

Space Food: Nutritional Knowledge in Technological Environments of late High-Modernity. Space Food: Ernährungswissen in technisierten Umwelten der späten Hochmoderne.

Alwin Cubasch, MA

Doctoral Dissertation in History

Institute of History & European Ethnology, University of Innsbruck

Advisor: Prof. Dr. Elisabeth Dietrich-Daum

When the age of space exploration began in the 1950s, food played an essential role during ever-longer missions in space. NASA's spacecraft became a laboratory for the production, use and storage of foods in technological environments that were then to be applied in the context of an increasingly technology-driven lifestyle on earth. This project aims at exploring the impact of aerospace technology – the cutting-edge technology of high-modernity – on Western culinary practices and nutrition in the 20th century. The point of venture is the assumption, that complex feedback processes take place between new food technologies, food sciences and culinary systems, which equally transform both culinary systems and food technologies. An analysis of the history of science, culture and technology of nutritional practices in aeronautics will be carried out to confirm this thesis. Focusing on the period between the 1950s and 1970s, the project examines NASA's space programs, the research of associated institutions and companies, as well as the contemporary reception of space food. It aims to connect food and drink studies with the environmental history of technological environments and the history of medicine while using a conceptual framework of history of knowledge and cultural practices. Therefore, the project deals with a history of an entangled phenomenon and spreads into four directions of questioning. In the first step, the project tracks the path that food took from laboratories to outer space and investigates the involved research groups as well as structures of explicit and implicit knowledge that shaped the development of space food. Secondly, the project looks at the links between NASA and the food industry and examines human, material and intellectual networks between those actors of space food development. The third strand of research focuses on the interplay between technology and culinary systems: What kind of food did NASA realize on their spaceflights and how did the technological boundaries of aeronautic engineering shape in-flight meals? Vice versa: How did the culinary systems of the astronauts and the engineers determine technical solutions for space food? Finally, the project explores the modes of implementation of space food on earth. What practices, semantics and technologies of space food established themselves in kitchens and supermarkets on Earth? What kinds of resistances did space-food encounter? With its research-design and topic, the project contributes to an increased historical understanding of current food structures in Western societies by exploring a specific episode of the industrialization and scientification of food and nutrition.