

# Planted Aviaries

by Joseph G. Griffith, Monrovia, CA  
(February 1975)

Joe Griffith was very interested in making a pleasant environment for his birds and, consequently, for the bird keepers also. In this article he presents basic planning advice and explains such unknowns as how to cause different water sounds by the way the rocks and falls are managed. There is a world of difference between Griffith's well planned and planted aviaries and some of the commercial chicken-farm type operations seen today.

This is the first of a series of articles dealing with planted aviaries. Subsequent articles will be concerned with "styles" of aviaries and the kinds of plants associated with them.

All too often, Planted aviaries are not PLAN-ted. Either the numbers and kinds of birds in the aviary are wrong for the plants, the plants are wrong for the birds, or both. More than likely, there will be too many birds in the aviary resulting in white-washed plants that soon die and a general dung heap atmosphere. A reasonable approach to the planted aviary is to view it as a garden containing birds. This can be designed as a separate garden or as an integrated part of the rest of the property.

Naturally, there will be gardening differences that are governed by climate, but the philosophy of gardening is the important thing. Approach to gardens can be formal or informal, and because of the "natural" look associated with birds, I will be concentrating on the informal garden.

Japanese gardens are becoming increasingly popular lately, which is a

great shame because the philosophy of Japanese gardening is being ignored in favor of a number of gardening cliches. Briefly, the idea is to create a garden

that is controlled, but that looks as if it were growing completely on its own, without the interference of man. The materials used are of little importance provided they are those that would be found together in nature, or that MIGHT be found together. For example, *Leptospermum*, from Australia, will look at home in either a Sonoran (dry country) garden or a desert garden.

Pruning and general maintenance can be kept to a minimum. In most parts of the country, the time for this is



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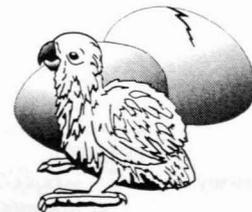
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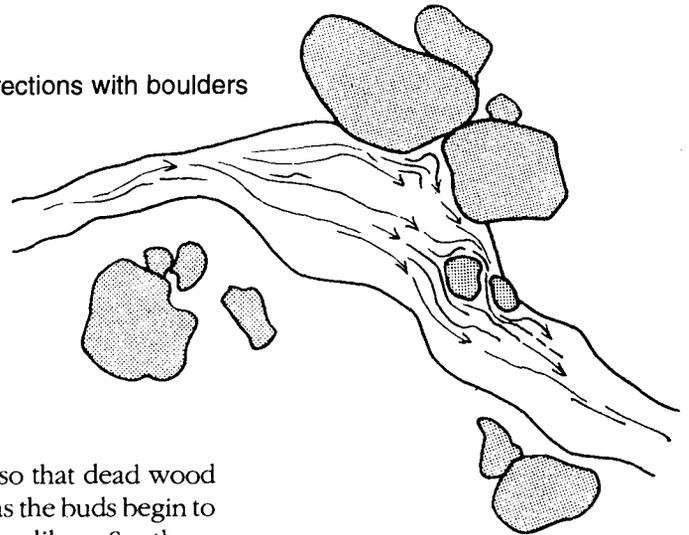
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Changing directions with boulders

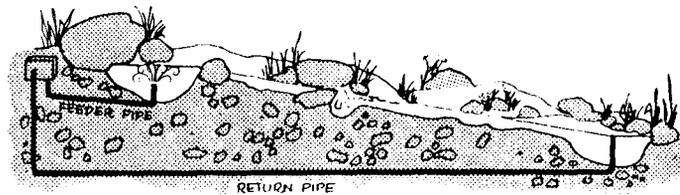


in the early spring so that dead wood can be recognized as the buds begin to break. In areas like Southern California, just before the rains begin in January should be a good time. In warm areas it is sometimes difficult to find a time when there are no birds breeding, especially if you have a mixed collection.

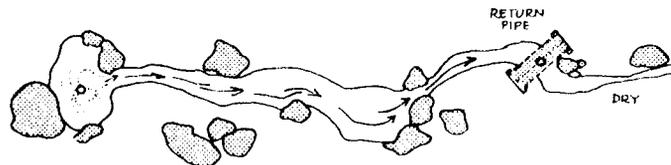
Let's begin from the ground up. An aviary should be longer in one of its dimensions than it is high. Birds need horizontal, not vertical exercise. It's much simpler to deny the majority of vermin access to the aviary than it is to remove them once they are established. The concrete foundation should be two feet deep and about six inches thick. It may seem expensive, but it won't be in the long run and it's far less difficult than you may think.

Plan the shelter area to accommodate the birds in the event of bad weather, but also plan it so that all of the food you offer will be under cover. There always comes a time when you will want to catch a bird, and if the shelter is the prime source of food, you can use it to trap the wanted bird and you won't have to destroy all of your work and exhaust both you and the bird chasing it through the shrubbery.

For the majority of gardens you will want well drained soil. Shavings of any kind are a good and cheap soil ammendment. Spread the shavings to a thickness of four inches and turn



Cross section of complete stream showing pipe and pump locations.



Complete stream. Wet portion of stream ends under the plank bridge, the remainder is dry.

# Commercial Members

them in. Now add an equal amount of shavings and repeat. Since shavings will rob the soil of nitrogen during the initial breakdown, it is a good idea to add ammonium sulphate at the rate of one pound per one hundred square feet.

The ground should not be leveled off as if you were planting a vegetable garden. There are few places in nature where the ground is absolutely level. An uneven series of LOW hillocks will please the eye and create a number of micro-climates where some plants will do better than others.

A bog garden is one of the few that should not have rocks. When I say rocks, I mean boulders. Small rocks have their place, and they should be used, but bear in mind that they can easily be overgrown and would become lost. Except with respect to streams, where placement of rocks is governed by the effects you want to create, rocks should look as natural as possible. One of the best ways to do this is to take a number of potatoes (equal to the number of rocks), stand in a convenient place and toss the potatoes at random. One rock goes where each potato has landed.

Water, or the lack of it, is an essential part of any landscape. Water delights the eye whether still or moving. Moving water provides a number of interesting sounds for the ear. Three of these are basic. Shallow water moving at a moderate rate over small stones creates a sibilant whisper. Deeper water moving rapidly over larger stones roars and pulses. Water falling over a short ledge into a relatively deep pool with an air pocket behind the fall creates the "voices of the water." Heard at a slight distance, the effect is of someone speaking quietly, but not understood. It is this sound that led primitive man to believe that there were spirits in water.

Unless the garden is to be very modern and rigidly planned with an abstract fountain, it is best to keep the source of the water on or near the ground. Few things are uglier than a mound of rockwork that has no association with its surroundings. Except for bog and mountain-meadow gardens, pick a spot that is slightly elevated and dig a hole that is to represent

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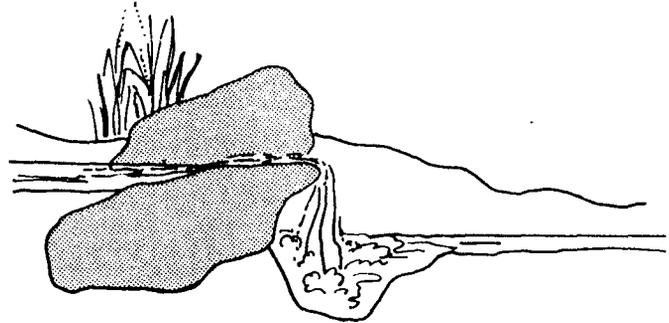
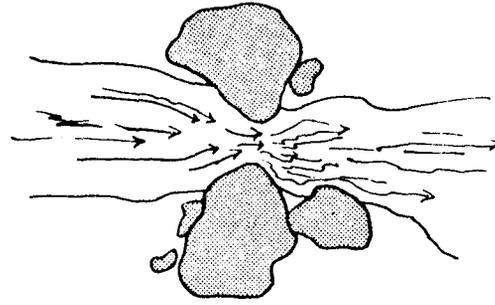
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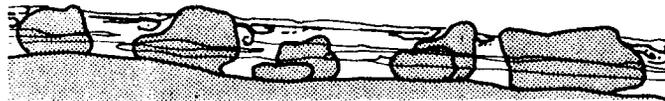
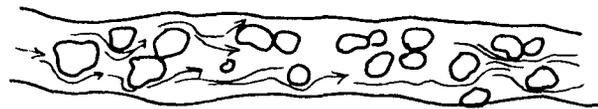
Gurgling fall, from above and in cross section.

the overflow of an underground spring.

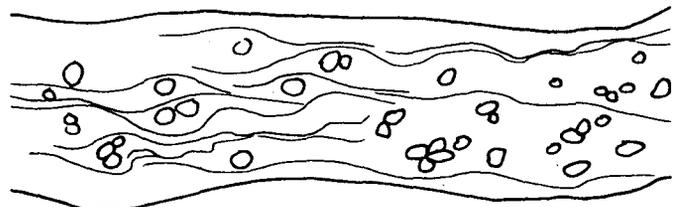
If you want a stream, dig a channel that follows the low contours of the ground. Even if you intend to have a dry, or partially dry streambed, a channel should be dug. Wherever there is a sharp bend in the stream, a boulder or two should be placed on the downstream side. Water does not change course radically unless it meets with

some obstacle.

There is a common question regarding the use of concrete in constructing watercourses. I am of the opinion that natural bottoms are best and that most soils containing enough fine materials to eventually build up a silt layer that will effectively waterproof any stream that is constructed in them. Where circulating water is desired, it is now time to place the



Narrow channel of deep water over large rocks, from above and the side



Wide shallow channel of water over small rocks, from above and the side.

water lines; feed-in lines at the beginning of the stream and overflow and return-lines at the point where you want the stream to end. A very effective pump can be made from an old washing machine. I do not like submersible pumps because they inevitably short out and cause more trouble than they are worth. Feed-in lines are best set well below the expected surface level of the pool in such a way that the water appears to well up from the ground.

Now, using a hose at the pool, fill the entire system to the point of overflow. Allow the water to seep out and repeat at least two times. In most cases, whatever settling occurs will make no difference, but where there is more than desired, line that section with stones.

Once most of the settling has occurred you can decide what you want to do with the bottom. In wide shallow areas you can spread a mixture of sand, pebbles, and small rocks (less than six inches in diameter). In deeper, fast running channels you can use the same materials and add larger rocks. Place a number of rocks by the banks to cut erosion. A fairly flat, undercut stone can be placed so that water flows over it and creates a gurgling effect. This should be jammed between two larger stones to help channel the water over it.

We are not ready for the plants. Many people feel that an aviary that is heavily shaded by trees or vines is an ideal place for birds. This is not the case. The vast majority of birds live in the following habitats: grassland, forest edge, scrub, bogs and forest canopy. High light intensities are most conducive to growth, flowering, seeding and consequent large insect populations. Birds have the option of using the shelter for shade or of sitting in the interior of shrubs that are planted in the aviary.

A more or less random planting of shrubs should be sought. I assume that you know what kind of garden you want and have already chosen the plants. Within the general areas where you want the shrubs, you can use the potato method of placing them. Broad leaved evergreens (e.g. magnolias) should not be planted over rocks. Such

plants create too much shade and, as the Japanese say, the rocks will sicken and die.

Wet area plants can now be put by the stream and pool. Bulbs can be scattered randomly, but first divide them into shade and sun loving: shade under or near the shrubs sun in the open areas.

The same process can be followed with perennials and grasses. The last item will be the seed of the various annuals you have selected. Be generous with annuals. The seeds may be covered with an inch or two of straw or shavings to prevent the birds from eating them when newly sprouted.

In all of this, I have failed to make note of one thing. It is not necessary or desirable to be able to view the entire thing from any given point. Plants, rocks, portions of the stream should be out of sight so that your imagination can do some wandering and wondering while you are enjoying the garden.

Now you can put up the sides and top of the aviary. One side should be left open to allow movement of materials in and out.

The last thing to be done is the watering system. There are few plants that will not need some watering during the growing season. Overhead watering washes the plants and benefits the plumage of the birds. Plastic pipe is light enough for the roof of almost any aviary and when combined with lawn sprinklers does a very satisfactory job.

Watering is best kept to a minimum. A LITTLE WATER IS WORSE THAN NONE AT ALL. Unless you are trying to duplicate a rainy season, it is best to hold off watering until absolutely necessary, and then to water for two hours or more. This will encourage a healthy and deep root system. Should such deep rooted plants be neglected, they will have a better chance to survive than almost any others. This, in turn, may make the difference in the survival of your birds.

As far as the birds are concerned, I will make some recommendations in later articles. Generally, birds are very flexible and will go to work in a number of habitats. There are those, however, that will be happiest in specific kinds of aviaries. ➤



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