

<https://doi.org/10.29013/EJA-19-3-32-36>

*Reznik Olena Sergiyivna,  
graduate student, the Faculty of "Musical Art"  
State Institution "Luhansk National University  
named after Taras Shevchenko"  
E-mail:*

## **HARMONIC-BAYAN INSTRUMENTATION OF ZHYTOMYR FACTORY OF MUSICAL INSTRUMENTS**

**Abstract.** The article highlights the harmonic-bayan instrumentation of Zhytomyr factory of musical instruments. In the course of the research the basic constructive types of harmonics and bayans in the context of the development of design and technological thought of Zhytomyr masters are considered. The author proposes the classification of Zhytomyr harmonic-bayan instrumentation. It is determined that the historical and evolutionary development of structures of harmonics and bayans of Zhytomyr industrial production took place in the aspect of an ascending progressive line of development.

**Keywords:** harmonic, bayan, factory, structure, timbre, mechanics, master.

Nowadays modern bayan-accordion art of Ukraine, which is an integral part of the national musical culture, is at the stage of its stable and confident development, which is confirmed by the creative activity and achievements of the leading domestic performers, composers, teachers and methodologists, the success of young representatives of the Ukrainian bayan-accordion schools at the international competition-festival arena, etc. At the same time, it is well-known that the development of Ukrainian bayan-accordion art took place during the XX<sup>th</sup> century and is closely related to the development of the instrument itself, its structural and organoleptic and artistic qualities. It is the domestic musical industry of reed pneumatic keyboard instruments, in particular, Zhytomyr factory has provided material (ie, instrumental) foundation for the dynamic development of Ukrainian bayan-accordion art in the XX<sup>th</sup> century at all its links (from amateur and educational to professional-philharmonic and academic).

Unfortunately, at the beginning of the new millennium, the domestic production of reed instruments actually ceased to exist. But its long practical

experience, creative achievements and performance represent a real socio-cultural phenomenon, which continues to play an important role in the cultural and spiritual development of Ukrainian society to these days. Therefore, the study of the process of formation and functioning of the Ukrainian bayan-accordion production, the specifics of its products, in particular design and organological achievements, is an important and topical task of domestic musicology.

A. Mirek, who in his scientific work "Harmonic: the Past and Present" [2], one of the first to apply to the study of harmonica-bayan instrumentation of Zhytomyr factory, highlighted the main harmonic-bayan assortment of Zhytomyr factory and its quantitative index of production. The style of presentation of the material is based on the placement of a small article of encyclopedic character.

Facts from the history of the development of Zhytomyr factory include and the artistically popular edition of V. Travkin "I Give Joy to People" [4]. In the collection, the author gives brief information on the history of the establishment of Zhytomyr factory, characterizes the musical assortment in accor-

dance to the stages of the development of Zhytomyr production, traces the dynamics of the production of harmonics and bayans, highlights the figures of the best Zhytomyr masters, and also determines the cultural significance of Zhytomyr factory.

An important step in understanding the history of Ukrainian industrial production is the textbook by E. Ivanov "Harmonics, Bayans, Accordions" / Spiritual and material aspects of functioning in the music culture of Ukraine in the XIX – XX<sup>th</sup> centuries [1], in which the researcher studies the peculiarities of penetration and distribution of harmonics in Ukraine and analyzes the main harmonic-bayan assortment of Zhytomyr factory.

Despite the fact that contemporary musicology in its achievements has the above-mentioned development until now, nobody has set itself the goal to look at Zhytomyr industrial production of harmonics and bayans as a holistic socio-cultural phenomenon with the general laws of the development and at the same time with its own specificity and peculiarity.

Consequently, the main purpose of the article is to research and study the basic constructive types of harmonic-bayan instrumentation of Zhytomyr factory in the context of their chronological retrospective and classification.

The appearance of the first harmonic-bayan instrumentation at Zhytomyr factory of musical instruments dates from the beginning of the 1930s. The initial idea in identifying the specific varieties of harmonics and bayans that were selected as prototypes of the future musical instrument for Zhytomyr factory of musical instruments was the borrowing of instrumental samples and technologies from Tula, where for a long time there was a production of harmonics and bayans [2, 495; 1, 42; 4, 163]. From the first Zhytomyr musical assortment, the two-voiced harmonic "Ukraine" with a range of  $23 \times 12$  and  $23 \times 25$ , the two-voiced bayan "Ukraine  $52 \times 100$ " and a concert bayan  $58 \times 120$  should be singled out.

In 1957, Zhytomyr factory of musical instruments developed the first prototype of solid-alu-

minum bayan. The initiator of the creation of this instrument was the chief engineer of Zhytomyr factory G. Yelenin. Among the previous musical instruments, the new invention had advantages, in particular new acoustic characteristics, which were achieved by the introduction of a four-voiced bass instead of three-voiced [3, 17].

In the 1960s, Zhytomyr factory began the first quantitative stage of the search for a new variety of harmonic-bayan assortment. If to trace the ascending line of the development of the harmonic-bayan instrumentation of this period, then a new direction in the design mindedness of Zhytomyr masters, which was determined in their quest for search of new timbre enrichment as harmonics and bayans, should be noted. The first experience in this direction was the production of the three-voiced bayan with a range of  $55 \times 120$  (1960) [3, 18] and the three-voiced bayan "Polissya  $52 \times 100$ " (1963) [3, 22]. The acquired experience of changing the tone of the bayan was applied in harmonic. So in 1964, Zhytomyr enthusiasts introduced the three-voiced harmonic "Spring" with a range of  $25 \times 25$  [3, 24]. Promisingly new in this search should be considered the appearance on the bayans and harmonics of a special device-switch (register), which enabled to change the sound of the instrument.

The search for new varieties of musical instruments appeared in the emergence of the two-voiced harmonics "Marichka" with a range of  $23 \times 12$  and  $23 \times 25$  (1966) and "Rose" with a range of  $25 \times 25$  (1969), as well as an accordion with a range of  $34 \times 80$  [5, 23; 6, 12].

In the 1970s, Zhytomyr bayan instrumentation acquired new qualitative forms. The rapid development of the national academic bayan performance and the expansion of vocational education led to the necessity of introducing a ready-made instrument into the concert sphere and the pedagogical process. The above-mentioned fact became an important ground for a qualitatively new direction in the design mindedness of Zhytomyr masters. The search

for the Zhytomyrs in the direction of developing and creating a family of ready-selected bayans appeared in the emergence of their own ready-selected bayan instruments: the ready-selected bayan  $64 \times 150/12$  (RS64  $\times 150/12$ -II) (1969) [3, 28], the ready-selected bayan “Start 61  $\times 120/53$ -II” (1972) [7], the ready-selected bayan “Schoolboy 48  $\times 80/48$ -II” (1976), the bayan for order ready-selected  $64 \times 120/57$ , BORS64  $\times 120/57$ -II) [8, p. 24–25].

However, Zhytomyr masters did not confine their own experience. In order to comprehensively study the production of progressive models of instruments, they were interested in the development of other inventors and designers, in particular with the design ideas of G. Stativkin. As a result of close cooperation, there were two models of bayans – the selected bayan “Novelty 43  $\times 41$ -I” and the selectively ready-made bayan with two alternating sets left mechanics “Prima 43  $\times 80/41$ -II” [7, 17–19; 3, 34, 36].

The experience gained by Zhytomyr masters, both in terms of timbre enrichment, and in the development and production of ready-selected mechanics, led them to seek the correlation of the regular relationships between these phenomena. As a result of this experiment, at Zhytomyr factory there were a multi-timbred ready-selected bayan MTRS64  $\times 120/57$ -III-5 and a multi-timbred ready-selected bayan 101/61  $\times 120/53$ -III-7 [8, 20].

Developed, introduced into production and tested in practice, the above-discussed bayan instrumentation of Zhytomyr factory, resulted in the appearance of a qualitatively new type of the multi-timbred ready-selected concert bayan “Ukraine 106/64  $\times 120/58$ -IV-15” [9, 23; 3, 37–38]. The bayan “Ukraine” represents a higher degree in the development of Ukrainian production of reed musical instruments and was awarded the bronze medal of the USSR EANE in Moscow [3, 49].

Against the backdrop of a qualitative leap in the development of the bayan instrumentation at Zhytomyr factory in the 1970s, which was marked by

the appearance of the concert bayan “Ukraine”, the further evolutionary development of the general harmonic-bayan instrumentation continued, which led to the emergence of the new two-voiced bayans “Era 57  $\times 100$ -II” (1971), “Dream 61  $\times 120$ -II” (1973), “Era-74 57  $\times 120$ -II” (1974); the two-voiced harmonic “Camomile” with a range of  $23 \times 12$  and  $23 \times 25$  and the children’s bayan “Orlyatko 43  $\times 80$ -II” [7, P. 17–19; 3, 29–38]. The creative intellectual potential of Zhytomyr masters was also found in the creation of several samples of electronic bayans [3, 29, 33].

After the creation of the multi-timbred ready-selected concert bayan “Ukraine” at Zhytomyr factory in the following 1980s–1990s, the next stage of the creation of a new harmonic-bayan instrumentation for a wider range of applications began. So in the 1980s two new models of five-rowed bayans – “Atlant 101/61  $\times 120$ -II” with ready-made mechanics and “Space 101/61  $\times 120/54$ -II” with ready-selected mechanics [3, 43–44].

The 1980s were marked by replenishment of a number of Zhytomyr harmonics. Zhytomyr masters constructed the new three-voiced harmonic “Rainbow” with a diatonic scale [3, 44]. Among the above-mentioned harmonic-bayan instrumentation Zhytomyr craftsmen at that time also produced a prototype of the orchestral harmonic “Bass-baritone” [3, 39]. Continuing the established traditions in the creation of several varieties of electronic bayans, the masters of Zhytomyr enterprise together with the specialists of the design bureau of the “Electric Meter” factory during this time created two more new samples of the electronic bayans “Estradin-314” and “Estradin-230” [3, 43].

In the 1990s, the bayan assortment of Zhytomyr factory was replenished with two other types of instruments – the two-voiced bayan, which has a ready basso-chord accompaniment “Yavir 64  $\times 150$ -II”, and the two-voiced bayan with a ready-selected mechanics “Schoolboy-4 80/48  $\times 80/48$ -II-3”. The new three-voiced harmonics “Dream 25  $\times 25$ -III”



and “Zhytomiryanka 25 × 25-III” were added to the harmonic lines in the 1990 s [3, P. 46].

The historical and evolutionary development of the structures of harmonics and bayans of Zhytomyr industrial production took place in the aspect of the ascending progressive line of development: from the harmonic-bayan instrumentation of amateur and educational levels to the creation of a modern concert bayan philharmonic-academic direction. Zhytomyr harmonic-bayan instrumentation in its development was a number of qualitative peculiar stages. The first stage (1930 s – 1950 s) was associated with the stage of formation of the first Zhytomyr designs of harmonics and bayans. The second stage (1960 s) is characterized by the development of new brands of two-voiced harmonics and the search for the timbre of the sound of both harmonics and bayans. The characteristic trends of the third stage (1970-ies) include: the development of a family of ready-selected bayans; borrowing of G. Stativkin’s design experience for the production of children’s selective and ready-selected instrumentation; a combination of the experience of timber enrichment and ready-selected mechanics in the development of a qualitatively new timbre ready-selected bayan instrumentation; the creation of the multi-timbred ready-selected bayan “Ukraine 106/64 × 120/58-IV-15” of the philharmonic-academic direction; formation of a general assortment of harmonic-bayan instrumentation; development of the first samples of

electronic bayans. The fourth stage (1980 s – 1990 s) is associated with new quantitative quests: the creation of a family of five-rowed bayans with ready-made and ready-selected left-handed mechanics; addition to the family of three-voiced harmonics and two-voiced three-rowed bayans with ready-made left-handed mechanics; the invention of new samples of electronic bayans; making a prototype bass baritone harmonic.

The study of evolutionary development of musical production and assortment of Zhytomyr factory revealed various harmonic-bayan instrumentation that are structurally different, which can be systematized in the following order: harmonics, bayans with ready-made accompaniment, ready-selected bayans, children’s bayans. In its structural section, each group can be divided into subgroups:

- harmonics: two-voiced – “Ukraine”, “Marichka”, “Camomile”, “Rose”; three-voiced – “Spring”, “Rainbow”, “Dream”, “Zhytomiryanka”;
- bayans with ready-made accompaniment: three-rowed – “Ukraine”, “Polissya”, “Era”, “Dream”, “Yavir”; five-rowed – “Atlant”;
- ready-selected bayans: three-rowed – “RS”, “Start”, “Schoolboy”, “BORS”, “MTRS”; five-rowed – “Space”, “Ukraine”;
- children’s bayans: with a ready-made accompaniment – “Orlyatko”; selective – “Novelty”; with two alternating sets of left mechanics – “Prima”; ready-selected – “Schoolboy” and “Schoolboy-4”.

### Список литературы:

1. Іванов Є. О. Гармоніки, баяни, акордеони (Духовні та матеріальні аспекти функціонування в музичній культурі України XIX–XX ст.) Навч. посібник для вищих закладів мистецтв і освіти. – Суми: СумДПУ ім. А. С. Макаренка, 2002. – 70 с.
2. Мирек А. М. Гармоника: прошлое и настоящее. Научно-историческая энциклопедическая книга. – М.: Велес, 1995. – 286 с.
3. Резнік О. С. Історія промислового виробництва гармонік, баянів й акордеонів України: монографія. – Кременна, 2014. – 338 с.
4. Травкін В. М. Дарую радість людям / Збірник дружніх посвят. – Житомир: Видавництво «Волинь». 2013. – 292 с., 360 іл.
5. Фонд Р-3548, Опись № 1, Дело № 213 на 284 листах Годовой отчет Житомирской фабрики музыкальных инструментов за 1966 год.

6. Фонд Р-3548, Опись № 1, Дело № 236 на 252 листах Годовой отчет Житомирской фабрики музыкальных инструментов за 1968 год.
7. Фонд Р-3548, Опись № 1, Дело № 332 на 153 листах Годовой отчет Житомирской фабрики музыкальных инструментов за 1974 год.
8. Фонд Р-3548, Опись № 1, Дело № 378 на 149 листах Годовой отчет Житомирской фабрики музыкальных инструментов за 1976 год.
9. Фонд Р-3548, Опись № 1, Дело № 401 на 156 листах Годовой отчет Житомирской фабрики музыкальных инструментов за 1977 год.