

## 'The Great Exchange' Course Detail

When Columbus stumbled upon a 'New World' in 1492, a widespread transfer of plants, animals, human populations, genes, and microbes ensued between the Americas and the Old World. This 'Great Exchange' would effectively re-knit biologically the seams of the ancient supercontinent of Pangea when all the earth's land mass was one. And it would transform the world forever.



Join Dr. John Freedman for a colorful mix of history, cultural anthropology, and biology as we look at this seminal event in environmental and world history. One of the most interesting aspects of the exchange was the translocation and evolution of foods that traveled far from their place of origin, undergoing transformation in a new environment and in turn affecting that new environment. In this 3-class course we will explore the fascinating - and often surprising - origins and odysseys of many of our favorite foods, botanicals, animals, and not-so-favorite microbes.

We will begin with a look at the genesis of 'the Columbian moment' and the subsequent history of important New World crops such as tomatoes (what was Italian food like before 1492?), potatoes (a true world-changer when they reached Europe), pineapples, peppers, peanuts (which made a curious round-trip journey), the rubber plant (stolen from the Amazon rainforest by Henry Wickham, the world's first bio-pirate), the beloved cacao bean which would become the chocolate we know and love, and much more.

We will also look at important botanicals, both floral (the story of bougainvillea is especially interesting) and medicinal (the conquest of Africa and India were only made possible by quinine, and the advent of modern surgery depended on curare – both from South American jungles).

We'll move on to pivot with a look at the other direction of this two-way exchange, the flow from Old World to New. The odyssey of the ever-popular coffee bean, dramatic tales of the spices of Asia (did nutmeg really save New York?), and the bittersweet story of sugar's transplantation to the New World will be the focus of our forays.

We will continue our exploration of the origins and odysseys of world-changing biological migrations of the Great Exchange, from livestock to microbes and more. Come and enjoy all these fascinating journeys and 'backstories' of so

much of what we take for granted in the present day.

### Instructor Biography

Dr. John Freedman is a Global Studies Scholar/Lecturer and passionate world traveler who has explored over 160 countries on seven continents. He is an experienced Expedition Leader and Guest Lecturer for numerous educational travel programs worldwide including Smithsonian Journeys, National Geographic Expeditions, and Yale Alumni Travel, as well as Silversea, Regent, Oceania and Viking cruise lines.

Dr. Freedman's presentations are interdisciplinary ('lectures for the intellectual omnivore') and combine serious scholarship with his own rich photographic content and a lively presentation style. A graduate of Brown University and Yale Medical School, John retired from clinical medicine in 2014 after 30 years of practice to pursue his passion for travel, global studies, and teaching full-time. When not exploring faraway lands, he resides in Santa Rosa, California, with his wife, Tina, an enophile and wine educator.