A SURVEY OF CULTIVATED SPECIES OF *ARISAEMA*

S. F. Mayo

AROIDS (FAMILY ARACEAE) receive a rather bad press on the whole, mainly due to the mistaken belief that most produce unpleasant smells or have a monstrous and repugnant aspect. In fact the aroid family includes many fragrant species (eg of *Spathiphyllum*) as well as a good number of the most popular and ornamental indoor foliage plants in cultivation (eg *Dieffenbachia*, *Monstera*, *Philodendron*, etc.). Indeed the beauty and enormous range of foliage types in aroids is difficult to parallel anywhere in the plant kingdom.

Arisaema is an aroid genus which gives the lie to the 'smelly monster' image, combining striking grace and beauty of both foliage and inflorescence. Arisaemas are cormous herbs, hitherto largely unexploited in British horticulture, despite the 150-odd species. Many people will be familiar with the widely-cultivated A. candidissimum, the subject of our colour plate, and indeed this striking species is truly worthy of its popularity. However, for the plantsperson with a taste for the unusual there are many other rare delights to be found in this large and complex genus. The foliage ranges through many forms, from trifoliate types to others with several to numerous pedate divisions resembling the leaves of hellebores, and yet others with radiately-arranged leaflets emerging from a common point at the top of the leaf stalk. The leaf stalks and sheaths are often mottled with subtle and complex patterns in purples, greys, pinks and browns, and the inflorescences show a wide range of shapes from the relatively straightforward Jack-in-the-pulpit type (eg *A . Triphyllum*) to the bizarre and fantastic, as in *A. griffithii*. Later in the season, during late summer and autumn, the heads of densely-packed brilliant scarlet berries of many species (eg *A. consanguineum*) make a striking display.

A large number of species are almost certainly hardy in this country, at least in southern and sheltered parts, though early starters need frost protection to protect the young foliage. The latest published accounts give totals of 25 species for Japan, 82 for China, and 17 for the Himalayan region, and the majority of these are suitable for cool greenhouse, bulb frame or shady spots in the garden. In addition to these there are other species from tropical southeast Asia, the mountains of East Africa, peninsula India and a few from eastern North America .

The listing presented here deals with 15 species that are known to be in cultivation in Britain today, and includes the most commonly encountered ones. Most are only obtainable from specialist nurseries and private enthusiasts. I do not pretend to have given a comprehensive treatment of the cultivated species, but rather hope that more horticulturists will be tempted to take an interest in these graceful and unusual plants.

Cultivation

As with many other bulbous or cormous plants, arisaemas prefer beds to pots as unrestricted root growth permits a stronger increase of the corm, readier offsetting and bigger plants (but be sure to mark the spot where the corms are planted!). In general they should be treated in much the same way as Himalayan lilies. Arisaemas do nor grow in habitats subject to hot dry seasons (unlike many biarums, for example) but rather occur in subtropical and temperate woodlands. Thus the corms should not be allowed to dry out completely, nor become waterlogged; the best conditions are a cool, free-draining and leafy soil. For pot culture a loam-peat-sand mixture with added leaf mould, grit and a low-nitrogen fertilizer seems to give satisfactory results. The corms

should be repotted annually: as they rapidly exhaust the compost during the growing season, and this is best done during the dormant phase, preferably shortly before they come into growth.

Judging from their regions of origin, all of the species listed here should be hardy, with the possible exception of *A. speciosum*. Most prefer situations of semi-shade, though *A. candidissimum* and *A. flavum* also do well in more open conditions. Since corms are often quite expensive many potential growers may flinch at the thought of risking their plants through the winter unprotected, and until more species have been widely grown it is difficult to give advice confidently on the relative hardiness of the different species. The main threats are probably water-logging and spring frosts for the species which start growing before May. My wife Anne and I have had success with *A. candidissimum, A. costatum, A. griffithii, A. flavum* and *A. consanguineum* in our north-facing Chiswick garden with no more protection than a pane of glass propped over them during the wetter parts of the winter. An extra safeguard is to place a little grit beneath each corm when it is planted.

Most species appear above ground rather late, anytime between May and July, flowering with the leaves or soon after, and the leaves often persist until September. *A. speciosum* tends to develop earlier, in April or May, while *A. ringens* may flower as early as March: and will certainly need protecting.

Morphology

The corms (often called tubers by aroid botanists) are normally subspherical but in a few species, notably *A. speciosum*, the rootstock is an elongated rhizome.

The leaves are compound, and may be trifoliate, pedate or radiate, with three to 20 or more leaflets. The immature plants usually produce either entire leaves or fewer leaflets than in the mature flowering state. In the descriptions that follow I have given the mature form. The leaves of all species have long sheaths and emerge from several basal bracts, which themselves may be quite long and pleasingly patterned. The inflorescence emerges from the uppermost leaf sheath. In many species, particularly those with more than one leaf, the sheaths are tightly folded around one another to form a fleshy stalk which is called the pseudostem . The leaf sheaths of some species are open to the base, but in others the margins are fused with a circular opening at the top from which the next leaf or inflorescence appears. This latter situation is common in the Japanese species.

As in many aroids the size of the plant may vary considerably according to the growth conditions and the age of the corm, often flowering when fairly small and increasing in size in all parts in later years. For this reason I have laid little stress on sizes of plant parts in the descriptions since they can often be misleading. Here and there some dimensions are given, however, where they seem particularly useful for identification.

The 'flower' is actually an inflorescence, and the true flowers are minute, naked pistils and groups of fused stamens, clustered on the lower part of the central axis or spadix, protected and enclosed by the fleshy, usually coloured spathe. Arisaema is exceptional in the aroids in having unisexual inflorescences in many species. That is, the spadix bears either all female or all male flowers. However, there are some species with both sexes on the spadix, and in these the male flowers are invariably borne above the female. Still stranger is the behaviour of certain other species which have been observed to produce male inflorescences when the corm is small and female when the corm is larger, thus showing a relationship between nutritional status and sexual expression. This phenomenon has resulted in arisaemas being called paradioecious to

distinguish it from true dioecy, in which a plant invariably produces flowers of only one and the same sex. It is not known whether all those species bearing unisexual spadices do in fact undergo sex transition as the corms increase in size, and observations on this would be of great interest.

A particularly striking feature of the inflorescence is the sterile appendix, which forms the upper part of the spadix beyond the true flowers. This is a scent-producing organ involved in pollination, and its shape varies greatly among the species, from short erect clubs to greatly elongated threads which dangle down from the spathe onto the ground or are held erect in the air. The various appendix shapes are important in distinguishing the species and in association with the various spathe shapes probably represent adaptations for attracting different groups of pollinating insects. Needless to say, very little is known of the pollination biology of arisaemas.

For descriptive purposes the spathe is normally considered in two parts: the lower tube, usually of duller or darker hue, and frequently striped, and the upper expanded limb, often of brighter contrasting colour. It is interesting that in some species it is the spathe tip which becomes elongated into a long thread-like organ, while the spadix remains hidden in the spathe.

The species

A. amurense Maxim. subsp. ***robustum*** (Engl.) Ohashi & J. Murata
Pseudostem well-developed:, leaf solitary sometimes 2, with closed, ± purplish sheath; leaflets usually 5. with entire margins, more-or-less radiately arranged. Inflorescence shorter than leaf; spathe dark purple to green with white, longitudinal stripes; spadix appendix stoutly cylindric, truncate at the base on a distinct stipe. *Distribution*: Japan, Korea, north China, USSR including Sakhalin Island.

A. amurense was first collected along the Amur river in eastern USSR north of Vladivostok. It is thus probably the most northerly-growing species of the genus.

A. candidissimum W. W. Smith
Pseudostem very short, hidden by mottled pinkish-brown basal bracts; leaf usually solitary, trifoliate, fleshy. mid-green. Inflorescence about same height as leaves and appearing as leaves unfurl or just before; spathe tube pale green with whitish stripes becoming pinker towards
the limb, spathe limb pale whitish-pink, long-acuminate, bending forwards; spadix appendix pale yellowish-green, at first suberect within spathe and later bending forwards, subcylindric, tapering apically, not stipitate. *Distribution*: west China.

This is by far the most popular species in cultivation, offsetting readily and forming a clump after a few years.

A. consanguineum Schott
Robust, up to 1 m or more (3 ft), with a well-developed pseudostem, leaf sheaths open; leaf solitary, with 11 to 20 radiately-arranged leaflets, each lanceolate to linear-lanceolate with long thread-like drooping tip; leaf and inflorescence stalks brownish-mottled. Inflorescence shorter than leaves; spathe green or sometimes brownish-tinged, without distinct stripes, limb bending forward with long thread-like tip; spadix appendix erect, hidden within the spathe, club-shaped to cylindric, smoothly rounded at tip, green, without a stipe but usually with a few bristly projections at the base; fruiting head hanging down. *Distribution*: Himalaya Assam, south Tibet: Burma, north Thailand, west and central China, Formosa.

Native of mixed semi-deciduous forest. Hardy in southern England, a robust and attractive plant, especially for its unusual radiate leaf with numerous leaflets and brilliant glossy scarlet berries which set regularly in cultivation here. *A. concinnum*

Schott is very similar but has fewer, broader obovate leaflets and the spadix appendix is roughened and somewhat splayed at the tip. *A. erubescens* (Wall.) Schott, a species with a more restricted distribution (east Himalaya) is also closely related to *A. consanguineum*, but differs in the less numerous leaflets lacking long thread-like tips, a glaucous brownish spathe with longitudinal white stripes and lacking a thread-like tip, and the spadix appendix lacking basal bristly projections.

A. costatum (Wall.) Schott
Pseudostem short, usually hidden by basal bracts; leaf solitary, trifoliate; leaflets with narrow reddish-purple margins and numerous fine parallel side veins which are impressed on the upper surface and prominent on the lower giving a ribbed appearance; leaf stalk green, sometimes purple-blotched. Inflorescence shorter than leaf; spathe dark glossy purple with very distinct longitudinal white stripes, limb arching forward with long-acuminate tip; spadix appendix extremely long and very slender in the upper part, dangling from spathe to ground, usually kinked and twisted, expanded at base to form a disc-like thickening, stipitate. *Distribution*: Nepal (endemic).

A plant of mixed semi-deciduous forest. Easily recognized because of the strongly parallel and prominent side veins of the leaflets. Hardy in south England, this species forms offsets and may grow to surprisingly large size in favourable conditions, eg see the huge specimens at Wakehurst Place, in Sussex.

A. flavum (Forsk) Schott (*A. abbreviatum* Schott)
Pseudostem well-developed, leaf sheaths open; leaves usually 2; leaflets 5 to 11, pedately-arranged with very long-arching side veins; leaf stalks with very fine pinkish-brown lines. Inflorescence about same height as leaves; spathe exceptionally short (up to 4 cm long (1 ½in)), tube ovoid to sub-globose, usually green with a paler yellowish trellis pattern, limb curved sharply forward, acuminate, yellowish green to yellow, purple within in lower part; spadix with flowers of both sexes, stamens tightly packed, appendix a tiny, subcylindric erect greenish-yellow stump, hidden within the spathe. *Distribution*: Yemen, Afghanistan, Himalaya, south Tibet, west China.

Grows naturally in scrub on open bare rocky slopes, often in much drier habitats than is usual for arisaemas. A curious species with the smallest inflorescence found in the genus. its distribution is also unique, stretching from west China to theYemen. Hardy in southern England and best grown in an open situation.

A. griffithii Schott (*A. hookeranum* Schott)
Pseudostem very short, hidden by basal bracts; leaves generally 2, trifoliate; leaflets broad, rhombic-ovate with undulate, often purplish or crimson margins, veinlets strongly reticulated, prominent and often purplish below, impressed above; leaf stalk stout, green or purple-mottled. Inflorescence much shorter than leaves; spathe large, greenish to chocolate-purple, tube with broad lamellae within, limb folded completely forwards and downwards with greatly expanded margins which are patterned with white-green reticulated veins, tip notched with acuminate tail; spadix appendix very long, thread-like, often held in the inrolled spathe tip and drooping down to the ground, at the base greatly expanded into a fleshy disc, stipitate. *Distribution*: eastern Himalaya (Nepal, Sikkim, Bhutan).

Native to mixed semi-deciduous forest, also found in rhododendron forest. A spectacular and extraordinary inflorescence, and rather ornamental leaves, particularly in the forms with darker veinlets on the lower leaf surface and purple-mottled leaf stalks..Hardy in southern England. This species is related to *A. utile* Hook. f. ex Schott, which has a less extremely modified inflorescence and is also from the Himalaya.

A. jacquemontii Blume

Pseudostem well-developed, leaf sheaths open; leaves 1-2; leaflets 3-9, subradiately-arranged, lanceolate, long-acuminate, rather fine in texture with undulate margins; leaf and inflorescence stalks green. Inflorescence subequal to or longer than the leaves with narrow, sometimes indistinct white stripes, curved forward with an acuminate tip which is abruptly narrowed into a long, green to purple thread-like tail; spadix appendix slender (0.8-2 mm thick), curving forward and emerging somewhat from spathe, purple towards the obtuse apex, green and thickened towards the base, stipitate. *Distribution*: Afghanistan, Himalaya, south Tibet.

Occurs in drier habitats than the preceding species. The rather slender forward-curving appendix and thread-like spathe tip are characteristic features.

A. propinquum Schott (*A. wallichianum* Hook. f.)
Pseudostem very short, hidden by basal bracts; leaves 1 or 2, trifoliate; leaflets sometimes broader than long, central one rhombic-ovate, often shorter than laterals. Inflorescence subequal to leaves; spathe with greenish purple to purple tube with distinct white stripes, ribbed longitudinally within, limb purple, especially within, with reticulate pattern of whitish veins near margins, oblong: bending forward with rounded apical margins which become sharply narrowed to a cuspidate tip; spadix appendix gradually narrowed upwards to a thread-like tail, long-exserted from spathe, base thickened and subtruncate, stipitate. *Distribution*: Himalaya, south Tibet.

Grows in mixed semi-deciduous forest. It has been most widely known under the name *A. wallichianum*, but the latter was made a synonym of *A. propinquum* Schott by Hara (1971) in his revision of the Himalayan species. Hardy in southern England.

A. ringens (Thunb.) Schott
Pseudostem moderately developed, often hidden by a long basal bract, leaf sheaths closed; leaves 2, trifoliate; leaflets glossy green above, broadly ovate, long-acuminate with thread-like tips; leaf stalk green to purplish-tinged. Inflorescence shorter than leaves; spathe with tube green to purple, longitudinally striped white or very pale green, limb with inflated forward-curving upper part resembling a helmet and with similar colouring to tube, lateral margins broad, auriculate, deep chocolate or black-purple, apex similar to lateral margins, folded down over tube month; spadix appendix hidden within spathe, white to pale yellow, erect or curving forward with spathe, cylindric, truncate and stipitate at base. *Distribution*: Japan, Korea, China.

This species comes into growth and flower as early as February or March and must be protected from frost for the first few months of its season. A very characteristic feature is the strangely distorted spathe limb, which recalls the helmets of some cavalry regiments of the last century!

A. serratum (Thunb.)Schott (*A . japonicum* Blume)
Pseudostem well-developed, leaf sheaths closed, pale green or mottled with purple in complex, snakeskin-like patterns; leaves 2, often rather closely clustered at the top of the long pseudostem, with short free petioles; leaflets pedately-arranged, from about 7 to more than 20, rather spaced-out along the rachis, especially in the middle of the leaf, very variable in shape from obovate to lanceolate, margins toothed or entire. Inflorescence subequal to leaves; spathe pale green to dark purple or spotted with purple, tube with or without white longitudinal stripes, limb ovate, acuminate, arching forward and downward over spadix; spadix appendix erect, hidden within spathe, cylindric to club-shaped, rounded at tip, truncate at base, stipitate. *Distribution*: Japan, Korea, China, Kuril Is. (USSR).

A common and very variable species with a huge synonymy, very often known as *A. japonicum*. Many 'species' have been described based on small variations of colour and

size of various parts of the plant. A very thorough discussion of this confusion is given by Ohashi & Murata (1980) in their revision of the J Japanese species. A tall elegant plant with beautiful foliage, especially in the forms with dark-mottled pseudostems. Hardy in southern England.

A. sikokianum Franch. & Sav.

Pseudostem well-developed, leaf sheaths closed; leaves usually 2 with the lower bearing 5 leaflets and the upper 3; leaflets pedately-arranged, usually each with a short stalk, margins finely or coarsely toothed. Inflorescence subequal to or taller than leaves; spathe with tube flared towards the apex, yellowish-white within, becoming purple basally around the flowers, deep purple or brownish purple outside, limb erect or arching forward, thick in texture, long-acuminate, greenish to purplish-green within with greenish-white stripes, darker outside;
spadix appendix white, erect, emerging a little above the spathe tube and with greatly expanded subglobose apex (1.7-2.5 cm broad (½ to 1 in.)), stipitate basally. Distribution: Japan (Honshu, Shikoku).

This species is without doubt one of the most dramatically beautiful of the genus, with the striking contrast of its brilliant white spadix appendix and purplish-green spathe. Hardy in south England and worthy of much more attention from growers It has frequently been called *A. sazensoo*, which is really a distinct/ species from Kyushu, usually with only one leaf, and a cylindrical spadix appendix lacking the swollen tip of *A. sikokianum.*

A. speciosum (Wail.) Mart.

Robust, with an elongated rhizome; pseudostem very short, hidden within basal bracts; leaf solitary, trifoliate; leaflets each with a short stalk and red margins, side veins impressed above, lateral leaflets larger than middle one and unequal-sided; leaf stalk green with purple mottling. Inflorescence much shorter than leaf; spathe dark purple, tube white-striped within and without, limb lanceolate, long-acuminate, arching forward with white stripes on outer surface; spadix appendix with thickened white base, narrowing abruptly to a dark purple, thread-like and extremely long upper part which dangles from the spathe. *Distribution*: east Himalaya, north Assam, west China.

Native to wetter and warmer subtropical forest habitats at lower elevations than the preceding Himalayan species. This species may be hardy in the south of England, but does very well in a cool greenhouse and may grow to considerable size, flowering between April and May.
Var. ***mirabile*** (Schott) Engl. has a spadix appendix with a much more massively-thickened and rough base.

A. thunbergii Blume

Pseudostem short with open leaf sheath; leaf solitary; leaflets pedately arranged, 11-18, elliptic, lanceolate, well-spaced. Inflorescence shorter than leaf; spathe with greyish-purple tube, limb dark purple, long-acuminate with thread-like tip; spadix appendix very long and thread-like in upper part, long-exserted from spathe, with swollen, densely-wrinkled creamy white base hidden within the spathe tube.

subsp. ***urashima*** (Hara) Ohashi & J. Murata (*A. urashima* Hara) differs in its smooth, dark purple appendix base. *Distribution*: Japan.

Hardy in the south of England. The wrinkled appendix base closely resembles the appendix of another aroid, *Arisarum proboscoideum*, which is known to be pollinated by fungus gnats. Apparently to the gnats the spadix appendix not only looks like a fungus but even smells
like one as well!

A. tortuosum (Wall.) Schott (*A. helleborifolium* Schott, *A. curvatum* (Roxb.) Kunth)

Pseudostem well-developed, green or dark-mottled, with open leaf sheaths; leaves usually 2, sometimes 3; leaflets pedately-arranged, 5 to 17, varying in shape from ovate to linear-lanceolate. Inflorescence longer than leaves; spathe green, somewhat glaucous, sometimes purple, limb ovate, acute, erect or curved forward; spadix normally with flowers of both sexes, appendix green or purple, long-exserted from spathe, sigmoidly curved with the upper part held erect, narrowing gradually to a slender tip, not stipitate at base. *Distribution*: Himalaya (Punjab to Bhutan), peninsula India, Khasia, northern Burma, west China.

A forest species of lower altitudes, probably only half-hardy in England, but growing to a robust size in good conditions. The sigmoidly-curved, erect-tipped spadix appendix and tall inflorescence are characteristic features.

A. triphyllum (L.) Torr. (*A. atrorubens* (Air.) Blume)
Pseudostem short, often obscured by basal bracts, leaf sheaths closed; leaves 1 or 2, trifoliate, leaf stalk green or purple-blotched. Inflorescence subequal to or shorter than leaves; spathe green or purple or variously ringed with purple, with white or green longitudinal stripes, mouth of tube with reflexed margins, limb acute-acuminate, folded forward; spadix appendix erect, club-shaped to cylindric, green to purple or flecked with purple, projecting a little beyond the tube, rounded at tip, stipitate basally. *Distribution*: eastern North America.

Hardy. The common North American species and a very variable plant, split into several species by some botanists. Huttleston (1949) gives a broadly-based treatment in which he recognizes three subspecies.

Key to the species

The following key is offered as an aid to identification, although it will no doubt become obsolete quite soon with the introduction of more species. It should be noted that mature flowering plants are generally essential for accurate identification.

1. Leaves with 3 leaflets 2
1. Leaves with more than 3 leaflets 10
2. Spadix appendix very long, thread-like in upper part and extending much beyond spathe 3
2. Spadix appendix not very long, nor overtopping spathe, club-shaped or tapering some what towards tip 6
3. Small side veins of leaflets very numerous, strongly parallel, prominent onlower surface to give a ribbed appearance, spathe dark purple with distinct white stripes ..... ***A. costatum***
3. Small side veins of leaflets reticulate, without the above combination of characters 4
4. Spathe limb with greatly expanded margins patterned with white-green reticulate veins, notched at tip, bent completely forward over tube mouth, leaves normally two ..... ***A. griffithii***
4. Spathe limb ovate-acuminate or oblong with rounded apical margins, leaves normally solitary 5
5. Rootstock an elongated rhizome, spathe limb ovate-acuminate with narrow, long tip, inflorescence much shorter than leaf ..... ***A.speciosum***
5. Rootstock a subspherical corm, spathe limb oblong with rounded apex, cuspidate at extreme tip, inflorescence often subequal to leaves ..... ***A. propinquum***
6. Spathe limb helmet-like, inflated and forward-curving, striped like tube, with broad chocolate to black-purple auriculate margins and tip, the latter folded down over tube mouth, leaflets with long thread-like tips ..... ***A. ringens***
6. Without the above combination of characters 7

7. Spadix erect, club-shaped to cylindric with rounded or greatly expanded subglobose tip, only just overtopping the spathe tube 8
7. Spadix appendix bending forward and narrowing in upper part, distinctly longer than spathe tube, narrowing upwards 9
8. Appendix white with greatly expanded subglobose tip, leaflet margins finely to coarsely toothed ..... ***A. sikokianum***
8. Appendix green to purple, cylindric to club-shaped, apex not expanded, leaflet margins entire ..... ***A. triphyllum***

9. Pseudostem well-developed, leaflets usually more than 3, spathe limb green, sometimes with indistinct white stripes, and with long thread-like tip ***A. jacquemontii***
9. Pseudostem short, obscured by basal bracts, leaflets always 3, spathe limb whitish pink, long-acuminate but without thread-like tip ..... ***A. candidissimum***
10. Appendix not overtopping spathe 11
10. Appendix extending greatly beyond spathe 16
11. Leaflets radiately or subradiately arranged 12
11. Leaflets clearly pedately arranged 14
12. Leaflets very numerous, usually more than 11, with long, thread-like drooping tips ..... ***A. consanguineum***
12. Leaflets 3-9, with acute-acuminate but not thread-like tips 13
13. Inflorescence shorter than leaves, spadix appendix erect, stoutly cylindric, spathe limb with acute-acuminate tip ..... ***A. amurense***
13. Inflorescence subequal to or longer than leaves, spadix appendix tapering to slender (up to 2 mm thick) forward-curving tip, spathe limb with long, thread-like tip ..... ***A. jacquemontii***
14. Spathe small (up to 4 cm long), with subglobose to ovoid tube, limb yellow to greenish-yellow on outer surface, leaf sheaths open ..... ***A.flavum***
14. Spathe longer than 4 cm, tube cylindric or flaring upwards, limb green to dark purple on outer surface, leaf sheaths closed 15
15. Leaflets 7-20, spadix appendix cylindric to club-shaped, green to purple ***A. serratum***
15. Leaflets 3-5, spadix appendix with massively swollen tip (17-25 mm broad), white ..... ***A. sikokianum***
16. Leaf solitary, inflorescence shorter than leaves, spadix appendix with white, distinctly swollen, densely-wrinkled base (sometimes purple and smooth), spathe limb with thread-like tip ..... ***A. thunbergii***
16. Leaves 2-3, inflorescence longer than leaves, spadix appendix green or purple, always smooth, less swollen basally and tapering gradually upwards with upper part held erect, spathe limb acute ***A. tortuosum***

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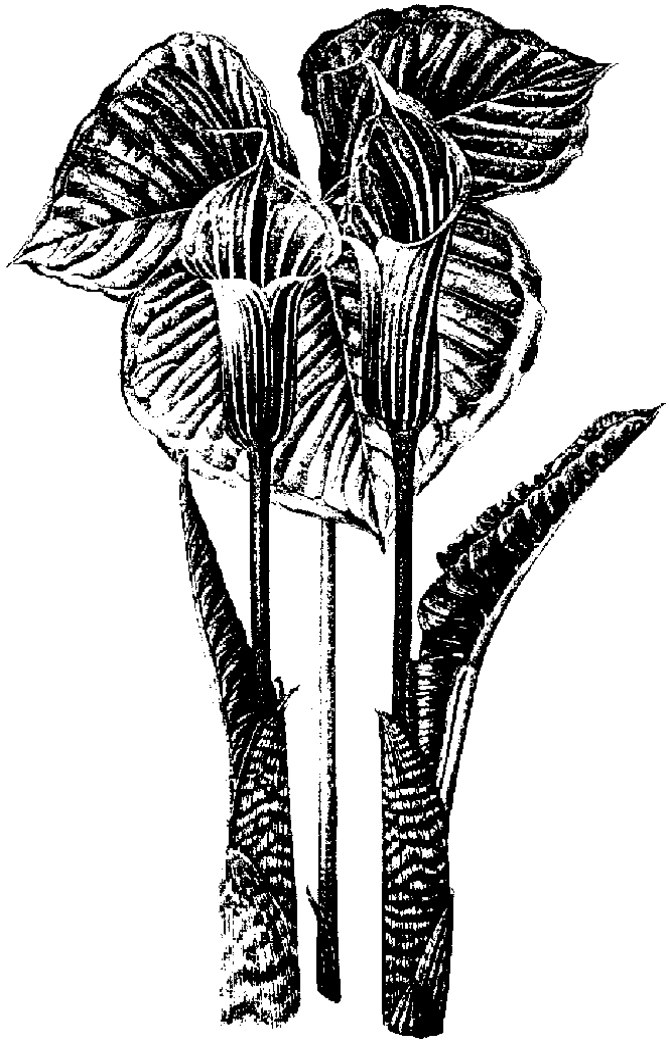
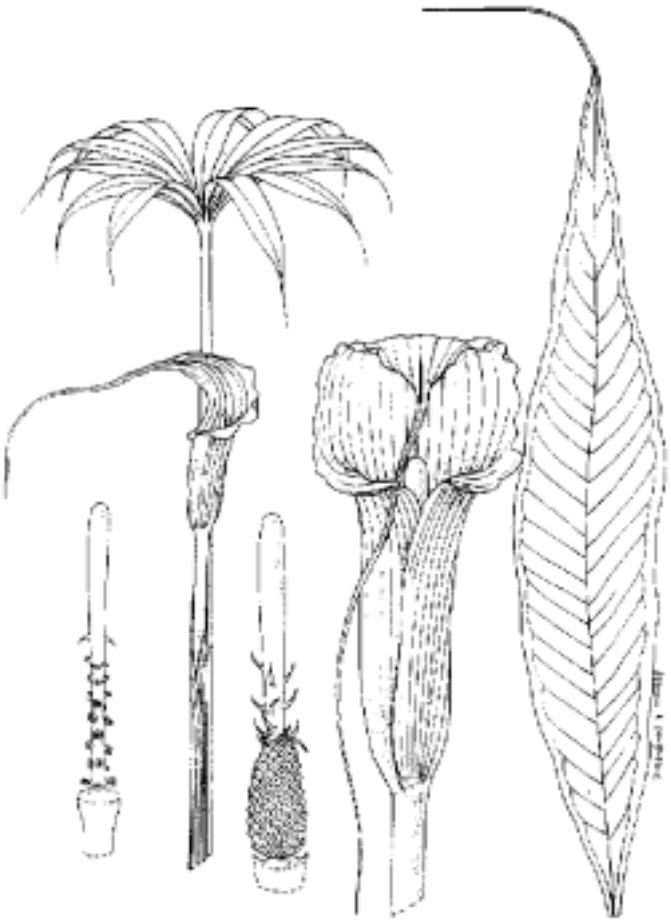
Avon Bulbs, Bathford, Bath BA1 8ED.
P. J. Christian, Pentre Cottages, Minera, Wrexham, Clwyd.
Van Tubergen, 304a Upper Richmond Road West, London SW14 7JG.

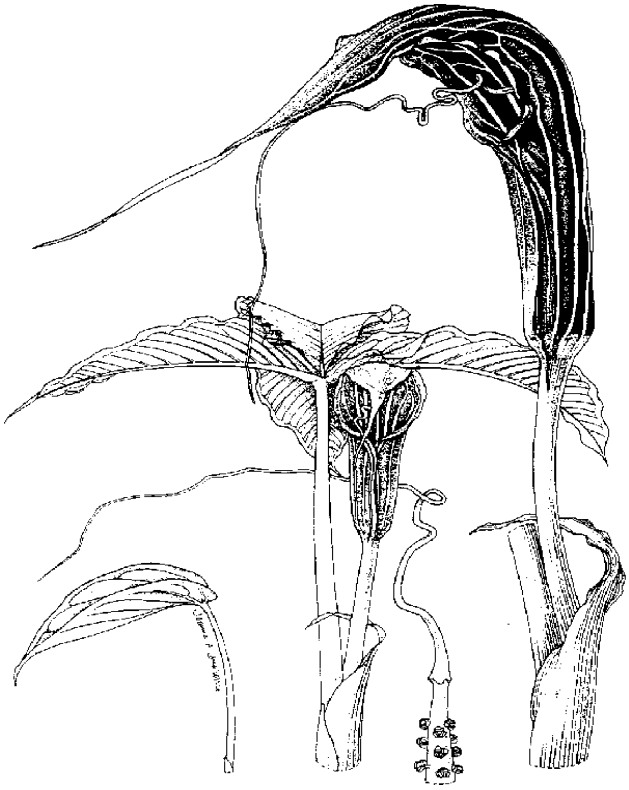
Notice of other sources in the UK and abroad would be welcomed.



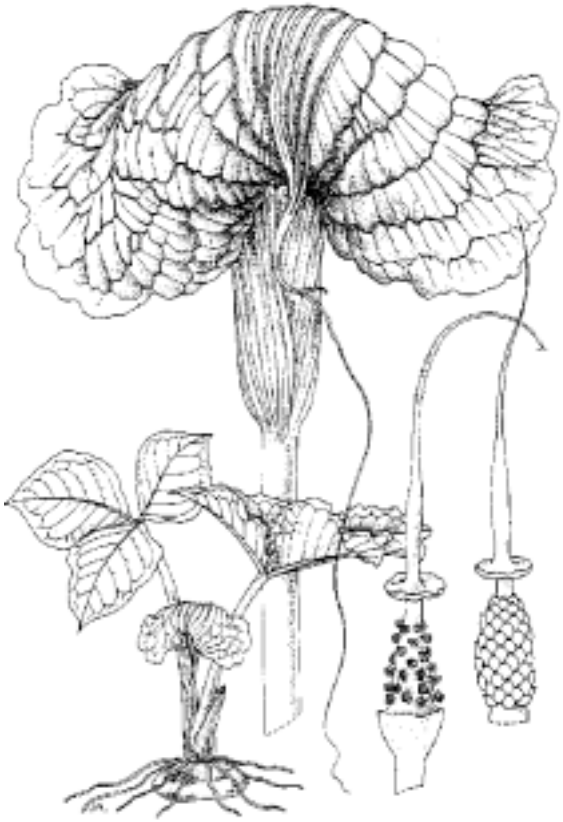
Arisaema candidissimum. Painting by Joanna Langhorne



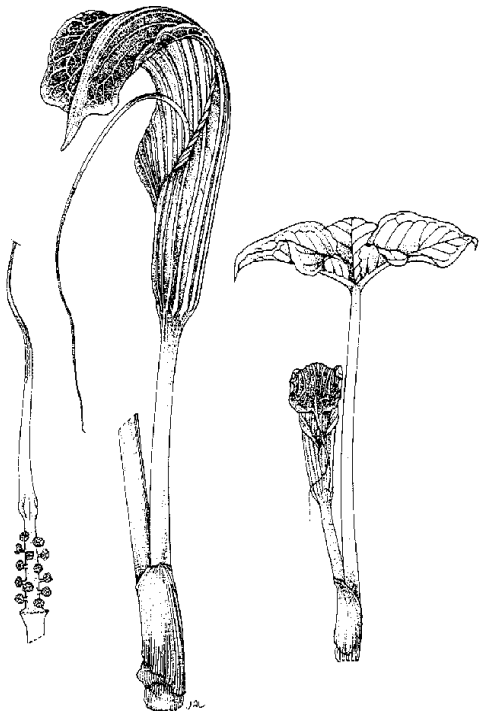
Arisaema consanguineum. Drawing by Joanna Langhorne



Arisaema costatum. Drawing by Joanna Langhorne.



Arisaema griffithii. Drawing by Joanna Langhorne



Arisaema propinquum. Drawing by Joanna Langhorne.

Arisaema sikokianum. Drawing by Joanna Langhorne

Arisaema speciosum. Drawing by Joanna Langhorne.