Technology And The Landscape

An Introduction

+ We'll look at lots of examples through the class
+ Vary widely, from stone tools to satellites to VR

"The knife is an extension of your tooth."

– Amber Case, *Calm Technology*

+ In this way, we'll also be thinking about what constitutes a technology in the first place and how it impacts the world around us
+ Amber Case, in 2016, pointing out the obvious improvement of a biological design into a technological one

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+ We can think lots of other ways we've extended our natural bodies into technological ones, and about how these tools let us explore out landscape, whether it be through mapping or photography or more creative explorations
+ Here artist Rebecca Horn in 1972 from her "Sense-Data" series

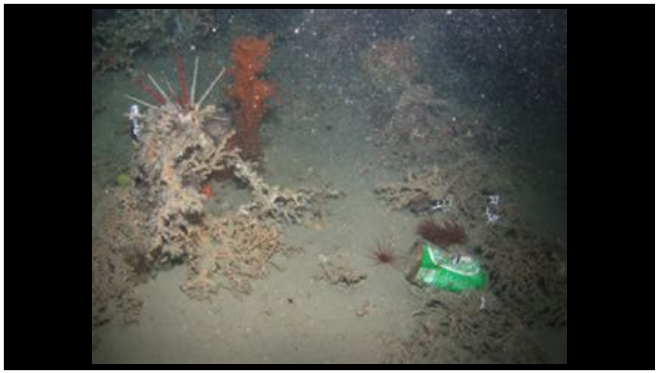
"During the mechanical ages we had extended our bodies in space. Today, after more than a century of electric technology, we have extended our central nervous system itself in a global embrace, abolishing both space and time as far as our planet is concerned."

– Marshall McLuhan, *Undestanding Media*

+ McLuhan, in 1966, prophesying an even bigger transformation of the landscape (an abolishment of it) through tech

+ But we will not just think about how technology lets us experience the landscape, but also about how tech changes and shapes our landscape
+ While we often think about examples like this (Chinese terraced rice paddies – we'll talk more about farming later this semester)
+ Simple things can change the landscape unexpectedly

+ Video from *Sustainable Man* about how simple actions can transform entire landscapes
+ (PLAY)
+ Your job this semester is to be thinking not just the impact on the land itself, but also cultural, political, and other wide-ranging impacts of technologies as they relate to the natural and built landscape



+ Sometimes these changes are for the better (farming reduces mortality rate, letting us create beautiful architecture) but we'll also think about its negative impacts on the landscape
+ This year (2016) Washington Post reported that there is no part of the Earth that hasn't been altered by humans
+ Also this year, scientists have found trash at the bottom of the deepest part of the ocean, the Marianna Trench (here a Spam can at 4,947 meters down) – 41% of the items were plastic

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Example 1

Printing Press and Spray Paint

+ So, let's look at two examples of how we'll be thinking about this idea of connections between technologies and the landscape this semester
+ In particular, let's look at examples that don't seem directly related to the landscape

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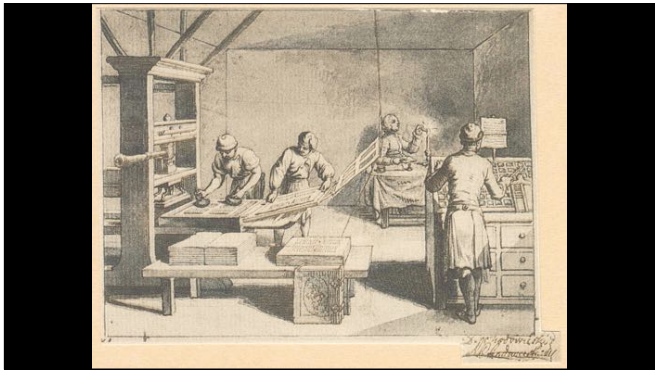
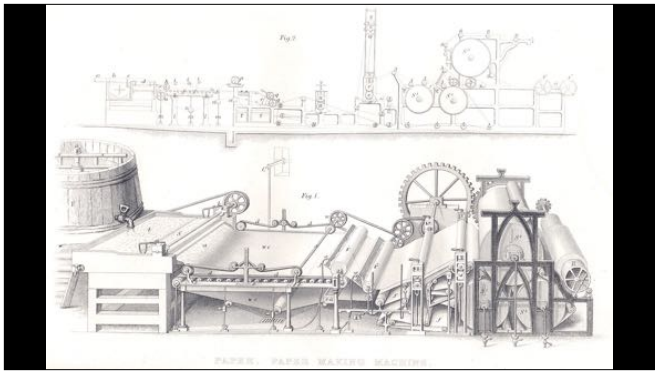


+ Moveable type printing press transformed publishing, giving us ability to create cheap books
+ These required a faster way of printing (which the press provided), but also cheap, mass-produced paper and inks afforded by industrial revolution



+ It required machines like this one, for mass-producing paper…

+ …which of course quickly echoes out into the forests (here a WA logging camp in 1915)

+ But returning to the city, cheap printing also results in printed propaganda, like posters

+ Also posters, which could be inexpensively printed

+ These could be hung all around the city in all kinds of places

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+ Hung using wheat-paste, a cheap and removable solution
+ Transforms surfaces in texts

+ Of course this uses flour (grown and processed and brought in from rural areas), adding another connection to the land

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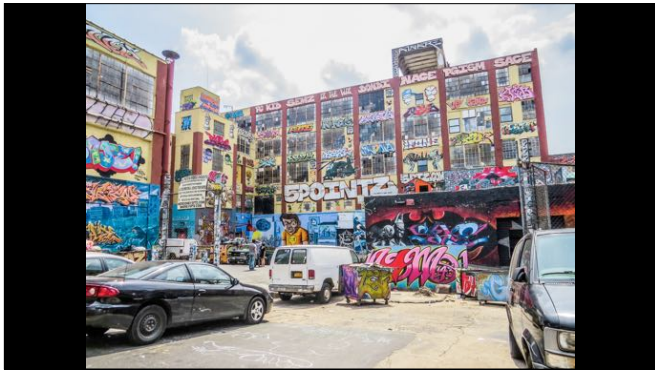
+ Spray paint was invented in 1949, and though not intended for it, became a technology allowing highly portable, clean, and inconspicuous marking of urban surfaces
+ Here “bubble writing” in NYC from the 1970s, the early days of graffiti in NYC



+ Here the iconic 5 Pointz building complex in LIC, a graffiti landmark (now sadly gone)
+ Tech like spray paint transforms the faces of our built environment
+ (We’ll talk more about graffiti later this semester…)

+ As graffiti in NYC evolved, subways became moving platforms for street art, inside and out
+ Trains allowed the art to move across huge geographic areas

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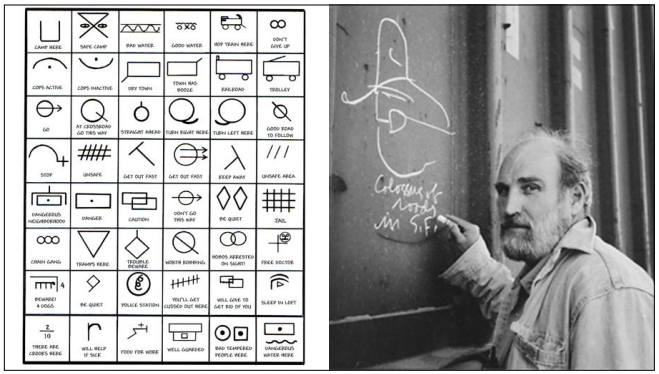
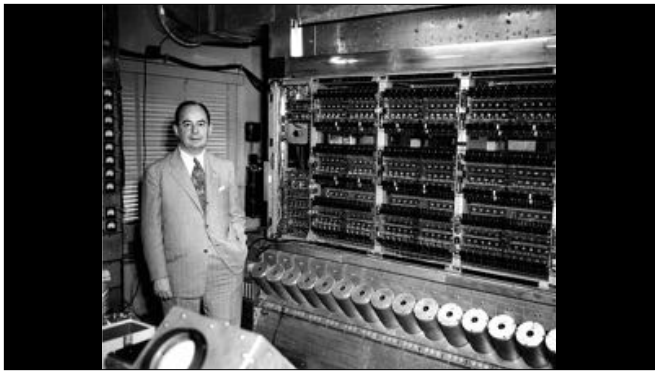


+ This can be tied back to earlier practices like hobo codes, written out as notices to other homeless men, and writing on trains, like Bozo Texino
+ Which of course connects to the tradition of hopping trains, another way of accessing and exploring the landscape via technology, which gets us off onto the kind of tangents we'll take all semester… :)

Example 2

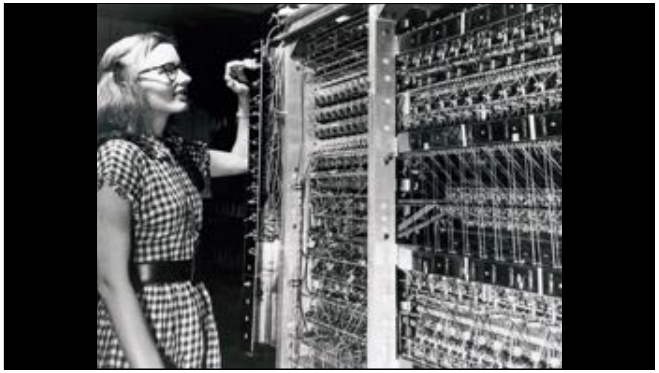
Institute for Advanced Study Computer

+ Our other example, the computer at IAS at Princeton University (next)



+ IAS was an academic unit attached to Princeton Univ, formed to support work in mathematics and science, and included the likes of Einstein, Turing, and Von Neumann (seen here)
+ Built in 1951, we wouldn't normally think of a computer as in any way related to the landscape
+ But there are three ways in which this is very much tied to the land…

+ First of course is that it occupied physical space,
+ IAS converted an old farm into space for the Institute and later expanded for the computer
+ "IAS turned a small plot of land in semi-rural Princeton into an electrical hive of activity."
+ (Here a peat farm nearby)



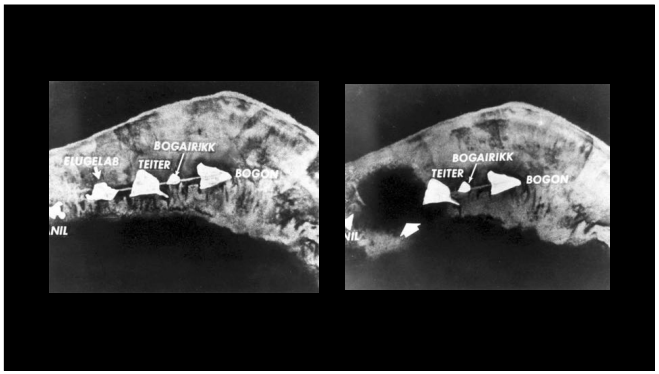
+ Second, the computer made of 1700 vacuum tubes, requiring and incredible amount of electricity…

- …that power most likely generated by coal, which requires mining and refining processes that completely transform seemingly unrelated, faraway landscapes
- And requires immense technologies that have developed over thousands of years
- Things like this above…

- …and this.

- But the final connection had an even bigger impact: the IAS computer was built specifically to run calculations for atomic bomb tests
- It once ran for 60 days nonstop for a single calculation (an incredible feat at the time, though imagine the power consumption it would have required)
- The result was the 10.4 megaton IVY MIKE test at Eniwetok Atoll in the Pacific Ocean

+ While earlier nuclear tests in the desert of NM turned sand into glass (called Trinitite)…



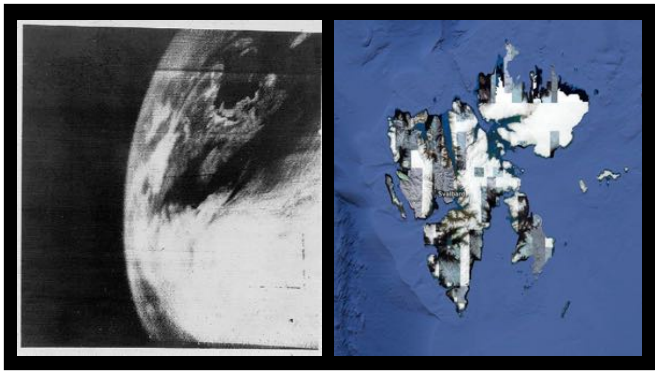
+ … This explosion had a different impact (here are before and after images of the island)
+ Fireball reached 3.25 miles wide, mushroom cloud rising to 57k feet in 90 seconds
+ Crater itself 6,240 feet in diameter and 164’ deep (about a 16-story building, or the same as the Howe Center)

+ Radioactive debris fell for miles, generating two new elements (einsteinium and fermium) discovered for the first time and not occurring naturally in nature
+ It’s estimated that, with reclamation efforts, the islands will be fit for humans in 2026

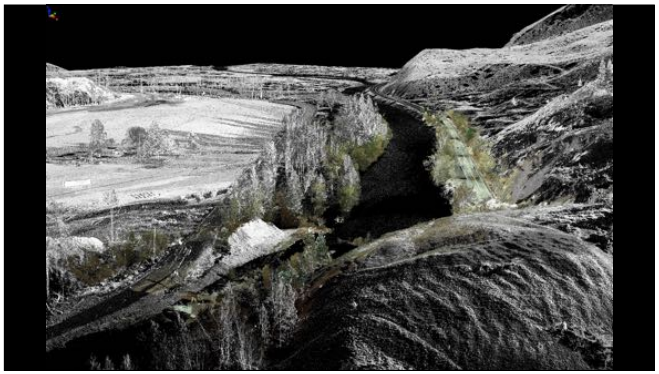
+ And so this is basically what we're going to do all semester…
+ Think about a wide range of technologies (including I hope those not so obviously tied to the land) and think about how they have shaped the landscape around us, intentionally and not
+ …and about technologies that capture the landscape that we find and have created
+ Things like perspective drawing…

+ Mapping techniques (low and high tech)

+ Camera obscura, a tool for drawing and seeing



+ Satellites (left first TV image of Earth via a weather satellite in 1960, right the ubiquitous Google Maps)



+ 3D scanning, and lots of others
+ We'll be doing this all from the perspective of creative investigation
+ Inhabiting these spaces and experimenting and critiquing and speculating and making

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"It is only through drawing that I actually look at things carefully."

– Milton Glaser, designer

+ Each week, we'll spend the first 10-20 minutes, wherever we are, making observational drawings
+ The goal is to really observe where we're at and think about the landscape around us
+ Unlike measurements or writing, drawing is a process of looking and recording
+ First we'll make sketchbooks, then come back here to look at some examples before going outside

+ Leonardo Da Vinci
+ Very much a scientist’s eye, looking and drawing as a way of understanding

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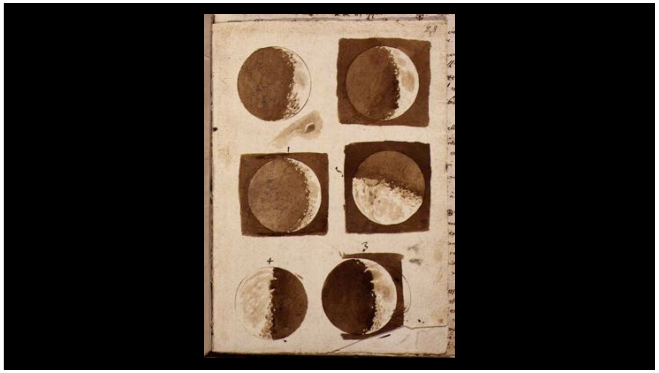
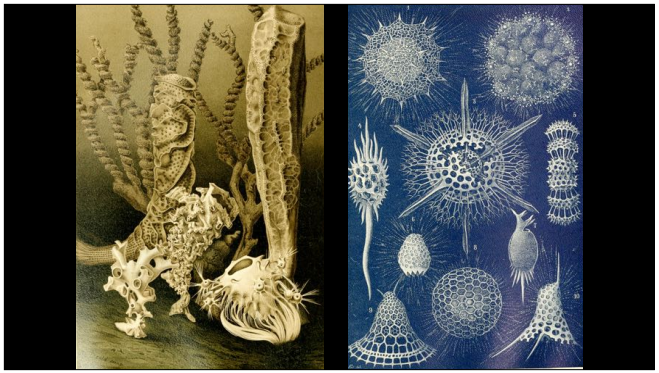


Galileo Gallilei
Phases of the Moon, 1616



+ Richard Lydekker

+ John Ruskin

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+ John James Audubon

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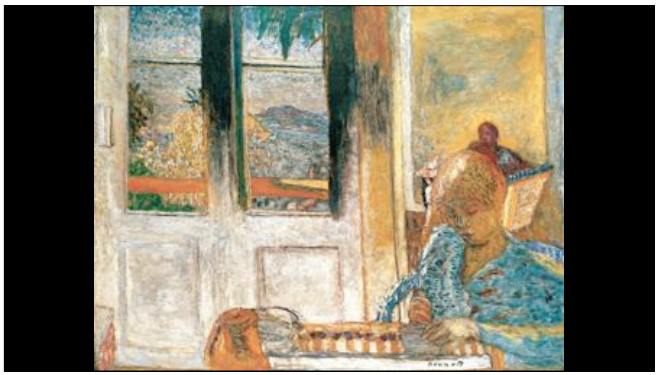

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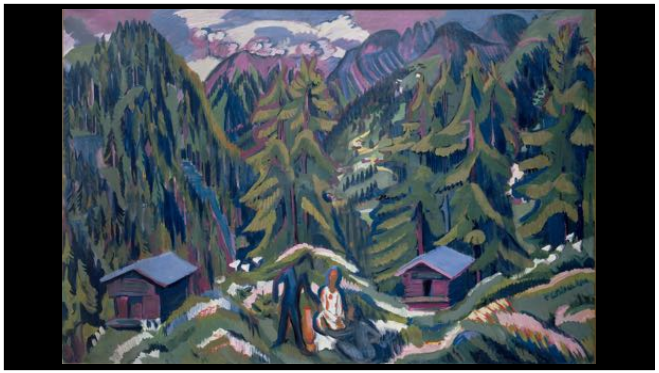

+ Ernst Ludwig Kirchner
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+ Alberto Giacometti
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+ Starts out very representational, later disintegrating into abstraction
+ Has nearly a satellite view as well

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+ Anselm Keifer
+ Epic scale, dealing with social history of landscapes

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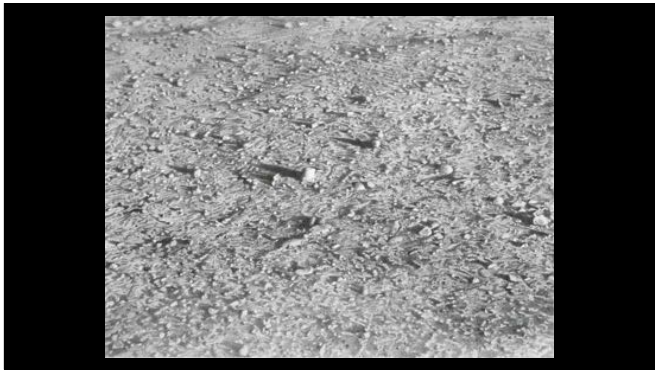

+ Vija Celmins

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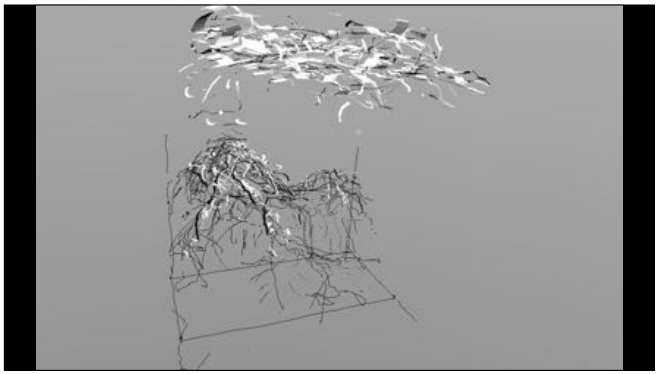
+ Lois Dodd

+ Lois Dodd

+ Claude Heath



+ Claude Heath

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+ Ok, a few things to think about

A few guidelines and rules:

+ Not about "good" drawings in a technical sense, but close looking
+ Everything can be your subject with one exception: no skylines!
+ Only other rule: no phones, please!
+ Multiple drawings in one session ok, but take enough time to really look – this process is about slowing yourself down
+ Be bold, try things out that might not work!