideology dictate that garden practice should be based on the imitation of nature, there will eventually be a reaction which proclaims the irrelevance of nature to human aesthetics.

The alpine rock garden in the public park

The 1920s had seen the culmination of the picturesque rock garden, in the Pulham manner, in municipal parks; within a decade the rival tradition, the alpine rock garden, was making itself apparent. The

planting of these gardens may seldom have satisfied the alpine purist – park superintendents had to cater to a more general public than the curators of botanic gardens – but the shallower shelves of rocks, and the increasingly alpine range of plants used, identify such works as the Southsea Rock Gardens (early 1920s), the Venetian Waterways at Great Yarmouth (1926–8), the rock garden around the pavilion in the Lower Gardens at Bournemouth (early 1930s), and the rock garden in Preston Park, Brighton (1934–36), as belonging to the alpine tradition.

The first municipal rock garden to be praised in the horticultural press for its planting was Happy Valley, in Llandudno. This had been planned in 1912, but was only executed in the late 1920s by the park superintendent W. G. Robertson as a series of irregular rockwork terraces. It was at the time the largest public rock garden in the kingdom, with over a thousand labelled species and cultivars, and Sir William Lawrence compared it to Kew and Edinburgh. As a west-facing seaside garden, it was unsuited for shade-loving plants, but provided an ideal environment for a number of plants that frequently failed elsewhere. F. H. Fisher, while unhappy at the "artificial effect" of the rock terracing, out of scale with the crags of the Great Orme behind, was enthusiastic about the planting, which achieved effects seldom allowed by the English climate: "the large splashes of colour are provided by plants seldom enjoyable in masses", but here visible in sheets of yellow, pink, and blue far out in the bay. Suitable plants from the local flora (the endemic *Cotoneaster vulgaris*, and the locally naturalised *Rhamnus alaternus* and *Arbutus unedo*) were allowed to spread. It is the first municipal garden in which raoulias are mentioned as growing.

After the Second World War, two rock gardens were created to highly favourable publicity in the London Borough of Bexley. The first was at Hall Place, the grounds of a sixteenth-century manor house which had been acquired by the local authority and developed as a park. It was originally constructed in 1952–4, of 95 tons of Kentish ragstone arranged in "natural strata" on four irregular mounds, and nearly doubled in 1958 with a stream and pool. In 1964–5 the rock garden was moved in order to free its site for the construction of a new roundabout. F. H. Eul, the parks superintendent, recreated it a short distance south of the manor house, in a group of island beds described in the *Gardeners' Chronicle* as "a credible

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Fig. 23. **A 1930s postcard image of Happy Valley, Llandudno.**

piece of alpine hillside". In between these two phases, the public interest in the Hall Place rock garden had prompted Bexley Council to create another in Danson Park, Bexleyheath, a park which had its origins in a Capability Brown landscape, and this was opened in 1962. Eul found it difficult to plan the garden on paper, and ended by directing its construction on site. This time 275 tons of Kentish ragstone were used, the individual rocks much larger, and blasted apart at the quarry rather than cut in order to ensure a rugged effect. At the base of the rock masses a series of separate sloping outcrops of scree was arranged: "Each outcrop consisted of a face and a return and the strata were built conforming to the natural process of rock formation" (the vocabulary indicating the influence of Symons-Jeune). The new interest in New Zealand plants, drawing on Philipson and Hearn's *Rock Garden Plants of the Southern Alps*, made itself apparent in the plant selection, and Eul reportedly used his own private garden (never described in the press) to provide stocks for the park. Ask for this great rock garden now, and find it largely concealed beneath an interpenetrating mass of conifers, the ranunculus and violas, the *Arnebia echioides* and *Phlox subulata* cultivars long since vanished; but the Hall Place rock garden

is still extant and reasonably well maintained, though somewhat dwarfed by its former dwarf conifers.[1]

Other rock gardens were constructed in municipal parks at the same period: Friarwood Valley Gardens, Wakefield (late 1940s); Queen's Park, Swindon (in two phases a decade apart, early 1950s and early 1960s); Victoria Park, Tunstall (around 1960); but these were not reviewed in the national press.

The decline of the rock garden

The rock garden had been one of the dominant genres of gardening during the first half of the twentieth century, but the second half began ominously with reports on a national poll about the content of the ideal garden. "The rock garden polled a low vote, rather surprisingly, as we were under the impression that this type of gardening was gaining in popularity". A couple of weeks later, a contributor provided reasons: "The rock garden received few votes, for this garden feature requires more time and attention than there is time for these days" (*GC*, 17 February 1951: 49; 3 March 1951: 70).

As rock gardens proliferated in small urban and suburban gardens, questions of scale emerged to challenge designers. Roy Elliott was to declare in the 1960s that "There are very few rock gardens today which can be made to look natural – if by 'natural' we mean reproduced as a piece of mountain scenery. In most conditions and in most small gardens, it just cannot be done" (R. Elliott, 1963: 24). This attitude was echoed by others: "the growing of alpines in any conditions below some 5–6,000 ft. cannot escape being artificial" (Anon, 1958: 53); "All gardening is more or less artificial" (Bacon, 1980: 95), this last from an article entitled "Rock Gardening – a Dying Art?".

It would soon seem to many that the future of alpines lay outside the rock garden altogether. The twentieth century had seen a range of

[1] For Happy Valley, see *GI*, 29 June 1929: 450 (Fisher); *GI*, 30 July 1932: 456 (Robertson); *AGS* **2** (1933): 110–12 (Lawrence). For Hall Place, see *AGS* **33** (1965): 59–62 (Eul). For both Bexley gardens together, see *GC* 12 October 1963: 266–7; 17 July 1970: 22–25.

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Fig. 24. Above. **Danson Park.** Below. **Hall Place.**

experiments in the cultivation of alpines without requiring a garden as such. The first to become established was the use of sinks and troughs. This can be traced to the 1890s, when Mrs Saunders of Wennington Hall, Lancashire, experimented with filling an old stone trough with river sand and leaf mould as a growing medium; Clarence Elliott visited her garden and was inspired (*Garden*, 22 April 1922: 193; Fisher, 1967: 230–1). He first exhibited trough gardens at Chelsea in 1923, and by the mid-1930s other firms were following his example. The spread of the fashion can be indicated by the gradual diminution of the supply of sinks. In 1924 Elliott confidently advised that "sinks are to be had very reasonably. They are constantly being taken out of old houses and replaced by glazed earthen ones" (Elliott 1924b); forty years later Anna Griffith complained that "The old stone sink or trough is becoming more and more difficult to find, and more expensive when found" (Griffith, 1964: 19). During the 1940s hypertufa began its onward march to popularity, in large part because it enabled people to treat porcelain sinks and make them look like old stone ones. [1]

In the wake of sinks and troughs came a variety of other methods of creating miniature gardens of alpines. Simpson Hayward of Stow-on-the-Wold created "slab gardens" (paving slabs surrounded by pieces of Cotswold stone anchored with mortar, so that the slab functioned as a shallow bowl, filled with soil and planted). These gave A. J. Leschallas the idea of rock pots – rugged pieces of limestone cemented together to create planting receptacles – which attracted a burst of publicity in the 1930s: "The idea never developed in popularity, although in the alpine house, in the rock garden planted to form an outcrop, or even on the terrace as a container to display sempervivums, their appearance is most attractive".[2] These were followed by raised beds, which were promoted by Roy Elliott in the postwar years: "The great advantage of a raised bed over

[1] For some glimpses of the development of sink and trough gardens, see *Garden*, 30 January 1926: 63–4; *GI*, 12 January 1929: 20; *AGS* **1** (1930): 84–9; *AGS* **2** (1833): 29–30, 220–1; *AGS* **3** (1935): 301–6; *AGS* **7** (1939): 16–24; *AGS* **12** (1944): 213; Heath 1958: 17–25; *AGS* **32** (1964): 32–8, 64–70; *AGS* **49** (1981): 60–2; *AGS* **72** (2004): 22–7. For hypertufa, see *AGS* **9** (1941): 9–10; *AGS* 49 (1981): 187–8; *AGS* **76** (2008): 296–303.

[2] For slab gardens and rock pots, see *AGS* **2** (1933): 109; *AGS* **4** (1936): 310–13; *AGS* **20** (1952): 12; Heath, 1958: 28–30; Fisher, 1967: 231.

a rock garden proper is that it can be put almost anywhere in the garden" (R. Elliott, 1961: 145).

In the 1940s and 1950s, a series of books – Lawrence Hills' *Miniature Alpine Gardening* (1945), Anne Ashberry's *Miniature Gardens* (1951), Hills' *Alpines without a Garden* (1953), and Royton Heath's *Miniature Rock Gardening* (1958) – offered the entire gamut of devices to the general public. By the 1980s the Alpine Garden Society was increasingly associated with the apparatus of miniature gardens, rather than with the traditional rock garden. The RHS was slow to adapt: as late as 1976 miniature gardens were excluded from being judged "unless invited", though no such grumbles had been heard about Clarence Elliott's displays before the war. But in the 1970s, two important articles were published in the Royal Horticultural Society's *Journal*, by Valerie Finnis and Will Ingwersen, carrying the message to its members (Finnis, 1973; Ingwersen, 1975). Finnis, who had managed an alpine nursery at Waterperry School, moved her collection to the Dower House, Boughton House, in 1971, and accommodated them on a 150-yard series of raised beds along two walls of a vegetable garden: "the construction of my raised beds involved a lot of really heavy labour – 40 tons of soil, 9 tons of grit, 80 sleepers and numerous bales of peat…", not to mention the addition of glass lights as winter protection. By 1988, when Foxgrove Plants began exhibiting trough gardens, the old exclusion of "miniature gardens" had been removed from the rules.

The late twentieth-century alpine enthusiast's garden was no longer a geologically accurate reconstruction of a piece of mountain scenery, but a site bristling with troughs, raised beds, glass frames and alpine houses, and occasionally more extravagant devices such as peat or tufa walls. Roy Elliott's garden, illustrated in his books and articles, may be taken as representative; here is his account of building his cliff garden:

> If one's garden in situated in town, one inevitably discovers that some of the most fascinating alpines cannot be grown in the open. But this does not necessarily imply the need for an alpine house, frames, and all the fuss and trouble of pot cultivation. Some four years ago we acquired a load of tufa, and built a vertical cliff against an end wall of the garden. The wall was a good strong one, and from it we cantilevered a glass roof to overhang the cliff by about 3½ feet…

> We built the cliff to a height of about 4 to 5 feet, and packed some good rich soil behind the tufa. … The cliff has proved an astonishingly successful venture, and some four or five hundred plants have settled down in a way which they would never have done if exposed to the weather in the open rock-garden (R. Elliott, 1964: 278).

The traditionalist rock gardener's response to this might be that "most alpine gardens are full of other types of eyesore as well: plunge beds, frames, alpine houses, and even many raised beds!" (Richards, 2003: 267). Roy Elliott's garden was very much a town garden, to which longstanding notions of scale might be deemed irrelevant. Decades before, John Wood had made a prophecy about the future of alpine gardening in towns; it has not yet come true, and in an age of cost-cutting it probably will never do so, but contemplate it for a moment nonetheless:

> Probably 50 years hence our darkened squares will receive bright sunshine by means of reflectors, and we shall be able to grow Cistus and Calochortus in the depths of the 'wells' formed by the walls of twenty-storied buildings. Speculation on the state of artistic development we are likely to arrive at by the end of the next 50 years makes me almost too excited to sit down and wait and see (Wood, 1929: 339).

It is dangerous to predict the future course of anything which involves aesthetic judgments, so I shall end with a faint suggestion instead. One thing that virtually every writer on the rock garden since the middle of the nineteenth century agreed on was the rejection of the baroque/rococo rockwork, with its assemblage of such disparate materials as "scoria, flints, shells" (Dillistone, 1932: 455). In a century and a half I have found only one exception: "Jason Hill" (Frank Anthony Hampton), who gave a BBC talk on "Rock-gardening without Rocks" in 1933 (published in the *Listener*, 30 August 1933: 322–3, and reprinted in his collection *The Contemplative Gardener*). Hill rejected realistic rockwork as inappropriate to small urban gardens, and, with whatever length of tongue in cheek, suggested making a rock garden of flint, which could be developed into what he acknowledged as a "purely rococo theme":

> But we have drifted back to realism … so let us put our flint garden in full sun, choosing large, fantastically shaped pieces… plant it with

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Fig. 25. Above. **Pig trough planted up, from a Clarence Elliott brochure.** Below. **A Valerie Finnis image of Will and Paul Ingwersen with some troughs.**

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Fig. 26. **A photo by Valerie Finnis of Sir David Scott amid the raised beds at the Dower House, Boughton House.**

Sempervivums, add judiciously a few large shells, and we shall have an unexpected harmony of design… The Sempervivums in mass, wherever they may be, have a curious, submarine air, as of something seen in a rock pool or aquarium, so that they are already prepared for the company of the shells.

… if we can procure some blocks of masonry, preferably including some curves in their design (the yard of the local builder is nearly always productive), we shall find, I think, that they can be composed into a rock garden of very satisfying effect… If the masonry comprises some curves we can add to them a piece of natural sculpture in the form of a large fossil ammonite, or portion of it, and we shall find that such plants as Cyclamen, *Dodecatheon*, small Columbines, *Fritillaria meleagris*, *Geum rivale*, *Erythronium*, *Narcissus triandrus*, *Ramondia*, *Epimedium*, *Soldanella* and small ferns, will look very well in such a setting…

The foundation of masonry can be developed into a purely rococo theme by adding some large shells, another ammonite or two, a block of crystal, a broken garden ornament (most garden ornaments

> are better broken) and a piece of coral. Nature has provided several strikingly baroque plants for such a setting… (Hill, 1940: 42–51).

This provoked a splutter of indignation at the time (*GI*, 16 September 1933: 538), a correspondent condemning the BBC for corrupting the taste of the nation. Although interest in rococo decoration was picking up, I am unaware of anyone having tried to create this effect. But Hill's idea survives in print; the rococo taste has not disappeared, and was given another stimulus by a major exhibition at the Victoria and Albert Museum in 1984; it would not surprise me to learn that someone out there is thinking along these lines. Perhaps the next stage of development in the rock garden will be the one least welcome to the alpine world.

Bibliography

Alpine Garden Society. (1961). *The Rock Gardeners' Bedside Book*. Orpington, Kent: Alpine Garden Society.

Anderson, E.B. (1973). *Seven Gardens or Sixty Years of Gardening*. London: Michael Joseph.

Andrews, B. (1838). Description of a Rustic Fountain and Rockwork lately Erected in the Garden of Mr. Thomas, at Peckham. *Gardener's Magazine*, **14**: 463–4.

Anon. (1930). The Wisley Rock Garden. *Gardening Illustrated*, 17 May 1930: 326–7.

Anon. (1958). Review of R.E. Heath, *Miniature Rock Gardening*. *Bulletin of the Alpine Garden Society*. **26**: 53–4.

Ashberry, A. (1966). *Alpine lawns*: *with some Account of the special Use of Carpeting and Crevice Plants*. London: Hodder & Stoughton.

Aslet, W.K. (1964). Rock Garden Construction. *Bulletin of the Alpine Garden Society*, **32**: 17–21.

Aspland, V.A. (2006). Doing it the Right Way? *Alpine Gardener* [*Bulletin of the Alpine Garden Society*], **74**: 148–151.

Bacon, L. (1980). Rock Gardening – a Dying Art? *The Garden* (*Journal of the Royal Horticultural Society*), **105**: 94–8.

Beeston, R. (2005). The Crevice Garden at Pershore. *Alpine Gardener* [*Bulletin of the Alpine Garden Society*], 73: 236–40

Bowles, E.A. (1914). *My Garden in Spring*. London: T.C. & E.C. Jack.

Brown, J. (1982). *Gardens of a Golden Afternoon*. London: Allen Lane.

Cane, P. (1956). *The Earth is my Canvas*. London: Methuen.

Canning-Wright, H.W. (1923). Making an Alpine Meadow. *Gardening Illustrated*, 1 December 1923: 624–5.

Clay, S. (1937). *The Present-day Rock Garden*: *being a Complementary Volume to Farrer's "English Rock-garden"*. London/Edinburgh: T.C. & E.C. Jack.

Cory, R. (1914). *The Horticultural Record*: *consisting of Coloured and Half-tone Reproductions of the Most Interesting and Valuable Flowers*, *Plants*, *Shrubs*, *Groups* & *Rock Gardens Exhibited at The Royal International Horticultural Exhibition 1912*. London: J. & A. Churchill.

Cotter, J.L. (1926). *A Simple Guide to Rock Gardening*. London: Sheldon Press.

Dillistone, G. (1932). Rock Gardens. I. Nineteenth and Twentieth Century Ideals Compared. *Gardening Illustrated*, 30 July 1932: 454–6.

Edwards, A. (1929). *Rock Gardens*: *how to Plan and Plant them*. London: Ward Lock.
Elliott, B. (1986). *Victorian Gardens*. London: B. T. Batsford.
Elliott, B. (1991). Farrer and the Victorian Rock Garden, in J. Illingworth and J. Routh, eds., *Reginald Farrer*: *Dalesman*, *Planthunter*, *Gardener*, Lancaster: University of Lancaster, pp. 27–35.
Elliott, B. (1996). Rhododendrons in British Gardens: a Short History, in C. Postan, ed. *The Rhododendron Story*: *200 Years of Plant Hunting and Garden Cultivation* London: Royal Horticultural Society, pp. 156–86.
Elliott, B. (2004). *The Royal Horticultural Society*: *a History 1804–2004*. Chichester: Phillimore.
Elliott, C. (1924a). The Alpine Lawn. *Garden*, 12 April 1924: 244–5.
Elliott, C. (1924b). The Alpine Lawn Garden. *Garden*, 3 May 1924: 308.
Elliott, C. (1935). *Rock Garden Plants*. London: Edward Arnold.
Elliott, C. (1948). Some Thoughts on Bygone Chelsea Shows. *Gardening Illustrated*, May 1948: 91.
Elliott, C. (1950). Rock Gardens To-day. *Gardening Illustrated*, January 1950: 14–17.
Elliott, J. (1991). *Alpines in the Open Garden*. London: Christopher Helm.
Elliott, R. (1963). *Alpine Gardening*. London: Vista Books.
Elliott, R. (1964). Alpines for Town Gardens. *Journal of the Royal Horticultural Society*, **89**: 274–9.
Evans, G. S. (1968). Colour Wise. *Bulletin of the Alpine Garden Society*, **36**: 168–9.
Evans, G. S. (1986). All the Rage – Fickle Fortune Fashion-wise. *Bulletin of the Alpine Garden Society*, **54**: 272–9.
Farrer, R. (1912). *The Rock Garden*. London: T. C. & E. C. Jack.
Farrer, R. (1919). *The English Rock Garden*. 2 vols. London: T. C. & E. C. Jack.
Ferns, F. (2005). The Elements of Natural Rock Gardening. *The Rock Garden*, **29**: 34–51.
Festing, S. (1988). "Great Credit upon the Ingenuity and Taste of Mr Pulham". *Garden History*, **16**: 90–102.
Field, C. (1988). Proceed with Caution. *Bulletin of the Alpine Garden Society*, **56**: 34–45.
Finnis, V. (1971). Raised Beds for Rock Plants. *Journal of the Royal Horticultural Society*, **96**: 249–54.
Fisher, F. H. (1941). Pages from a Log Book. *Bulletin of the Alpine Garden Society*, **9**: 277–83.

Fisher, F.H. (1967). Trends in the Cultivation of Alpine Plants. *Bulletin of the Alpine Garden Society*, **35**: 227–34.

Godfrey, W.H. (1914). *Gardens in the Making*. London: B.T. Batsford.

Good, J.E.G., & Millward, D. (2007). *Alpine Plants*: *Ecology for Gardeners*. London: Batsford.

Gorer, R. (1974). Alpine Gardening in the 1860's. *Bulletin of the Alpine Garden Society*, **42**: 179–83.

Gorer, R., & Harvey, J. (1979). Early Rockeries and Alpine Plants. *Garden History*, **7**: **2**, 69–81.

Griffith, A.N. (1964). *Collins Guide to Alpines*. London: Collins.

Hadfield, M. (1962). The Origins of Alpine Gardening. *Bulletin of the Alpine Garden Society*, **30**: 141–6.

Hanbury, F.J. (1917). A Sussex Rock-garden. *Journal of the Royal Horticultural Society*, **42**: 271–81.

Hanbury, F.J. (1925). *The Gardens at Brockhurst*, *East Grinstead*. [no place of publication or publisher's name: reprinted *Country Life* material with additions].

Hancock, R. (*c.*1936). *When I Make a Garden*. London: G.T. Foulis.

Hanger, F. (1961). A Decade at the Wisley Rock Garden. *Bulletin of the Alpine Garden Society*, **29**: 64–74.

Hay, R.E. (1939). Colour in Rock and Woodland Gardens. *Journal of the Royal Horticultural Society*, **64**: 175–9.

Heath, R.E. (1957). *Miniature Rock Gardening in Troughs and Pans*. London: W.H. & L. Collingridge.

Hemsley, H. (1900). *Rock and Alpine Gardening*. London: J. Cheal & Sons.

Herries, A. (2001). *Japanese Gardens in Britain*. Princes Risborough: Shire Publications.

"Hill, J." [F.A. Hampton]. (1940). *The Contemplative Gardener*. London: Faber and Faber.

Hornibrook, M. (1931). Notes on So-called "Moraine" Gardens. *Journal of the Royal Horticultural Society*, **56**: 61–4.

Hornibrook, M. (1938). *Catalogue of the Collection of Alpine and Other Plants Grown on the Rock Garden at Knapton*, *Abbey Leix*, *Queen's County*, *Ireland 1906–1922*. Unpublished typescript.

Hutchins, G. (1984). *A Plantsman in New Zealand*. Fairseat, Kent: privately published.

Ingwersen, W.E.Th. (1932). Reginald Farrer and his Influence on Present-Day Rock Gardening. *Bulletin of the Alpine Garden Society*, **1**: 209–13.

Ingwersen, W. (1952). Types and Styles of Rock Garden. *Gardening Illustrated*, June 1952: 160–1.

Ingwersen, W. (1975). Alpines in Sinks and Troughs. *Journal of the Royal Horticultural Society*, **100**: 271–81.

Jekyll, G. (1901). *Wall and Water Gardens*. London: Country Life.

Jenkins, E. H. (1913). *The Small Rock Garden*. London: Country Life.

K. (1922). Rock Gardens and Rock Gardens. *Garden*, 11 February 1922: 62–3, and 4 March 1944: 101–2.

Kerner, A. (1864). *Die Cultur der Alpenpflanzen*. Innsbruck: Verlag der Wagner'schen Universitäts-Buchhandlung.

Lawry, D. (1992). A Chelsea Childhood. *The Garden* (*Journal of the Royal Horticultural Society*), **117**, 223–5.

Loudon, J. C. (1838). Notes on Gardens and Country Seats: Hoole House. *Gardener's Magazine*, **14**: 353–63.

Loudon, J. C. (1839). Descriptive Notices of Select Suburban Residences: Redleaf. *Gardener's Magazine*, **15**: 353–79.

McDouall, K. (1927). The Gardens at Logan. *Journal of the Royal Horticultural Society*, **52**: 1–14.

McGhee, R. (2002). *The Arctic Voyages of Martin Frobisher*. London: British Museum Press.

Malby, R. A. (1912). *The Story of my Rock Garden*. London: Headley Brothers.

Meyer, F. W. (1902). A Rock Garden in a Week. *The Garden*, 27 December 1902: 442.

Meyer, F. W. (1910). *Rock and Water Gardens*. London: Country Life.

Minter, S. (2000). *The Apothecaries' Garden: a New History of the Chelsea Physic Garden*. Stroud: Sutton Publishing.

Nicolson, M. H. (1959). *Mountain Gloom and Mountain Glory: the Development of the Aesthetics of the Infinite*. Ithaca, NY: Cornell University Press.

Page, J. (2003). Crevice Gardening. *Alpine Gardener* [*Bulletin of the Alpine Garden Society*], 71: 257–66.

Page, R. (1962). *The Education of a Gardener*. London: Collins.

Paton, J. (1956). Notes from Wisley. *Journal of the Royal Horticultural Society*, **81**: 159–62.

Peach, C. P. (1876). Artificial Rockwork. *Journal of Horticulture*, 24 February 1876: 152.

Pulham, J. (1876). Stratified Rockwork. *Journal of Horticulture*, 17 February 1876: 137.

Pulham, J. (1912). The Wisley Rock Garden. *Journal of the Royal Horticultural Society*, **38**: 225–33.

Pulham, J.R. (1940). The Birth and Development of Rock and Alpine Gardens in the British Isles. *Bulletin of the Alpine Garden Society*, **8**: 338–46.

Repton, H. (1803). *Observations on the Theory and Practice of Landscape Gardening*. London: J. Taylor.

"Rhinanthus" (1964). Alpine Anthology. *Bulletin of the Alpine Garden Society*, **32**: 105–16.

"Rhinanthus" (1976). Alpine Anthology. *Bulletin of the Alpine Garden Society*, **44**: 3–14.

Richards, J. (2003). Design in the Alpine Garden. *Alpine Gardener* [*Bulletin of the Alpine Garden Society*], **71**: 267–80.

Rix, M. & A. (1989). *Wisley*: *the Royal Horticultural Society's Garden*. Baltonsborough: Julian Holland.

Robinson, E. (1994). Keep off the Pavement. *The Garden* (*Journal of the Royal Horticultural Society*), **119**: 210–11

Robinson, W. (1870). *Alpine Flowers for English Gardens*. London: John Murray.

Robinson, W. (1912). *Alpine Flowers for Gardens*: *Rock*, *Wall*, *Marsh Plants and Mountain Scrub*. 4th edition. London: John Murray.

Rockley, A. (1936). Rock-gardening of Different Periods in Different Countries, in F.J. Chittenden, ed., *Rock Gardens and Rock Plants*, 11–17. London: Royal Horticultural Society.

Rolfe, R. (1998). Miniature Gardens to Maximum Effect. *Alpine Gardener* [*Bulletin of the Alpine Garden Society*], **66**: 493–501.

Rosenheim, P. (1934). The early History of the Scree. *Bulletin of the Alpine Garden Society*, **2**: 308–10.

Rosenheim, P. (1939). Scree Gardening. *Bulletin of the Alpine Garden Society*, **7**: 146–9.

Rothschild, L. de. (1934). The Rhododendron Rock Garden at Exbury. *Journal of the Royal Horticultural Society*, 59: 325–9.

Schulman, N. (2001). *A Rage for Rock Gardening: the Story of Reginald Farrer, Gardener, Writer and Plant Collector*. London: Short Books.

Senex. (1950). "Chelsea" Show in 1950. *Gardening Illustrated*, 8 June 1929: 398.

Smith, P.S. (1967). Stones on Edge – the Roman Way. *Bulletin of the Alpine Garden Society*, **35**: 237–44.

Smith, T. (1916). *The Book of Dry-wall Gardens*. London: Headley Brothers.
Symons-Jeune, B.H.B. (1929). The Points of a Rock Garden, and Some Ways of Achieving Them. *Gardening Illustrated*, 16 November 1929: 774–5, and 7 December 1929: 820–1.
Symons-Jeune, B.H.B. (1932). *Natural Rock Gardening*. London: Country Life.
Thacker, T.C. (1951). Alpine Gardening as an Art. *Bulletin of the Alpine Garden Society*, **19**: 292–4.
Thomas, G.S. (1945). Crevice Planting. *Gardening Illustrated*, November 1945: 685–6.
Thomas, G.S. (1989). *The Rock Garden and its Plants*: *from Grotto to Alpine House*. London: J.M. Dent & Sons.
Thomas, H.H. (1927). *Rock Gardening for Beginners*. London: Cassell and Co.
Thonger, C. (1907). *The Book of Rock and Water Gardens*. London: John Lane, 1907.
Thouin, A. (1812). Description of a Bank, for Alpine Plants. *Transactions of the Horticultural Society*, **1**, Appendix: 24–6.
Tunnard, C. (1938). *Gardens in the Modern Landscape*. London: Architectural Press.
Wacher, H.S. (1953). Alpine Turf Reproduction. *Bulletin of the Alpine Garden Society*, **21**: 216–19.
Walker, C.F. (1948). Cautionary Tales. *Bulletin of the Alpine Garden Society*, **16**: 202–7.
Walker, C.F. (1949). Stone Chippings. *Bulletin of the Alpine Garden Society*, **17**: 248–52.
Wallace, R.W. (1936). The Rise of the Modern Rock Garden, in F.J. Chittenden, ed., *Rock Gardens and Rock Plants*, 30–35. London: Royal Horticultural Society.
Wood, J. (1929). Rock Gardens: a Retrospect. *Gardening Illustrated*, 18 May 1929: 338–9.
[Woolley, R.V.G.] (1923). Rock Garden Construction, I–III; Planting the Newly Built Rock Garden; Colour Harmony in the Rock Garden. *Garden*, 10 February 1923: 65–7; 24 February: 94–5; 17 March, 131–3; 31 March: 157–9; 14 April: 181–2.
Wright, W.P. (1911). *Alpine Flowers and Rock Gardens*. London: Headley Brothers.
Zollinger, J.P. (1961). Rock Gardening as an Art. *Bulletin of the Alpine Garden Society*, **29**: 183–6.

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Volume 7 Studies in the history of British fruit, part 2, will contain:

B. ELLIOTT. English fruit illustration in the early nineteenth century. Part 2: William Hooker and his colleagues.

J. MORGAN. The history of the National Fruit Trials.