Art & Soil

Dirt as Medium and Message

The land is the finest for cultivation that I have ever in my life set my foot upon, and it also abounds in trees of every description.

-Henry Hudson, 1609

The city gives the illusion that the earth does not exist.

-Robert Smithson, 1976

Yucatan Mirror Displacements, 1969

Robert Smithson, *Nonsite (Essen Soil and Mirrors)*, 1969; sculpture; soil and twelve mirrors, 36 in. x 72 in. x 72 in. (91.44 cm x 182.88 cm x 182.88 cm); Collection SFMOMA, Purchase through a gift of Phyllis Wattis and the Accessions Committee Fund: gift of Collectors Forum, Doris and Donald Fisher, Patricia and Raoul Kennedy, Elaine McKeon, Helen and Charles Schwab, Norah and Norman Stone, and Robin Wright; © Estate of Robert Smithson /

herman de vries

fig. 1 earth rubbing (*journal de la palma*, 2009).

The earth museum...holds over seven thousand samples of earth, gathered by de vries or sent to him from all over the world Begun in 1976, it is a unique collection; it is extensive and diverse, and although it has no scientific purpose it constitutes a compendium in which every type of earth (limestone, sandstone, peat volcanic, marl, ash, etc., etc.) is represented, and which visibly demonstrates the endless variety, beauty and subtlety of the colours of earth.

-hermandevries.org

Future Farmers : Soil Kitchen

SOIL KITCHEN

2ND + GIRARD/PHILADELPHIA
APRIL 1-6, 2011 11AM-6PM

ABOUT NEWS PROGRAMS RESULTS ARTWORK PARTNERS

SOIL TEST RESULTS

Soil Kitchen is a new temporary public art project addressing issues of sustainability specific to the urban environment.

The project will incorporate community involvement, naturally generated energy, local foods, food exchange, the creative reuse of a brownfield site, and brownfield mapping. This new site-specific public artwork will provide a stage for interaction, dialogue, and education on topics of sustainability that impact every Philadelphian.

Timed to coincide with the arrival of the 2011 National Brownfields Conference in Philadelphia, Soil Kitchen is the first-ever temporary public art project to be commissioned by the Office of Arts, Culture and the Creative Economy, and will be

Link to Project Site

Soil Kitchen, 2011

Next

Media:
Architecture, Public Art, Mapping, Workshops

Artist(s):
Amy Franceschini, Dan Allende, Lode Vranken, Ian cox

Correlation Drawing/ Drawing Correlations
Margaret Boozer at MAD

Based on New York City's first soil survey!

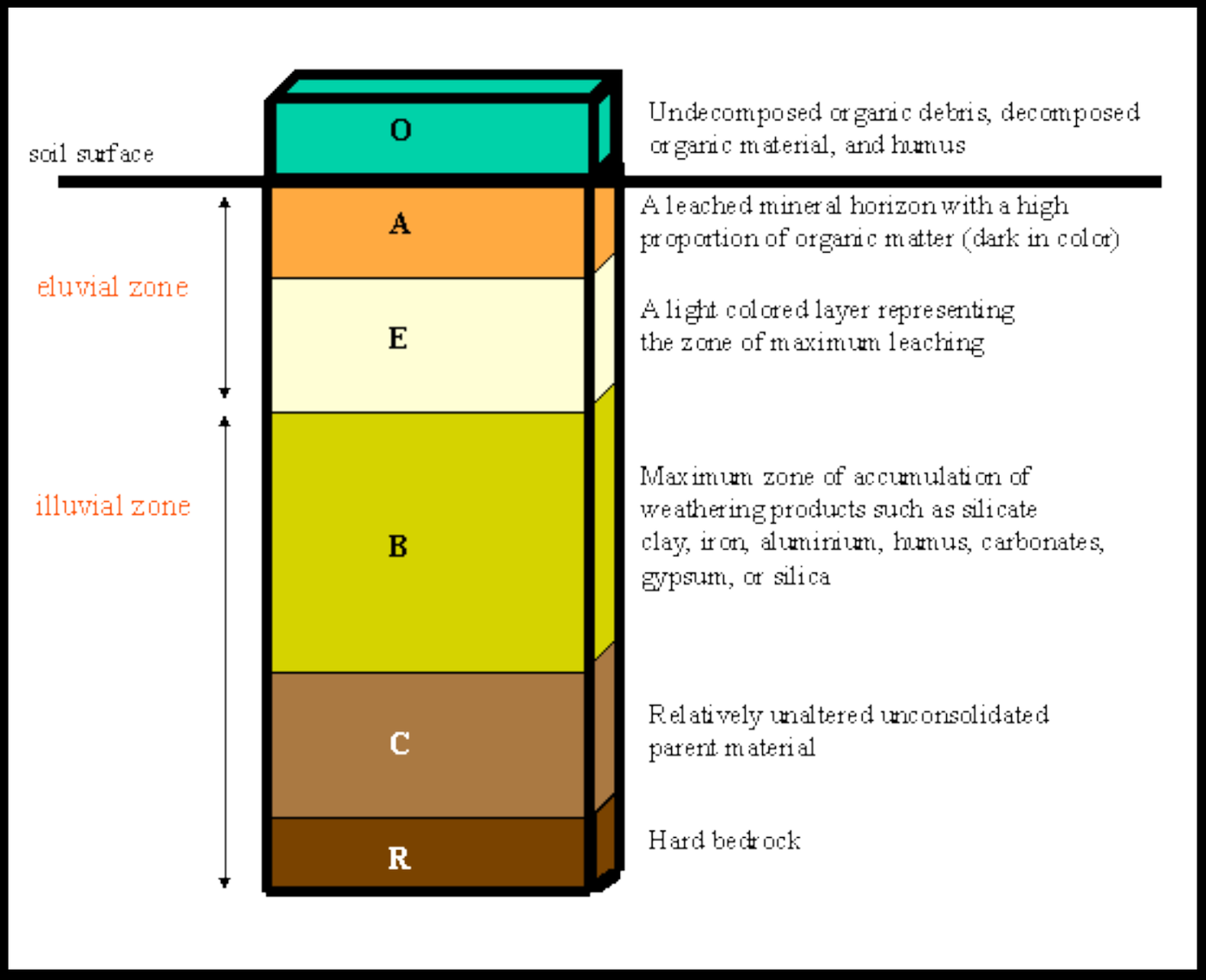
completed 2009, still being processed...

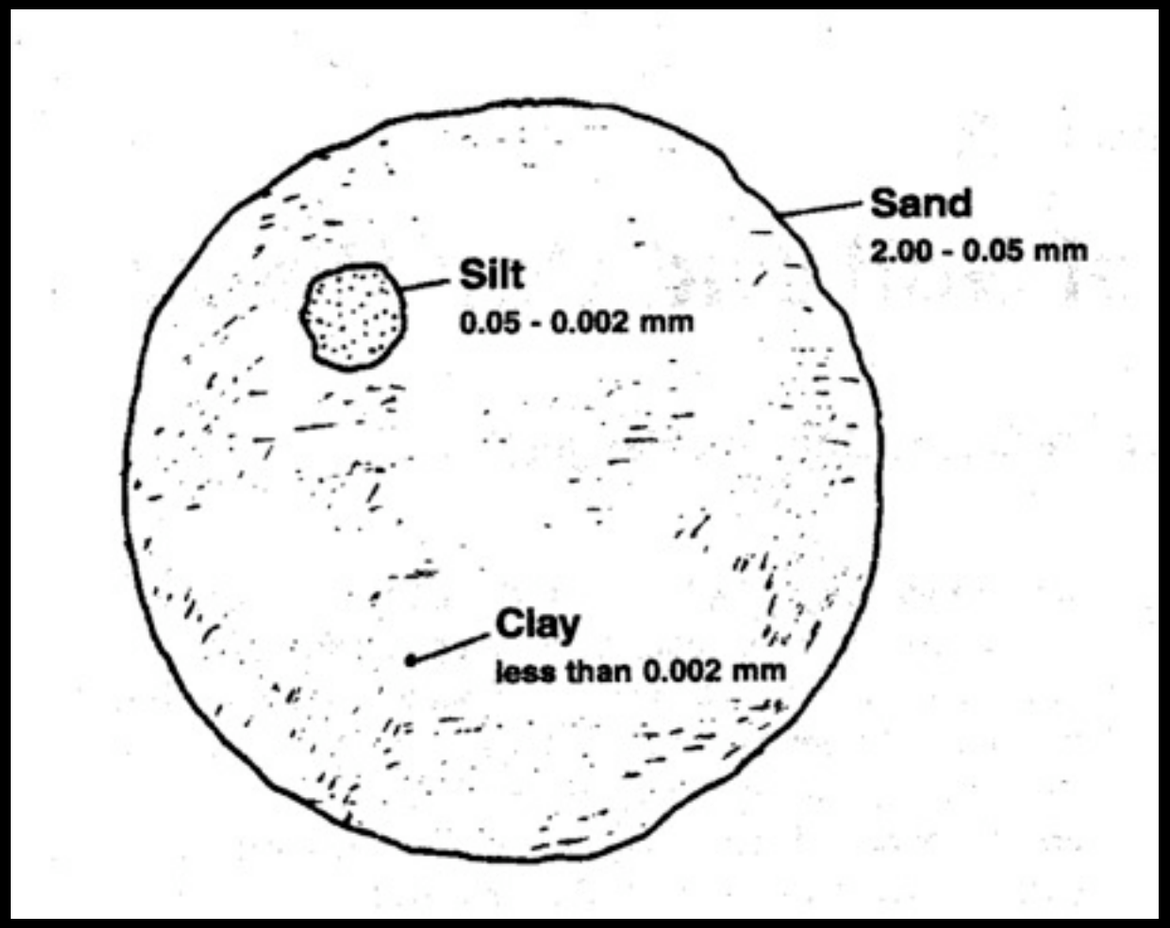

Bronx
Queens
Manhattan
Staten
Island
Brooklyn

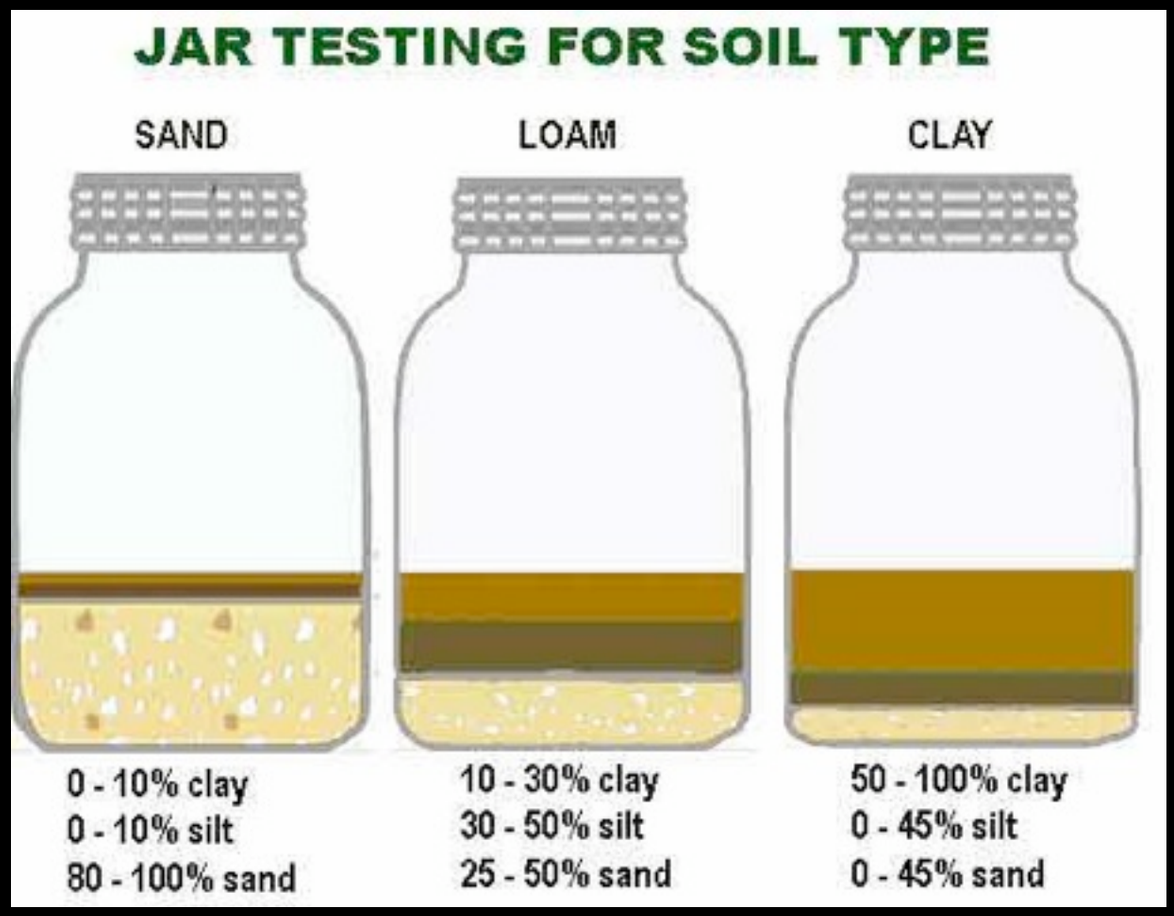
http://www.soils.wisc.edu/courses/SS325/introduction.htm

1.1) What is Soil?

The soil is at the interface between the atmosphere and lithosphere (the mantle of rocks making up the Earth's crust). It also has an interface with the hydrosphere, i.e. the sphere describing surface water, ground water and oceans. The soil sustains the growth of many plants and animals, and so forms part of the biosphere. A combination of physical, chemical and biotic forces acts on organic and weathered rock fragments to produce soils with a porous fabric that contain water and air (pedosphere). We consider soil as a natural body of mineral and organic material that is formed in response to many environmental factors and processes acting on and changing soil permanently.



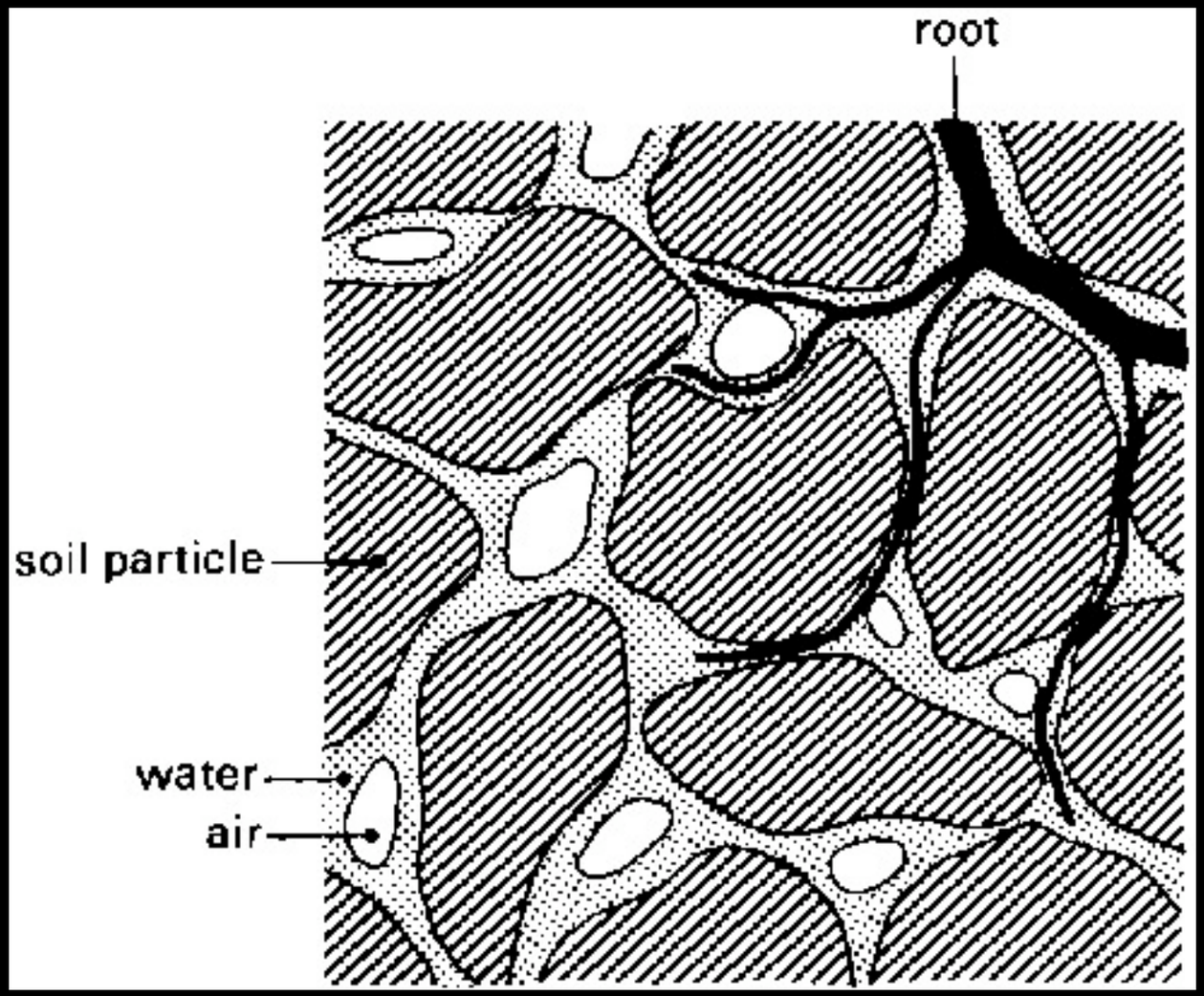

Sand
2.00 - 0.05 mm
Silt
0.05 - 0.002 mm
Clay
less than 0.002 mm


JAR TESTING FOR SOIL TYPE
SAND
LOAM
CLAY
0 - 10% clay
0 - 10% silt
80 - 100% sand
10 - 30% clay
30 - 50% silt
25 - 50% sand
50 - 100% clay
0 - 45% silt
0 - 45% sand

http://www.fao.org/docrep/R4082E/r4082e03.htm#2.1.3%20soil%20texture

When dry soil is crushed in the hand, it can be seen that it is composed of all kinds of particles of different sizes.

Most of these particles originate from the degradation of rocks; they are called mineral particles. Some originate from residues of plants or animals (rotting leaves, pieces of bone, etc.), these are called organic particles (or organic matter). The soil particles seem to touch each other, but in reality have spaces in between. These spaces are called pores. When the soil is "dry", the pores are mainly filled with air. After irrigation or rainfall, the pores are mainly filled with water. Living material is found in the soil. It can be live roots as well as beetles, worms, larvae etc. They help to aerate the soil and thus create favourable growing conditions for the plant roots (Fig. 26).



Coarse textured soil is gritty. Individual particles are loose and fall apart in the hand, even when moist.

Medium textured soil feels very soft (like flour) when dry. It can be easily be pressed when wet and then feels silky.

Fine textured soil sticks to the fingers when wet and can form a ball when pressed.

http://clic.cses.vt.edu/icomanth/

ICOMANTH Home Page

INTERNATIONAL COMMITTEE For ANTHROPOGENIC SOILS

Soil Types	Applications and References	Activities and Reports
Mission	Pictures	Circular Letters 1 to 7
Mine and Dredge Soils	On-line references	Circular Letter 7 Recommendations 2011 Slideshow
Urban Soils	CD-ROM Publications	Rationale For Letter 7 Proposed Changes
Farmed/Altered Soils	Descriptions and Data	
Wet Soils	Classification	References
Polluted Soils	Soil Survey	Glossary
Other Anthropogenic Soils	Interpretations	Contact us

CURRENT ACTIVITIES: Open this link to see the plans and activities. Revised 6/13/11.

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Last updated 4/11/12

ICOMANTH

INTERNATIONAL COMMITTEE ON ANTHROPOGENIC SOILS

URBAN SOILS: Persons interested in ICOMANTH may browse through these data and the list of additional references, and are invited to read and reply to the set of circular letters being distributed to members. Membership and a copy of Ver. 1.0 or 2.0 of the Anthropogenic Soils CD-ROM may also be requested. ICOMANTH is actively trying to compile additional data and pictures for Ver. 3.0 of the Anthropogenic Soils CD-ROM. Contributions may be made to the Soil Taxonomy Staff at USDA-NRCS.

USDA-NRCS Urban Soil Issues and Interpretations Program

15 - OSDs for Urban Soils in the United States (Includes NYC)
16 - New York City Soil Survey Program and Data
17 - Evaluation of Human-influenced Soils in Chester County, Pennsylvania, USA
18 - Soil Survey Report for the District of Columbia
19 - Contaminated Soils
22 - Soil Temperature and Anthropogenic Soils
27 - Value of Mulching Soils
32 - Soil Survey Report for South LaTourette Park, NYC

Interactive Web Version of the LaTourette Soil Survey
AS_Posters_Contents
AS_Slideshows_Contents
AS_Web_Pages_Contents

References

Last updated 6/18/11

http://www.nycswcd.net/files/RSS%20manuscript_06_08.pdf

Reconnaisance Soil Survey

Bigapple series
Parent Material: Sandy dredge deposits, greater than 40 inches deep
Landform: Anthropogenic fill areas near coastal waterways
Depth to Bedrock: Very deep
Drainage Class: Well drained
Permeability: Rapid
Soil Texture: Loamy sand or coarser in the surface; fine sand, sand, or coarse sand below
Coarse Fragments: 0 to 20 percent rock fragments (including seashells); less than 10 percent artifacts
Range in Soil pH: Extremely acid to slightly alkaline
Hydrologic Soil Group: A
Typical Soil Profile:

A 0 to 3 inches – dark grayish brown (10YR 4/2) fine sand; single grain; loose; 1 percent gravel; extremely acid.

E 3 to 8 inches – brown (10YR 5/3) fine sand; single grain; loose; 1 percent gravel; extremely acid.

Bw 8 to 20 inches – yellowish brown (10YR 5/4) stratified sand; weak medium subangular blocky structure; very friable; 1 percent gravel; extremely acid.

C1 20 to 28 inches – yellowish brown (10YR 6/4) and grayish brown (10YR 5/2) stratified sand; massive; very friable; 5 percent gravel; very strongly acid.

C2 28 to 60 inches – grayish brown (10YR 5/2) and gray (10YR 5/1) stratified sand; massive; very friable; 2 percent gravel; very strongly acid.

http://clic.cses.vt.edu/icomanth/16-NYC_Survey_Data.pdf

Soil Survey Site Identification #: 99NY081001 **Soil Series: Breeze**
Major Land Resource Area (MLRA): 149B
Quadrangle Name: Coney Island
Latitude: 40 degrees 33 minutes 40 seconds N
Longitude: 73 degrees 54 minutes 59 seconds W

Official Series Classification: Mixed, mesic Typic Udipsamments
Moisture Regime: Udic moisture regime
Landuse: Park land
Permeability: Rapid
Natural Drainage Class: Well drained
Parent material: Sandy demolished construction debris
Plant Association: Grass and herbaceous cover

AB 0 to 6 in.; brown (10YR 5/3) loamy sand, pale brown (10YR 6/3), dry; weak very fine granular structure; very friable; many very fine and fine plus common medium roots throughout; 5 percent construction debris gravel; neutral; clear wavy boundary.

Bw -- 6 to 14 in.; yellowish brown (10YR 5/4) gravelly sand; weak very fine subangular blocky structure; very friable; many very fine and fine roots throughout; 12 percent construction debris and 3 percent natural gravel-sized rock fragments; neutral; gradual wavy boundary.

C1B 14 to 26 in.; yellowish brown (10YR 5/4) gravelly sand; single grain; loose; few very fine roots throughout; 15 percent construction debris in gravel-sized fragments; neutral; gradual wavy boundary.

C2B 26 to 65 in.; yellowish brown (10YR 5/4) gravelly sand; single grain; loose; 15 percent construction debris in gravel-sized fragments and 5 percent gravel; neutral.

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C2B 26 to 65 in.; yellowish brown (10YR 5/4) gravelly sand; single grain; loose; 15 percent construction debris in gravel-sized fragments and 5 percent gravel; neutral.

http://soilhealth.cals.cornell.edu/

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College of Agriculture and Life Sciences

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Online resource:

Project Coordinator:

Bianca Moebius-Clune
Crop and Soil Sciences (Ithaca)
soilhealth@cornell.edu

Project Leaders:

George Abawi

Cornell Soil Health Testing for 2012

- Read more about our soil health testing services for 2012, and how to prepare and ship samples.
- View the Cornell Soil Health Assessment Training Manual.

Videos: Soil Health Seminar for SAI Platform

Bianca Moebius-Clune provided a seminar on soil health for the Sustainable Agriculture Initiative Platform's meeting in Florida.

Cornell Sprinkle Infiltrometer
Manual | Purchase info