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The Past in the Present: The American Lawn

Few things better embody the ethos of the American suburb than a lawn. Unlike in Europe, where walls often enclose the land around a house, American yards connect one house to its neighbors. It's not enough for one homeowner to keep up his lawn; the project requires that everyone cooperate to create the expanse of green turf grasses that surround and link the houses on a suburban block. It's a community project and to not participate is to shun the values of the community.

Lawns are a relatively new feature of the domestic landscape. The concept of the lawn derives from the way the grounds were kept at the homes of European aristocrats. So the idea itself is an import from Europe.

So too are the grasses involved in making a lawn. Almost any lawn grass you can think of, from fescue to rye to Kentucky bluegrass, comes from Eurasia. Bermuda grass, which is a popular turf grass in the American South, comes originally from West Africa. Even the weeds like dandelions and crab grass that people try to keep out of their lawns come from Eurasia. Clover, which also grows in lawns (and is not a weed—red clover is the state flower of Vermont), is also a Eurasian transplant.

Few things seem more American than a house surrounded by a lawn, but every bit of a lawn is evidence of the Columbian Exchange. What of American grasses? American grasses are typically bunch grasses that grow in clumps rather than spread out smoothly like turf grasses. Not only do they not work well for lawns, but they also struggle to compete with Eurasian grasses when grazed heavily by animals or walked on a lot. As a result American pastures, like American lawns, are virtually devoid of native plants. The one place native grasses do show up in the modern garden is as ornamental grasses.



3.13 Bunch grasses.

Before the arrival of Eurasian and African grasses in the Americas, bunch grasses like these were the dominant type of grass in the Americas. Grazing by Eurasian livestock and the introduction of new grass types led to the near-total replacement of these grasses by invasive Old World grasses.

Questions for Discussion

1. Why would Europeans have introduced their own grasses to the Americas? Why were these grasses so important to them?
2. Why might lawn grasses have a competitive advantage over bunch grasses even in the absence of large grazing animals like cows?

Ideas in Motion: Piri Reis and the New World

The Ottomans were intensely interested in the Indian Ocean World and devoted a lot of effort to documenting its lands and sea-lanes. Piri Reis (d. 1553) was an Ottoman geographer and cartographer. His major work was a book called the *Kitab i-Bahriye* (*Book of the Seas*). It was based on information he had gathered from Arab, European, and Indian geographical sources, and it included maps of Asia and Europe. His work probably played a role in Emperor Suleiman's efforts to expand Ottoman influence into Asia and the Indian Ocean world.

In the West, however, Reis is better known for a map he made in 1513. This map would have been of little interest to ambitious emperors, but it tells us something important about the exchange of knowledge in the period. The surviving fragment is a map of the Atlantic Ocean. Made just over two decades after Columbus's first voyage, the map clearly shows parts of the North American coast, the Caribbean Islands, and a detailed depiction of part of the coast of South America.

In itself, the map is interesting in that it shows that Ottoman scholars like Piri Reis were aware of the geographical discoveries that were happening in the Atlantic and were as interested in the discovery of the New World as anyone else. It's also interesting to scholars of cartography that Piri Reis's map is the first to show the correct orientation of South America relative to the African coast.



5.16 Piri Reis's map from 1513.
Piri Reis was an Ottoman admiral and geographer. This map was the first depiction of the New World in the Islamic world.

But what was most exciting about the map's discovery in 1929 was that it appears to have used a now-lost map made by Christopher Columbus as its source. The Columbus map has still not been found, but it's interesting that an Ottoman geographer might have somehow had access to it early in the sixteenth century.

Questions for Discussion

1. How might an Ottoman admiral have gotten his hands on information that came from a map associated with Christopher Columbus?
2. The Ottomans had strategic interests in the Mediterranean Sea and the Indian Ocean, but not the Atlantic. What might have motivated Piri Reis to include this region in his atlas?

Big Boxes of Stuff in Motion

In the last few decades, many more things have started moving around way more quickly and way more cheaply than ever before. The reason for this transformation in transport seems deceptively simple: it's a box. But it's not just any box. It's a shipping container.

One of the big problems in the history of moving stuff around has been that lots of things fall into at least one of several categories, including heavy, bulky, awkwardly shaped, and fragile. For centuries, transporting items over any distance at all meant significant investments in muscle power just to get things on and off horses, carts, or boats. Ports, for example, employed hundreds or even thousands of stevedores—workers who loaded and unloaded cargo ships. Even with the advent of steamships and trains in the nineteenth century, moving stuff around was still relatively expensive because of the time and money spent getting it from one mode of transport to the next. The mix of boxes, crates, pallets, spools, kegs, and bags of things loaded onto ships, trains, and trucks was generally called "bulk cargo."

Beginning in 1956, the system of cargo transport underwent a quiet yet globe-changing revolution. The *Ideal X* was the first "container ship"—a ship designed to carry a number of big, stackable, steel boxes of regular dimensions. Not only could these boxes be carried by a container ship, but they could also be easily loaded by crane onto railroad flatcars or tractor-trailer trucks. Goods could now cross oceans and continents without having to be unpacked and reloaded. By the 1980s, almost all long-distance transport involved shipping containers.

The results were astounding. The cost of moving goods plummeted and ceased to be a real factor in the price of an item. Thus wine (a historically heavy and fragile item to transport) from Australia doesn't cost any more *in* California than wine *from* California. Container ships have grown larger and larger, in order to achieve ever greater economies of scale. In July of 2013, the Maersk shipping line took delivery of the first "Triple-E" ultra-large container vessel. The ship (the first of twenty of its design) is an astounding 400 meters long (just under a quarter mile); it can carry over 18,000 containers. It costs a mere $190 million a ship—far less than many luxury yachts or even a small naval vessel. And when it comes to environmental efficiency, nothing can touch the Triple-E line of ships. A diesel truck will put out about forty-six grams of carbon dioxide in the process of transporting a ton of goods one kilometer. A Triple-E (also diesel powered) will transport the same goods the same distance and release only three grams of carbon dioxide. Mind you, these are BIG ships, so they actually put out a lot of carbon dioxide, but the relative level of pollution is still low compared to other modes of transport.

Questions for Discussion

1. What among your belongings and diet are likely to have come to you via a container?
2. What might be some of the upsides of cheap, long-distance transportation of goods?
3. What might be some of the downsides?