

SECTION I

Rare Species at Bartholomew's Cobble

1.	Wall-rue Spleenwort	<i>Asplenium ruta-muraria</i>	MA T
2.	A Filmy fern	<i>Trichomanes sp.</i>	MA T
3.	Narrow-leaved Spring Beauty	<i>Claytonia virginica</i>	MA T
4.	Great Blue Lobelia	<i>Lobelia siphilitica</i>	MA T
5.	Closed Fringed Gentian	<i>Gentiana andrewsii</i>	MA T
6.	Long-styled Sanicle	<i>Sanicula gregaria</i>	MA T
7.	Chinquapin Oak	<i>Quercus muhlenbergii</i>	MA SC
8.	Bur Oak	<i>Quercus macrocarpa</i>	MA SC
9.	Black Maple	<i>Acer nigrum</i>	MA SC
10.	Davis's Sedge	<i>Carex davisii</i>	MA E
11.	Gray's Sedge	<i>C. grayi</i>	MA T
12.	Hitchcock's Sedge	<i>C. hitchcockiana</i>	MA SC
13.	Pendulous Bullrush	<i>Scirpus pendulous</i>	MA SC
14.	Northern Spring Amphipod	<i>Gammarus pseudolimnaeus</i>	MA SC
15.	Longnose Sucker	<i>Catostomus catostomus</i>	MA SC
16.	Spotted Turtle	<i>Clemmys guttata</i>	MA SC
17.	Wood Turtle	<i>Clemmys insculpta</i>	MA SC
18.	Sharp-shinned Hawk	<i>Accipiter striatus</i>	MA SC
19.	Purple-stemmed Cliffbrake	<i>Pellaea atropurpurea</i>	MA WL
20.	Rock Spikemoss	<i>Selaginella rupestris</i>	MA WL
21.	Beaked White Water Crowfoot	<i>Ranunculus longirostris</i>	MA WL
22.	American Black Currant	<i>Ribes americanum</i>	MA WL
23.	Moonseed	<i>Menispermum canadense</i>	MA WL
24.	Balsam Poplar	<i>Populus balsamifera</i>	MA WL
25.	Scott's Spleenwort	<i>Asplenium x ebenoides</i>	NOT LISTED

SECTION II

Aphrodite Emerging From the Waters

Aphrodite, flanked by two female attendants, is shown rising up out of the waters. The goddess emerges looking upward to her right, her arms outstretched. (The impression of wetness is conveyed by the thin chiffon that adheres to and reveals the forms of her body.)

Rising up naked out of the foam of the sea and riding on a scallop shell, Aphrodite stepped ashore for the first time on the island of Cythera.... Grass and flowers sprang up from the earth beneath her feet, and at Paphos, the Seasons hastened to cloth and adorn her.

The ritual bath, in which the youth and beauty (virginity) of the goddess is renewed, is found also in the myths about Hera and Athena ... and may well be related to an even older tradition, ... according to which the goddess of Spring rises up out of the earth as if emerging from the underworld.... All three traditions suggest the epiphany of the eternal virgin, the return of youth, beauty, and desire commingled with hope for new life....

The waters are often believed to be a symbol of chaos, or of the unconscious, that reality where all things rest in potentiality. (Another symbol for this state is the tao of Chinese thought. To return to this place is to receive again all that has disappeared through the entropic forces of time.) The experience of renewal....

The Crossing of the Red Sea

This miniature, which is placed within a border decorated with a chevron pattern, depicts the Israelites, many of them armed and carrying sacks and treasures, crossing the Red Sea on two horizontal bands of dry land.

The Lord said to Moses, And you shall raise high your staff, stretch out your hand over the sea and cleave it in two, so that the Israelites can pass through the sea on dry ground.

On the level of intrapsychic experience, the crossing of the Red Sea has been compared to the crisis that marks the beginning of the individuation process.

Androgynous Water Spirit

The original Nommo, the primordial couple, were born as twins in accordance with the divine order.

In the myths of the Dogon, there are three qualities that reflect the completeness and sacred power of the divine: these are embodied in the twin, the androgyne, and the amphibian.

SECTION III - SCIENTIFIC OBSERVATIONS

Repetition and Unison

1. Fractals record what happens in the transition zones between order and chaos.
2. Strange attractor is the name given by chaologists to the plots they chart of the chaos in dynamical systems.
3. Negative capability - the ability to be in uncertainties, mysteries, and doubts.
4. Fractal scaling - the frames show similar details on many different scales.

5. Self-similarity - as viewers peer deeper into the fractal image, the shapes seen at one scale are similar to the shapes seen in detail at another scale.
6. Holism - the tree that sheds twin leaves that fall from "outside" into the stream are also an integral part of the dynamical system called the stream. Also within the stream itself, the smallest leaf and pebble constantly interact with each other outside and/or internally.
7. Dynamic balance - simplicity and simultaneous
8. Iterating - dynamic recycling - complexity leading to stability, periodicity, or chaos.
9. Mandelbrot's set - the possibility of zooming into increasingly smaller scales of the set infinite number of points between two points.
10. Transforms - shrunken and distorted versions of the original object.
11. Negative feedback - keeps things in check
12. Positive feedback - pushes systems to explode or spiral out of control
13. Reflectaphors - artistic juxtapositions where self-similar forms contain a tension composed of similarities and differences.

SECTION IV - RIVER FACTS

Housatonic River Basin

Total Drainage Area:	1,950 square miles
Source of River:	Muddy Pond
Mouth of River:	Long Island Sound
Total River Length:	150.9 miles

Rare Species

Plants:	showy lady's slipper, swamp birch, hemlock parsley, purple cliff brake, purple cress, deocious sedge
Animals:	bog turtle, northern spring salamander

The Housatonic River - Mahican Indians named "the place beyond the mountains"

Rises out of three ponds into streams in Berkshire Valley - meanders through extensive flood plains, passes through Connecticut and empties into the ocean at Long Island Sound

PCB contamination - catch and release program for fish

Combination of marble outcrops and meandering of river along flat valley floor makes basin most biologically diverse