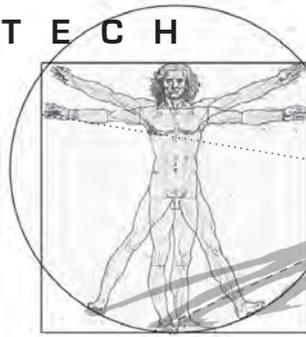


VIRGINIA TECH

COLLEGE OF ARCHITECTURE
AND URBAN STUDIES

School of Architecture + Design

Program of Landscape Architecture



FOUNDATION STUDIO

Instructor: Annalisa Miller anni@vt.edu

LAR 4705: 96485

fall 2010: mwf 1:30-5:30pm

SKETCHBOOK

You are required to keep a **sketchbook**/journal throughout the semester. Have it with you always. This sketchbook/journal will serve as a design journal in which field notes, thoughts and observations about your surrounding environment, designed and natural landscapes, built work (both good and bad), precedents, analytical sketches, **diagrams**, design inspirations, etc will be recorded. It will provide a chronological record of your design and thought process, as well as a place to refer back to for ideas. There will be an open review of the sketchbooks throughout the semester and a final review at the end.

REQUIREMENTS

Studio participation, lecture attendance, completion of assigned projects, project presentations, sketchbook, assigned field trips, and WAAC competitions are required. The course schedule or project requirements may change during the course of the semester. Students are responsible for any changes announced during the regularly scheduled class time or at the Monday weekly meeting.

ASSESSMENT

Individual projects will not be graded throughout the semester. Rather, final grades will be decided based on your growth and development throughout the semester, the process you engage in, the ability to think critically, to seek out creative exploration and the depth of your inquiry and presentation skills.

MATERIALS

A recommended materials list is attached.

BIBLIOGRAPHY

Readings with citations and bibliographies will be handed out as they pertain to the projects.

SYLLABUS

We will complete three modules throughout the semester. Each module builds upon the previous module, in a progression of scale, skills, understanding, inquiry, materials, and representation. The first module will explore the notion of **measurement and scale** and how the human body is intricately involved in this process, and has served as a standardized unit throughout history. The investigation will integrate one of the four elements, fire, air, water or earth and investigate its physical qualities, **poetics** and purpose and its interaction with the human body and the built environment. The design will require an **intervention** on the site, and discover how a permanent object can change due to a force acting upon it. The second module will introduce **topography**, how geological features influence the organization and layout of cities and contribute to the culture and identity of a place. Through an analysis and **section** of King Street the student will discover how the landscape serves as landmarks, the character and functions change and progress and the importance of civic space. The third module will explore the design process through the four steps of landing, finding, grounding and founding. The project will explore the notion of landscape as **palimpsest**, a collection of cultural, historical and ecological clues intrinsic to the site and from which the landscape architect finds inspiration.

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Poetics: is the beautiful, the intimate, the delightful, the creative, the unique, the simple, the intricate, the rhyme, the rhythm the reason of an object.

Section: is a cut through a part of a plan that shows, in the vertical scale, what the space is like. It tells the story about the spatial organization, the scale of the landscape elements to the human body and how the topography is used on the site. The landscape architect should design in section (and plan) and make critical decisions based on the human and vertical scale of the objects.

Palimpsest: is a metaphor used in landscape architecture to imply a series of layers. A palimpsest was a stone tablet engraved with text in ancient times. In order to re-use it, the surface was ground down so that it was a blank page. It was then used to be a compilation of the past engravings layered on top of one another, with the top one most evident. It is used in landscape architecture to describe the equivalent layering process through which complex landscapes are created. New layers being added in new layers, forming a composite that bears the imprint of many previous layers and additions.



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Sketchbook: is a portable collection of drawings, words, plans, sections, perspective, diagrams, inspirations and the free exploration and evolution of your ideas. It includes details about what you see and the aspects of design that most fascinate you and those that most challenge you. It will be a record of your thoughts in the now, the exact place you are this moment, within your development as a designer. It is a footprint for where you have been and clues to where you are going.

Natural/nature: is a common word but one you must ALWAYS know in which context it is used. Its meaning changes per profession, per culture and per time period.

Diagrams: are non-written notes that explain important spatial, behavioral and environmental characteristics about a place. They provide insight and understanding to the designer and serve as reminders of what phenomena occur on the site.

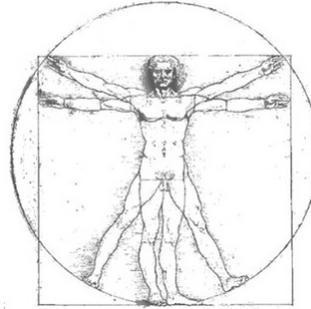
Intervention: is a conscious decision to change something about a place and make it better than it currently is. As landscape architects we read and write, rewrite or erase and change, compose and improve, highlight or downplay certain features on a site. We are trusted with amazing potential as we influence the ongoing history of a site. We are aware of the cultural, historical and ecological elements and the role they play within the entire system.

Topography: topo, "place", and graphia, "writing". NOT to be confused with typography and often it is simply referred to as "topo". It is a study of the earth's surface in varying contour intervals of one, two, five, ten, or one hundred feet. Sea level is always zero on a topography map and a high point is always the highest numbered contour in a particular area. The landscape architect shall always include topography on their plans and use it to inform and draw sections. Through the manipulation of the topography landscape architect's change, shape, and reconstruct their world. Existing topography is drawn with dashed lines. Proposed topography is drawn in solid lines. Topography can be found on USGS maps and in GIS.

MEASURE AND PROPORTION

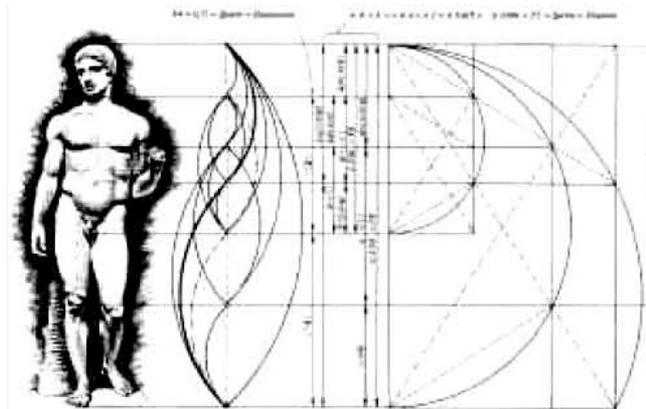
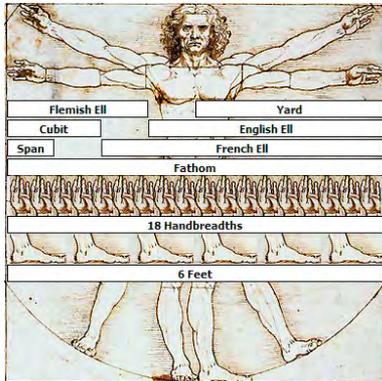
"Man is the measure of all things." Protagoras (sic)

The human desire to quantify and measure the world has existed since the beginning of civilization. Some of our earliest tools were used for measurement. The ancients created calendars based on the lunar cycles and the movement of the sun and stars. The pace of one man's stride was standardized into a meter, the clay brick fits the hand that lays it, and the width of a thumb that later became the inch are all examples of how the human body was used for measurement. The Spanish word for thumb is "pulgar" and the word for inch is "pulgada" and within the names of the various units exists a rich history. During the Italian Renaissance, Leon Battista Alberti wrote in his architectural treatise *On the Art of Building in Ten Books* how the *braccio*, the unit of measurement that was based on the length of the (mayor's) forearm, was used for construction. However each Italian city-state's *braccio* was a different length.¹ Over time units of measure have been standardized to facilitate in communication and the exchange of goods.



The human body was also the model for beautiful proportions. Within it proportions between the length of one body part to its whole was translated into artwork and buildings among other things. Vitruvius, the Roman Architect who wrote the first surviving architectural treatise *The Ten Books on Architecture* wrote, "Since nature has designed the human body so that its members are duly proportioned to the frame as a whole, it appears that the ancients had good reason for their rule, that in perfect buildings the different members must be in exact symmetrical relations to the whole general scheme."² Nature offers objects that demonstrate perfect proportions and man should imitate them in order to achieve beauty. Within music, architecture, geometry and art one can find proportions that when combined correctly capture the mind and arouse the soul.

Today our world is full of standardizations: the time, the currency, distances, and building materials, etc. Customization comes at an additional cost. Landscape architects use their own set of standards, and negotiate the conversion between the engineering scale of feet to the architectural scale of inches. When drawing and translating our ideas to a plan or section of an actual scale we most often represent them using the unit of feet, the engineering scale. When drawing details, the intricacies of a design, we often draw them in the unit of inches, the architectural scale, as they require a more magnified scale. It is through our drawings of plan, section, elevation, perspective and axonometric that we communicate our concept, design intent and construction methods.



¹ Alberti, L. B. (1988). *On the Art of Building in Ten Books*. In J. Rykwert (Ed.). Cambridge: The MIT Press.

² Vitruvius. (1960). *The Ten Books of Architecture*. In M. H. Morgan (Ed.). New York: Dover.

PURPOSE

The purpose of this activity is to discover through bodily measures the notion of proportion and to become aware of the spaces one inhabits. The practical task is to learn how one measures, documents and draws a site plan.

ACTIVITY

PART 1: collect data

One important measurement that you will discover today and use for the rest of your life is the length of your pace. We will walk off a distance of 100' and you will count the number of paces it takes you to walk the distance. You will then divide the distance by the number of paces and get the actual length of your pace. You will also measure the length of your outstretched hand from pinky to thumb and use that dimension for smaller details. Once determined, the next task is to measure the entire WAAC building(1001 Prince) up to the face of curb on Henry and Prince, and the brick wall on the backside of the building and the 1021 building. All distances should be measured to the precision of a quarter of a pace and documented according to the number of paces. It will most likely require you to revisit the site to verify the distances and check alignments.

PART 2: translate to a plan drawing

The measurements that you found based on your pace should be translated into a plan drawn with graphite pencil on trace. The size of your trace will be determined by how large your plan is. (DO not tape two pieces of trace together. Use a roll that will accommodate your entire plan.) The established scale for everyone is 1" = 4 paces. Your drawing will be unique to your pace and not look like your classmates'. The drawing should be legible, drawn with appropriate lineweights and hierarchy, and as close a representation of WAAC that you can achieve. Doors, windows, walls, grade changes, material change, north arrow and scale should be indicated on the drawing.

Hint: You will want to draw and work out the plan first, and then draw your final plan on a clean piece of trace. To reduce the amount of graphite smudging by the palm of your hand, draw from top to bottom and left to right (If you are righthanded!!). Use your Mayline to draw the horizontal lines and all the ones parallel to them and then use your triangle edge to draw the vertical lines.

PART 3: present

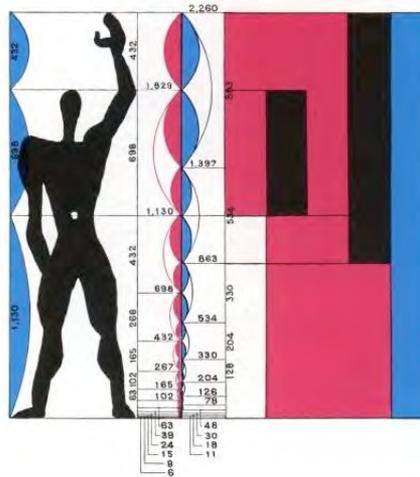
A pin-up of your plan will take place in studio time. Be prepared to discuss your plan, your method of collecting data and the translation process.

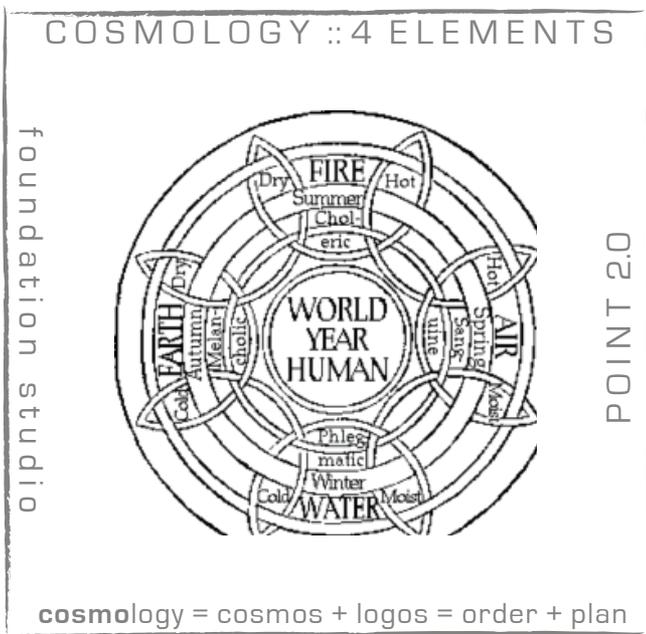
OBJECTIVES

- Document a site and its measurements
- Distinguish between engineering and architectural scales
- Draw a plan using correct lineweights and hierarchy
- Observe and recognize nice proportions

DUE DATES

- September 1, 2010: Assignment given
- September 3, 2010: 30 minute drafting lesson at the beginning of class in the upstairs classroom in 1021
- September 8, 2010: Pin-Up
- NO CLASSES Labor Day; WAAC observed holiday





Cosmology is a way to explain how one believes the world to be ordered. A few well-known cosmologies are the Ptolemaic model, where the universe rotates around the Earth, and the Copernican model, in which the Sun is the center of the universe and planets rotate around it. The Greek philosopher Empedocles established a cosmology based around the classical elements of fire, air, water and earth. Each element refers to a particular state of matter, such as a liquid, solid or gas.

Cultures around the world have similar cosmologies based on three, four, or five elements, and often the fifth element is of non-matter. Hippocrates created a four-element metaphysical cosmology matching each element with one of the four bodily fluids also known as the four humours. Aristotle's paired up each element with a temperament and other cosmologies have paired up one of the four elements to one of the four seasons or the four 'ages of man'.

In *Ten Books on Architecture*, Book One, Chapter Four Vitruvius wrote, "One form of mixture is proper to birds, another to fishes, and a far different form to land animals. Winged creatures have less earthy, less moisture, heat in moderation, air in large amount. Being made up, therefore, of the lighter elements, they can more readily soar away up into the air." He further provides explanations of fish and land animals and like the bird, each species has its particular composition and maintaining that balance is critical to its health and survival. Like Vitruvius, many other architectural treatises explore similar explanations, and through architecture and landscape architecture we can better understand the structure, order and relationships within our world.

POINT 1: collect and investigate

John Evelyn, a member of the Royal Society during the 1600s, wrote *Elysium Britannicum*, a landscape architectural treatise that discussed topics pertinent to the profession of landscape architecture. Similar to many other architectural treatises he began by introducing the four elements that informed his cosmological construction and their interaction with the landscape. The order in which he introduces them is deliberate and insightful into the forces that influence his way of thinking. You will be given one of the four elements, fire, air, water or earth and use John Evelyn's writings as a springboard into a deeper investigation and more intimate understanding of your element. Your investigation should include, but is not limited to, contemporary and classic literature, poems, music, artwork, mythology, personal experience, cross-cultural perspectives and anecdotal observations that contribute to a rich, well-informed and insightful perspective on the given element.

POINT 2: 3-d representation

Make four hand-held representations of your element. Each representation should provide a unique way in which you have come to know the element. You should provide text, poetic or technical, ancient or contemporary, borrowed or personal, that emphasizes your insight into each representation. All representations should be in beautiful proportion.

Additional requirements

You MUST have one model of cardboard, one of metal, one of rice-based materials, and one which uses materials inspired by your particular element. One MUST be solid.

POINT 3: present to class

A well-thought through display of your four representations and text will be presented to your classmates. Be prepared to discuss your investigation process, your findings and the way in which translated your findings into your physical representations.

Smith, Virginia. (2007). *Clean: a history of personal hygiene and purity*. New York: Oxford University Press. page 93

Smith, Virginia. (2007). *Clean: a history of personal hygiene and purity*. New York: Oxford University Press. page 93

Vitruvius. (1960). *The Ten Books of Architecture*. In M. H. Morgan (Ed.). New York: Dover. page 19.