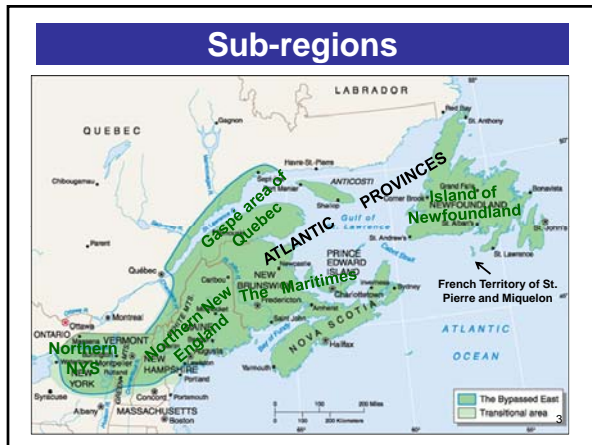
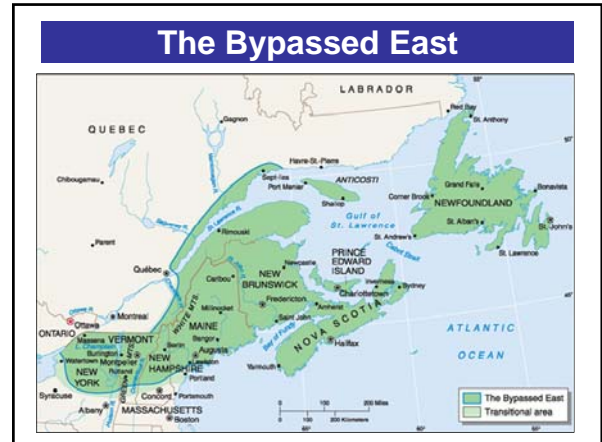


Regional Landscapes of the United States and Canada

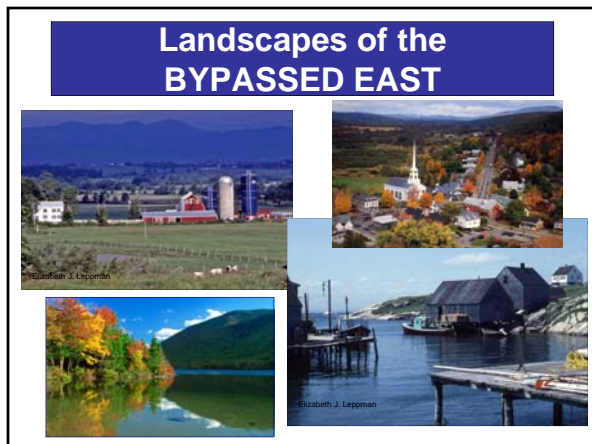
The Bypassed East

Prof. Anthony Grande

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- Overview**
- ❖ Harsh climate, rugged coastline and mountainous environment.
 - Low population (headcount / density); no major cities.
 - Major marine gateway to North America via the St. Lawrence R. but far from major pop centers.
 - Long history of European contact: Vikings in Newfoundland in late 900s; British and French in the late 1400s.
 - Historic fishing and lumber industries.
 - Economy in decline.
 - "Metes and Bounds" survey system.



Why “Bypassed”?

1. Its in a “**transportation shadow.**” An area of limited development located near an area of much greater accessibility.
In Canada, ships sail through it NOT to it!
2. **Climate** and **topography** not inviting for farming.
3. **Isolated** when settlement moved inland and westward (even though the area was settled early in history).
4. **Difficult interaction** with the rest of N. America:
There is better access to hinterland from harbors in Megalopolis (Boston to Baltimore).
5. **No urban pull factor.** Few large urban areas.
 - Canada’s main port is at **Montreal**, well inland of this area.
 - Limited industry. Tourism now on the rise.

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Regional Terminology

The **Maritime Provinces** or **Canadian Maritimes:**

- Three lightly populated Canadian provinces (New Brunswick, Nova Scotia and Prince Edward Island) that generally lie east of Quebec Prov. and border on the Atlantic Ocean and/or Gulf of St. Lawrence.
- Their combined total population is 1.8 million. (Manhattan’s population is 1.6 million).
- This area would be part of colonial Lower Canada.

Atlantic Provinces:

- The Maritime Provinces plus the Province of Newfoundland-and-Labrador.

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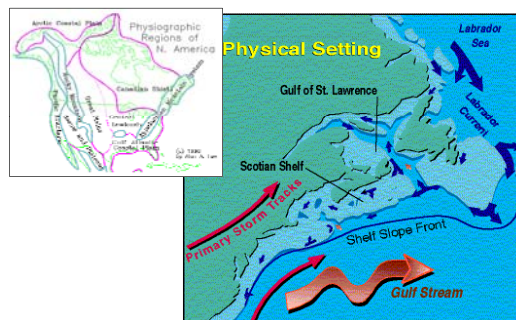
Northeast U.S. Dichotomy

Northern New England vs. Southern New England
Adirondack North Country vs. Upstate New York

- Terms “New England” and “Upstate New York” form unified, vernacular regions in people’s mental map.
- ❖ **Northern New England/The Adirondacks have more similarities with Canada’s Atlantic Provinces than with the rest of their own areas.**
 - Similar physical geography.
 - Similar settlement history.
 - Lack of effective dividing U.S. - Canada boundary allows for blending.

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Physical Setting of the Bypassed East



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Climate

Humid Continental Cool Summer Climate

- **Air Mass Conflict Zone:**
 - Generally cool and wet year round.
 - Area where polar, continental, maritime air masses meet.
 - Maritime impact minimized.
- **Labrador Current**
 - Cold, southward flowing current that hugs the coast.
 - Moderates (chills) coastal temperatures vs. inland locations.
 - Creates frequent cloud banks and fog along the coast where it interacts with warm Gulf Stream or warm air from the mainland.
- **Precipitation**
 - Substantial and evenly distributed throughout the year.
 - Snow is common (100 in annually; 3–5 months snow covered ground).

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Physiography

- **Appalachian Highlands**
 - **Green Mountains**, VT: c.4,600 ft., glaciated
 - **White Mountains**, NH and ME: c.6,500 ft, highest summits not glaciated
 - **Appalachian Highlands of the Atlantic Provinces:** c.2,200 ft., rounded peaks
- **Adirondack Mts., NY:** c.5000 ft., carved by both continental and mountain glaciers
 - Geologically part of Canadian Shield, not the Appalachians. (The Thousand Islands are the link between them.)
 - Its an eroded dome structure that is still growing.

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Adirondack Uplift

The **Adirondack Mts.** are **growing** because of doming over a hot spot.

The **Appalachian Highlands** are getting **shorter** because **gradational forces** are the main geologic activity.

ADIRONDACK UPLIFT

A. Adirondack area before doming began. Sedimentary rock layers. Folded, contorted, metamorphosed lower crustal rocks.

B. Adirondack area, approximately 10-20 million years ago. Adirondack doming ensues. Early radial drainage cuts to remove the sedimentary layers.

C. The present breached dome, exposing the old lower crustal rocks. Eroded, slightly tilted sedimentary rocks.

Physiography

The lowlands of the region support settlement.

- **Connecticut River valley** (between VT and NH)
- **Aroostook Valley** (northern Maine)
- **Lake Champlain Lowland** (between NY and VT): northward extension of southern Appalachian Ridge and Valley system
- **Atlantic Provinces:** the neck of land between the Bay of Fundy and Prince Edward Island
- **Coastal Lowlands:** bordering the Atlantic and Gulf shorelines.

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Physiography

The coastal zone of this region is extremely rugged and a barrier to use.

- Mainly a rocky indented shoreline.
- Fjords with steep slopes are present.
- Many harbors but few beaches.
- The range between high and low tides is large.
- Tidal bores (true tidal waves) are visible 2x daily.
- Fog poses a navigational danger along a rocky shoreline.

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Coastal Areas

Nova Scotia

Maine

Newfoundland fjord

Lighthouses dot the coast.

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Coastal Areas

Gros Morne NP, Newfoundland

Gaspé Peninsula, Quebec

St. John's Harbor, Newfoundland

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Coastal Daily Tidal Range

High tide

Low tide

The Bay of Fundy has the world's greatest tidal range = 50+ ft difference.

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Bay of Fundy Tide Videos

TIDAL RANGE

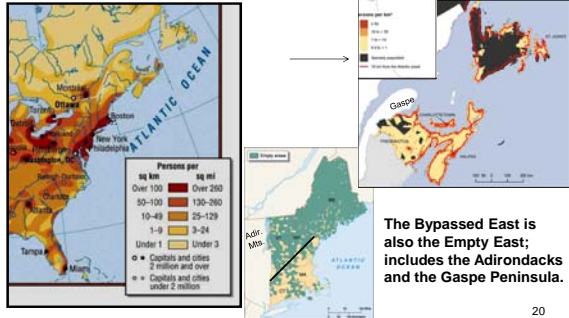
- http://www.youtube.com/watch?v=YiHP8EG_Wq4

TIDAL BORE

- <http://www.youtube.com/watch?v=IRsFSZTIEWk&feature=related>

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Low Population Density



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Population Today

- **50% urban, 50% rural**
- **Relatively low per capita incomes** (higher incomes related to *urban* occupations); poorest and slowest growing economic region of Canada
- **Primary sector occupations dominant.**
 - Fishing, farming, mining and lumbering are low-paying
 - Manufacturing hindered by small local market
 - Transportation and regional access is poor
 - Development projects hope to stimulate area

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Exploration and Settlement


- **Vikings were first to arrive.**
- Evidence of settlement by Norsemen (900-1000 AD) has been found in Newfoundland.
- **“Age of Discovery” explorations started in the late 1400s.**
 - Cabot (1497)
 - Verrazano (1524)
 - Cartier (1534)
 - Champlain (1603)



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L’Anse Aux Meadows NHP

Recreates the area of a Viking settlement in Newfoundland.



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Early Settlers and Activities

- Earliest European settlements (early 1600s).
- **French and English marked property lines differently** (French long lot vs. English metes and bounds).
- **Colonial economy was based on fishing and lumbering.**
- **Major export commodities:**
 - **Fish**, esp. cod and haddock
 - **Trees**
 - Trees needed for the masts of naval ships
 - New England’s white pine was prized
 - 190 feet tall, clear wood, light strong wood
 - Centered in Maine

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Metes and Bounds Survey System

A system of land surveying brought by the English to N.Am. during colonial times.

A **mete** is visual feature in the landscape (like a tree, large rock, or river)

A **bound** is a straight survey line that connects metes.

Combinations of "metes and bounds" are then used to define and enclose a property.

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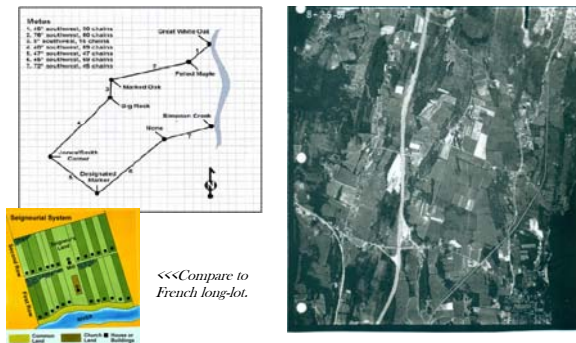
Metes and Bounds Survey System

The result is a landscape composed of parcels that vary in shape and size, and pose potential problems.

- Written descriptions may be open to multiple interpretations.
- Change in the physical landscape.
- The property may be inaccessible (not tied to roads or rivers).
- Fraudulent change in property lines.

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Landscape pattern resulting from the Metes and Bounds Survey System



Agriculture

- **Early agriculture**
 - Was mainly subsistence
 - Declined with the opening of western land and the rise of industrial employment.
- **Present trends**
 - Less than 10% of New England is farmed, compared to about 50% c. 100 years ago
 - **Specialize in single crop/activity** production as potatoes, apples, dairying

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Major U.S. Agricultural Areas

St. John-Aroostook Valley

- Potatoes with large-scale mechanization
- But:
 - Competition with Idaho and Oregon
 - Changing American diet

Lake Champlain Lowland

- Dairying
- Apples



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Major Canadian Agricultural Areas

Prince Edward Island

- Fairly diverse area
- Seed potatoes major crop


Annapolis River Valley

- Traditional apple area
- Competition from places closer to market




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Agricultural Activities




Vermont dairy farm



New Brunswick apple orchard



Maine potato farm




Farming on Prince Edward Island

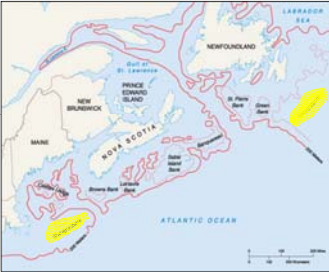
Fishing

- ❖ **Fishing has always been economically important to this region.**
- Canada is a world leader in fish exports, most coming from its Atlantic Provinces.
- New England has a long fishing/fish-eating tradition.
- ❖ **There are 2 principal fishing areas:**
 - Georges Bank
 - Grand Banks

Fishing Grounds




Shallow water and ocean currents of different temperature provides habitats for both cold water and warm water species.



Fishing Grounds

- **Extensive continental shelf extending from Newfoundland to Cape Cod.**
- **Juxtaposition of 2 very different marine ecosystems and associated mixing of ocean currents.**



One of the world's most productive fisheries, now threatened by over-fishing and the possibility of offshore oil drilling.

Fishing Landscape






Over-fishing


- **Fish provide a source of food and protein.**
- **Over-fishing** is the practice of catching fish at a rate that exceeds fish reproduction.
 - The fish population decreases in number and size.
- **Modern fishing fleets have the technological means to threaten the ocean's fish supply with extinction.**

(If oceans outside of national boundaries are an unregulated "commons," then nobody can regulate catch limits and fish populations will decrease drastically.)

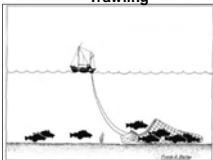
Modern Commercial Fishing

Long-line Fishing





Trawling




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Forestry

The forests of New England, the Adirondacks and the Atlantic Provinces were important to a wood-starved Europe in colonial times.



The trees insured the repair of wooden sailing ships and were both the major source of building construction supplies on land and for fuel.



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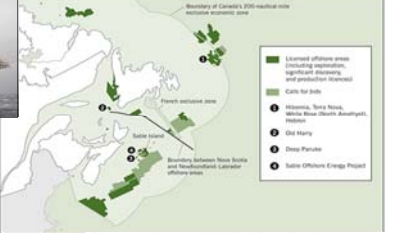
Mining

- **Iron ore:**
 - Adirondacks
 - Labrador
- **Coal in Nova Scotia**
- **Building stone:**
 - Granite (Vermont, Maine)
 - Marble (Vermont)
- **Petroleum and natural gas:**
 - Hibernia field off Newfoundland

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Oil and Gas Drilling on the Grand Banks

Boundary of Canada's 200 nautical mile exclusive economic zone

Boundary between Nova Scotia and Newfoundland Labrador offshore zone

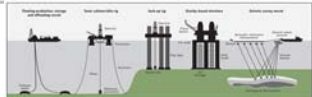
Hibernia offshore zone

Sable Island

Newfoundland zone

Boundary of Canada's 200 nautical mile exclusive economic zone

- Licensed offshore areas (including exploration, significant discovery, and production licenses)
- Calls for bids
- Hibernia, Sable Island, White Rose, Clark Fork, Amethyst, Miramichi
- Gull Harpy
- Deep Panuke
- Sable Offshore Energy Project



http://www.oag-bva.gc.ca/Internet/English/parl_cesd_201212_01_e-37710.html

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Future Prospects

- **Northern New England**
 - Expansion of Megalopolis northward
 - New manufacturing facilities
 - Tourism:
 - Four-season attractions
 - Second-home owners
 - Retirees
- **Eastern Canada:**
 - More distant from major markets for tourism
 - Effects of possible Quebec secession
 - Canadian Department of Regional Economic Expansion seeks to invigorate the area.

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