

PRINCIPLES OF ECOLOGICAL FORESTRY

- ❖ A NATURAL FOREST IS A LIVING COMMUNITY OF BEINGS, INCLUDING TREES AND OTHER PLANTS, MYCORRHIZA AND OTHER FUNGI, MOSES, LICHENS, BACTERIA, VERTEBRATE AND INVERTEBRATE ANIMALS, WHICH EXIST TOGETHER IN A MULTITUDE OF RELATIONSHIPS, INTERDEPENDENCIES, IN A COMPLEX ADAPTIVE SYSTEM.



PRINCIPLES OF ECOLOGICAL FORESTRY

❖ A HEALTHY FOREST LANDSCAPE IS A MOSAIC OF OPEN AND CLOSED FOREST, OF VARYING SERAL STAGES, FROM PIONEER TO CLIMAX IN CONDITIONS OF CONTINUOUS CHANGE IN RELATION TO PERIODIC FIRE, WIND EVENTS, AND OTHER DISTURBANCES.



PRINCIPLES OF ECOLOGICAL FORESTRY

- ❖ HUMANS LIE WHOLLY WITHIN NATURE AND PLAY A ROLE IN NURTURING FOREST HEALTH AND COMPOSITION THROUGH ACTIVE AND INTENTIONAL INTERVENTION AND SILVICULTURE.
- ❖ RELATIONSHIPS OF RECIPROCITY SHOULD GOVERN FOREST MANAGEMENT ACTIVITIES THROUGH THE PRESERVATION OF INTRINSIC NATURAL FOREST ATTRIBUTES WHICH ALLOW FORESTS TO SELF HEAL.
- ❖ THE HUBRIS OF ANY INTERVENTION WILL IMPACT THE ENTIRE FOREST COMMUNITY AND SHOULD BE APPROACHED WITH HUMILITY AND CONSIDERATIONS OF SCALE AS IN HOW MUCH TO LEAVE, HOW MUCH TO TAKE, AND WITH WHAT FREQUENCY.



NEW FORESTRY WITHIN AN ECOLOGICAL CONTEXT

WE UNDERSTAND -

- ❖ FOREST SCIENCE IS RAPIDLY EVOLVING, AND THUS ALL SILVICULTURE SHOULD BE APPROACHED AS A WORKING HYPOTHESES WITH UNCERTAIN OUTCOMES, THAT NEED TO BE MONITORED AND CONTINUALLY ADAPTED.
- ❖ IDENTIFY BASE ASSUMPTIONS, INCLUDING:
 - THINGS WE THINK WE KNOW
 - THINGS WE DON'T KNOW
 - THINGS WE DON'T KNOW WE DON'T KNOW
 - THINGS WE THINK WE KNOW BUT DON'T KNOW
 - THINGS WE KNOW BUT DON'T WANT TO KNOW
 - THINGS WE DON'T KNOW BUT WONDER ABOUT...



NEW FORESTRY WITHIN AN ECOLOGICAL CONTEXT

- ❖ MAINTAIN A FUNCTIONING FOREST FIRST AND FOREMOST.
- ❖ FORESTS ARE MANAGED FOR WHOLENESS AND COMPLEXITY, RATHER THAN EFFICIENCY AND SIMPLICITY.
- ❖ EMPHASIS ON DIVERSITY AND FUNCTION, RATHER THAN A PARTICULAR PRODUCT.
- ❖ STIMULATE MULTI-AGE AND MULTI-LAYERED STAND STRUCTURES.
- ❖ DO NOT BE COMPELLED TO MANAGE EVERY ACRE. RETAIN UNMANAGED AREAS AROUND AND CONNECTING VERNAL POOLS, STREAMS, WETLANDS, REMNANT OLD GROWTH AND OTHER RARE SERAL COMMUNITIES, AND AREAS OF HIGH CONSERVATION VALUE.
- ❖ MAINTAIN SOIL INTEGRITY. MINIMIZE SOIL DISTURBANCE AND COMPACTION.



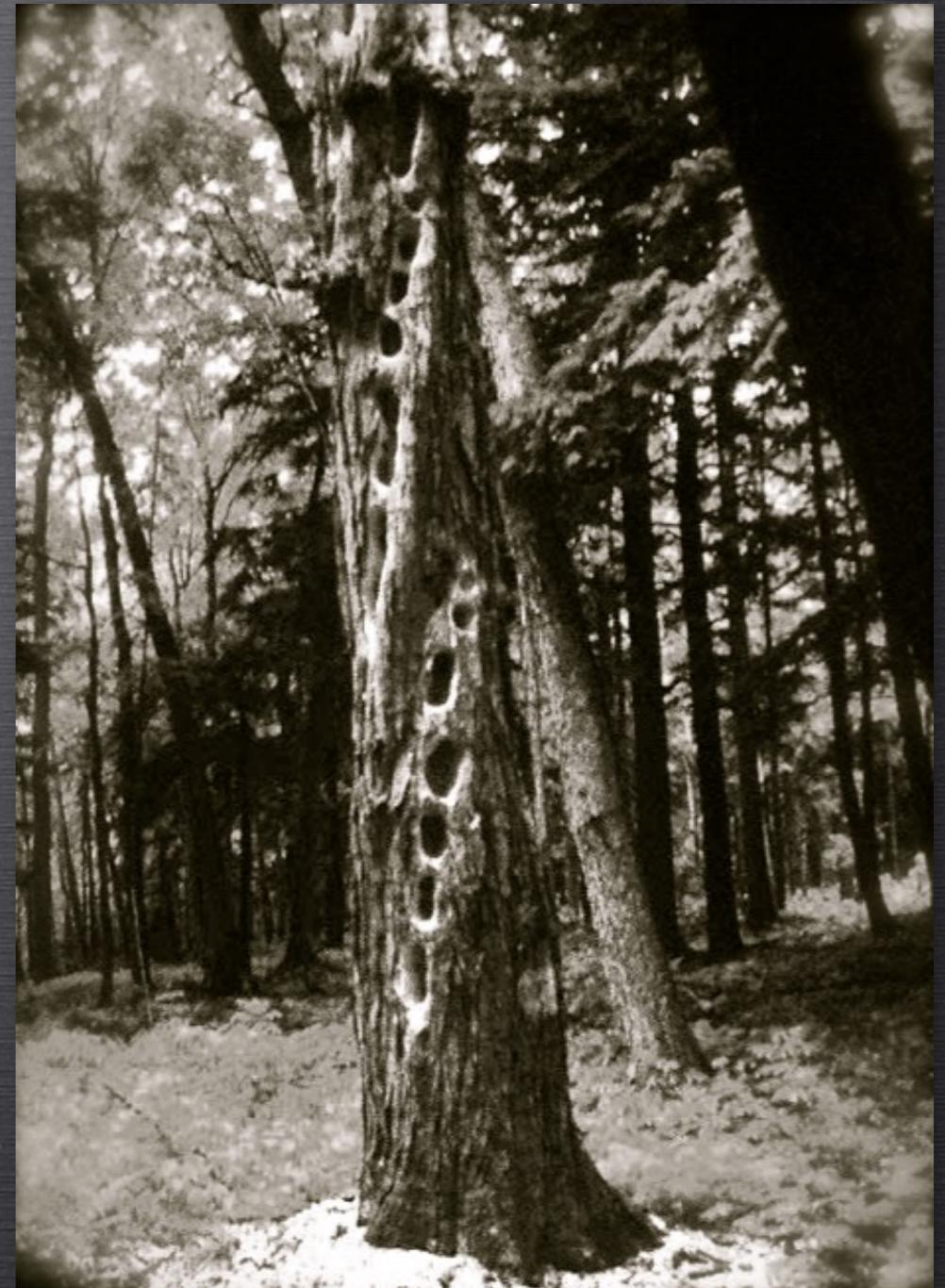
NEW FORESTRY WITHIN AN ECOLOGICAL CONTEXT

- ❖ MANAGE FOR WATER FIRST. PURE CATCHMENT, STREAM, AND GROUND WATER IS THE FOREST COVER'S MOST IMPORTANT EFFECT. KEEP SHADE ON THE WATER, AND WITHIN THE RIPARIAN AREA.
- ❖ MIMIC NATURAL DISTURBANCE REGIMES.
- ❖ REJUVENATE FORESTS AND FIRE DEPENDENT SPECIES WITH PERIODIC, LOW-INTENSITY FIRE. MITIGATE CATASTROPHIC WILDFIRE BY EMPLOYING PRESCRIBED BURNS AND THE "POWER OF THE PATCHWORK" ACROSS THE FOREST LANDSCAPE.
- ❖ WORK WITH NATURAL FOREST SUCCESSION. DO NOT BE COMPELLED TO REGENERATE THE EXISTING COVER TYPE. ENCOURAGE REGIONALLY-RARE SERAL COMMUNITIES TO DEVELOP.



NEW FORESTRY WITHIN AN ECOLOGICAL CONTEXT

- ❖ HARVEST ONLY FROM ABUNDANCE. SELECT TREES BASED ON RISK AND VIGOR, THEREBY LEAVING TREES OF HIGHEST QUALITY AND HEALTH.
- ❖ DEVELOP A COMPLEX UNDERSTORY WITH ABUNDANT COURSE WOODY DEBRIS.
- ❖ CONSERVE SEQUESTERED CARBON. MAINTAIN HIGHER STOCKING LEVELS, OLDER TREES, AND LONGER CUTTING CYCLES THAN PURE ECONOMICS DICTATE.
- ❖ RETAIN LEGACY TREES AND SNAGS FOR THEIR ESSENTIAL BIOLOGICAL FUNCTIONS.
- ❖ MAINTAIN A PATCHWORK OF GREEN RETENTION INCLUDING OLDER LEGACY TREES THROUGHOUT HARVEST AREAS TO PRESERVE FOREST HABITAT AND MYCORRHIZAL NETWORKS.



"TRUE SUSTAINABILITY IS UNACHIEVABLE...

...THE GOAL IS TO CONTINUALLY STRIVE TOWARDS
SUSTAINABILITY."



— ALDO LEOPOLD, 1942

Sylvania  Forestry

"ECOLOGICAL STABILITY...

...IS POISED AS PRECARIOUSLY AS A BONFIRE ON A SNOWBALL."



— DENNIS MARTINEZ, 1993

-INDIGENOUS LAND RESTORATIONIST
OF PINA ANCESTRY.

"STEWARDSHIP OF THE LAND IS NOT ABOUT MANAGEMENT OF RESOURCES, BUT ABOUT RELATIONSHIPS, AND THE CARETAKING OF ALL OUR RELATIONS, THE TREE PEOPLE, THE AIR, THE WATER, THE EARTH..."

... BEFORE YOU PUT HAND TO A SINGLE PLANT, FIRST ASK PERMISSION, THEN GIVE THANKS AND GRATITUDE FOR ALL THEY PROVIDE."



— OREN LYONS - FAITHKEEPER OF THE TURTLE CLAN OF THE ONONDAGA NATION.