

THE GREAT BIOLOGICAL EXCHANGE

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HIS 108

Beginnings

- ▣ European contacts with the New World began a diffusion of cultures unlike any known in the world
- ▣ Beyond culture, it was a diffusion of distinctive biological systems
- ▣ Both Europeans and Natives saw plants and animals radically different from anything they had seen

What Europeans Saw

- ▣ Iguana
- ▣ Flying squirrels
- ▣ Fish with whiskers like cats
- ▣ Rattlesnakes
- ▣ Bison
- ▣ Anacondas
- ▣ Vampire bats
- ▣ Turkeys
- ▣ Guinea Pigs
- ▣ Llamas

What Natives Saw

- ▣ Horses
- ▣ Cattle
- ▣ Pigs — overran the Caribbean with 50 years of introduction
- ▣ Sheep
- ▣ Goats

Exchange of Plant Life

- ▣ Age of Discovery introduces three new foods to the Old World — maize, potatoes (sweet and white), and beans (snap, kidney, lima, etc.)
- ▣ Other New World foods included peanuts, squash, peppers, tomatoes, pumpkins, chocolates, pineapples, sassafras and chicle among others
- ▣ Europeans introduced rice, wheat, barley, oats, wine grapes, melons, coffee, olives, “Kentucky” bluegrass, daisies and dandelions

Interesting Facts

- ▣ Food plants were more complimentary than competitive
- ▣ Maize could grow in any climate
- ▣ End of the 1500s maize and sweet potatoes were staple crops in China
- ▣ Green revolution brought on a worldwide population explosion
- ▣ Plants domesticated by North Americans now make up one-third of the world's food plants

Changes by Europeans

- ▣ Europeans adopted many Native American devices: canoes, snowshoes, mocassins, hammocks ponchos, dogsleds
- ▣ Rubber ball and the game of lacrosse had Indian origins
- ▣ New words entered the English vocabulary: wigwam, teepee, hickory, warpath, pecan, medicine man, paleface

New World Contributions

- ▣ Tobacco
- ▣ Coca (cocaine and novocaine)
- ▣ Curare (muscle relaxant)
- ▣ Cinchona bark (quinine)
- ▣ Enema tube

Other Issues

- ▣ Europeans exposed New World inhabitants to diseases that they could not handle:
- ▣ Measles
- ▣ Smallpox
- ▣ Typhus
- ▣ In central Mexico alone, diseases killed over 8 million people (about 1/3rd of the population) within a decade of Spanish arrival
- ▣ In Texas, one Spaniard noted that “half of the natives died from a disease of the bowels and blamed us.”