

POTOMAC BONSAI ASSOCIATION
% U.S. NATIONAL ARBORETUM
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PBA NEWSLETTER:

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CIRCULATION:

Over 400 internationally on a monthly basis.

SUBSCRIPTIONS:

PBA membership includes 12 monthly Newsletters covered by part of the annual membership dues. Corresponding membership: \$6.50 for 12 monthly Newsletters. Make checks payable to Potomac Bonsai Association and mail to N. Hersh, 102 Devon Ct. Silver Spring, MD 20910.

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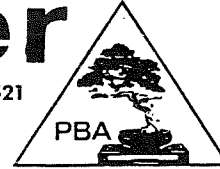
PRESIDENT: Fred Mies; VICE PRESIDENT: Jim Sullivan; Educational Vice President: Bill Spencer; Secretary: Julie Walker; Treasurer: Molly Hersh

POTOMAC
BONSAI
ASSOCIATION

VOL. 18 NO. 3 MARCH 1988

Newsletter

ISSN 0160-9521



CALENDAR OF EVENTS

March:

BALTIMORE (301) 235-5336. (1). COLLECTING TRIP with Brookside Bonsai Society,- time and place to be announced. (2). COLLECTING TRIP to a Christmas tree farm,- time and place to be announced.

8 March Tuesday:

NATIONAL ARBORETUM, 1:00 p.m. BONSAI REFINEMENT WORKSHOP. Robert Dreschler, Curator of the National Bonsai Collection will conduct a Bonsai Refinement Workshop in which he will assist individuals in repotting or refinement of their own bonsai plants, according to seasonal requirements. Participants must bring their own bonsai plants, bonsai tools, wire, containers and soil if repotting is planned. The Arboretum will provide no supplies or equipment.

Advance registration is required, and enrollment is limited to five (5) persons. To register, please phone the Education Department at 475-4857. A fee of \$12.00 sent in advance to the Education Department, will be charged. A reduced fee of \$10.00 will be charged to FONA members. All checks should be made out to Friends of the National Arboretum and sent to the Arboretum Education Department, 3501 New York Avenue, N.E. Washington, DC 20002.

Bonsai Refinement Workshops will be held on the second Tuesday of each month. PREREQUISITE: A BEGINNING BONSAI CLASS.

12 March Saturday

NORTHERN VIRGINIA (703) 591-0864: Green Spring Horticulture Center at 10:00 a.m. GRAFTING and AIRLAYERING demonstrations and workshops.

17, 22, 24, and 29 March Tuesdays and Saturdays

10:00 a.m. to noon, BONSAI CLASS FOR BEGINNERS to be taught in the

U.S. National Arboretum Auditorium Administration Building Classroom. Mr. Robert Dreschler, Curator of the National Bonsai Collection, will conduct the class. The U.S. National Arboretum offers the class which is designed to introduce students to the basic techniques of developing and growing bonsai through lectures, films, and workshops.

This class will include a short history of bonsai, basic principles, culture and styles. Primary techniques of branch pruning, root pruning, wiring and potting will be discussed.

This class will be limited to fifteen (15) students and advance registration is mandatory. Don't delay as this class is always popular. For reservations, call the Education Department at 475-4857. There is no charge for the class. The cost of the required text and materials will be \$45.00. A reduced fee of \$40.00 for FONA members will be charged. The text and materials will be given out at the first class meeting. All checks for materials should be made out to Friends of the National Arboretum and mailed to the Education Department at the National Arboretum before a reservation is confirmed.

22 March Tuesday

BEGINNERS' BONSAI COURSE. 7:00 to 8:30 p.m. at Green Spring Horticulture Center. For more information telephone (703) 642-5173.

24 March Thursday

BROOKSIDE (301) 381-6549. Argyle Community Center, Forest Glen Road, Silver Spring, MD, 7:30 p.m. MARION GYLLENSWAN WILL BE CONDUCTING A LECTURE/DEMONSTRATION.

26 March Saturday

WOLFTRAP NURSERY AND GREENHOUSE (703) 759-4244. SPRING REPOTTING and also USING STONES IN PLANTING. Due to limited space, phone reservations are advised. Topic and date are subject to change.

29 March Tuesday

BEGINNERS' BONSAI WORKSHOP. 7:00 to 10:00 p.m. at Green Spring Horticulture Center. Beginners will design, style and pot a bonsai. For more information telephone (703) 642-5173.

31 March Thursday

BEGINNERS' BONSAI WORKSHOP - this a repeat of the one listed for 29 March for those who 'd rather take it on this date. Again: telephone (703) 642-5173 for more information.

4, 6, 11, and 13 April Mondays and Wednesdays

INTERMEDIATE BONSAI COURSE at the U.S. National Arboretum, 6:00

to 8:30 p.m. This is one of the U.S.D.A. Graduate School's evening program series. Many outdoor materials will be supplied for 5 different species so that the students can practise different styles as related to different plant materials. Everything will be provided, and one need not have to bring tools. Applicants should have had a previous bonsai course or at least one year's experience working with bonsai. The course is limited to 12 students. The fee is \$38.00 which will include the cost of the materials. Contact (202) 447-5885 during working hours to sign up or for more information.

9 April Saturday

BROOKSIDE (301) 381-6549. Meeting at the home of Fred Mies, current PBA President. This meeting will be the pre PBA Annual Spring Bonsai Show selection meeting. Members are urged to bring their best trees. Please attend even if you don't bring a tree! Plenty of help will be needed for the Spring Show, so don't hesitate to sign-up. DIRECTIONS: Fred's home at 11712 Smoketree Lane is located in Rockville, MD. Going west on Montrose Road turn south onto Seven Locks Road. Go south on Seven Locks Road to Post Oak Road. Take a right on Post Oak Road and then a left onto Smoketree Road. If you need further directions, call Fred (301) 299-6194.

9 and 10 April Saturday and Sunday

NORTHERN VIRGINIA (703) 591-0864: Green Spring Horticulture Center at 10:00 a.m. - STYLING AND SHOW PREPARATION. Northern Virginia Spring Show at Greenspring Horticulture Center: - Saturday 9:00 a.m. to 10:00 a.m. - setup for the show; 10:00 a.m. to 5:00 p.m. and Sunday noon to 5:00 p.m. will be the show. All members are asked to bring trees, - trees in various stages of development as bonsai can be brought, - i.e. every member should come with a tree.

12 April Tuesday

NATIONAL ARBORETUM : BONSAI REFINEMENT WORKSHOP - same information as for the 8 March entry above applies.

16 April Saturday

WASHINGTON (301) 583-2676: National Arboretum at 2:00 p.m. SKETCHING: ANNUAL PBA SPRING SHOW PREP. Bring your trees. We need a pool of trees from which to select ones for the PBA Show.

17 April Sunday

BALTIMORE (301) 235-5336. Loch Raven Branch, Baltimore County Public Library. BEGINNER WORKSHOP from 1:00 to 1:30 p.m., - a review, bring trees to work on; 1:30 to 1:45 p.m. coffee ;

1:45 to 3:15 p.m. - Fred Mies, Brookside Bonsai Society will discuss COLLECTING MID-ATLANTIC NATIVES; 3:15 to 3:30 p.m. coffee; 3:30 to 4:30 p.m. or however long it takes (not to exceed 5:00 p.m.) there will be the tree selection for the PBA Spring Show, All trees welcome.

18, 20, 25 and 27 April Mondays and Wednesdays

BONSAI for BEGINNERS at the U.S. National Arboretum, 6:00 to 8:30 p.m. This is one of the U.S.D.A. Graduate School's evening program series. Material will be provided. The course is limited to 14 students. Contact (202) 447-5885 during working hours to sign up or for more information.

22 thru 24 April

PBA ANNUAL SPRING BONSAI SHOW !!!!

U.S. National Arboretum

ANNUAL PBA ALL MEMBER MEETING

U.S. National Arboretum - 5:00 p.m. 23 April

30 April Saturday

WOLF TRAP NURSERY (703) 759-4244, 9439 Leesburg Pike (Rte. 7), VA at 11:00 a.m. SHAPING BONSAI BY PINCHING. Due to limited space, phone reservations are advised. (Topic and date are subject to change.)

2, 4, 9, and 11 May Mondays and Wednesdays

BONSAI FOR BEGINNERS at the U.S. National Arboretum, 6:00 to 8:30 p.m. This is one of the U.S.D.A. Graduate School's evening program series. Material will be provided. The course is limited to 14 students. This course is a repeat of the one listed above beginning on 18 April and is for those who find the times more convenient. Contact (202) 447-5885 during working hours to sign up or for more information.

NOTE: ANY CLUB MEMBER CAN ATTEND
ANY MEETING

GINKGO FOR BONSAI

Ginkgo, maidenhair tree, Ichyou (Japanese), and pa kuo (Chinese for duck's foot referring to the leaves) are various names for a tree that is the sole survivor of a group that flourished in the far prehistoric past, 200 million years ago, reference (a). Remains of almost identical trees have been found fossilized in coal seams laid down then. Some persons are not overly fond of using Ginkgo for bonsai but one can hardly refuse when one learns how adaptable the tree is for that purpose, reference (b), and also that the seeds are readily available. Reference (c) notes that there are several avenues of Ginkgo trees in Washington, D.C. One such location known to the editor is in Georgetown just north of the intersection of Pennsylvania Avenue and M Street, - turn to go north on 29th Street and then east on Olive Street will put you right in the middle of a tree-lined street with Ginkgo trees that will blossom and drop their nuts in October. It is those nuts or fruit that can be gathered, as will be described later, and used to start Ginkgo bonsai.

If one goes collecting the fruit or nuts of the Ginkgo in October, he or she is bound to notice a putrid odor in the air as if all the dogs in Georgetown did their duty at that location. This as reference (d) explains, is due to the pulp of the fruit which is the size of a small plum, decaying and giving off the disagreeable odor of butyric acid which smells like rancid butter. However, the seed inside the fruit has been eaten after roasting it, by the Chinese and Japanese, - it tastes like maize.

It is because the fruit has a vile odor that there is concern by some that only male Ginkgo trees should be grown to avoid the odor. The sexes of the Ginkgo are separate with the fruit growing on the female tree and the pollen coming from the male tree, reference (e). However, it takes 20 years or more for the trees to produce their first flowers, reference (f). You may want a tree that bears fruit and then again you may not care; but 20 years is a long time to wait when you may have a respectable Ginkgo bonsai grown from seed in about half the time.

The Ginkgo persisted over all the millions of years in south China, but it has been grown extensively in Chinese and Japanese gardens,- especially temple gardens. If one goes to see the giant Buddha at Kamakura, Japan, he or she may also visit the Hachiman Shrine where to one side of the long tier of steps leading to the main shrine is an aged Ginkgo tree. The tree stands its full height of about 120 feet, reference (f), and is reputed to be at least 1,000 years old according to reference (b) which also has a picture of the tree. The over 6 feet diameter trunk at its base is girdled with the rope signifying the tree to be a revered item. At New Years many fortunes are tied to the tree in hopes that they will come true.

The following description of the characteristics of the Ginkgo tree are from reference (a). "...Introduced to the West in 1758, it (the Ginkgo) is now widely planted in Europe and America as a decorative street or garden tree.

"In summer Ginkgo is easily known by its fan-shaped two-lobed pale green leaves with undivided parallel veins, like the ribs of a fan. Most of the leaves spring from the rough knobbly shoots that are another key feature, especially in winter, when the tree stands leafless. Other leaves spring singly from longer shoots at the tips of branches. Autumn leaf colour is bright gold. The tree, always tall and slender, has a bizarre outline, especially in winter, due to fine angular branching. The bark is brown to dull grey and deeply fissured. The trunk, which tapers very evenly, often bears smooth bosses. Leafy twigs persist low down.

"Ginkgo rarely flowers; when it does so, each tree proves wholly male or wholly female. Yellow male catkins open when the leaves do, in clusters on the short shoots or spurs. Female catkins are groups of two to three long-stalked, very small, green acorn-shaped structures. After pollination by wind, they ripen to yellow fruits that resemble plums. Later, in Autumn, they become dull brown in colour; at that stage they decay and give out a foul smell. A single large seed, resembling a plum stone, lies within. It sprouts readily if sown in the spring. The seedling bears typical foliage, with fan-shaped leaves set singly on its first shoot.

"Ginkgo is seldom felled for timber; its yellow-brown wood,

light and brittle, is used only for small carvings. The common name of 'maidenhair tree' springs from the fanciful resemblance of ginkgo's foliage to the fronds of a maidenhair fern...."

According to reference (f) the Ginkgo is able to survive outdoors in Zone 4 which has an average annual minimum temperature range of -20° to -10° Fahrenheit. Hence the recommendation to leave the Ginkgo bonsai outdoors during the winter, as stated in the translation of the Japanese article that follows, can be followed in the Washington, D.C., area.

Reference (g) is an excellent article on propagating Ginkgo by airlayering. In fact, if you haven't invested in a subscription to the William N. Valavanis publication "International Bonsai", it is highly recommended that you do,- at least get the references (b), (g) issue to learn all about Ginkgo bonsai.

References

- (a) THE TREE KEY, by Herbert Edlin, illustrated by Ian Garrard; Charles Scribner's & Sons, New York; 1978.
- (b) TRAINING & SHAPING GINKGO BONSAI, by Masao Aoki, translated by Craig Risser; International Bonsai, Rochester, NY, Vol. 9 No. 3, Issue Number 35, 1987/NO. 3.
- (c) THE WORLD BOOK ENCYCLOPEDIA, Field Enterprises Educational Corp., Chicago, IL; 1960.
- (d) THE ENCYCLOPEDIA AMERICANA, Editor in Chief A.H. McDannald; Americana Corp., New York, NY/ 1947.
- (e) THE NEW GARDEN ENCYCLOPEDIA, edited by E.L.D. Seymour; Wm. H. Wise & Co., Inc.; 1946.
- (f) WYMAN'S GARDENING ENCYCLOPEDIA, by Donald Wyman; MacMillan Publishing Co. Inc., New York, NY; 1977.
- (g) DEVELOPING GINKO FROM AIRLAYERING, by Takuma Takeuchi, illustrated by Kyosuke Gun, English Edition: Sonoko Taylor, translator & Wm. N. Valavanis, Editor; International Bonsai, Rochester, NY, Vol. 9 No. 3, Issue Number 35, 1987/NO. 3.
- (h) ICHYOU, by Ko Takeyama; Garden Life, Tokyo, Japan; 1977; in Japanese

sists of 7 parts Turface and 3 parts Gran-I-Grits. Water until it escapes from the bottom of each pot. Fertilization can begin between April 1 and 10 shifting from the powdered/dry fertilizer to one fertilizer ball per plant. The balls are removed and fresh ones are put in different spots on each pot each month.

The above procedures will lead to rapid growth of the seedlings and they will attain heights of as much as 25 cm (5 inches) in June 1 to 10. During this period the top of each plant is cut below two to three leaf joints. Also all the remaining leaves are clipped. (Note: in leaf clipping some part of the leaf stem should be left so that the axle is not damaged and a new bud will not develop in the axle.) This is the first pruning and leaf clipping which will be followed such that by Aug. 1 to 10 branches and tiny leaves emerge from the axles where the leaves were clipped.

During Aug. 20 - 31 the second pruning and leaf clipping occurs. Some of the lower branches may extend to the point that they bend. Hence as the diagrams show, during the August 20th - 31st period the number 3 branch is pruned and the remaining leaves are clipped off, see the sketch.

The above procedures lead to smaller leaves. Do not neglect the watering and fertilizing.

The last fertilizing can be given as late as November 20th to 31st. The plants are wintered outdoors.

4th YEAR PRUNING and LEAF CLIPPING

During the May 10th to 20th the number 3 branch is pruned and it and the portion of the tree above it are completely leaf pruned, see the diagrams. That operation results in luxuriant growth emerging in those branches. By June 10th to 20th the number 1 and number 2 branches will have extended and these are pruned back so that 2 to 3 segments remain and they are leaf pruned. Thus the broom style is developed for the whole tree.

POTTING in a BONSAI POT and THEREAFTER

During March 10th to 20th of the 5th year the plant can be potted in a bonsai pot. The pot can be either rectangular or elliptical. The root ball is reduced by removing 1/3 of it. The potting medium is as before, - 7 parts Turface and 3 parts Gran-I-Grits with the drainage layer of large Turface. The trunk will be about the thickness of a fountain pen. Water the plant so that it runs from the holes of the pot and place it outdoors out of any strong winds.

The work in the 4th year is repeated during the 5th and subsequent years. The Ginkgo is not subject to any harmful insects or diseases causing any damage although the ever undesirable red spider mites may take up a home in the Ginkgo.

The training of Chichi Ichyou and female Ginkgos can follow the same steps as outlined above.

SEPT. 30TH - OCT. 2ND 1988

WASHINGTON, D.C.

PENJING. THE POTOMAC BONSAI ASSOCIATION, IN CONJUNCTION WITH THE FRIENDS OF THE NATIONAL ARBORETUM, PRESENTS ITS

13th Annual Symposium

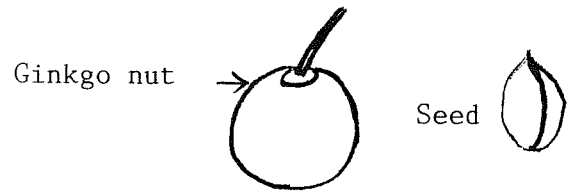
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Art of Penjing.

THERE WILL BE LECTURES, WORKSHOPS, VENDORS, AND MORE...THE U.S. NATIONAL ARBORETUM WILL DEDICATE AND PRESENT FOR THE FIRST PUBLIC VIEWING A COLLECTION OF PENJING WHICH HAS BEEN DONATED BY MR. YEE SUN WLL

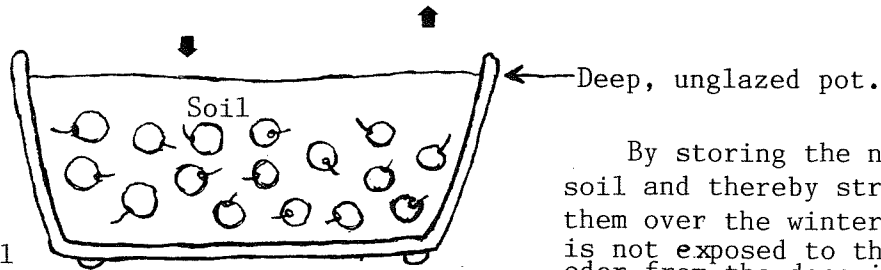
FOR MORE INFORMATION: CALL OR WRITE CHRIS YEAPONIS, 4228 BERRITT ST., FAIRFAX, VA 22030 VA 22030, (703) 591-0864.

PRIOR to FIRST YEAR



After the ginkgo nut has been gathered, it and the others are simply buried in soil for storage.

The Ginkgo nut has a pulpy exterior which surrounds the nut.



Keep the soil moist.

By storing the nuts in soil and thereby stratifying them over the winter, one is not exposed to the foul odor from the decaying nut's pulp.

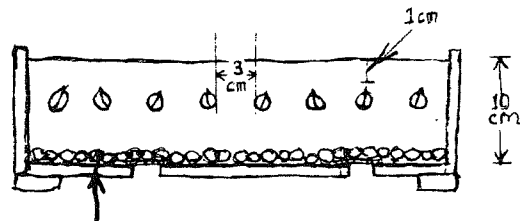
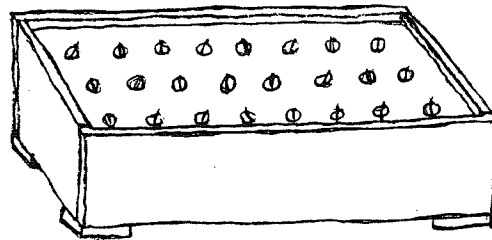
1st - 2nd YEAR

SOWING THE SEEDS

March 10th - 20th

The seeds are sown at a depth of 1 cm. (3/8 inch) below the surface of the soil, and the seeds are spaced 3cm (1-1/4 inches) apart. Place the box outside on a shelf in a sunny place.

The box is 4 inches deep and is filled soil made up of 7 parts Turface and 3 parts Gran-I-Grits.



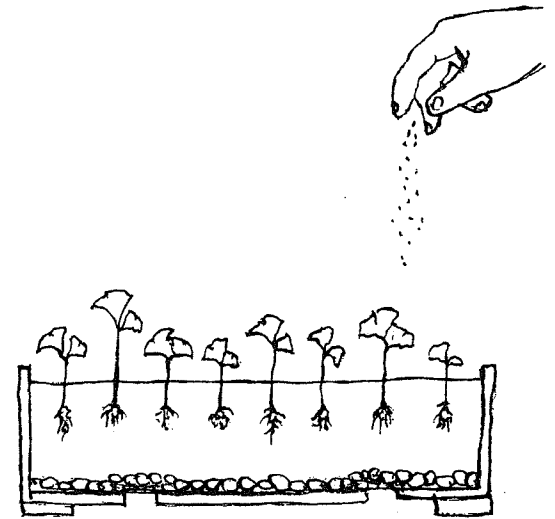
Large Turface for drainage layer.

1st - 2nd YEAR Continued

1st Year May 10th - 20th

SPROUTS EMANATE and FERTILIZE

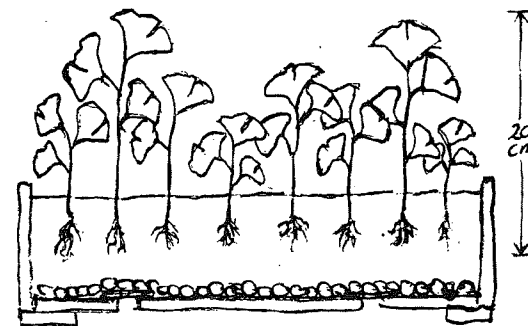
In a 2-month interval after sowing the seeds, leaves will emerge. At this time sprinkle a light covering of dry fertilizer on the surface of the soil. Repeat every month, and continue once per month through October.



2nd YEAR JANUARY - DECEMBER

During the 2nd year the watering and fertilizing are carried out at the same times as in the first year.

The sketch shows how the seedlings will have developed to be about 20 cm or 8 inches high.



3rd YEAR

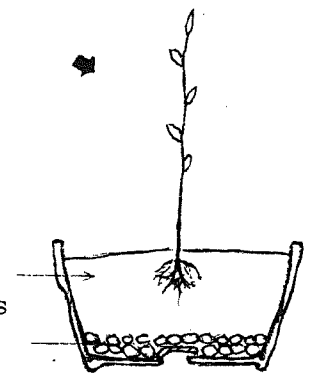
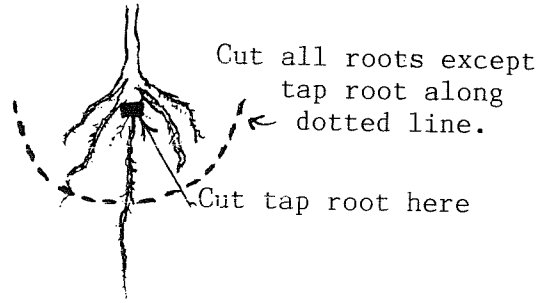
TRANSPLANTING March 10th - 20th

Remove about 1/3 of the roots and remove the tap root where it meets the base of the trunk.

The plant is then ready for planting in an unglazed "training" pot. The soil mix is once again a mix of 7 parts Turface and 3 parts Gran-I-Grits. The bottom of the pot is first covered with a thin layer of large-size Turface to provide a drainage layer.

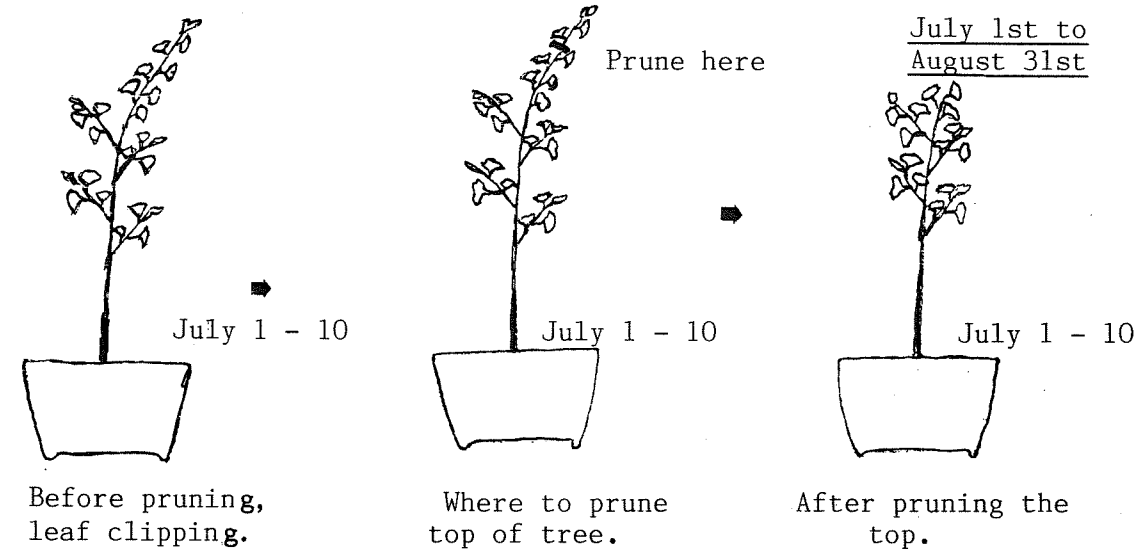
Potting Mix: 7 parts Turface, 3 parts Gran-I-Grits

Drainage Layer: Large-size Turface



3rd YEAR Continued

PRUNING and LEAF CLIPPING

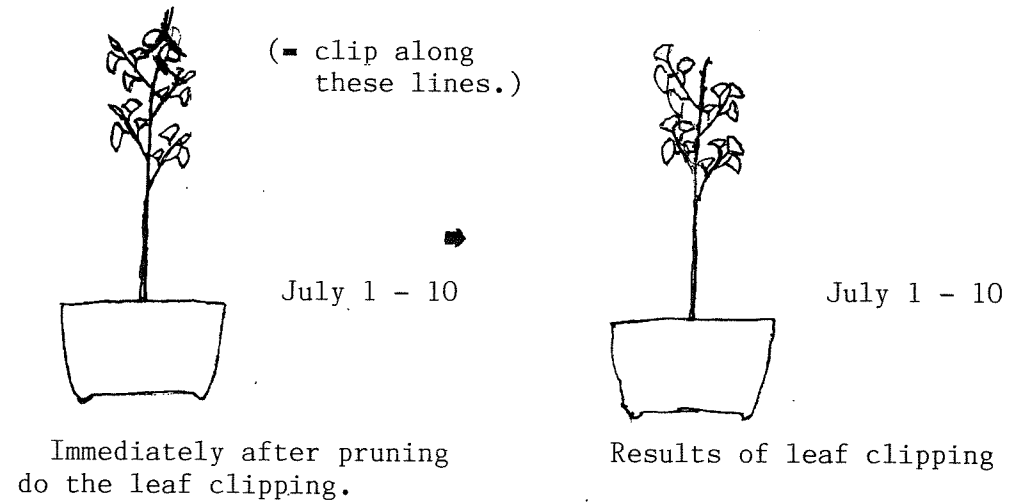
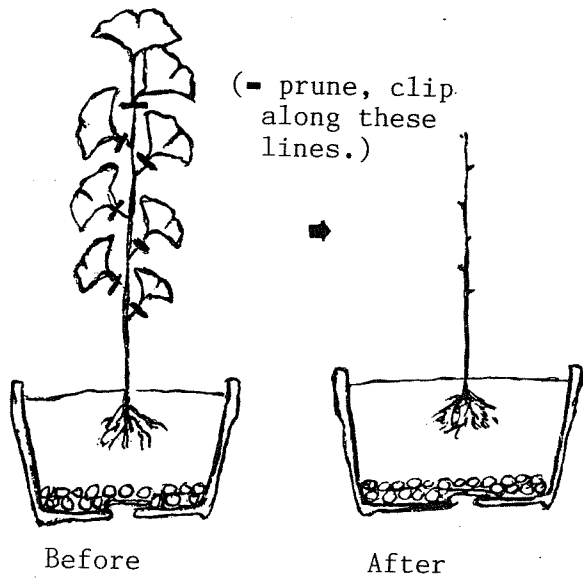


July 1st to August 31st

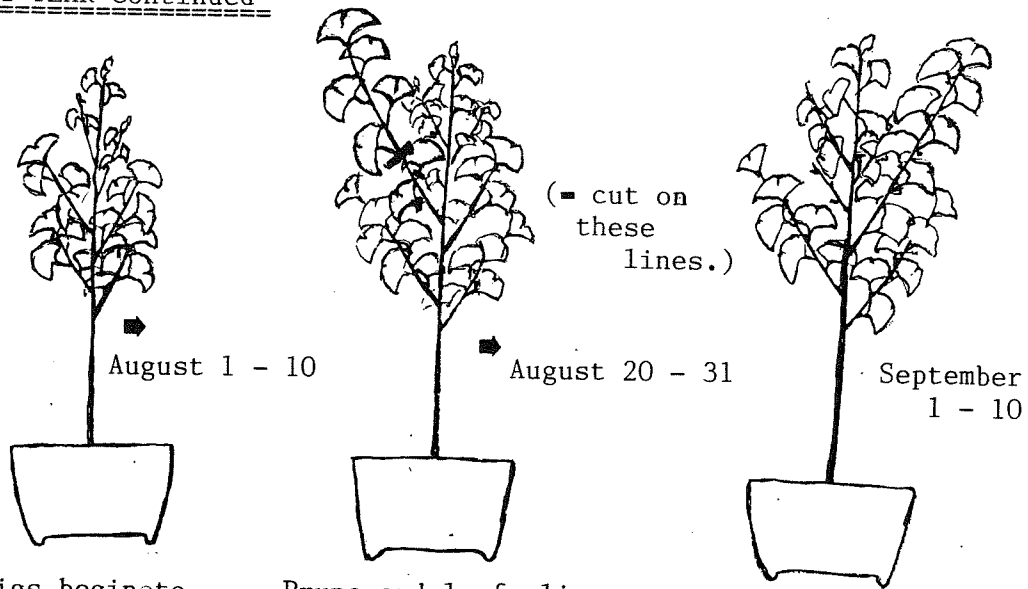
PRUNING June 1st - 10th

The tip of the plant is pruned and then the remaining leaves are clipped, - i.e. leaf pruned. Note: in leaf clipping, please cut the stem so as to leave some stem remaining and protruding from the trunk.

All the leaves are removed.



3rd YEAR Continued



(- cut on these lines.)

August 1 - 10

August 20 - 31

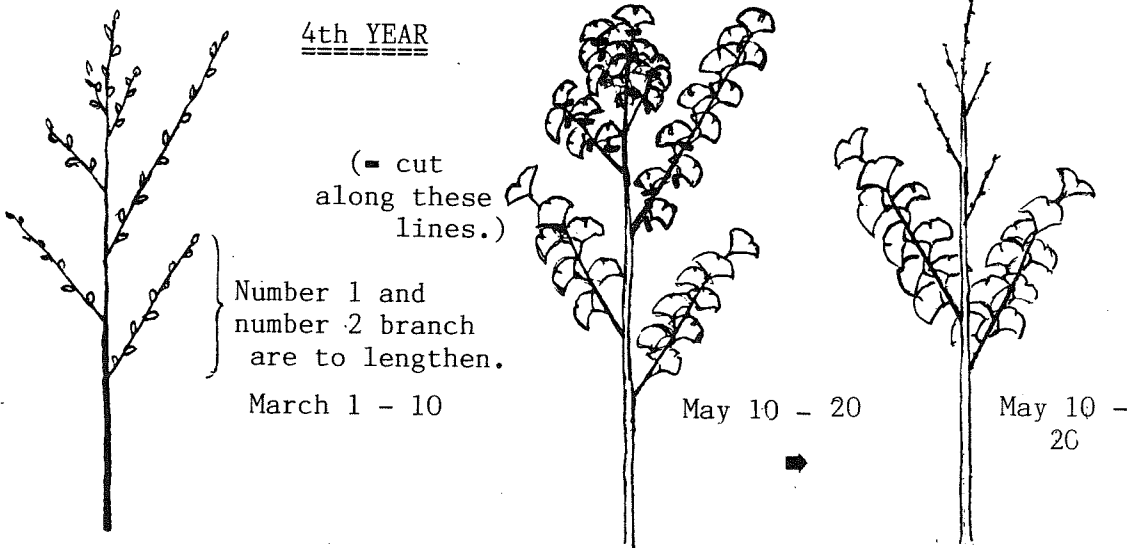
September 1 - 10

Twigs begin to appear where the leaves were clipped.

Prune and leaf clip the number 4 branch.

Result of the of the previous action, - the number 3 branch lengthens.

4th YEAR



(- cut along these lines.)

Number 1 and number 2 branch are to lengthen.

March 1 - 10

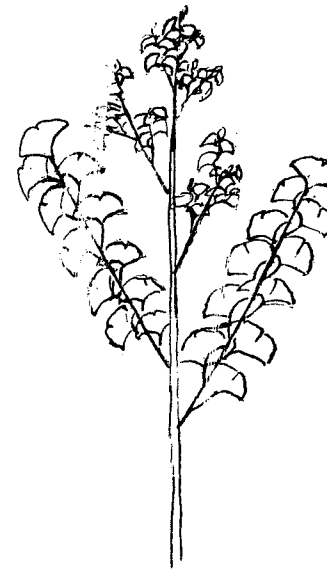
May 10 - 20

May 10 - 20

PRUNING AND LEAF CLIPPING: May 10 - 20, June 10 - 20

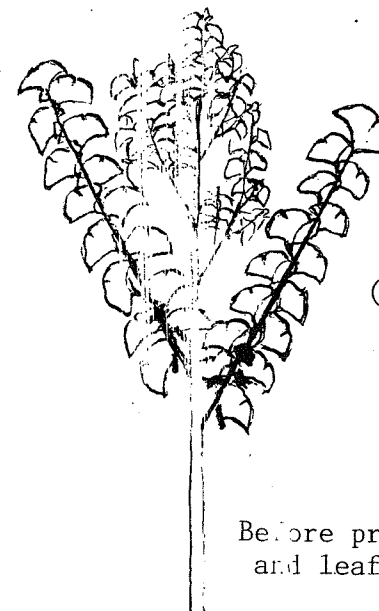
In order to lengthen the number 1 and number 2 branch the tree is topped and pruned leaf clipped in May and June (see next page).

4th YEAR Continued



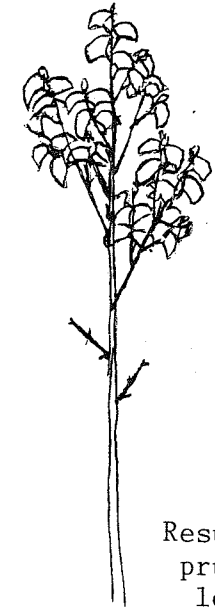
Appearance during the period of May 20 to 31. Note that the number 1 and number 2 branches have lengthened.

Between June 10th and 20th the number 1 and number 2 branches have lengthened to a point where they can be pruned and leaf clipped as shown below.



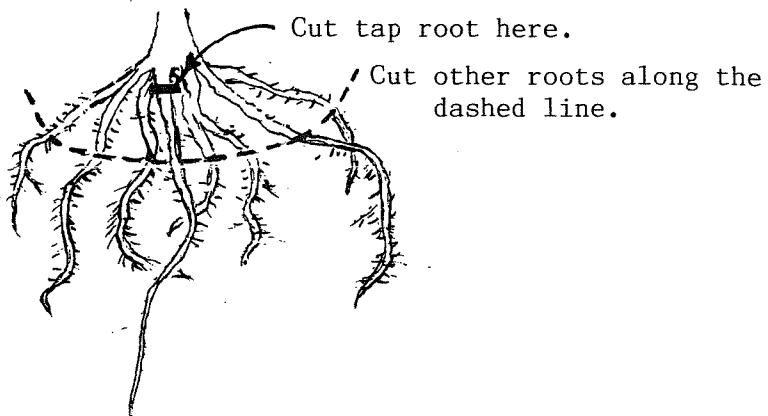
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Before pruning and leaf clipping.



Results of pruning and leaf clipping

5th YEAR
PLANTING in a
BONSAI POT
March 10th -
20th

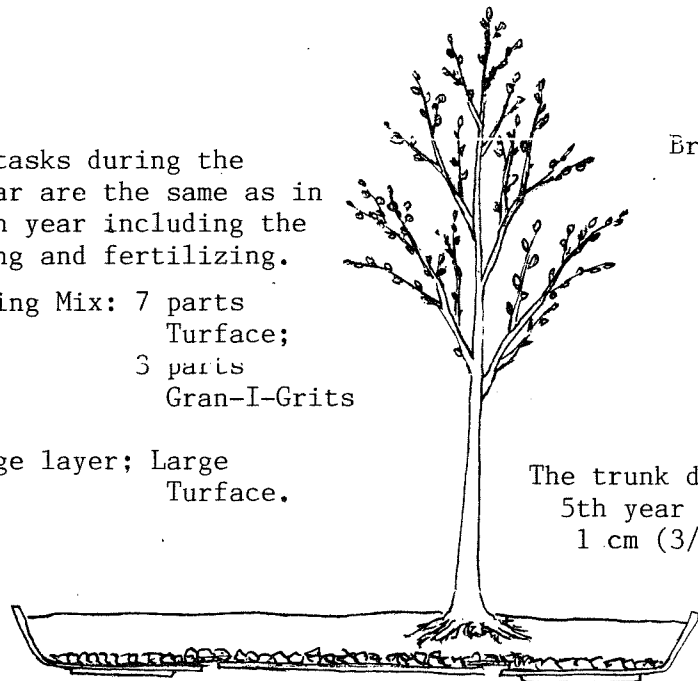


The tasks during the 5th year are the same as in the 4th year including the watering and fertilizing.

Potting Mix: 7 parts
 Turface;
 3 parts
 Gran-I-Grits

Drainage layer; Large
 Turface.

Bonsai
 pot



Broom style

The trunk diameter in the 5th year should be about 1 cm (3/8 inch)

GINKGO
SCHEDULE of EVENTS

(Repeat 5th year tasks in subsequent years.)

Dates	YEAR					
	0	1	2	3	4	5
Mar 10 to 20	Sow seed Begin water once per day.	Begin water once per day.	Transplant Begin water once per day.	Water once per month.	Water once per month.	Pot in bonsai pot. Water once per day.
Apr 1 to 10	Begin fertilizing once per month.	Begin fertilizing once per month.	Start fertilizing once per month.	Water once per month.	Water once per month.	Water once per month.
10 to 20	Begin fertilizing once per month.	Begin fertilizing once per month.	Begin fertilizing once per month.	Begin fertilizing once per month.	Begin fertilizing once per month.	Begin fertilizing once per month.
Jun 1 to 10	Begin watering twice per day.	Begin watering twice per day.	Begin watering twice per day.	Begin watering twice per day.	Begin watering twice per day.	Begin watering twice per day.
10 to 20	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.
Jul 1-10	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.
Aug 20-31	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.
Sep 1-10	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.
Oct 10-20	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.	Prune and leaf clip.
Oct 20	Gather, store nuts	Gather, store nuts	Gather, store nuts	Gather, store nuts	Gather, store nuts	Gather, store nuts

HE GAVE US THE GINKGO

Many a bonsai enthusiast at one time or another has been a plant collector. Perhaps some have had experiences which border on being as exciting as those of the professional plant collectors. The following article appeared under the above title in a recent edition of the New York Times Book Review. The review reprinted below, was written by Anthony Huxley as a review of the book "ANDRE and FRANCOIS ANDRE MICHAUX" by Henry Savage Jr. and Elizabeth J. Savage; Illustrated, 435 pages; Charlottesville: University Press of Virginia. \$27.50 .

If botany and gardening have heroes, they are surely the plant collectors. Even today, despite modern means of getting from A to B, collectors have finally to fend for themselves in unfamiliar terrain, likely to be rugged and difficult of access - so much of the world has been botanically explored, the areas still more or less untouched by mankind's continuing war on natural vegetation are often in really remote places. And despite vastly improved medication, collectors can still become seriously ill or even die on these expeditions.

In the past the rigors of travel began with the traveler's departure, when long and hazardous sea journeys could not be avoided. Inland there were few roads or none, and the likelihood of meeting hostile natives, or running into someone's local feud, were considerable.

André Michaux and his son François André are among the numerous plant seekers and collectors who have garnered plants for our gardens from all over the world; they are perhaps among the less well known, although the striking Mediterranean biennial "Michauxia campanuloides" - alas, not easy to grow and hence itself rather unfamiliar - commemorates André père, who lived from 1746 to 1802.

The lives of André Michaux and his son are in many ways typical of those of many plant collectors; not as calamitous as some, but not lacking in rigor and near disaster, and interestingly linked with historical events. "André and François Michaux," a biography of the two men, has been deeply researched and sensitively written by Henry Savage Jr. and Elizabeth J. Savage, the authors of "Lost Heritage" and "Discovering America," in a handsomely

produced volume.

André began life as a farmer, and took up botany only as a solace - something to plunge into after his young wife died when François was born in 1770. He was assisted and encouraged in his new pursuit by Louis Guillaume Lemonnier, director of the Jardin du Roi, and he studied under the redoubtable botanist Bernard de Jussieu.

His first expedition, in the company of Jean Francois Xavier Rousseau, acting consul in Baghdad, was to Syria, Iraq and Persia. Here the "Michauxia" was collected among a host of herbarium plant specimens, seeds, bulbs, minerals, shells, birds, medals and archeological inscriptions, the latter including an important inscribed stone of perhaps 1300 B.C. now known as the Caillou Michaux. Clearly André was wildly, almost indiscriminately, excited by all he saw.

All this he accomplished without hurt to himself although the countries he visited were in turmoil, which much intertribal fighting.

In the Middle East André cut his botanical teeth, but by far his most important excursions were in North America between 1785 and 1796, which he carried out with his son, who was only 15 at the start. Initially, he was well supported by the French authorities, but the unexpected explosion of the French Revolution cut off his stipend, and for the last seven years of these American travels he had great difficulty in making ends meet. Michaux set up a nursery near Charleston, S.C., where he grew plants he had collected, and equally - with great significance to American gardening today - plants from Europe and Asia received in exchange or from ships trading with China and other distant countries.

His expeditions took him to many parts of the continent, and almost up to Hudson Bay. He was injured in a fall from a horse, and once suffered badly from frostbite, but on the whole he seems to have traveled without major mishap.

But then, out of funds, he planned to return to France in 1796. He did so on the ship Ophir, bound for Amsterdam. Within sight of the Dutch coast he was shipwrecked and after three hours in the water, brought ashore unconscious. He recovered and, miraculously, most of his botanical collection survived too, though six weeks of nonstop work and reams of new pressing paper

were needed to restore the salt-soaked specimens to useful condition.

Alas, Michaux arrived in France to find that only a fraction of the 60,000 trees he had sent back during the long years in America had survived, largely because they had been sent on by Marie Antoinette to enrich royal estates in her native Austria, and others had succumbed to the Revolution. But there were seeds and live plants from his more recent shipments, and Michaux characteristically settled down to retrieve what older plants he could, slipping easily back into Parisian scientific life.

Still clearly enjoying exotic travel, he sailed on an expedition to the South Seas in 1800, which he left at Mauritius, to complete his studies of this botanically richly endowed island (now, unfortunately, very largely populated with non-native plants). In June 1802 he sailed for Madagascar, where he contracted a severe fever - probably malaria - and died in November, greatly mourned by his contemporaries in Paris.

François Andre stayed in America until 1803, carrying out more collecting and editing his father's book on American oaks; on his return he published a massive three-volume work on American forest trees, illustrated by P.J. Redouté, the first such manual ever written.

The half-tone illustrations in "André and François André Michaux" are not very numerous; but it may have been difficult to find more - for instance, no portrait of André is known. And the book suffers, I have to say - as curiously enough so many comparable accounts do - from a total absence of maps of the travels of these dedicated Frenchmen who left an important mark on the history of North American horticulture.

One might end by mentioning that among the trees André introduced to the United States are the Mimosa or silk tree (*Albizia julibrissin*), the Chinese parasol tree (*Firmiana platanifolia*), the Chinese tallow tree (*Sapium sebiferum*), the Chinaberry or pride of India (*Melia azederach*), and perhaps the most notable of all considering its **present** wide use as a street tree - not always appreciated - the maidenhair tree (*Ginkgo biloba*).

Extensive notes and a full bibliography round off this satisfying and important book.



Juniperus chinensis var. *Sargentii*

WATERING BONSAI

Tape number 3 of the Bonsai Workshop Series from the Nippon Bonsai Society covers Repotting and Watering. As the tape mentions, "Watering is the beginning and the end for bonsai." In other words you must water to get the seeds to germinate and to keep the bonsai supplied with food which the water helps to transport from the soil or fertilizer balls to the bonsai. I've heard it said that in Japan an apprentice in a bonsai nursery spends the first year of an apprenticeship watering the bonsai. Some suggestions follow.

When watering, first just wet the surface of the soil of each bonsai pot by quickly passing over them. This will help to break the surface tension of the soil and the second pass will result in the water flowing more freely into the soil. One then can water until it runs from the holes in the bottom of the pot.

Watering should not be done any later than probably 3:00 p.m. so that the plants do not have their roots sitting in water overnight and thereby increase the possibility of root rot.

Do not overwater a bonsai. If the bonsai is not taking water, it may be seriously ill,- a repotting may be in order.

The video tape suggests that water sprinkled over leaves (ha mizu) during hot spells in Summer should be done. Leaves need watering in hot weather even when the soil remains moist. Leaves should not be watered when the sun is high except in Winter. The editor has seen attendants in Japanese bonsai nurseries watering the bonsai around 3:00 p.m. in the afternoon during the non-dormant months. They use those big watering cans and spray the bonsai leaves. This has also been suggested to be a way to wash off any feces left by insects which might eventually cause a fungus to form. Note that it is particularly dangerous to wet the leaves of maples during the times of day when the sun is high in the sky.

The Japanese video suggests not using water directly from the tap. It recommends storing it for a few days. Hence the reason for those large pot containers spaced around a nursery into which a watering can may be dipped to fill it. Some people try to trap rain water. Personally I still use water straight from the tap,- any comments?

Rent the video tape and learn in the comfort of your home or in your club meeting, more on the finer points of watering.

BONSAI VIDEO TAPES

The following VHS video tapes are a part of the PBA library and are available by contacting Bill Spencer at (301) 871-5768. Round trip postage with \$100.00 insurance will be required upon request for each video. Each video should cost \$3.50 one way, including insurance.

The BONSAI WORKSHOP Series from the Nippon Bonsai Association

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- #2 Cultivation of Bonsai #1

Tape #2

- #3 Cultivation of Bonsai #2
- #4 Methods of Forming Bonsai

Tape #3

- #5 Repotting and Watering

Tape #4

- #6 Group Planting
- #7 Rock-grown Bonsai

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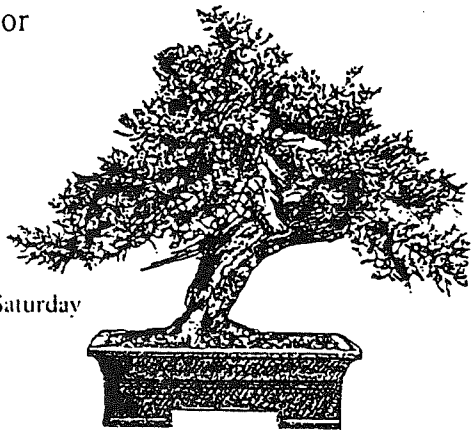
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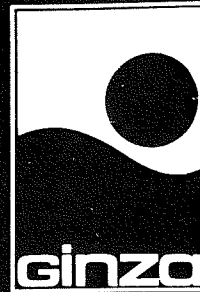
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