Chapter 1
History of Cheese and Cheese Making

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ABSTRACT

This chapter addresses the historical development and cultural significance of cheese making. It examines the emergence of cheese in the Near East, Mediterranean, and Central Europe from the Neolithic Age and details the initial cheese production techniques and materials used. The chapter discusses the evolutionary processes in the production and consumption of cheese during ancient and medieval periods, the preservation of local and traditional cheese varieties, and the transition to industrial production. Additionally, the role of cheese in contemporary gastronomic tourism and the concept of cheese tourism are explored. Highlighting the historical and cultural importance of cheese, this study explains its development as a global food commodity and its role in the modern world. Keywords: Neolithic Age, Middle Ages, Central Europe, Cheese Tourism, Roquefort, Industrial Cheese Production, Ancient Greece, Parmigiano-Reggiano

INTRODUCTION

In 2022, global cheese production reached approximately 2,217 million tons, with the European Union being the largest producer, accounting for around 1,055 million tons. By 2023, this number increased to 2,235 million tons. How did this happen? Where, when, and why did cheese production begin, and how did it spread and develop? How did cheese attain its current diversity, prevalence, and importance?

Cheese is one of the oldest and most valuable food items in human history. For centuries, it has been produced and consumed by different cultures worldwide. Cheese plays a significant role not only due to its taste but also due to its nutritional value. Rich in protein, calcium, phosphorus, vitamins, and various minerals, cheese is an essential part of a balanced and healthy diet. Besides its nutritional properties, cheese production and consumption carry cultural and social significance. From Roquefort in France to Parmigiano-Reggiano in Italy, cheeses reflect the geographical and climatic characteristics of their production regions, reinforcing local identities. Furthermore, cheese making has developed over centuries through traditional knowledge and techniques passed down from generation to generation. This rich heritage contributes to local economies and supports small-scale producers. While industrial cheese

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production is carried out on a large scale with modern techniques, traditional cheese making helps preserve unique flavors and textures. Cheese is not just a food item; it is a product that embodies history, culture, and art, holding great importance for humanity.

Although the exact origins of cheese are unknown, various sources indicate that cheese making dates back 8,000-10,000 years in regions like the Near East, Mediterranean, and Central Europe (Fox et al., 2017; McSweeney, 2007). The first traces of cheese are seen in Sumerian tablets and Egyptian tomb paintings dating back to the 6th millennium BCE (González, 2013).

Cheese making typically begins with the fermentation of milk, followed by the separation of curds and whey. Initially, milk is fermented by adding natural bacteria and/or yeasts present in the milk. The fermentation process converts lactose in the milk into lactic acid, which causes the milk protein casein to coagulate (Walstra et al., 2006). The fermented milk is then cut to separate the curds (solid parts) from the whey (liquid part). The curds are then processed, shaped, salted, and stored under appropriate conditions for aging (Fox et al., 2017).

The varieties of cheese depend on the type of milk used, the fermentation process, processing methods, and aging duration. For instance, cheeses made from cow, goat, sheep, or buffalo milk have different flavors and textures (McSweeney, 2007). Additionally, cheeses vary in texture, from soft to medium-firm to hard.

Cheese making can be done using traditional methods or in industrial facilities. Industrial cheese production is typically carried out in large quantities using modern technologies to obtain more standardized products. However, many small businesses and home cheese making still exist, contributing to the preservation and continuation of traditional cheese varieties (Fox et al., 2017).

The main mission of this study is to understand the historical journey of cheese and trace its development up to the present. It aims to follow the traces of the first cheese production in human history, discover the earliest milk processing techniques, and examine the unique methods of cheese making in different cultures. This study serves as a guide to trace the deep and complex history of cheese beyond being merely a food source.

THE HISTORY OF CHEESE

Although definitive evidence on the origins of cheese is not available, cheese research has significantly increased in the past 20 years. Numerous studies suggest that cheese making may have begun in the Neolithic Age. Research indicates that the initiation of cheese production coincided with the beginning of milk harvesting, thus linked to the domestication of milk-producing animals. Archaeological skeletal remains of sheep and goats suggest that they were first domesticated in the upper Tigris and Euphrates river valleys in Southwest Asia (Vigne, 2011; Vigne & Helmer, 2007; Meadows et al., 2007; Scott, 2017). Archaeozoological findings from the 9th millennium BCE show significant changes in sheep and goat slaughter practices, suggesting their domestication during this period. Similarly, the processing of milk from animals is thought to have begun during this period, as indicated by the presence of milk fat residues in pottery shards from that era (Helmer, Gourichon & Vila, 2007; Vigne, 2011; Kindstedt, 2012).

Genetic modeling based on DNA analyses of Neolithic human skeletal remains and comparisons with modern human DNA analyses shows that adult lactose intolerance was universally present in early Neolithic humans. Early Neolithic adults were lactose intolerant due to the lack of lactase production necessary for breaking down lactose in the intestines (Burger et al., 2007; Itan et al., 2009; Leonardi