

Larches as bonsai

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Common name: American larch

Botanical name : *Larix laricina*





This larch belongs to Luc Vanasse

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Larch as bonsai

General characteristics

- **Likely the fastest native tree to develop into bonsai with good ramification**
- **One of the easiest and best native tree to deal with**
 - **Easy to repot**
 - **Adapt easily to different soil**
 - **Very winter hardy**
 - **Not fussy on watering**
 - **Not sensitive to root rot**
 - **Easy to wire and softwood easy to bend**
 - **Great for deadwood**
- **Suitable to almost all bonsai style except broom style**

- **It is a tree that can be appreciated in every season**
 - **Will enjoy the structure in the winter**
 - **Will have tender light green buds growing in the spring**
 - **Will show dark green needle in the summer**
 - **Foliage will turn a nice yellow in the fall**
- **It is one of the 3 coniferous tree that will lose their foliage in the winter**
- **Requires full sun to be healthy (5-6 hours minimum of direct sun)**
- **Decent ability to bud back (will not bud back on old wood)**
- **It is relatively easy to collect**

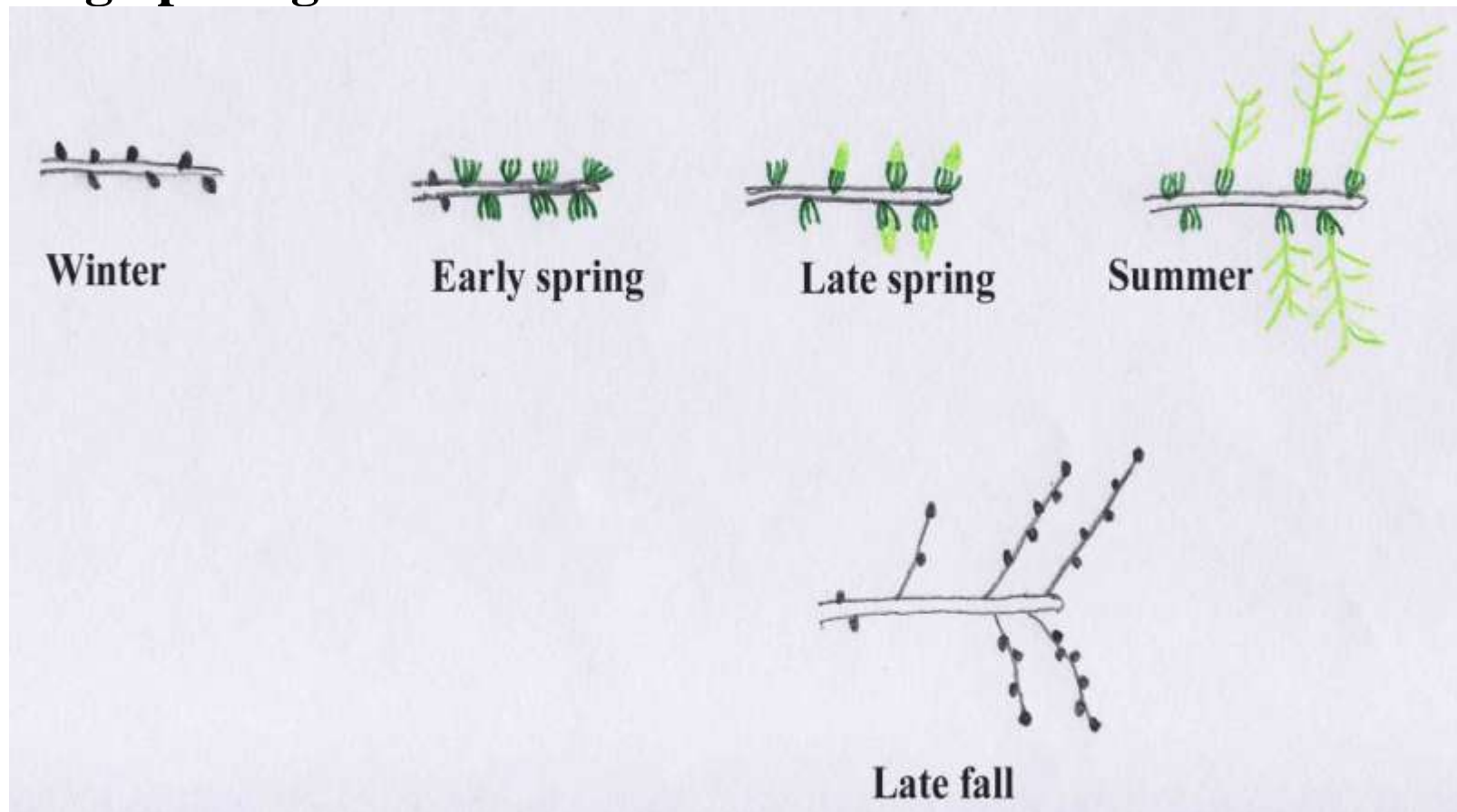
- **Can thicken up quite fast if develop in the ground or in very large wooden boxes**



This tree was the size of a pen 10 years ago when planted in the ground

Yearly growth cycle

- Need to understand the growth cycle in order to take the proper action at the most appropriate time
- Repot, wiring, pinching and pruning will be done at specific time within this growth cycle
- Foliage is growing in every possible direction but is easy to train
- Strong apical growth



- **Apical growth: notice the weak shoot and the strong shoots**
- **Need to either prune branch tip or pinch secondary growth at the tip**
 - **To redirect energy to weak areas**
 - **Otherwise weak internal shoots will die**



- **If the new shoots are allowed to grow freely, they could get 5 to 6 inches long in one growing season on a strong tree**
 - **The internal shoots would get very weak**
- **The only reason to want such growth to occur is to elongate a branch or to thicken up a section of the tree**



- **The first branch indicated by the arrow need to grow freely for a few years to thicken up**



Bark

- **Is a great quality, so handle with care!**
- **It can take anywhere from 5 to 15 years to develop nice bark depending on the starting material**
- **The development of bark is more a matter of growing condition than the size of the tree**



- **The color of the bark will vary between dark grey, light grey and sometime brown**
- **The bark becomes an important quality of larches**
 - **This is especially true for collected trees**
 - **It is a quality to preserve and protect**
 - **It add a strong feeling of age**
- **Before creating large shari, ask yourself: will my deadwood look older than the bark that I will remove**
- **Consider the future look of your bark before choosing the wiring angle of your branches: horizontal might look good now but will not do justice to the tree once it has old bark**



Damaged bark at base of the trunk



- **Bark of old collected tree can have various liken on it**
 - **Preserve that liken if present in small quantity**
 - **It adds a sense of age**
 - **Spray some vinegar on it if spread too much**



Capacity to create callus

- **Larches have the ability to create large callus without using cut paste**
- **This can be an advantage:**
 - **When creating deadwood**
 - **When a wound need to be covered**
 - **When splitting branches**
- **This can be a disadvantage:**
 - **When creating small Shari**
 - **When cutting a large branch**

- It is best to create a Jin with a large branch
 - The callus will not have a natural shape



- **Need to plan for callus when creating Shari**
 - **The callus can seriously reduce the space for Shari**



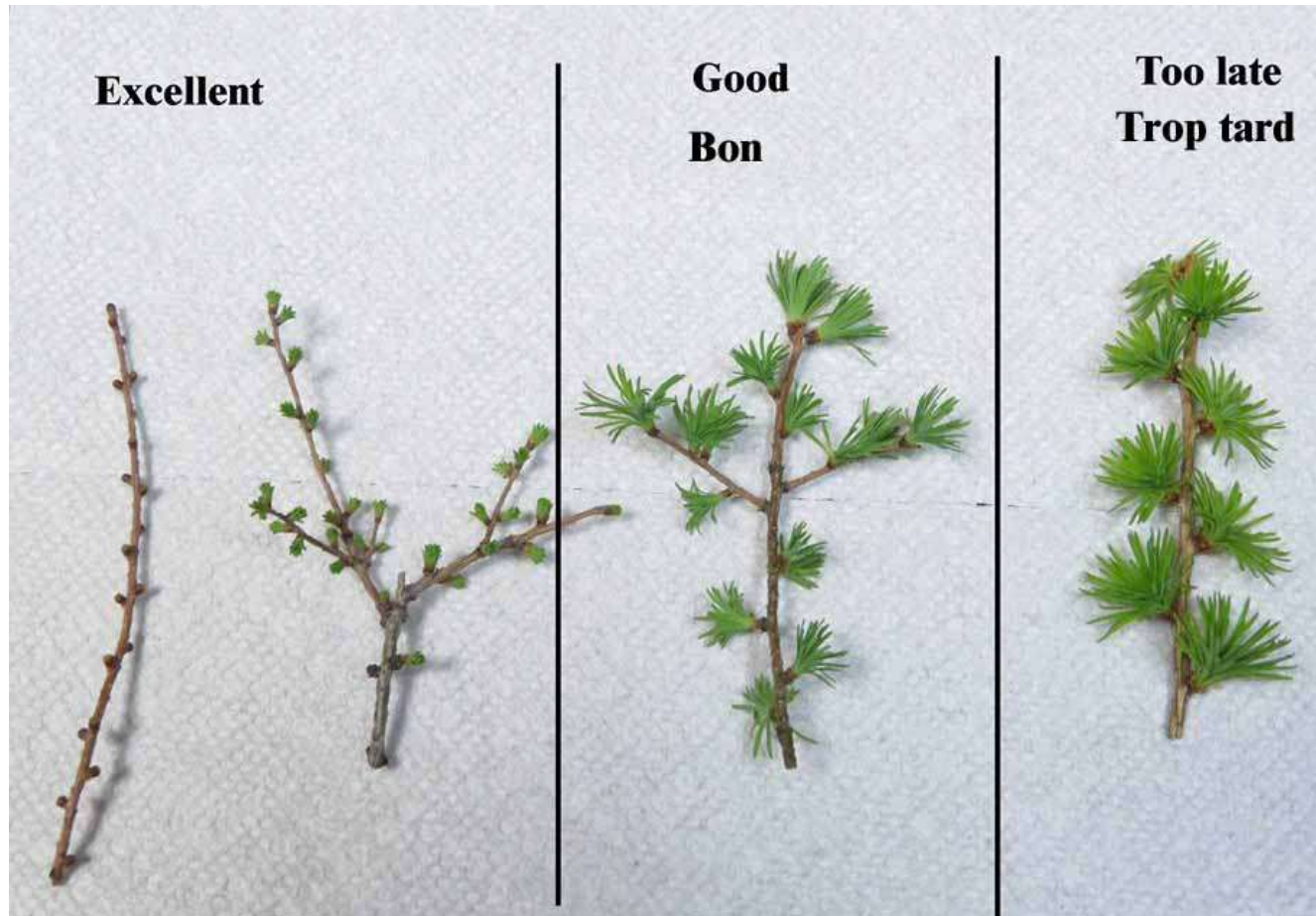
- **Great benefit when splitting branches**
 - **This callus developed in one season**
 - **Create a natural look**



Basic operations

Repot

- Can take severe root pruning (e.g. removing 50-60% of roots)
- Can be done in early spring when buds are swelling or have just opened
- Can also be done in fall once needles are yellow



- **Can be bare-rooted (i.e. can do well without mycorrhiza)**
- **Do not bare root at every repot**
- **The mycorrhiza will develop from nature under the right PH**

- **Not sensitive to root rot**

- **Plan where you will hold the tree during manipulation not to damage the bark!**

- **Adapt easily to different soil: Turface only / Turface and Chabasai / standar mix**

- **Recommend keeping original soil intact at first repot after collect in order not to damage the feeder roots**

- The holding areas for manipulating this tree are the two long Jins
- The tree was potted in the small round pot



- **Roots are easy to bend which allow a collected tree to fit in final pot faster**
- **Make use of screws to anchor trees when required**
- **Can split larger roots with trunk splitter to bend them more easily**



- **Highly recommended to grow surface moss or spread sphagnum moss on top**
 - **This will keep the top surface of the soil humid longer**
 - **Will allow the root to grow close to the top of the soil**



Wiring

- **Larches are one of the easiest tree to wire**
 - **Wood is soft and easy to bend when done in spring**
 - **No cleanup of foliage to perform before the wiring**
 - **Remove wires in the fall when needle have fallen or next spring**
- **Regular wiring should be done just as the buds start to swell**
 - **Will damage the tender shoot if done after needles have started to open**
 - **Leave wires until late fall or next spring**
 - **Wire mark are not critical on larch, they will generally disappear with time**

- **Refinement wiring can either be done in either spring or fall**
 - **New shoots and 2 year old shoots are very easy to bend**
 - **Use very small wires (1 - 1.5mm aluminum or .7 - 1mm copper)**
- **Severe bending (i.e. 1" or more) should be done in spring when bud swollen**
 - **There will be a large push of sap which will help heal the wound**
- **Be careful not to damage the trunk bark when wiring**
- **Prune before wiring**

- **As with most trees, need to perform fine wiring to create good foliage pads**

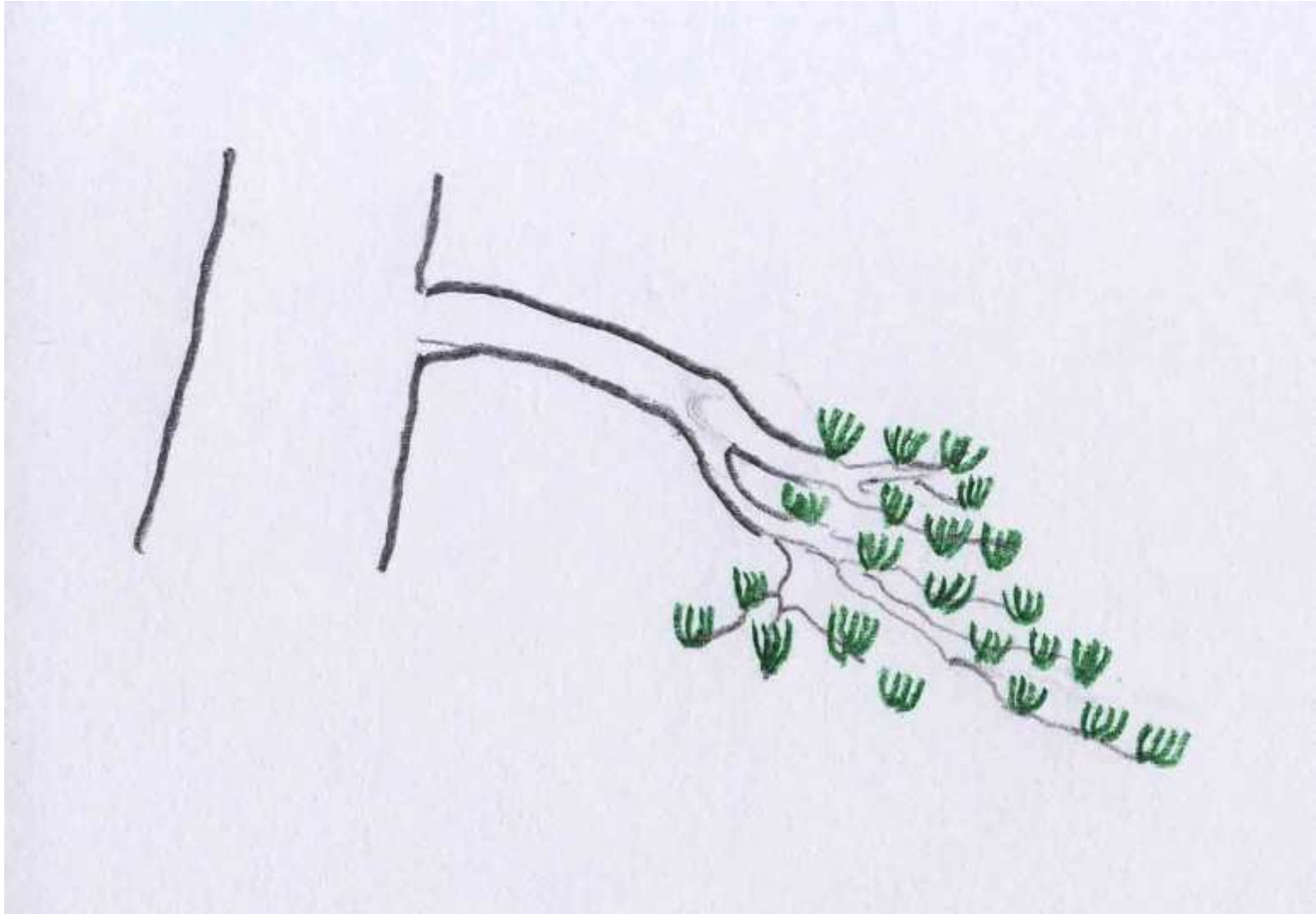


Branch development

Primary branches structure

- **First step in developing a tree**
- **Wiring and bending of primary branches is one in the spring as bud swollen**
- **On young trees, one branch is equal to one foliage pad**
- **On collected tree one branch can be used to create multiple foliage pads**

- **Given that the tree will develop old looking bark at some point, angle branches downward**
- **The downward angle should be for all sections of the branch which will facilitate the creation of nice foliage pads**

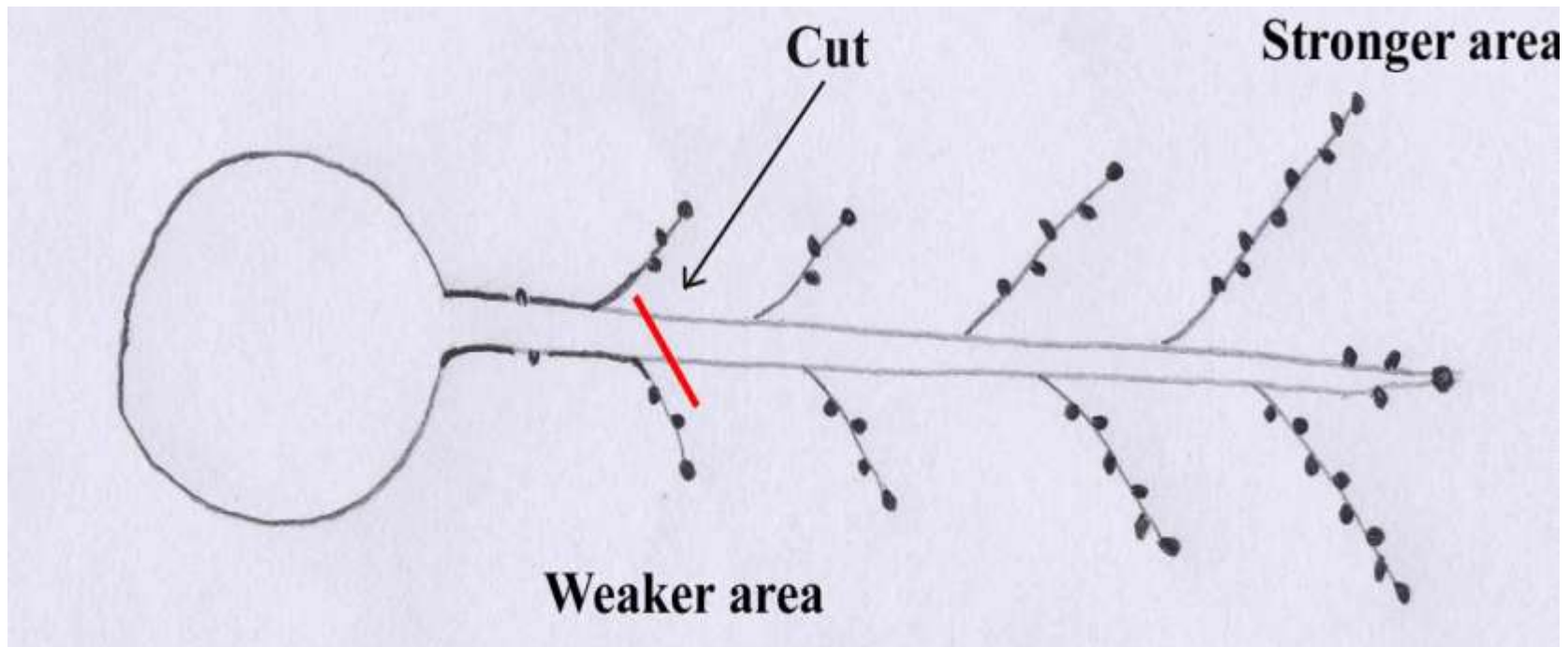


- The red arrows shows two foliage pads from the same branch
- The angle of the first branch will dictate the angles of all other branches: The unity in the repetition
- The black lines show the repeating angles of the branches

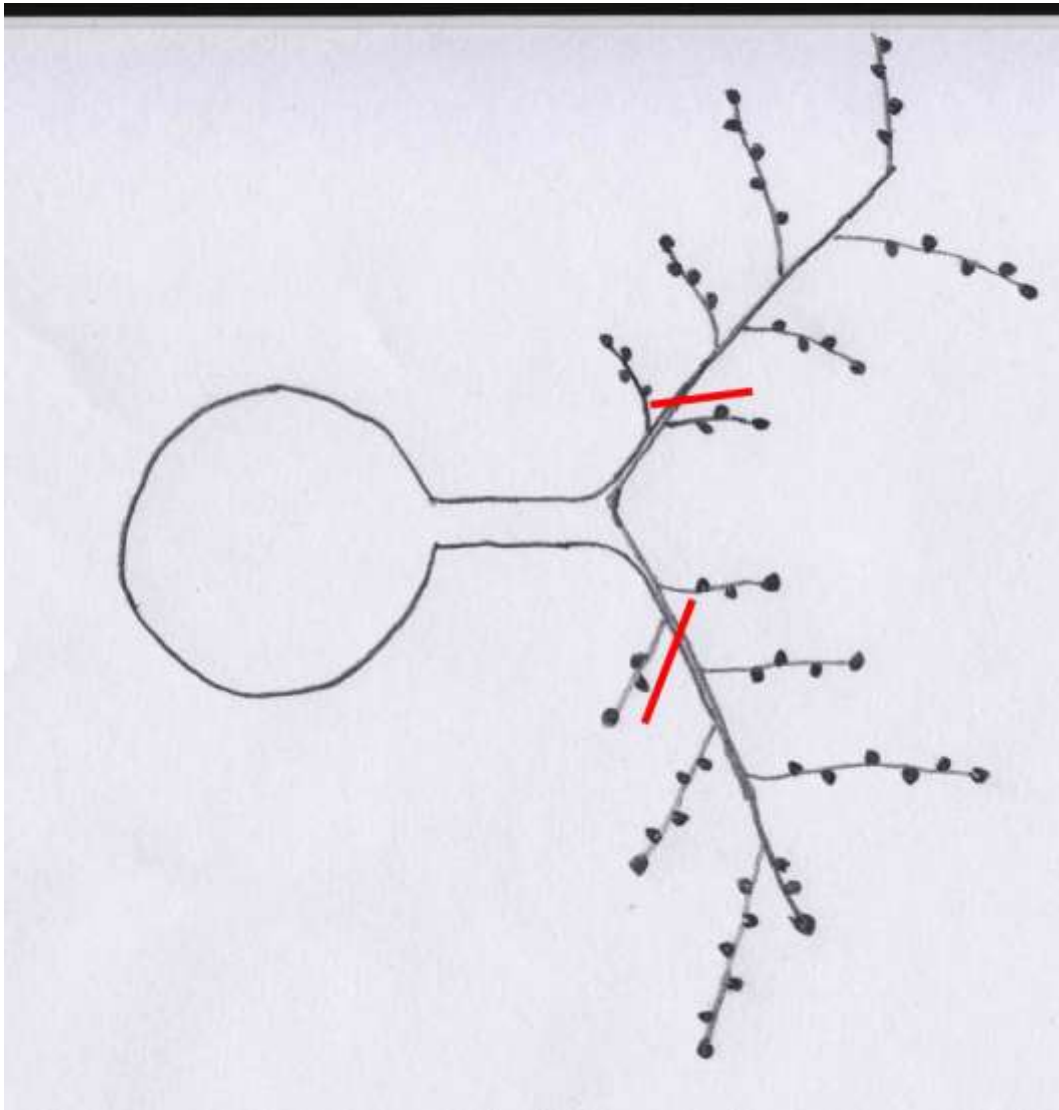


Basic pruning to create ramification

- Cut back to chosen secondary shoots once branch thickness is reached
- Although these cuts can be made throughout the growing season, it is best to perform in early spring or fall to see the structure (i.e. no foliage in the way)
- Use strong feeding program during that development phase
- In the example below, the cut could have also been made in the next set of secondary shoots
- Wire the small shots in the proper direction



- **Keep pruning back to chosen secondary shoots**
 - **The cut could have been done after the second set of secondary shoots**
 - **This will lead to taper and movement in the branch**



Foliage pad refinement

- **Going from basic ramification to detailed ramification**
- **Increasing the density of buds**
- **Perform fine wiring to position each single piece of growth**
- **Reduction of needle length**
- **Those are key items to have dense foliage pads**

Basic ramification in fall 2013



Better ramification in fall 2015



- **pinch all second growth at tip of branches in late spring or early summer**
 - **to keep shoots close to the trunk strong**
 - **to encourage back budding**
 - **to maintain foliage pads profile**
- **Hold the original growth with your left hand and gently pull on the secondary growth**
 - **To be done as soon as secondary growth is reachable**

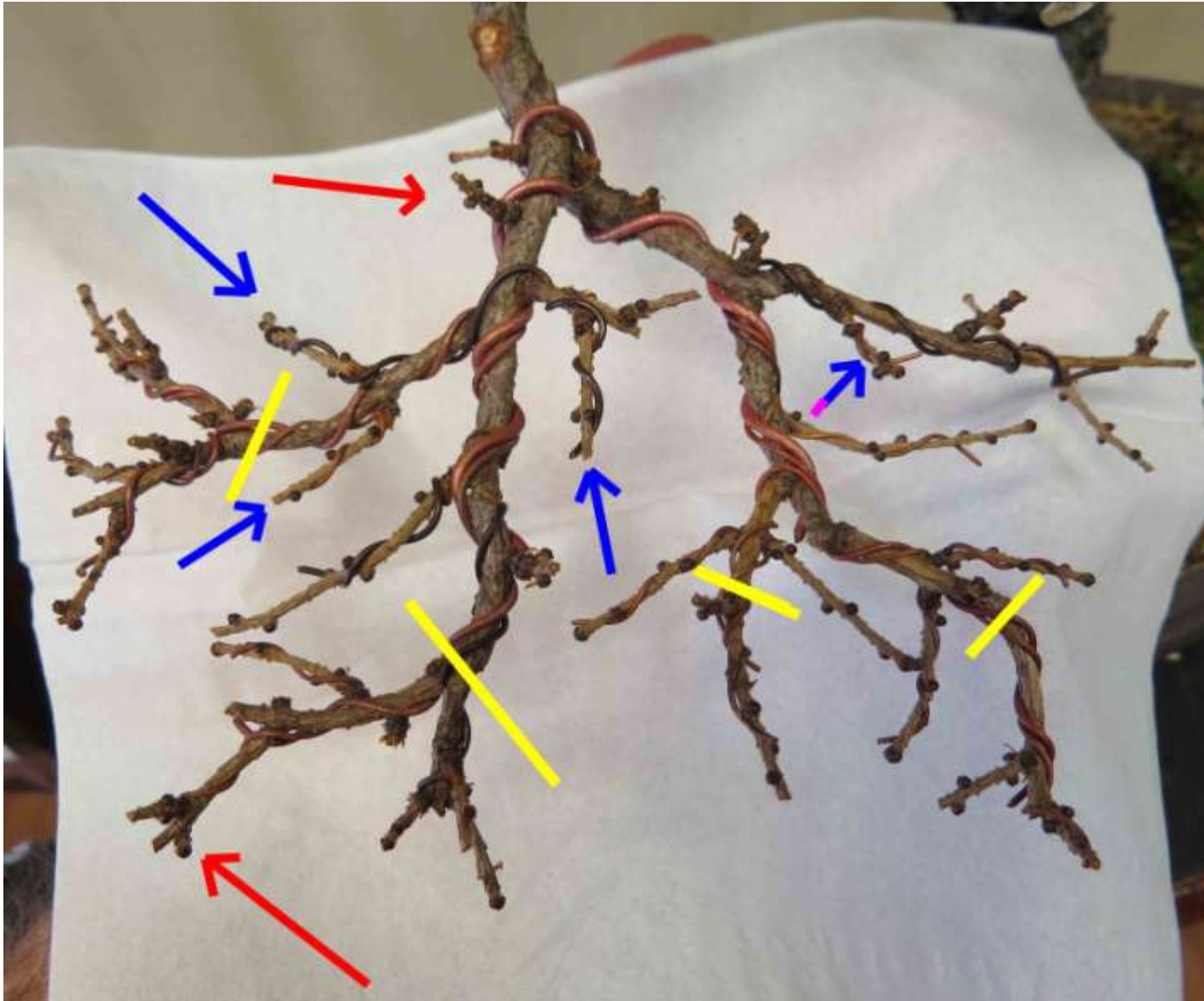


- **Allow growth on internal side shoots to grow and cut back to around 2”**
 - **There will be a few bud in that area that could be used in the fall**
 - **To allow for possible further ramification**
 - **to encourage back budding**
- **Pinch second growth on shoot growing upwards**
 - **These shots are for density only**

The needles were removed on that new shoots to show the development of new buds

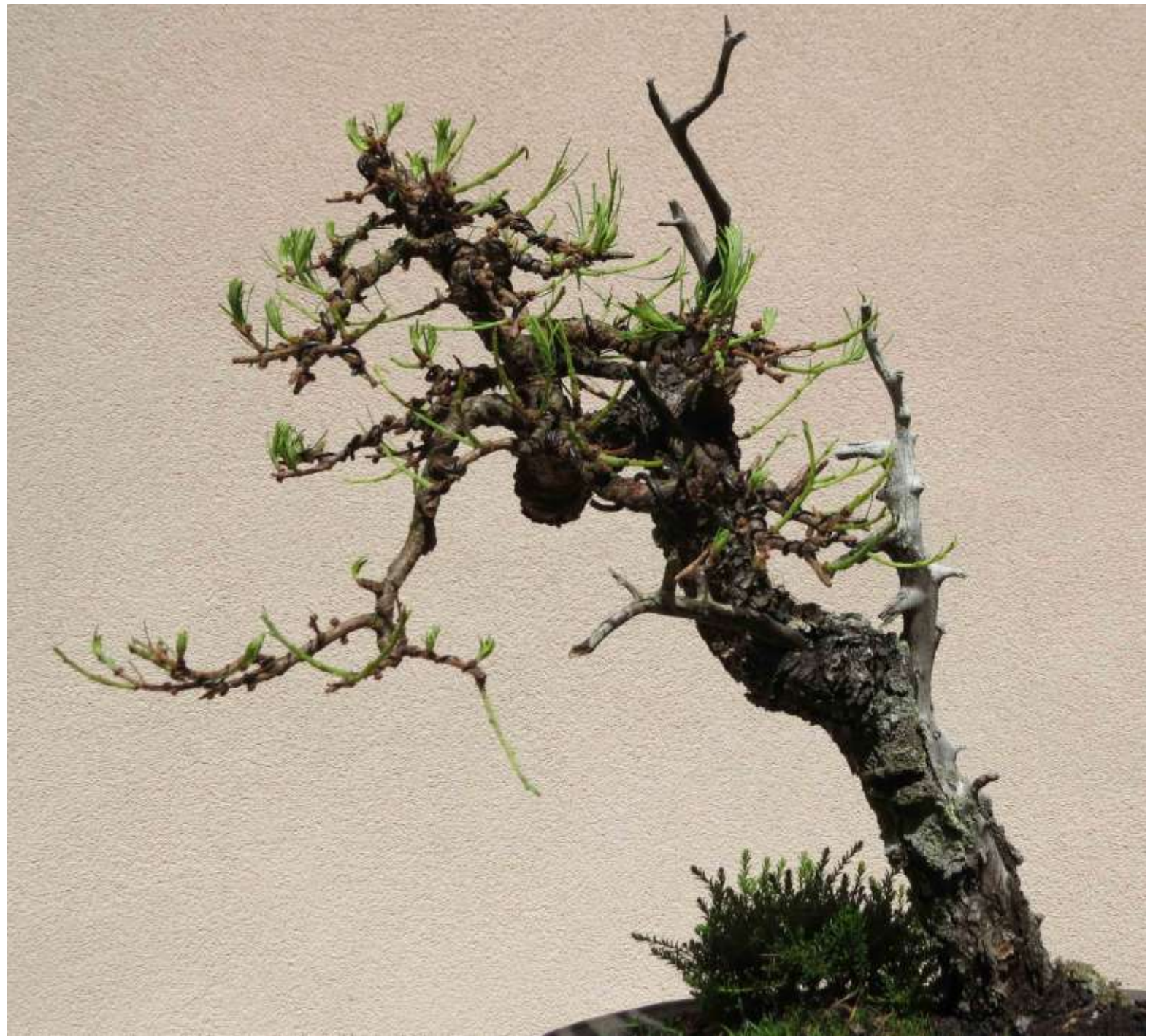


- **Example of actions to take on each section of a branch**
 - **RED** section: pinch secondary growth
 - **Bleue** section: allow secondary growth and cut back to around 1” or 2”
 - **Yellow** section: represent areas to be cut in the future



Defoliation

- **Allow foliage to grow freely**
- **Remove all needles that have opened toward end of June (but not in July)**
- **Manual process of pulling a few needles at a time**
- **This process can only be done on a healthy tree**
- **Key to have a good fertilization program**
- **Defoliation will lead to:**
 - **Smaller second set of growth**
 - **Higher density of foliage**
 - **Bud back**
 - **More ramification possibilities**
 - **Faster development of good foliage pads**
- **Perform every 2-3 years to improve quality of foliage pads**



- Can perform pruning once the buds have appeared
 - Redirect the energy in proper areas



- **Higher density of buds**
 - **Redirect the energy in proper areas**
 - **Remove buds growing under a branch**

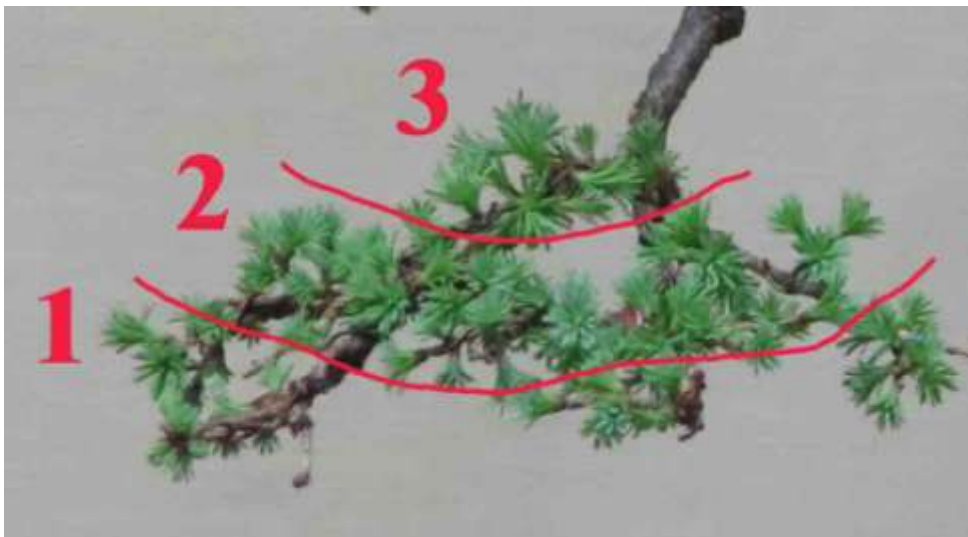
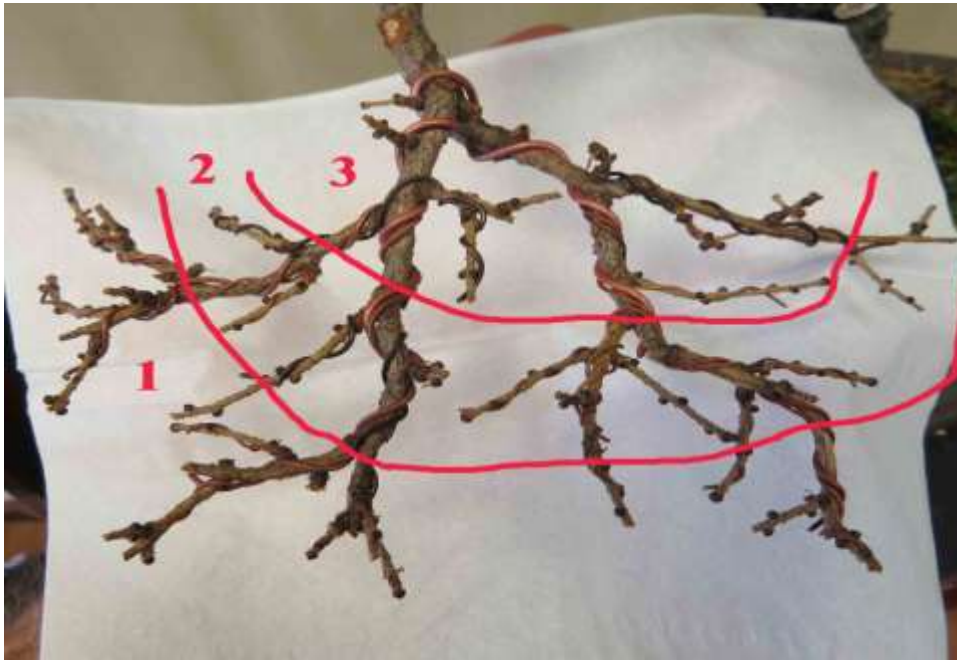


Fall (or early spring) wiring for refinement

- Cut all yellow leaves once they have started to fall
- The shoots that were cut in the summer at either 1” or 2” will have developed buds
- The now visible structure will allow to make choice on which shoots to keep and which one to cut



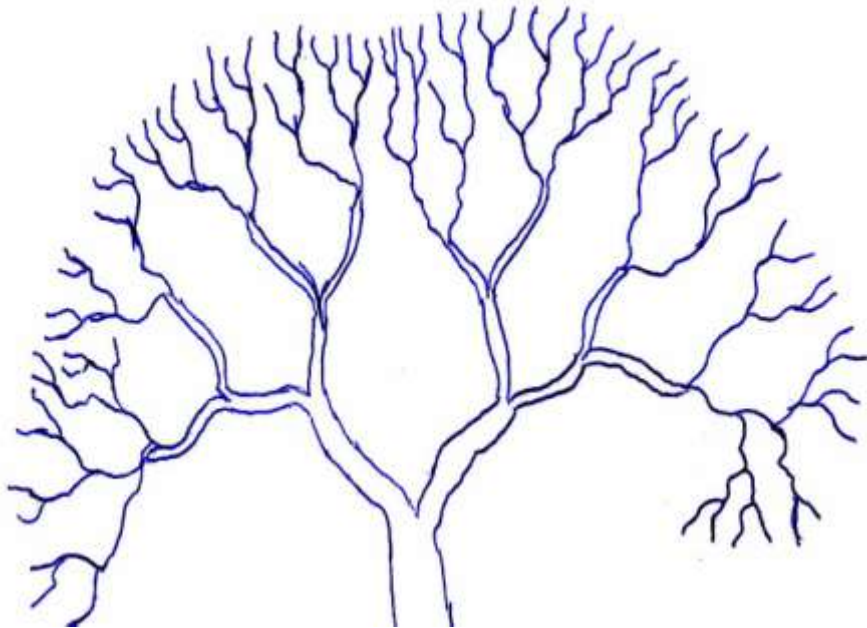
- Perform fine wiring to position each single piece of growth
- Position each piece of growth in different height area of the foliage pad (i.e. rows of foliage)



Crown development

- The crown of the larch should reflect an old age
- It should be built differently than leafy tree crown

Leafy crown structure



Old coniferous crown



- **A crown can be built using a single branch**
- **Wire the top branch down ensuring to have a bud at the very top**
- **Allow the top buds to grown freely for a year**
- **Allow side bud to develop and cut back in the summer to keep only 2-3 buds**
- **Wire the growth of the top bud in the opposite direction ensuring to have a bud at the very top**
- **Repeat for a number of year**
- **It is key to do fine wiring to develop the desired structure**
- **The conceptual method should be applied in 3 dimensions**
- **The same concept applies if starting from a few small branches at the top**



Creating deadwood

- Larches are excellent trees for creating Jin and Shari
- Deadwood occur regularly in harsh natural environment
- Their wood is very fibrous and lend itself well to the method of pulling fibers
- Even after the wood is dry
- Consider making a Jin instead of cutting a branch close to the trunk
- The deadwood can last quite a long time
- Always consider the large callus that the tree will form when making deadwood plan



- **Easier to create details in deadwood when it is wet**
- **Remove bark with knife and pliers**
- **Use oyster opener to lift fiber**
- **Use small pliers to pull on fiber by rotating the pliers at the base**



- Long section can be removed on first pass to create a crevice
- A second pass of pulling fiber within that crevice will make it deeper



- Use fire of mini torch to remove trace of human hand
- Use a gentle metal brush to cleanup burnt area
- The sun will gradually change the color of the burnt area

Before using fire



After using fire



- **The deadwood will develop natural color in about 3 years**
- **Mini crevices will also appear gradually in 3-4 years of creating the deadwood**

Before



After 3 years



Preparing for a show

- No replot the year of the show

Preparing for a fall show

- Remove large wires
- Apply refinement wiring in spring (if not done previous fall)
 - Leave them on tree for the show
 - The foliage will hide them
- Normal fertilizing program
- Do not pinch or cut any growth until defoliation
- Defoliate in late June and cut undesired growth
- Normal feeding program
- Remove all new buds growing under the branches
- Once new set of needles have open remove all needles pointing downward
 - Clean up underside of foliage pad

Preparing for a spring show

- **Defoliate the year before the show**
- **Remove large wires in the fall**
- **Apply refinement wiring in spring (if not done previous fall)**
 - **Leave them on tree for the show**
 - **The foliage will hide them**
- **Do not fertilize in the spring to keep growth as small as possible**
- **Do not overwater the tree**
- **Pinch all secondary growth**
- **Remove all new buds growing under the branches**
- **Once new set of needles have fully open remove all needles pointing downward**
 - **Clean up underside of foliage pad**
- **No defoliation**
- **Resume normal feeding program after the show**

Insects, disease and other

- **Not problematic with insects**
- **Ants can dig into the wood to make nest**
- **Miniature insects was removed with dish washer soap**
- **Roots are sensitive to overheating**

Calendar of activities

Early spring	Mid spring	Early summer	Mid summer	Late summer	Fall
#1 time for repot Severe bending	Fertilizing	Fertilizer	No fertilizer during hot period Protect smaller trees in hot days	Fertilizer	#2 time for repot Stop feeding
Wiring and styling Fine wiring for refinement	No fertilizing if spring show		Defoliate end of June for September or next spring show		Fine wiring for refinement Removal of spring wires
Pruning branches		Remove all second growth if September show	Pruning new shoots back to 2-3 buds		Pruning branches Cut back new growth
Creating shari					Creating shari

