

LAND USE HISTORY

I. Objectives:

1. Documentation of areas which have been subjected to various intensities of land use; that is cultivation, pasture and pastured woodlots and woodlands.
2. Construction of a chronological series of stand maps or maps delineating vegetative association so as to document the successions of vegetation and principle phases of land use in time and space.
3. Characteristics of the pre-colonial forest associations.
4. Ecological status of present vegetation.
5. Ecological trends of present vegetation.
6. Determine the “ecological maturity” of areas.

II. Methodology:

1. General Region—refer to Raup and Carlson.
2. Representative areas in region.
 - A. Series of line transects approaching a grid system upon which the location of past and present vegetative elements can be recorded.
 - a. composition, age, origin, and history of previous vegetation.
 - i. macroscopic and microscopic examination of remaining stumps and roots.
 - b. composition, age, origin, and history of present vegetation.
 - i. increments for age and past treatment.
 - ii. root analysis for age and origin, especially of hardwood sprouts.
 - iii. examination of records pertaining to descriptions of woods operations.
 - c. the composition and origin of any reproduction.
 - i. stem counts and measurements.
 - B. Construction of map depicting division of land in past.

Source: Earl Stephens, from Harvard Forest 1955-4, Folder 10.

Notes [DRF] - This is one of the early outlines of an approach to determine land use and the general history of a forest area, an approach that is a characteristic part of Harvard Forest field ecology. It relates to Stephen's thesis work and was derived from discussions with Hugh Raup, John Goodlett, Steve Spurr and others.

It is interesting that no where in his notes or thesis does Stephens reference Bob Marshall's work (HF Bulletin 1927) despite the fact that Marshall uses a very similar approach. EPS does reference Marshall for his work's insights on hemlock.

