



Forestry and Japanese Tradition  
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# Outline

- . Chris: Bamboo
- . Leah: Cedar
- . Michelle: Indigo-staining





Takayama Bamboo Park



# Takayama Bamboo Park

- All tea utensils are made by hand
- The same utensil crafting techniques have been passed down from generation to generation for over 500 years





# Traditional Japanese Tea Ceremony

- Tea ceremonies came from Buddhism and were originally performed for Samurai warriors
- There are over 60 different types of tea ceremonies









# Matakai bamboo forest in Kyoto





# Matakai Bamboo forest in Kyoto

- Bamboo grows very quickly; it is a grass, not a tree
- Madake bamboo in the forest we saw can grow ~30 cm per day and reach its full height of 18-20m in only 2-3 months
- It does not need to be replanted; new shoots will emerge in the springtime





# Matakai Bamboo forest in Kyoto

- 1200 species of bamboo in the world and ~600 species found in Japan
- Japanese use material from only three of these species
- It is edible and is also a traditional building material





# Fun facts about bamboo

- Some species of bamboo flower every ~120 years
- Is resistant to fire
- Is vertically similar in strength to steel







Kyoto Kitayama-sugi-no-sato centre



# Cedar production

- Kitayama Sugi (Japanese cedar) has a 600 year history
- village of Nakagawa has been producing cedar since a Buddhist monk, who had sought refuge in the village, taught the inhabitants to polish cedar logs with sand
- regarded as one of the highest quality building materials in Japan
- preferred wood for tea ceremony rooms and alcoves
- labour force pressures are a challenge to this industry, as younger people are less interesting in this form of production



# Cedar production

- Kitayama Maruta (round cedar logs) are the products made from Kitayama Sugi. This term encompasses a variety of logs, including:
  - naturally and artificially striated logs
  - polished round logs
  - four-sided beams
  - rafters



# Growth and harvesting of cedar

- in spring, ends of branches are removed from 5 or 6 year old parent trees
- trees are planted in a nursery, and the healthiest saplings are aforested
- saplings are bound to poles in order to straighten growth
- in winter, around 60% of branches are removed to ensure straight, strong trunks
- trees are planted in high density (4000-5000/ha) in order to slow growth. This increases the strength of the trees.



# Growth and harvesting of cedar

- growth cycles are 30-40 years, after which roots are cut and bark is stripped
- trees are left to dry on the mountain, before being carried, trucked, railed, or helicoptered off the slopes
- the honjikomi process requires the trees to be peeled before left to dry on the mountain. Kitayama cedars not used for honjikomi are peeled after being removed from the mountain
- a back split is cut into the trunks to prevent surface cracks as the trees dry



# growth and harvesting

- after another week of sun drying to improve colour, trees are moved to the shade and dried
- the surface layer of wood is then removed
- polishing!



# other facts

- naturally striated logs can be rare and expensive, so artificially striated logs can be created by wrapping pieces of wood or plastic to growing trunks
- prices range from \$30 - \$5000/piece
- designated as a traditional handicraft of Japan









# Indigo-Staining in Oohara

- Indigo staining is one of the oldest methods for textile dyeing
- Began more so in India before it became popular in Japan





# Uses

- Silk
- Wool
- Became more important in Japan during Edo period- forbidden to use silk, imported cotton





# Uses

- In modern times, indigo is used for dyeing denim
- Also used to dye the summer Kimono Yukata
- Symbolic for nature and the blue sea









# *Indigo-dyeing Process*



# PROCESS

- Japanese Indigo:  
*Polygonum tinctorium* or  
*Persicaria tinctoria*
- Once plants are 1-2 feet tall, leaves will turn a navy blue colour
- Time to harvest!





# Making Indigo Dye

- Put the leaves in water, bring temperature to 160 degrees F
- Strain liquid, add ammonia
- Reduce to “indigo white” (a green color) with Sodium Hydrosulfite





# Dyeing Fabric

- 1. Soak fabric in the dye for 5 minutes
- 2. Soak in mordant (magic water) for 5 minutes- mordant with aluminum to set the color
- 3. Re-soak in dye for 5 minutes
- 4. Rinse and dry









# Favourite Moments



# Temple hike on Mt. Kurama













Questions?