

CONIFER CORNER

Imagine
the
Possibilities:
Culturally
Altered

*By Nicholas Gooch and Bert Cregg
Department of Horticulture, Michigan State University*



Over the past several issues of *The Michigan Landscape* we have examined a wide range of conifers in the various form classes recognized by the American Conifer Society (ACS). Although the conifers presented in the earlier articles spanned a range from stately uprights to meandering spreaders and from neat globes to bizarre irregulars, they shared a common bond; their unusual growth habits were based on their genetic make-up. In essence, they were 'born' with a distinctive growth characteristic.



In this edition of *Conifer Corner*, we turn our attention to conifers that are described as 'culturally altered' by the ACS (see sidebar). This category opens up a realm of plants where the only limit is the imagination. These are plants that are expertly pruned or trained into a variety of shapes and sizes to create an artful appearance useful for accenting new or existing landscapes. There are several styles and species included in this class which often require more attention than many other landscape plants. Planning is necessary to ensure that these unique plants fit into a landscape design or plan. Although this conifer class may not be for every landscape, if properly used these conifers can complete a landscape with their striking appearance providing years of enjoyment and a unique look unlike any other.

••••• Topiary

Topiary is the art of trimming or clipping trees or shrubs into sculptures or shapes. These can be as simple as geometric shapes such as squares or triangles. For a more interesting look, animals and abstract sculptures can be created. Creating these shapes takes patience and time and also a steady hand with shears to create the look desired. Cages or guides can be fitted over a plant desired for topiary to help create and maintain topiary designs. It is important to remember when pruning or training a conifer for topiary to maintain proper soil moisture and nutrition so plants do not become stressed and begin to brown after repeated trimming. Creating some of these sculptures from an existing plant can take many years, but the result is a rewarding experience and a product that sets your landscape apart from others.

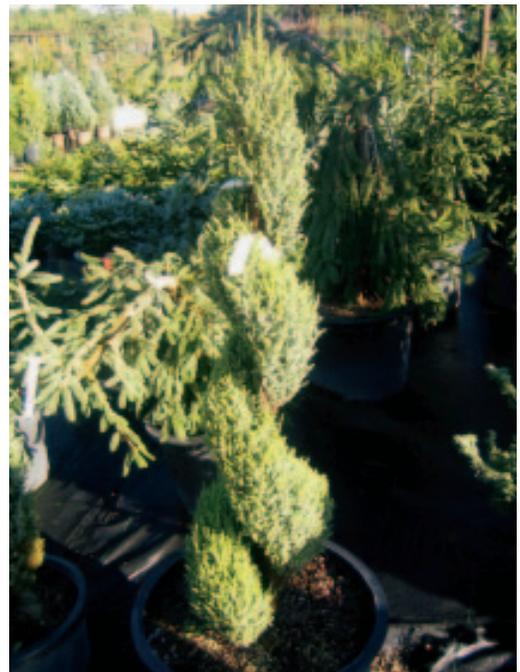
Photo above: Creative topiaries are always sure to draw attention.

Photo below: He shoots... He scores! Imagination is the only limit when it comes to topiaries.

Photo below right: *Juniperus communis* 'Compressa' is an example of a spiral shape formed and ready for purchase.

English yew, *Taxus baccata*, is one species often selected for topiary. This is an ideal topiary plant because of its hardy nature, wide side adaptation, and tolerance to pruning and shearing. Also, English yew is a long living plant and ideal since many of the more artistic shapes can take years to grow and create. Junipers and *Chamaecyparis* are also very good conifers for topiary. Some species in these genera tend to be slower growing in comparison to the *Taxus*, but are ideal if a less complex shape is desired. One of the key factors for conifers used for topiary is that, once pruned, they don't sprout growth on old wood, therefore they maintain the desired shape.

Abstract designed topiaries are widely available. Spiral shapes are popular for entrance ways of houses, driveways, and sidewalks. Narrow upright topiaries are suited for areas lacking space, but in need of a tall elegant tree to draw attention and offer an inviting feel. With its slower growth habit *Juniperus communis* 'Compressa' will maintain this spiral shape with occasional trimming. The top can be trimmed or allowed to grow creating a more dramatic spiral with every growing season. Dwarf Alberta Spruce, *Picea glauca* 'Conica', is another conifer often used to create spiral shapes. Like *J. communis* 'Compressa' this species is slow growing, due to its dwarf nature, and requires light trimming to maintain the spiral appearance. *P. glauca* is typically a lighter green color compared to *J. communis* 'Compressa', which may or may not be better suited to a particular landscape.



Cloud Pruning

Cloud pruning is another method of sculpting or shaping a conifer to a desired appearance. This Asian method of pruning is done to accent the trunk and branches of the tree while maintaining the general shape. This type of pruning is generally done on *Taxus* and *Pinus* and is often practiced on older trees that have developed character in shape as they have aged. Pines that have attractive bark patterns or colors like *Pinus bungeana* 'Silver Ghost' or *Pinus densiflora* are good species to select for cloud pruning. By simply removing some of the lateral branches, large trees take on a more open ornamental appearance exposing some of the character of the trunk and branch structure. Light spring pruning will ensure that this tree maintains its shape and layered appearance. A benefit to this method of pruning is that it keeps trees from increasing in size, potentially overwhelming the landscape or causing problems with houses or structures. A pruning form similar to cloud pruning is Hindu-pan and is slightly different than cloud pruning in the sense that it is done on large trees trimmed into Asian styles and forms. Hindu-pan is typically practiced on trees from the *Pinus* genera, although other genera are sometimes used.

Poms & Poodles

For smaller conifers near or around the home landscape, poms or poodles can provide a nice accent. This shaping style is typically done using *Juniperus*, *Taxus*, *Thuja*, and sometimes *Picea*. When creating poms, typically a mature plant is used and the lower foliage of the conifers is removed leaving bare stalks with the ball shaped 'poms' at the ends. Depending on the desired effect, poms can be sculpted into different sizes and heights to give a more abstract look to this conifer. Different cultivars of weeping conifers are also used with this method, although often grafted on a single straight standard. Poodles are slightly different with a straight stalk required and pruning done at the base to expose the stalk and the foliage above is shaped into a ball or sometimes multiple ball shapes, separated by an exposed stalk. This effect can also be achieved through grafts or multiple grafts, especially useful in species that are difficult or are unlikely to produce a straight stalk.



As the name implies, cloud pruning creates the effect of a cloud by pruning clumps of foliage at the end of branches.



Chamaecyparis obtusa 'Boulevard'

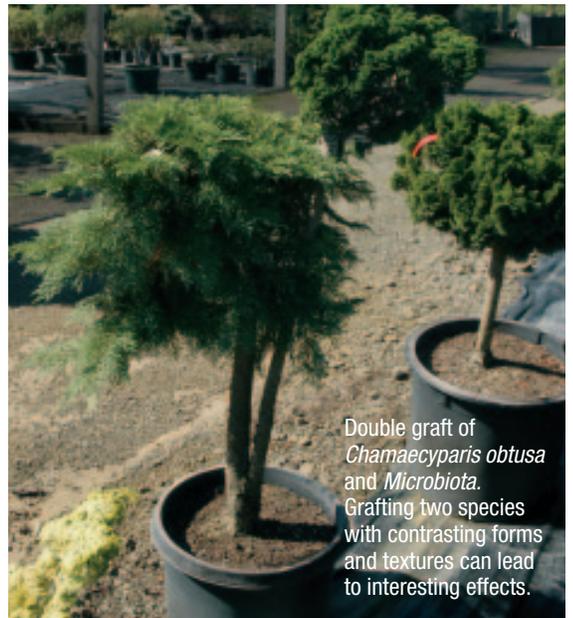
Espalier

Espalier is the art of training trees into a formal shape along a trellis or wall. This method of pruning allows the growth of large trees with considerably less mass than what it would have in its normal growth. Espalier is very maintenance intensive, requiring creativity and constant pruning

to achieve a desired shape. Conifers can be used for espalier and are a nice alternative to fruit trees, typically sought for this growth style. Espaliers make a nice addition to a fence row or building side. Due to their slow growing nature, maintenance of conifers may be less intensive compared to many deciduous espaliers. As the branches grow, additional ties are usually necessary to keep shape and form. Light pruning can be done to keep the size and design of the espalier small. Several shapes can be achieved with espalier including a T-shape, U-shape, or a combination of both.



Espalier, training of trees onto trellises or buildings, is often done with fruit trees, but can be done with conifers as well.



Double graft of *Chamaecyparis obtusa* and *Microbiota*. Grafting two species with contrasting forms and textures can lead to interesting effects.

Training ground. These conifers at Iseli Nursery in Oregon are staked and trained for use as poms and topiaries.



Grafting

Many interesting effects can be created in ornamental conifers based on how they are grafted. One of the most common grafting effects is grafting high on a standard. Grafting high on a standard is common for many weeping forms in order to give them a pronounced drooping effect: if the same plant were grafted low it would run along the ground as a spreader. Likewise, globe or mounding forms can be grafted high in order to give a 'lollypop on a stick' effect.

Grafting also provides another illustration where the only limit is the imagination. Dantsugi (putting double or multiple grafts of different species on the same standard) provides the opportunity have different colors or even different forms on the same plant. Multiple grafts with different shades can be used to provide alternative greens and yellows. Multiple grafts with contrasting textures provide even more opportunities to expand horticultural horizons. The straight upright growth of *Picea abies* 'Pendula' is ideal for Dantsugi allowing the top to be easily pruned and removed for grafting with *P. pungens* 'Globosa'. The blue top is accented with the light green new growth and the weeping appearance of *P. abies* 'Pendula' at the bottom. Dantsugi can be done using multiple grafts of various genera including *Taxus*, *Thuja*, *Juniperus*, and *Chamaecyparis* to achieve a series of different looks with various conifer shapes and colors.



Study in contrasts: This cloud pruned *Pinus sylvestris* 'Glauca Nana' and *Larix decidua* 'Pendula' Dantsugi provides a contrast of colors and textures.



Grafting high on a standard creates a new look for globe-form conifers.

Bonsai

Bonsai represents the epitome of cultural manipulation of trees. While we typically associate bonsai with Japan, the origins of the art of miniaturizing trees actually dates back to China. These art forms require constant attention to detail and care to produce these trees which develop more character with age. If properly cared for, bonsai trees can live for a very long



The ultimate in conifer culture. Baldcypress bonsai at the National Arboretum. Photo: Sage Ross

time and provide an artful focal point to any landscape. Some bonsai specimens at the National Arboretum in Washington DC are over 300 years old and have been passed down through collectors for generations. Although not typically grown in ground, potted bonsai can be placed on a podium or stand to highlight different regions of a landscape. Several conifer genera can be used for bonsai including *Pinus*, *Picea*, *Juniperus*, *Taxus*, *Abies*, *Chamaecyparis*, *Cedrus*, *Taxodium*, *Larix* and many more. Copper wire is often used to train these bonsai trees into a desired shape and adding decorative rocks, moss, or driftwood can add a nice touch to a bonsai tree. Maintenance is intensive for these trees and requires knowledge of proper watering, pruning, and training techniques. Conifers used as bonsai trees can be a nice accent to a garden or landscape and can be a rewarding experience mastering this centuries old art form.

Form classes according to the American Conifer Society (www.conifersociety.org):

1. Globose: globe-like or rounded in general outline.
2. Pendulous: upright or mounding with varying degrees of weeping branches.
3. Narrow upright: much taller than broad; includes plants referred to as fastigiate, columnar, narrowly pyramidal or narrowly conical.
4. Broad upright: includes all other upright plants that do not fit into categories 1-3.
5. Prostrate: ground-hugging, carpeting plants without an inclination to grow upward.
6. Spreading: wider than tall.
7. Irregular: erratic growth pattern.
8. **Culturally altered: pruned or trained into formal or imaginative shapes, such as high grafts or standards.**

Functional art: Hedges and Arches

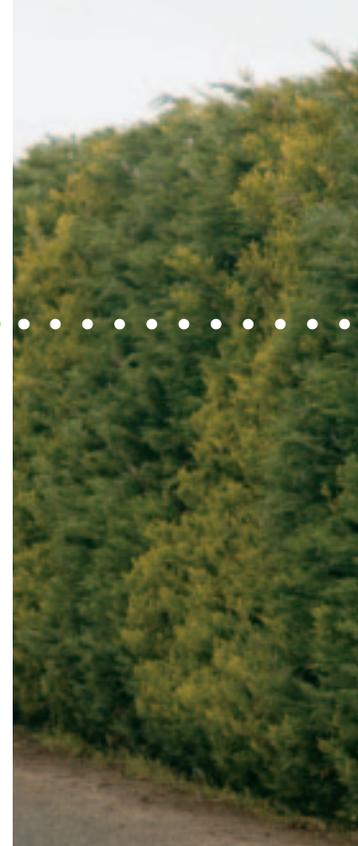
Most of the culturally altered conifers we've discussed up to this point are best considered as specimen plants or accents in the landscape. Some culturally altered conifers, however, can also make a contribution to the landscape with their function. For example, a wide range of conifers can be hedged and make excellent living screens to provide privacy. The evergreen habit of most conifers means that they can provide a visual break throughout the year. Well trimmed hedges add a formal element and are well suited for English gardens and other structured landscapes.

While a conifer hedge might provide privacy, a conifer archway can create an inviting entrance to a garden. Many of the pendulous forms of conifers are ideal for creating an archway since their weeping growth habit allows them to easily be attached to a guide creating a dramatic arch as they grow. For example, the long full needles of *Pinus strobus* 'Pendula' nicely fill in and accent an archway with a soft and inviting look. Archways can be pruned to give a nice clean form or allowed to grow providing a more secretive look to the entrance of a garden or sitting area.

*Nick Gooch was born and raised in Monroe, Michigan and recently completed his M.S. in Forestry at Michigan State University. His favorite conifer is Baldcypress (*Taxodium distichum*). According to Nick, "With its wide range of growing conditions, showy fall color, and deciduous nature, it is a tough tree to beat."*

Dr. Bert Cregg is an Associate Professor in the Departments of Horticulture and Forestry at MSU. He conducts research and extension programs on management and physiology of trees in landscape, nursery, and Christmas tree systems.

All photos used in this article are used by permission of Bert Cregg and may not be reused in any way without express written permission.



Top right: Hedges are a long-term maintenance proposition, but provide effective screens. This hedge adds the element of color by alternating gold and green *Chamaecyparis*.

Photo center: Training conifers such as *Pinus strobus* 'Pendula' into an archway makes a dramatic entrance to a garden or sitting area.

Bottom left: Hedges and topiaries add a formal air to a landscape.