

3: Easier and faster

Food preservation is a process aimed at extending the shelf life of food. The primary cause of food going bad is microorganisms, and preservation methods are designed to limit their growth as much as possible. Since ancient times, various preservation techniques have been used, which can be divided into physical methods—such as using low or high temperatures, sugaring, salting, or drying—and biological methods, which take advantage of natural fermentation processes. In more recent times, chemical methods have also been discovered, involving the addition of certain chemical compounds to food products that destroy microorganisms.

Meat, mushrooms, fruits, grains, and even cheese were dried in the open air. Smoking was done over a fire or in specially prepared smoking pits. Vegetables were preserved using brine pickling. There were also ‘confits’, namely salted meats cooked slowly in their own fat. Next, the meats were left to cool in the fat which solidified, allowing them to last several months. Until the 20th century, icehouses were commonly used, consisting of underground boxes with double walls filled with ice harvested from water reservoirs during winter. Such a device was discovered during archaeological research along the W-Z Route in Warsaw. At the exhibition, visitors can see an architectural drawing of the Zamoyski Palace on Krakowskie Przedmieście, with an icehouse marked in it. Early domestic refrigerators worked in a similar way—one of such early refrigerators is also on display.

Food preserved in hermetically sealed cans and subjected to thermal processing was first used by Napoleon’s army. By the second half of the 19th century, canned food gained popularity, initially as a luxury item. A major breakthrough in food preservation came with the discovery of pasteurization in 1864, which involved heating food to below 100°C to inhibit the growth of harmful microorganisms while maintaining the product’s taste and nutritional value. Another relatively recent invention is freeze-drying, first applied during World War II to produce food for the U.S. military. In this process, frozen products are transformed into a powder in laboratory conditions, which, when dissolved in water, becomes edible again.

A modern method of food preservation—the one that is considered natural—is high pressure processing. A product sealed in, say, a glass bottle, is subjected to high pressure, which destroys microorganisms.

Many kitchen devices were developed to make meal preparation easier and faster. Just like the process of cooking, technical innovations accelerated in the 19th century, driven by industrialization. At this time, wealthier middle-class homes saw the introduction of coffee grinders, ice cream machines, and, later, devices such as slicers and mixers. At the exhibition, we display such devices, provided to us by the Silesian House Museum in Ziębice.

Conveniences also extended to the methods of food storage, particularly in terms of cooling. From the second half of the 19th century until the first half of the 20th century, special kitchen furniture known as 'cold cabinets' were used. These cabinets, located under the windows, allowed for air circulation from the outside, helping to maintain lower temperatures inside the cabinet and thus keeping perishable products cool for a short time. In wealthier homes, cold cabinets were accompanied by iceboxes, which were additionally equipped with an ice container. Over time, free-standing icebox-style cabinets also appeared.

The appearance of the cold cabinets can be seen in photographs of Warsaw kitchens from the second half of the 19th century and the interwar period, provided by the City of Warsaw Conservation Office. Due to economic reasons, this solution remained popular in the following decades, including the interwar period and even in the immediate post-World War II years. Kitchens designed during that time were still equipped with cold cabinets. They disappeared for good in the 1960s as refrigerators became more widely available.

Refrigerators first appeared at the beginning of the 20th century—initially gas-powered, like the one on display from the Warsaw Gasworks Museum collection, and later electric. During the interwar period, only the wealthiest residents of Warsaw could afford a refrigerator.

Meals could be fixed quicker thanks to the availability of semi-prepared products or ready-made dishes, initially available in restaurants and, later, with the advent of industrial food processing, in stores. One of the first Warsaw companies to produce

ready-made preserves was the Pakulski Brothers company. A drawing by Marta Tomiak displayed in the exhibition is dedicated to the company's operation.

In earlier eras, making preserves at home rendered meal preparation easier; over time, ready-made products became more accessible. The popular practice of home canning and pickling in the 19th and 20th centuries gradually gave way to store-bought products by the end of the 20th and early 21st centuries. However, there has been a recent surge of interest in making homemade preserves. In recent years, pickled foods have become particularly popular—not only the traditional cabbage and cucumbers but also other fruits and vegetables such as cauliflower, radishes, watermelons, and apples.

The 19th century also brought significant changes in child nutrition, especially in the area of infant formula. Glass bottles with rubber nipples became available, making it much easier to feed infants. Moreover, medical knowledge improved, and safety and hygiene principles became more widespread. A major breakthrough was the development of modified milk formulas at the end of the 19th century, following the study of the composition of human breast milk. To illustrate this topic in the exhibition, we present packaging from ready-made milk formulas and nutritional supplements, along with a feeding bottle.