Pot baking: revisiting an ancient analogy

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Abstract

In 1990, Chazan and Lehner published a paper in which, based upon several similarities suggested an analogy between the Mesopotamian *bevelled-rim bowl* dated to the Uruk Period and the Old Kingdom Egyptian *bedja*. They concluded that, as most surely verified for the *bedja*, the *bevelled-rim bowls* could have also had the function of a container for baking.

To enhance this hypothesis, the two authors pointed out that also a Late Neolithic pottery shape of the Near East, the so-called *husking trays*, were supposedly used for baking.

In recent years, studies related to ancient baking thanks to the adoption of new *ad hoc* methods, have received an impressive impulse. New discoveries about ancient bread production, *husking trays* and *bevelled-rim bowls* interestingly all seem to go in the same direction.

Although it is not currently possible to retrace an uninterrupted sequential line throughout the time, all of these discoveries could mutually strengthen one another, suggesting the possible existence of an ancient pot baking tradition in the Near East.

Introduction

In 1990, Chazan and Lehner (fig. 1) enhanced in a paper the idea previously proposed by other authors (Schmidt 1982 and Millard 1988), that the famous Mesopotamian Bevel Rim Bowls (BRBs) (fig. 4) dated to the Uruk period (approx. 3900- 3100 BC) could have been used for baking bread. They argued this hypothesis on the base of analogies with the Bedja (fig. 5), similar vessels from the Egyptian Old Kingdom (approx. 2750 – 2250 BC). These artefacts, in fact, appeared on ancient tomb scenes, figurines and models in which they were clearly used for bread baking.

The two scholars underlined the numerous similarities between the two artifacts for morphology, manufacture and some clues of archaeological context. They highlighted that in the both cases, the graphic sign to express the term bread in their respective writing systems resembled the vascular forms (fig. 2). Speaking about their ‘evolution’, the two scholars reported that the both type of vessels were probably going towards a more conical and smaller shape. Furthermore, in the paper it is also reported the case of another ceramic form possibly involved in the bread baking activity: so-called husking trays (HTs) (fig. 3).

In recent years, studies relating to ancient bread-baking, thanks to the adoption of new ad hoc methods, have received an impressive impulse. It is noteworthy that the most recent analysis about Husking Trays, Bevel Rim Bowls and Bedja all seem to be heading in the same direction.

Content

Husking tray

Large, ceramic tray with the inner surface crossed by scores were used by the Late Neolithic communities of the Near East. When found them during archaeological excavations, it was hypothesized that these trays could be used to facilitate the husking of cereals. For this reason, they were named “*husking tray*”(Lloyd - Safar 1945). Subsequently, this hypothesis was put aside in favor of the idea that these vessels could rather be used for baking bread as ethnographic examples suggested (Voigt 1983).

A recent experimental analysis has provided clear indications that these containers could have been perfectly used as pans for baking bread in a domed oven (fig. 6) (Taranto 2020).

HTs fragments are currently undergoing use-wear and residue analyzes. The preliminary data would seem to confirm the experimental one (Taranto in progress).

Bevel Rim Bowls

The issue about the function of the BRBs is very complex and has produced a remarkable amount of bibliography over the years. In the first decade of the new millennium, the BRBs were subjected to a limited experimental analysis (Goulder 2010). The BRBs were used according to

the main hypotheses suggested regarding their possible actual use (production of bread, yogurt, cheese and salt).

The analysis revealed that these bowls are functional only if used as molds for baking bread with the preheating technique (fig. 7).

In addition, some BRBs have recently undergone a residue analysis (Sanjurjo-Sanchez et al. 2018). Although the analysis was not able to provide definitive data, the presence of lignocellulose residues suggests that these bowls may have contained bread. In conclusion, the actual function of the BRBs still remains quite debated mainly due to the lack of clear contextual data, but without a doubt the idea that these were used as bread molds has been strengthened.

Bedja

Since the bedja appeared in ancient baking scenes (such as that of Tomb of Ty), they were easily attributed the function of bread molds.

A typology of ceramic forms used for bread baking in Ancient Egypt was already proposed in the 1980s (Jacquet-Gordon 1981). In particular, an evolution of the bedja from the tronco-conic form towards a more conical and smaller one has been suggested starting from the Middle Kingdom (approx. 2000 BC).

In a very recent experimental work replicas of conical molds were used for baking bread (fig. 8) (Bats 2020). The experimenter was able to bake with this ceramic form redrawing and specifying the previously supposed baking sequence for these molds. In particular, the molds were used in a fireplace through the preheating technique. Thus, experimental trials testify the actual possibility that these vessels were used as bread molds in Ancient Egypt.

Concluding remarks

In recent years, much research with ever more precise methods of analysis is revealing how bread has been an essential commodity in the Near East area from very remote times. This foodstuff appears to have preceded and accompanied the development of agriculture (Arranz-Otaegui et al. 2018). After ceramic pots began to be used by people, some vascular forms could have been dedicated specifically to this activity. In the past, several scholars have argued, for deductive reasons and possible analogies, that some ceramic forms were used for the production of bread. Scientific research in recent years has taken this issue to a further step by producing more reliable data on the function of these vessels. The archaeological material was subjected to practical use and physical-chemical analysis (experimental, residues and use-wear analysis). Although, based on a very different degree of likelihood, these analyzes confirmed that all the ceramic shapes presented before may have actually been used to bake bread. In the future, therefore, a general

baking bread practice in pot in the ancient Near East could be outlined. This would have developed according to different ceramic forms, techniques and fire-installations.

References

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Figures

Fig. 1 Title of the paper of Chazan Lehrner (1990)

Fig. 2 Graphic signs for “bread” (Chazan - Lehrner 1990)

Fig. 3 Graphic signs for “bread” (Voigt 1985)

Fig. 6 Experimental baking with HT replica (photos by author)

Fig. 4 Bevel Rim Bowl (left) and later Conical Cup (right)(elaborated from Chazan - Lehrner 1990)

Fig. 7 Experimental baking with BRB replica (Goulder 2010)

Fig. 5 Bedja (left) and later Conical molds (elaborated from Jacquet-Gordon H., 1981)

Fig. 8 Experimental baking with conical *bedja* replicas (Bats 2020)