

EXISTING VEGETATION

Vegetation, like landform, water, and climate, can be understood in terms of different patterns at different scales— which overall comprise a dynamic system:

A) GLOBAL/CONTEXTUAL SCALE: "LEE IS IN THE MIDLATITUDE DECIDUOUS FOREST— (THE MEDIUM OF TEN CONTINENTAL-WORLD ZONES)"

The world's plant systems geographically subdivide into patterns from a classification of ten vegetation region-types: "Tundra, "Subarctic Coniferous Forest", "Midlatitude Deciduous Forest", "Midlatitude Grassland", "Midlatitude Shrubland Dessert", "Tropical Seasonal Scrubforest", "Tropical Savanana", "Tropical Rainforest", and "Unclassified Highlands". (Within each of these communities are many sub-communities, varying with local conditions, orientations etc). * The eastern half of the US continent, (which contains Lee), as is much of Western Europe, is constituted by the Midlatitude Deciduous Forest— which lies midpoint on the classification scale. Compared to other places this region of plants has a medium amount of precipitation and overall temperature, resultant in medium plant mass and complexity; this plant region is qualitatively paramount for having "seasonal change". (((These ten communities share commonalities as well as have tremendous differences, resulting from the different soil and climatic (eg water/evap) conditions that are their natural base. Also, human history often affects that natural base (indirectly affecting plants), as well as directly affects the plants through agriculture, forestry, development or conservation. Plants in turn effect human history and the built environment. In modern times, while exponential rates of development are legendary, there is in the world still a gross plant/woodland abundance, but there is often net scarcity and disturbance of plant systems due to development, resource mismanagement or abuse. There has been worldwide increase in awareness of plant importance (eg ecologically, for human environment, for wildlife, for resources (eg concerns for the rainforest destruction)— and a general red alert has been sounded for environmental awareness (air, ozone, pollution, energy etc). However a political struggle with conflicting values (eg economic) and limits/uses of technologies has had mixed influence on vegetation systems))).

B) STATE-CONTEXTUAL SCALE: PLANTS IN MASSACHUSETTS: "FIVE-ZONE GRADIENT"

Within Massachusetts, the 'Midlatitude Deciduous Forest' subdivides into five basic different vegetation subcommunities: "Spruce-Fir", "Northern Hardwoods", "Transition Hardwoods", "Central Hardwoods", "Pitch Pine". These groups mark coherent patterns as shown in * STATE PLANT MAP. (Within these, local variation and intermixing of all groups do occur). Well prior to the twentieth century, Massachusetts (and much of New England) was 90% cleared, for agriculture and then timber— and thousands of miles of stonewalls in the woods today stand as evidence. (See history section). When the Erie Canal opened, agriculture shifted westward, abandoned fields multiplied and began the succession of grasses, pine, and then hardwoods. New timber markets developed, and ultimately fields were re-cut and re-abandoned. An increased diversity of plants and slower pace of change occurred with succession. (Note: If not for man's intervention, all but salt marshes eventually revert to forest). Currently, agriculture and forest cropping/management varies in different places and is relatively limited today. In Massachusetts, as in general, there is now a gross abundance of plants/woodland, but a net scarcity or plant disruption in some urban areas or local sites. Conservation (public acquisition) and regulation (eg zoning), along with larger environmental protection efforts have been on the increase in past decades with favorable but incomplete success. * Three quarters of Massachusetts is now covered by multi-succession woodlands.

C) COUNTY SCALE: BERKSHIRE VEGETATION: SPRUCE-FIR, NORTHERN HARDWOODS, AND TRANSITIONAL HARDWOODS.

The Berkshires has some of the richest existence of Multilatitude Deciduous Forest communities. Historically: after glacial withdrawal, plants evolved, settlement occurred, and agriculture, timbering, then commercial and industrial use have cumulatively had only a minimal negative impact on vegetation systems-- (largely due to relative slow growth of towns and because of conservation acquisition, (including wetland and less difficult highland), environmental protection efforts. Today the Berkshires has the state's most prolific conservation of woodland and other plants intact— blanketing the state's most significant topography. Here is some of the country's greatest diversity of trees and understory, supreme seasonal diversity (due to land and climatic richness), with full forests as well as fields in various stages of succession, including great meadows and open farmland (though less than in the past). Most of the woodland is second or third generation, producing trees of great form and stature (with hts of 100'), sometimes evenly spaced and slow changing, and stable, as advanced succession would have it. A few virgin pockets remain— one suspects upon the upmost ridges inaccessible to man, but this is always a rarity due to lightning and disease. The Berkshire's large areas of conservation vary in expression of the varied underlying topography, exposure, and history: with accessible flatland, accessible highland, and less accessible upper ridges determining plantcover differently. As one drives or walks through the region, or around a mountain, an array of varied plant associations unfold: the state parks, town and private lands have different plant expression within the overall Berkshire forest unity. Especially in comparison to different plant communities of the world, we should appreciate both the generic and special attributes that are of value— eg intrinsically, ecologically, historically, and for human experience/activity and resource-use.

* REGIONAL OVERVIEW: The Berkshire Hills and most of Taconic hills are covered with "northern hardwoods". The valley is "transitional hardwoods". The extreme upper Taconics are "spruce & fir". These woodlands conform to the soil/topography pattern. (Compare plant and soil-physiography maps for correspondences). Not included in this text is detail understory plants.

****INVENTORY** (see enclosed table) from 1952 to 1972 shows that Berkshires have enjoyed an increase in size (maturity) of deciduous and evergreen trees; but, reciprocally, there has been a decrease in open fields (due to succession and some development). Forestry efforts will be needed to maintain older crop and develop the younger wood that is now less abundant than in previous years, and reclearing is an issue.

***** "THE MACCONNELL MAPDOWN"** vegetative-landuse map (selections enclosed) details the various vegetation patterns within the Berkshires. Note that its accompanying index describes sub-classifications, and depicts them in archtype cross-sectional diagrams that designers may wish to consult. (Includes the many specific agricultural, wetlands, successional field and forest types). (This text condenses the MacConnell information as generally needed for the Lee proposal). The intricacies within the overall plant patterns are resultant from the exposure, soils, natural and human-intervention factors that effected plants own succession.

1. **Northern Hardwoods:** cover the Berkshire and Taconic Hills (till/heavy soil) that surround the valley, encircling most of the perimeter of Berkshire county coherently. (Covers 50% of county area; Overlaps some of outer Lee. This plant group is generally excluded from the valley as well as the extreme, less hospitable-soiled Taconic ridges). Includes dominating hardwoods: Birch, beech, and maple. Includes softwoods: red spruce, hemlock, and white pine. (The north slopes are inclined to associate with the northward hardwoods or conifers; south slopes tend to associate with more southward type hardwoods (or pine succession). The northern hardwoods produce a full array of brilliant fall foliage: beech are golden; maples yellow/orange/red, birch are clear bright yellow-- these are all in mixed sequence. The green, then colored foliage and then winter branch contrast with coniferous greens and snowscape. Plant changes also effect the sensed spatiality of the landform enclosure. Some clearings exist/ed but less than in the valley (ie Transition Hardwood) area.

2) Transition hardwoods exist in the Valley, which includes most of Lee. (Covers 40% of county area; is more moderet climate and hospitable soil than the surrounding area in general). This group blends species of northern hardwoods and southern central Massachusetts type plants (oak/hickory/pine). Where there is more moisture is red maple, black birch, black cherry and hemlock. Swamps black gum, atlanta cedar. More of this geography now or recently had farm-clearing than the surrounding Berkshires. Fall foliage varies per species, in interesting juxtaposition to fields and the other two forest associations.

3) Spuce/Fir: "northern evergreen forest" occurs on the exceptional, highest and steep topography, in extreme soils and cold-- located in north Berkshire county at the east and west edges and also on an isolated central ridge. (Covers 15% of Berkshire county, outside of greater Lee except for small random exceptions (?)). This association continues northward into upper New England. It is sensed in travel to/from Lee. Remoteness, inaccessability, and difficult slope/soil leave this area historically more natural. The plants being close together, have deeply shadey acid floor that creates a barren understory. "Sublime" attributes abound. Most stands are not pure, spruce and fir having mixed with birch associated communities; fall foliage limited interestingly to the fewer deciduous trees, while gives meaningful evergeen juxtapostion to fall foligae of other groups topographically below it and autumn sky above. (These evergreens visually link to similar and different evergreens that are especially revealed in the other associations during winter).

D) TOWN SCALE: PLANTS IN LEE AS A WHOLE

See the "landuse chart" showing the specific plants in all Lee— as consistent with the Berkshire MacConnell descriptions above.

The following charts itemize landuse data that is summarized in the text of this study.

1972 TOWN OF LEE LANDUSE

Forested (10,801) (62.16%)
small hardwoods (1299) 7.47%
larger hardwoods(5451) 31.37
small conifers (354) 2.04%
larger conifers (445) 2.6%
small mixed wood (1,296) 7.46%
larger mixed wood (1,956) 11.26%

Agriculture/open (3,327) (19.15%)
open areas (915) (5.27%
intensive ag (1534) 8.83%
extensive ag (878) 5.05%

Wetland (1183) 6.81
open water(542) 3.12%
shallo fr(603) 3.47%
deeper fr (38) .22%

Built recreation (117) .67
participation (102) .59
specatator (15).(.09

Urban (1,650) 9.5%
industrial (86) .49
commercial (102) .59%
light residential (1104) 6.35
transportation 264)1.52
Open & public (94) .54%

((1972 LEE GRAND TOTAL ACERAGE (17376))

1952 TOWN OF LEE LANDUSE

Forested (10,978)
small hardwoods (2,160)
larger hardwoods(3,386)
small conifers (288)
larger conifers (164)
small mixed wood (4,208)
larger mixed wood (772)

Agriculture/open (4,668)
open areas (1026)
intensive ag (121)
extensive ag (2424)

Wetland (812)
open water (424)
shallo fr (312)
deeper fr (76)

Built recreation
participation
specatator

Urban ,(918)
industrial (23)
commercial (38)
light residential (737)
transportation
Open & public (120)

((1952 LEE GRAND TOTAL ACERAGE 17376)

LANDUSE COMPARISON TIMETABLE

	1952 acres (%)	1972 acres (%)	change acres (%)	percentage of 52 in 72 (chg)
Forested Total	10978 (63.18)	10801 (62.16)	-177 (- 1.02)	98.38% -1.6%
small hardwoods	2160 (12.43)	1299 (7.48)	-1861 (- 4.95)	60.13% - 39.87
larger hardwood	3386 (19.48)	5451 (31.37)	+2065 (+11.89)	160.98% +60.98%
small conifers	288 (1.65)	354 (2.04)	+66 (+00.39)	122.91% + 22.9%
larger conifers	164 (.94)	445 (2.56)	+281 (+ 1.62)	271.34% +171.34%
small mixed wood	4208 (24.22)	1296 (7.46)	-2912 (-16.76)	30.28% -69.72%
larger mixed wood	772 (4.44)	1956 (11.26)	+1184 (+ 6.82)	253.36% +153.36%
Agriculture/open Total	(4668)	3327	-1341	71.27% - 28.73%
open areas	(1026)	915	-111	89.18% - 10.82%
intensive agricu	(1218)	1534	+316	125.94 + 25.94%
extensive agricul	(2424)	878	-1546	36.22 -63.77%
Wetland Areas Total	(812)	1183	+371	145.68 +45.68%
open water	(424)	542	+118	127.83 +27.83%
shallo fr	(312)	603	+291	193.27 +93.27%
deeper fr	(76)	38	-38	50% -50.00%
Built recreational total	()	117?		
participation	()	1022		
specatator	()	15		
Urban Area Total	(918)	1650	-732	179.74 +79.94
industrial	(23)	86	+63	373.91 +273.91
commercial	(38)	102	+64	268.42 +168.42
light residential	(737)	1104	+370	149.80 +49.80
transportation		264		
Open & public	(120)	94	-26	78.33 -21.66
GRAND TOTAL LANDUSE ACERAGE	(17376)		0	100%

The following charts itemize landuse data that is summarized in the text of this study.

1972 TOWN OF LEE LANDUSE

Forested (10,801) (62.16%)

- small hardwoods (1299) 7.47%
- larger hardwoods(5451) 31.37
- small conifers (354) 2.04%
- larger conifers (445) 2.6%
- small mixed wood (1,296) 7.46%
- larger mixed wood (1,956) 11.26%

Agriculture/open (3,327) (19.15%)

- open areas (915) (5.27%
- intensive ag (1534) 8.83%
- extensive ag (878)0 5.05%

Wetland (1183) 6.81

- open water(542) 3.12%
- shallo fr(603) 3.47%
- deeper fr (38) .22%

Built recreation. (117) .67

- participation (102) .59
- specatator (15).(09

Urban (1,650) 9.5%

- industrial (86) .49
- commercial (102) .59%
- light residential (1104) 6.35
- transportation 264)1.52
- Open & public (94) .54%

((1972 LEE GRAND TOTAL ACERAGE (17376))

1952 TOWN OF LEE LANDUSE

Forested (10,978)

- small hardwoods (2,160)
- larger hardwoods(3,386)
- small conifers (288)
- larger conifers (164)
- small mixed wood (4,208)
- larger mixed wood (772)

Agriculture/open (4,668)

- open areas (1026)
- intensive ag (121)
- extensive ag (2424)

Wetland (812)

- open water (424)
- shallo fr (312)
- deeper fr (76)

SOME OVERALL DOWNTOWN PLANTING DESIGN ISSUES: In Lee, existing conditions suggest extra possibilities for relating planting design: eg to relate to agricultural fields, crop or stone rows, or to images of virgin Berkshires, or to the urban grid and pragmatic layout and uses, or to the extension of building interiors, or to historic schemes (see photos), or to participate in the vernacular of other towns (such as Stockbridge) or determined primarily by special Lee activities, for positive spatial experience, ecology, symbolism, and views. (((From this non-mutually exclusive collection of ideas would result entirely different geometries (of ordered tree, understory, and grass)— and the geometry of planting in itself is an issue: eg strong minimalistic formality, defining tight nodes and corridors (rectangular/circular/biomorphic) VS looser natural or vs romantic form VS or other expressions, aesthetic statements or combinations. There is the further issue of the overall 'scale' of whatever forms are used, and the coherent pattern of plants as part of Lee's open space system. (Note: It should be also stressed that evergreens have a special value in this area along with deciduous; that there is value to intimate seasonal patterns and consideration for the vernacular not found in the larger, denser structured cities. There are also agricultural and forestry possibilities suggestive from regional uses that may be brought fuller to larger Lee if not for downtown. Other issues are the budget allocation for immediate vs long term growth effects, and concentration vs dispersal of planting in town (ie spending for plant quantity of less size vs of lower quantity larger size plants))).

In Lee, existing conditions suggest extra possibilities for relating planting design: eg to relate to agricultural fields, crop or stone rows, or to images of virgin Berkshires, or to the urban grid and pragmatic layout and uses, or to the extension of building interiors, or to historic schemes (see photos), or to participate in the vernacular of other towns (such as Stockbridge) or determined primarily by special Lee activities, for positive spatial experience, ecology, symbolism, and views. (((From this non-mutually exclusive collection of ideas would result entirely different geometries (of ordered tree, understory, and grass)— and the geometry of planting in itself is an

structured cities. There are also agricultural and forestry possibilities suggestive from regional uses that may be brought fuller to larger Lee if not for downtown. Other issues are the budget allocation for immediate vs long term growth effects, and concentration vs dispersal of planting in town (ie spending for plant quantity of less size vs of lower quantity larger size plants)).

E) SUB-DOWNTOWN SCALE: PLANT SURVEY WITHIN THE SIX DOWNTOWN AREAS

MAIN STREET AREA PLANTS— Main Street in general lacks the great trees needed for such an important town space. The south end and north commercial block/sidewalks have no trees at all, and remaining Main Street has many voids. However, Mid & Upper Main Street does have a few incredible, truly "great trees" in places— the most significant specimens in downtown: several huge deciduous trees and conifers exist in the west yard across from library, and in the yards of the victorean homes: these overhang mid/upper Main Street with a striking presence, briefly marking a spatial corridor, reminiscent of turn of the century. Their large size has a comforting, humane scaling-down effect of Main Street, lost neither to pedestrians nor vehicles. Many alleys (eg north of courthouse, the Morgan alley, theater way), side streets and vistas in all directions (especially longitudinally) terminate wonderfully in all sorts of near and far landscape. Some side street trees overlap into Main Street as well. Also, midsize and then some smaller new trees exist in front of library, and wrapping the corner of the north vacant parcel, but the latter are insignificant at this time. ((See old photographs for a sense of what the Main Street planted corridor could again be)).

OVAL PARK PLANTS: Oval Park gives the Main Street vicinity its strongest presence of plants, although the planted area is fractured by asphalt, and with an eroded grass form and incomplete remnant pattern of trees. Deciduous trees vary, but some are mature and formful, in irregular lineal clusters at the east and south edges. There is also a singular large conifer in the park (south edge) with great visual and typological significance; (one suspects it has played the town x-mas tree for generations). From the approaching Park Street vehicles, the conifer is close so appears momentarily dominant— as it adds mystery to the first sequential glances of town. Seen from elsewhere (especially from mid/upper Main Street) one visually leaps to and from the conifers that continue into Park Street and beyond. These plants ("on the town common") also stand in wonderful juxtaposition to the buildings around Oval Park, and Main Street (ie the built town) so evident (perfectly framed) at the south end approach— or from upper Main Street where they read as a terminus. Moreover, the grouping of deciduous and conifer blend to similar vegetation offsite (eg the West Park St vista) expressing oval park's and Lee's immersion in the larger landscape. When walking within the central and south portion of the old park quad, however, the limits of proximate tree canopy are immediately evident. Also: A row of yews wrap the southern edge fence, partly defining space and acting as a buffer, being horizontally expressive (while visually tying to the conifer. The winterbranch's ephemeral textural overlay to the buildings; foliated seasons vary the space and views further. There are also isolated plantings (eg ornamentals) at the church and east residences. In all, though, more substantial planting is desired.

EATON/BACKSIDE/RR AREA PLANTS: There are no trees within the Eaton/Chopper/Backside area, except at the edges— eg the river and foundation area of Morgan House. There are insignificant shrubs at the Chopper entry, Morgan House and front Post Office. In the northern Railroad Street area there are fields of random trees, but none addressing the RR Street or Elm Street lines and their immediate structures. See old photograph showing past agricultural use of this area.

RESIDENTIAL HILL AREA PLANTS: The Residential Hill area has the downtown's most abundant spread of plants: Many visually/spatially read as emergent 'ground' (or setting) of Berkshire wilds (though sparser than the thick forest background in the east vista); plus there is partial street tree planting that varies per street (new trees, old trees, and voided areas—irregularly mixed; plus, there are ornamental trees, shrubs and lawn of the yards. Primarily, more planting is needed on these side streets, and secondarily, opportunities for plant/spatial strengthening in yards and key buildings. ((Note: Ferncliff Street is most lacking of street trees, especially in the empty lawn along the whole north edge. This would also improve its spatial reading as "corridor"— instead of squat residual space it now seems. Academy Street has a closely spaced, balanced, 'statuesque procession' of tall dark-trunked, upright canopy along its east half (framing in vista the equally pronounced stone school), and smaller new trees in its west end sidewalk apron— with some voids. Franklin Street has older plants scattered at its east end (appearing interestingly as path cut through forest as opposed to corridor edged by plants), and has young trees at west end do edge the northside lawn, but none on its south sidewalk (building) area.

NORTHEND PLANTS— In general, trees are lacking and seem necessary for better street/sidewalk/and nodal space in the northend. In the vacant grass lot, there are only a few small trees wrapping the corner, a large cropped conifer, and wild brush at the west edge. There are no trees at Joe's sidewalk area or the north end main street facades. Lower Center Street has several old struggling (though picturesque) deciduous trees and conifer near kfc only; the remaining south walk and entire west apron is treeless. The mill vicinity has varying areas of meadow, brush and wild-woods with opportunity for maintenanc and new planting to link circulation and improved activity space to the larger location. Interestingly, at the periphery and offsite of the northend, the Berkshire forest visually abounds in a great variation of directions due to landform— planes and lines of tree-land seem to make an in interlocking composition— swirling above, around, and below the northend node with dynamic visual/spatial forces. Most notably, the upper hill landform is stratified by green lines of conifer upon it's crest, and deciduous bands below. The forest behind the mill and atop the north river banks, and the valley of woodland and meadow express the land, water, and manmade forces as a systematic dialogue.

RIVER PLANTS— The river plants are as varied as the subplaces and topography that now exists. There is deciduous woods on the entire west slope edge, and spotted areas along the east side river and elsewhere. Trees are close grown, smaller scale than other trees, and act as edge areas more than distinct plants. Many of these trees appear weedy, in want of pruning; brush overwhelms much of the bankings and otherwise usable flat area. Meadow land can be improved and a variety of select succession understory can be controlled or encouraged per type/area. Erosion is minimal in the various planted areas except where exposed soils are at the riverbanks or some otherwise disrupted areas (needing attention especially if pedestrian use increases). Additional great trees seem needed in some exposed areas to better define space and climate and relate to adjacent areas, in combination with improved open grass areas. (Note: The offsite west of the river upland entails forest checkered with residences (fairly visually absorbed)— compared to the visually pure forests of other peripheral forest vistas.