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*Contact information*

*Website: https://sconferences.com*

*E-mail: info@sconferences.com*

# Content

# Architecture

## LIBRARIES OF MEDIEVAL AZERBAIJAN

*Rayiha Amenzade*
*Doctor of Architecture, Professor*
*Institute of Architecture and Art*
*Azerbaijan Academy of Sciences*

## БИБЛИОТЕКИ СРЕДНЕВЕКОВОГО АЗЕРБАЙДЖАНА

*Райиха Амензаде*
*Доктор архитектуры, профессор*
*Институт архитектуры и искусства*
*Академия наук Азербайджана*

*Abstract*

*In Azerbaijan, as well as in the whole East, kitabkhana (libraries) were in great demand, they were part of the nomenclature of the main titular structures of the medieval period. Kitabkhana - "treasuries of knowledge" were erected as an independent unit, although apparently they had an even greater place in every sufficiently large mosque, in the khanegahs, in the madrasahs-medieval universities, in the dar-ush-shefa (hospitals), and in the palace complexes of rulers and large feudal lords. They were also part of the market complexes, for instance, on the modern map of the Tabriz bazaar, along with other buildings and structures are kitabkhana Jafariya and kitabkhana Kalkatachi.*

*Аннотация*

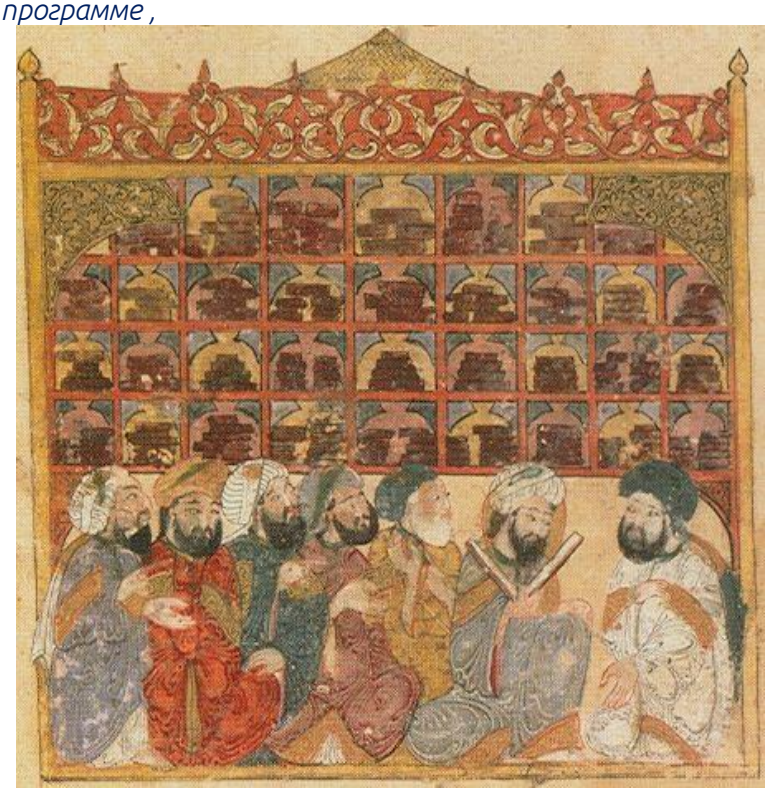
*В Азербайджане, также как и на всем Востоке китабхана (библиотеки) были весьма востребованы, они входили в номенклатуру основных титульных строений средневекового периода. Китабхана - «сокровищницы знаний» возводились самостоятельным объемом, хотя, очевидно еще большее место они имели в каждой достаточно большой мечети, в ханегах , в медресе- университетах средневековья, в дар-уш-шифа (госпиталях) , в дворцовых комплексах правителей и крупных феодалов. Они входили также в состав рыночных комплексов, скажем на современной карте Табризского базара, наряду с прочими зданиями и сооружениями значатся китабхана Джафарийа и китабхана Калкатачи.*

*Keywords: medieval Azerbaijan, library, bulls, books*
*Ключевые слова: средневековый Азербайджан. библиотека. буллы. книги*

*На Востоке древние библиотеки были известны в Южном Двуречье- Шумере, имевшим высокоразвитую цивилизацию. В наиболее крупных собраниях табличек изготовленных из глины ( 5х5см), для булл с письменами, хранившихся в ивовых корзинах выделялись специальные помещения либо строения (Ниппур)( 7,с.6).*

*Уже в 1 тыс. до н.э. в крупных древневосточных городах- в Ниневии(Ассирия), Пергаме (Малая Азия) были созданы библиотеки с целым штатом сотрудников –библиотекарей, архивариусов и др., со специальными зачастую роскошно отделанными помещениями. В них в глиняных ларях или отдельных ящиках в систематическом порядке собирались таблички по самым разнообразным отраслям знаний. Библиотека в Пергаме имела большой внутренний двор с книгохранилищем в сотни томов, с читальными залами с деревянными - из кедра- нишами. Библиотека в Эфесе, расположенная в центре античного города была роскошным строением (110-135гг.), обращенным двухъярусным колонным фасадом на главную артерию – улицу Куратов; на содержание библиотеки и на книги архитектор Тиберий Юлий Акила завещал большую сумму денег. Надо заметить, что уже в этот период библиотеки строились самостоятельным объемом, вместе с тем они имели место в комплексе строений, так в термах Каракаллы (Рим) были две библиотеки(2,с.62 )*

*В исламском мире наличие и востребованность библиотек, входивших в номенкатуру монументальных строений средневекового Востока, в том числе и Азербайджана объясняет развитие разносторонних знаний и наук на всем огромном пространстве от «Машрика до Магриба». Китабхана наряду с хамамами, дар-уш-шифа( госпиталь), а также всевозможного рода гидротехническими (аб-амбары, овданы, плотины, мосты) и другими, много и повсеместно строившимися зданиями и сооружениями составляли вакфное имущество, предусмотренное в государственной программе ,*



*Китабхана. Средневековая миниатюра*

*что собственно входило в прерогативу правителей. Выдающийся государственный деятель Рашид ад-Дин, сахиб –диван (везир) Газан-хана, а позже и Олджайту-хана (Ильханиды), указывая на необходимость строительства большего числа госпиталей отмечает, что « …попечение о больных - это обязанность правителей ислама и тех, кто носит ожерелье власти и управления миром, а блеск богоугодных заведений –как-то: медресе, ханака и госпиталей –относится к (числу) важных дел, в которых ни в коем случае недопустимы небрежность и нерадивость…»( 6,с.293).*

*Уже в первые века ислама были известны так наз. «Дома Науки» или «Дар ал –Илм»(Мосуле, Хв.), в составе которых имели место и китабхана. Книги в них подбирались по разнообразным отраслям знаний, а доступ туда был «открыт всякому, кто стремился к знаниям» (5,с.151). Возможно, такого рода строения были подобием медресе, в которых обучались наукам, подбор литературы соответствовал, прежде всего специализации данного учреждения. Академик В.В. Бартольд отмечает, что появление первых медресе в государстве Газневидов относится к нач. XI в., хотя не исключается их более раннее появление. Один из медресе был включен в состав Джума-мечети, построенной Султан Махмудом в Газни. «… К мечети было присоединено обширное медресе, помещения которого от поверхности земли до расстояния потолка были наполнены сочинениями» пишет ак.В.В.Бартольд, и продолжает « …в шафиитской Джума-мечети в Гургандже (XIII в.) была библиотека, подобно которой не было ни раньше, ни позже( 1, с.226-228).*

*По миниатюрам, дошедшим до нашего времени можно иметь представление об объемно-пространственном решении китабхана Ал-Мукаддаси, посетивший библиотеку ширазского правителя (Буиды) Адуд ад-Даула (943-983) пишет, что им управлял целый штат сотрудников, в то числе вакил-управляющий, хазин- библиотекарь, мушриф- инспектор (5,с.149). Далее он подробно останавливается на пространственной разработке здания, который состоял «из большого вестибюля и длинного сводчатого зала, к которому со всех сторон были пристроены боковые помещения . Вдоль всех стен как самого зала , так и боковых помещений он (правитель)*

*разместил шкафы из накладного дерева высотой и шириной в три локтя , с дверцами, опускавшимися сверху вниз. Книги помещались рядами на полках. Каждая отрасль знания имела свой шкаф и каталог, в который были записаны названия книг(5,с.149) . В связи с эти А. Крымский отмечает, что «если же по какой-либо отрасли науки книг оказывалось больше, чем позволяло помещение –альков, то для них отводились еще несколько комнат»(4, с. 53).*

*В системной совокупности зданий средневекового Азербайджана немалую часть составили утраченные типы строений, хотя они известны по письменным источникам, в том числе довлетхана, зарбхана, дар-уш-шифа, бейт-ал-канун, дар-ас-сейид, , бейт –уль канун, дар-уль канун, аптеки, китабхана, последние сыграли в развитии науки и искусства исключительную роль . В переписке Рашид ад-Дина с сыном Гияс ад-Дином (Мактубат-е Рашид) отмечается в частности, что для хранения манускриптов числом доходивших до 60тыс., в Раб-е Рашиде потребовались «две библиотеки , которые я (Рашид ад-Дин) построил рядом со своим Гумбадом (мавзолеем) с правой и левой стороны( от него) (6,с.275,426).*

*Одной из самых роскошных на Востоке была китабхана правителя Байсонкура в Герате (XVв., Центральная Азия), именовавшаяся Художественной Академией, в которой содавали свои шедевры табризские художники – миниатюристы и каллиграфы. От этой эпохи до нас дошел документ, где сообщается, что китабдар (глава китабхана), знаменитый каллиграф Джафар Али Табризи отчитывается перед правителем Байсонкуром о работах над 22проектами - от рукописей до архитектурных зданий и сооружений. Здесь большой интерес представляет факт того, что в документах указано на строительство входа в сурат-хана, т.е. картинную галерею, и, где по-видимому хранились картины, написанные на шелке и на бумаге, доступные, возможно для обозрения(8). В китабхана дворца Шаха Исмаила I Сефевида в Табризе, в котором хранилbсь рукописи широкого спектра знаний , калантаром (главой –попечителем), в 1522г. был назначен знаменитый на всем Востоке художник - миниатюрист Бехзад. Эта китабхана являлась одновременно уникальной художественной мастерской со специализированными отделами, где трудились лучшие мастера своего времени. Здесь изготовлялись рукописные фолианты, славившиеся каллиграфией, роскошными миниатюрами и унванами. В одном из шахских указов, включенных в сборник государственных документов (Хондемир, «Намеи-Нам», хранится в Национальной библиотеке Парижа) говорится: «Повелевали, чтобы на него (Бехзада) была возложена должность мустофия и калантара августейшей библиотеки, переписчиков, орнаменталистов, чертежников, составителей красок, позолотчиков, мастеров по изготовлению лазури и других лиц, занятых подобными делами»(8)*

*«Книжное» искусство достигает апогея своего развития в годы правления Сефевидского правителя Шаха Тахмасиба (1524-1576). В дворцовой библиотеке-сначала в Табризе, а потом и в Казвине, где он проводил много времени трудились лучшие каллиграфы и миниатюристы Востока. Под его покровительством здесь было собрано целое созвездие блистательных миниатюристов – Султан Мухаммед, Мирза Али, Мир Сеид Али, Абд-ас Самад, Мир Мусаввир, Мирза Али. Именно в этот период был закончен уникальный манускрипт-шедевр каллиграфии «Шахнаме-и Шах Тахмасиб» («Царская книга о царях» ), содержащий более 250 миниатюр, иллюстрирующих текст произведения, заказанный Шах Исмаилом для сына.*

*Сефевидский правитель Шах Исмаил II продолжает традицию деятельности дворцовой библиотки- китабхане в Казвине, где в этот период были сконцентрированы лучшие силы империи_ Сиявуш беу, Фаррух бей, Мир Зейналабдин Табризи (3,с.34) . Уже при Шах Аббасе I дворцовой китабхане руководил Садиг бей Афшар, блистательный художник-миниатюрист, автор стихотворного трактата «Ганун ас-Совар»*

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# Biological sciences

## NEGATIVE FACTORS AFFECTING THE NESTING OF SOME PASSERINE SPECIES WITHIN THE TASHKENT REGION (UZBEKISTAN)

*G'aniyev Bunyod Nabi o'g'li*
*Institute of Zoology of the Academy of Sciences of the Republic of Uzbekistan*
*Azimov Nodirjon Nurilloyevich*
*Institute of Zoology of the Academy of Sciences of the Republic of Uzbekistan*
*Nurmamatova Hulkar Abduraxmon qizi*
*Institute of Zoology of the Academy of Sciences of the Republic of Uzbekistan*

*Abstract*

*During 2021-2023, factors negatively affecting the nesting of the Crested Lark, Mistle Thrush, Blue Whistling Thrush, Eurasian Blackbird, Sykes's Warbler, Indian and Spanish Sparrows were studied in the Tashkent region. It was found that the level of anthropogenic impacts is high in the nesting areas of the Crested Lark and Sykes's Warbler, birds of prey, and Common Magpie have significant impacts on Mistle Thrush, Eurasian Blackbird, and the Spanish Sparrows, and the level of impacts is low on the nesting of the Indian Sparrow. The ratio of the influence of humans and natural species on the reproduction of Blue Whistling Thrush is almost equal.*

**Keywords:** *Passeriformes, nest, anthropogenic impact, predation.*

### *Introduction*

*In the process of evolutionary development of representatives of the animal world, species exhibit different levels of tolerance to unfavorable natural factors, and interspecific and intraspecific competition. Species that are more adapted to negative factors are progressive, and those that are decreasing in number without being able to adapt are considered regressive. Birds are also an integral part of the biogeocenosis and occupy an important place in the periodic cycle of substances and in the food chain. In the current era, when the influence of the human factor on nature has increased sharply, ensuring the stability of the ecological balance, monitoring biological diversity is an urgent issue. This practice makes it possible to evaluate the impact of the human factor on negative or positive changes in the number of species found in nature and to eliminate them in time.*

*Information about damage to birds by other species or as a result of anthropogenic impact is provided in the works of G.I. Ishunin (1969), T. Abreimov (1979), N.N. Azimov, and B.N. Ganiyev (2019).*

### *Material and methods*

*In the natural areas of the Tashkent region, Western Tien-Shan (Karjantau, Ugom, Pskem, Chatkal and Kurama ridges), Dalvarzin desert and Buka district, in the forests on the edge of Chilisoy, in the nesting season of birds of 2021-2022, 6 species belonging to the order of Passerines - Crested Lark (Galerida cristata), Mistle Thrush (Turdus viscivorus), Blue Whistling Thrush (Myophonus caeruleus), Sykes's Warbler (Iduna rama), Indian (Passer indicus) and Spanish Sparrows (Passer hispaniolensis) nesting process, several factors affecting them were identified. In 2023, the nesting biology of the Eurasian Blackbird (Terdus merula) was studied in Tashkent city. In the course of observations, certain conditions that adversely affect birds during the breeding season were identified.*

*Traditional zoological methods were used for research (Novikov, 1949).*

### *Result and discussions*

***The crested lark** is a common species in the Dalvarzin desert, where field research was conducted. It was observed that excessive grazing of livestock in the area disturbs nesting individuals, and damage of nests, eggs, and chicks by livestock at various stages of reproduction seriously hinders the reproduction of the species. It was observed that many couples were repeatedly exposed to negative influences during the period from nest construction to the end of egglaying. In an area of 5 km$^2$ in the Dalvarzin Desert, only one pair of birds was observed nesting, and in this case, due to severe disturbance from cattle and dogs during the incubation period, all the eggs spoiled.*

*Sykes's warbler. During the spring survey in the Bekobad desert on May 12-13, it was observed that one almost completed nest and 2 nests with 2 eggs were abandoned as a result of being disturbed by shepherds during different periods of incubation, and the eggs spoiled.*

*Mistle thrush. On April 23, an almost completed nest of a pair of Mistle Thrushes was found in the Suqoqsoy area of the Chotkal range. On April 26, it was found that the first egg was laid in this nest. On May 2, it was noted that the inner layer of the nest was destroyed and the eggs were damaged as a result of the raptor attack. Another nest observed being built 1 km away from this nest on 11 May was monitored on 17 May, and the nest was disturbed and the female bird's feathers remained in it, indicating that the owner of this nest was also hunted by birds of prey.*

*Blue Ehistling Thrush. A typical species in fast-flowing streams with trees and bushes or large stones of the Karjantau, Ugom, Pskem, Chatkal, and Kurama ridges, located in the Tashkent region of the Western Tien Shan. In the villages near the streams of the above ridges where the bird is found, there are cases of illegal catching of the bird to keep it in captivity. Voronova and Ten (2018) stated that the species is common in the bird markets of Tashkent. During our research, on May 27, 2022, a bird's nest with 5 eggs was found in the Suqoqsoy area of the Chatkal range. During the repeated observation on June 2, it was found that 3 eggs disappeared for an unknown reason, and it was noted that hatchlings emerged from 2 eggs. Later on June 8, these two chicks were observed to be missing from the nest. The fact that the bird's nest is located relatively low (1 meter from the ground) makes it even more likely to be damaged by American mink and other predators or people.*

*Eurasian Blackbird. A common species with a sedentary character. In addition to being found in the cover of trees and shrubs in natural biotopes, it is also found in groves, gardens, and avenues in residential areas. When this species was observed nesting in the city of Tashkent in 2023, it was noted that it was seriously affected by the Common Magpie (Pica pica). On April 28, it was noted that the Eurasian Blackbird, which started building a nest in the yard of the Zoological Institute, began to lay eggs on May 1. On May 4, this nest with 4 eggs was destroyed by a Common Magpie. The next two nests rebuilt by this pair were also damaged by the same magpie on May 21 and June 5. In another case, on May 25, a nesting Eurasian Blackbird was recorded in an apricot tree near multi-story buildings in Olimlar Neighborhood, Mirzo Ulugbek District, Tashkent. When the nest was checked on June 6, it was found that 4 eggs had just hatched. On June 14, it was noted that hatchlings were hunted by a predator in a regularly monitored nest. It can be seen that in the conditions of the city of Tashkent, for the reproduction of the Eurasian blackbird, the magpies and other birds of prey affect their habitats as competitors.*

*Indian Sparrow. In April-July 2022, the nesting biology of the Indian Sparrow was studied, which formed a colony and nested in the cliffs on the banks of the Chilisoy canal, collecting wastewater generated in the Buka district of the region and draining into the Syrdarya River. It was observed that the height of the cliff wall is 12-14 meters, and the holes in which about 400 sparrow nests are placed are mainly placed in the height range of 7-11 meters. Along with the sparrow, it was found that there are also a small number of nests of Common Myna, Eurasian Jackdaw, and European Rollers on the cliff wall. In some cases (1-2%), attempts to destroy the nests of Indian Sparrows in this colony from the Myna side were recorded. There were also cases of Eurasian Sparrowhawks (Accipiter nisus) and Western Marsh Harriers (Circus aeruginosus) trying to hunt sparrows.*

*Spanish sparrow. On the banks of the above-mentioned Chilisoy canal, there are dense, tall tamarisks, where Spanish sparrows have been noted to nest, forming large colonies. Three colonies with the number of nests 34, 157, and 311 separated from each other in the area of 200-250 meters were identified in the studied area. Ball-shaped nests are installed in the branches of the upper tier of tamarisk branches and we measured the height of 176 nests from the ground. The height limit is from 1.5 to 3.5 meters, of which 38.8% are 1.5-2 meters, 46.6% are 2.1-2.5 meters, 7.39% are 2.6-3 meters, and 11.93% were found to be installed at 3-3.5 meters.*

*Birds of prey such as Eurasian Sparrowhawk and Western Marsh Harriers have been noted as a factor negatively affecting the nesting of Spanish Sparrows. Taking into account the destruction of 107 nests in colonies by predators, it was shown that colonies with a small number of nests were especially damaged. 32 nests in a colony with 34 nests, 72 nests in a colony with 157 nests, and 53 nests in a colony with 311 nests were found to be predated by predators.*

*In conclusion, in the conditions of the Tashkent region, the nesting biotopes of the Crested Lark and the Sykes's warbler are observed to be highly influenced by anthropogenic factors. Although the nesting of Mistle Thrushes and Spanish Sparrows is not affected by human factors, birds of prey have a significant impact on them. The ratio of the influence of humans and natural species on the reproduction*

*of Blue Whistling Thrush is almost equal. Indian Sparrows that nest on cliff walls are relatively well protected and have low levels of negative impacts.*

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# *ARTHROPODS' IMPACT ON CONIFER DRYING IN AZERBAIJAN*

*Kerimova I.G.*
*Institute of Zoology of the Ministry of Education and Science of the Republic of Azerbaijan, Az1004, A.Abbaszade str.115, passage 1128, block 504, Baku*
*Huseynova E.A*
*Institute of Zoology of the Ministry of Education and Science of the Republic of Azerbaijan, Az1004, A.Abbaszade str.115, passage 1128, block 504, Baku*
*Hasanova N.A.*
*Ateshgah Insurance Company, 75B, Nasib bey Yusifbeyli str., Baku AZ1110*

*Abstract*

*An investigation into the arthropod species found in coniferous trees in Azerbaijan has identified a total of 28 species spanning 2 classes, 5 orders, and 12 families. This complex comprises 12 species from the Coleoptera families (Scolutidae, Buprestidae, and Cerambycidae), known as stem pests, 3 species from the Scarabaeidae family, classified as leaf-eating insects. Additionally, there are 2 species from each of the Geometridae and Erebidae families, of the Lepidoptera order, and 5 species from the Aphididae, Coccidae, Diaspididae, and Flatidae families, which are categorized as sucking pests within the Hemiptera order. Research findings have demonstrated that among the insects responsible for damaging coniferous trees in Azerbaijan, pine aphids (Cinara (Cinara) pinea (Mordvilko, 1895)), cypress aphids (Cinara juniperina Mordvilka, 1895), and bark beetles (Orthotomicus erosus Bright & Skidmore, 1997, Hylurgus ligniperda (Fabricius, 1787)) play a significant role. The research findings lead to the conclusion that in Azerbaijan, the drying out of coniferous species predominantly affects trees cultivated for landscaping purposes and results from a multifaceted negative impact rather than a specific cause. Multiple factors contribute to this drying out, with climate change, reduced precipitation, inadequate care of landscaped plants, delayed pest control, and pronounced anthropogenic influence occupying prominent positions among the key reasons.*

**Keywords:** *Coniferous trees, ecosystem, pest, arthropods, species composition*

## *Introduction*

*As per a research report, approximately 30% of the Earth's land surface is covered by forest ecosystems, and within this, coniferous forests account for roughly 19% of the total coverage, comprising 11% fir, cedar, and white fir forests, and 8% pine forests (Bonan, 2008). Recently, these forests have become increasingly susceptible to a range of adverse natural impacts, with coniferous forests, in particular, facing the threat of desiccation in numerous global regions (Allen et al., 2010; Kurz et al., 2008; Van Mantgem et al., 2009). It is anticipated that shifts in climate patterns, the widespread proliferation of pests and pathogens, along extreme climatic events, will lead to even greater forest loss in the years to come (Allen et al., 2010; Adams et al., 2009; Hicke et al., 2012).*

*The areas impacted by drying out can vary significantly in size, extending to quite large expanses, reaching several hundred hectares. Similar occurrences have been witnessed in both mountainous and lowland regions across Russia, Canada, and Northern Europe. Nevertheless, the factors driving this phenomenon are not yet fully comprehended, and there is no consensus on the issue within the scientific community (Pavlov et al., 2009). Potential factors contributing to this drying out encompass climate fluctuations, unfavorable growth conditions such as soil chemistry and waterlogging, tree moisture levels, as well as harm caused by pests, fungal infections, viruses, bacteria, and human-induced environmental pollution such as various waste materials and increased acidity in precipitation. All potential causes of drying out, and their possible combinations, are under consideration (Bazhina et al., 2010).*

*In Eastern Europe, including Poland, Hungary, and Slovakia, there has been a notable increase in the extent of plantations affected by root fungus, late blight, and rot since the late 1990s. Meanwhile, in regions like the Italy, Austria, and Swiss Alps (Bigler et al., 2006; Vacchiano et al., 2012; Schuster, Oberhuber, 2013; Lévesque, 2013), as well as Lithuania (Arkhipova, 2013; Vasilyauskas, 2013), Latvia, Norway (Solberg, 2004), Ukraine (Ustskiy, 2013), and Belarus (Sazonov et al., 2013; Sarnatskiy, 2012;*

*Kharuk et al., 2015), forest tree populations have experienced a decline due to the impact of climate change.*

*Drying out of coniferous forests is also prevalent in North America. Starting in 1997, the expansion of insect pests' habitat has resulted in the destruction of a significant number of coniferous species in Alaska and Canada (Raffa et al., 2008; Bentz et al., 2005). By the mid-2000s, the dry coniferous forest area in Alaska covered 1 million hectares (Berg et al., 2006), and in British Columbia, it exceeded 10 million hectares (Kurz et al., 2008; Hogg, Brandt, 2008).*

*In the single year of 2015, a comprehensive expanse of 328.1 thousand hectares of forest plantations within Russia underwent significant destruction, and it's noteworthy that coniferous forests constituted a substantial 80% portion of this affected area. Coniferous trees constitute a modest 2.2% of the overall tree population in Azerbaijan. It is noteworthy that Azerbaijani forests, primarily being of a mixed nature, incorporate a variety of coniferous tree species, including Eldar pine, white pine, juniper, and black pine. The Eldar pine, a relict coniferous species indigenous to Azerbaijan, thrives in its natural habitat on the Eldar Plain. In an effort to preserve this unique tree species within its native environment, the Gey-Gol nature reserve was established in 2004. Additionally, on the Absheron Peninsula, there exist 50 hectares of artificially cultivated Eldar pine plantations (Farzaliyev, 2018).*

*Coniferous trees hold significant value in both ecological and economic contexts. Within the ecosystem, coniferous plants play a crucial role and are extensively utilized for landscaping purposes in Azerbaijan. Beyond their oxygen-enriching capacity, coniferous foliage releases phytoncides with antibacterial properties. Economically, coniferous trees bear substantial importance, as their resin, needles, and softwood find applications across various sectors.*

*In recent times, drying out has become a noticeable phenomenon across nearly all areas and urban centers in Azerbaijan, with a particular focus on the coniferous trees intentionally cultivated for ornamental landscaping. This phenomenon has gained increased prominence, particularly in the urban areas of Baku and the Absheron Peninsula. Consequently, our objective was to investigate the contribution of both invasive and native arthropod pests in the deterioration of coniferous tree species within Azerbaijan.*

*To achieve this aim, the following objectives have been outlined:*

1. *Examination of the quantitative and qualitative composition of the local and invasive coniferous pest populations.*
2. *Assessment of the proportion of insects within the overall pest complex.*
3. *Recognition of economically significant species.*
4. *Evaluation of the impact of technical factors on the activity of the coniferous plant pest complex.*

*Arthropods recorded on coniferous trees can be categorized into three primary groups: those that feed on leaves, those that extract sap, and those that affect the wood. Among these pests, certain insect species from the families Buprestidae, Cerambycidae, Scolitidae, and Curculionidae are notable, as their larvae burrow through the wood, rendering it unsuitable for construction purposes, even if they do not completely destroy the wood.*

*Due to significant human-induced activities, the equilibrium between the resilience of coniferous forests and the aggressiveness of wood-boring insects that inhabit and reproduce in them becomes disrupted.*

*In recent times, the widespread utilization of cypress trees imported from foreign countries has been observed in landscaping endeavors within the country. The importation of these plants carries a significant risk of introducing invasive insect species into their stems and roots. When invasive insects are introduced to a novel environment, it requires a certain duration for them to establish a natural entomophagous complex, meaning that local predators of these insects need time to adapt to this new pest. If the conditions in this new environment are favorable for the pest, and there is no naturally occurring system of predators to regulate its population, the pest can reproduce rapidly and spread. Consequently, this will result in the infection of new plants and a substantial surge in invasive insect populations. Hence, the early detection of invasive pests is of paramount importance to prevent their dissemination.*

### *Self-defense system against bark beetles in coniferous trees*

*Conifers possess an intricate system of canals and glands that contain substantial quantities of oleoresin, which is a thick blend of terpenes. This oleoresin serves as both anatomical and chemical protection for these plants. When released, the resin physically incapacitates bark beetles, thereby serving as a deterrent against insect infestations, either in full or in part. This can have adverse effects*

*on various aspects of the life cycle of bark beetles and their symbiotic organisms. Consequently, these compounds not only directly hinder tree infection by bark beetles but also impede the transmission of symbiotic fungi by them (Huang et al., 2020). For instance, when phloem monoterpenes are present at high concentrations, they not only kill bark beetles but also their fungal and bacterial symbionts (Raffa, 2014; Chiu et al, 2017).*

*The interactions between conifers, bark beetles, and their symbiotic organisms can be intricate. When coniferous trees release low concentrations of monoterpenes, it becomes relatively easy for bark beetles to detect the host plant, recognize it, and accept it readily. Furthermore, bark beetles employ monoterpenes for various functions, including serving as stimulants, precursors, and enhancers of pheromone aggregation (Blomquist et al., 2010; Chiu et al., 2018).*

*Bacteria that share a symbiotic relationship with certain bark beetle species have the ability to break down monoterpenes (Boone et al., 2013). In addition to monoterpenes, diterpenes exhibit potent antifungal properties against numerous insect species. As of now, no documented effects of sesquiterpenes on bark beetles or their symbiotic organisms have been reported, although further investigation into this compound group is warranted.*

## *Material and methods*

*The gathering of specimens from a variety of coniferous plants, encompassing eggs, larvae, adults, and pupae of insects, was conducted following established entomological methods (Fasulati, 1971; Zlotin, 1989). To accomplish this, standard entomological tools like Japanese umbrellas, insect nets, and aspirators designed for capturing small insects were employed. The quantity of insects was meticulously documented, and their behaviors were observed.*

*The laboratory segment of the research was carried out at the Institute of Zoology of the Mninistry of Science and Education of the Republic of Azerbaijan and entailed the proper processing of the collected material, rearing the eggs, larvae, and pupae gathered from natural environments to obtain adult insects, and the subsequent taxonomic identification of these adult specimens (Savkovskiy,1990; Yakobson, Ogloblin, 1931).*

*Through the analysis of the collected specimens, the principal pests of coniferous plants were identified.*

*The geographic coordinates of the specimen collection sites were determined using GPS technology:*

*Samukh: H 250m; N 40047´31,03´/´E 46018´28,17´´*
*Turyanchay: H 119m; N 40043´4,61´´/E 47033´8,83´´*
*Balakan: H 460.8m; N 41°43'49.42" /E 46°26'52.52"*
*Absheron: H 130m; N 40°21'28.33" /E 49°49'7.01"*
*Shahdagh: H 1617m; N 41°17'41.36" /E 48° 6'30.95"*
*Goygol: H 1784m; N 40°23'40.87"/E 46°19'22.42"*
*Nakhchivan AR: H 1919m; N39°05'38.3" / E45°54'42.6"*
*Table 1 provides a list of arthropods gathered within the study regions mentioned previously.*

*Table 1.*

*The taxonomic composition of the arthropods inhabiting coniferous trees in Azerbaijan*

| Taxon | Food plant | | | Feeding type |
|---|---|---|---|---|
| | pine | cypress | juniper | |
| Class Insecta (Linnaeus, 1758) | | | | |
| Order Odonata Fabricius, 1793 | | | | |
| Sympetrum meridionale Selys, 1840 | + | | + | P |
| Orthetrum brunneum (Fonscolombe, 1837) | + | + | | P |
| Order Neuroptera Linnaeus, 1758 | | | | |
| Family Myrmeleontidae Latreille, 1802 | | | | |
| Distoleon tetragrammicus (Fabricius, 1798) | + | | | P |
| Euroleon nostras (Geoffroy in Fourcroy, 1785) | | + | + | P |
| Order Coleoptera Linnaeus, 1758 | | | | |
| Family Scolytidae Latreille, 1806 | | | | |
| Orthotomicus erosus Bright & Skidmore, 1997 | + | | | SP |
| Hylurgus ligniperda (Fabricius, 1787) | + | | | SP |
| Family Scarabaeidae Latreille, 1802 | | | | |

| | | | | |
|---|---|---|---|---|
| *Polyphylla fullo (Linnaeus, 1758)* | + | + | | *IL/LR* |
| *Cetonia aurata (Linnaeus, 1758)* | | + | + | *IL/LR* |
| *Oxythyrea funesta (Poda, 1761)* | + | | + | *IL/LR* |
| ***Family Buprestidae Leach, 1815*** | | | | |
| *Anthaxia quadripunctata (Linnaeus, 1758)* | + | | | *SP* |
| *Melanophila acuminata De Geer, 1774* | + | | | *SP* |
| *Phaenops cyanea Fabricius, 1775* | + | | | *SP* |
| ***Family Cerambycidae Latreille, 1802*** | | | | |
| *Molorchus (Caenoptera)monticola Plavilstshikov, 1931* | + | | | *TP* |
| *Molorchus (Molorchus) kiesenwetteri Mulsant et Rey, 1861* | + | + | | *TP* |
| *Molorchus minor (Linnaeus, 1758)* | + | | | *TP* |
| *Rhagium (Rhagium) inquisitor Linnaeus, 1758* | + | | | *TP* |
| *Hylotrupes bajulus Linnaeus, 1758* | | | + | *TP* |
| *Monochamus galloprovincialis lignator Krynicki,1832* | | + | | *TP* |
| *Semanotus russicus Fabricius, 1776* | | + | + | *TP* |
| ***Order Hemiptera Linnaeus, 1758*** | | | | |
| ***Family Aphididae Latreille, 1802*** | | | | |
| *Cinara (Cinara) pinea (Mordvilko, 1895)* | + | | | *SP* |
| *Cinara juniperina Mordvilka, 1895* | | | + | *SP* |
| *Cinara cupressi (Buckton, 1881)* | | + | + | |
| ***Family Coccidae Fallén, 1814*** | | | | |
| *Pulvinaria floccifera (Westwood, 1870)* | + | | | *SP* |
| ***Family Diaspididae Targioni Tozzetti, 1868*** | | | | |
| *Leucaspis pusilla Löw, 1883* | | + | | *SP* |
| ***Family Flatidae Spinola, 1839*** | | | | |
| *Metcalfa pruinosa (Say, 1830)* | + | | | *SP* |
| ***Order Lepidoptera Linnaeus, 1758*** | | | | |
| ***Family Geometridae Leach, 1815*** | | | | |
| *Bupalus piniaria Linnaeus, 1758* | + | | | *N* |
| ***Family Erebidae Leach, 1815*** | | | | |
| *Lymantria dispar Linnaeus, 1758* | + | | | *N* |
| ***Class Arachnida Cuvier, 1812*** | | | | |
| ***Family Tetranychidae Donnadieu, 1875*** | | | | |
| *Tetranychus urticae C. L. Koch, 1836* | + | | + | *SP* |

***Note: P*** *-predator;* ***TP****- stem pest; N-needle eaters;* ***IN/LR*** *– imago are needle-eaters, and larvae are root-eaters.;* ***SP*** *–Sucking pests*

***Results***

*Field investigations were conducted in various regions, namely Baku, Absheron, Samukh, Turyanchay, Balaken, Shahdag, Goygol, and Nakhchivan. These regions feature the cultivation of coniferous trees and shrubs for landscaping purposes, as well as their natural growth. The observations reveal that the majority of cases of drying out occur within the vicinity of Baku and Absheron. Table 1 provides a comprehensive inventory of insects and mites documented on coniferous trees and shrubs during the study.*

*This table includes details regarding the dietary preferences of each species found on these plants, specifically, which part of the coniferous tree they target (i.e., the roots, stem, or needle leaves).*

*Figure 1 illustrates the distribution of arthropods from various taxonomic orders that were collected from coniferous trees in Azerbaijan throughout the research duration. The data reveals that the Coleoptera order constitutes the largest proportion, accounting for 50% of the total, followed by the Hemiptera group, making up 20.8%. In third place is the Lepidoptera order, represented by three species, amounting to 12.5% of the total, while the Odonata and Neuroptera orders each have two representatives, making up 8.3% in total. The arachnid class is represented by a single species, Tetranychus urticae, contributing to 4.1% of the total.*

*The complex of arthropods associated with coniferous trees comprises 15 species from the Scolitidae, Buprestidae, and Cerambycidae families, categorizing them as trunk-damaging pests within*

*the Coleoptera order. Within the Lepidoptera order, the families Geometridae and Erebidae contribute two species that are part of the group of insects known for their preference for pine as a food source. Additionally, there are three species in the group of scarab beetles belonging to the Coleoptera family. While the adults of these beetles feed on pine needles, their larvae inhabit the soil and feed on the roots of newly planted seedlings and young trees, potentially causing them to weaken or drying out. The category of sap-sucking pests comprises five representatives from the Aphididae, Coccidae, Diaspididae, and Flatidae families, all of which belong to the Hemiptera order. Furthermore, the spider mite Tetranychus urticae also falls into the category of sap-sucking pests.*

*Arthropods have been categorized based on their ability to adapt to various types of coniferous plants, resulting in the following divisions: the highest number of pests, comprising 18 species, was observed on pine trees; cypress trees were host to 8 species, and juniper trees harbored 6 species. The increased prevalence of pests on pine trees can be attributed to the fact that these trees are more prevalent in natural environments in Azerbaijan than other coniferous plants, and they are more frequently utilized for landscaping purposes.*

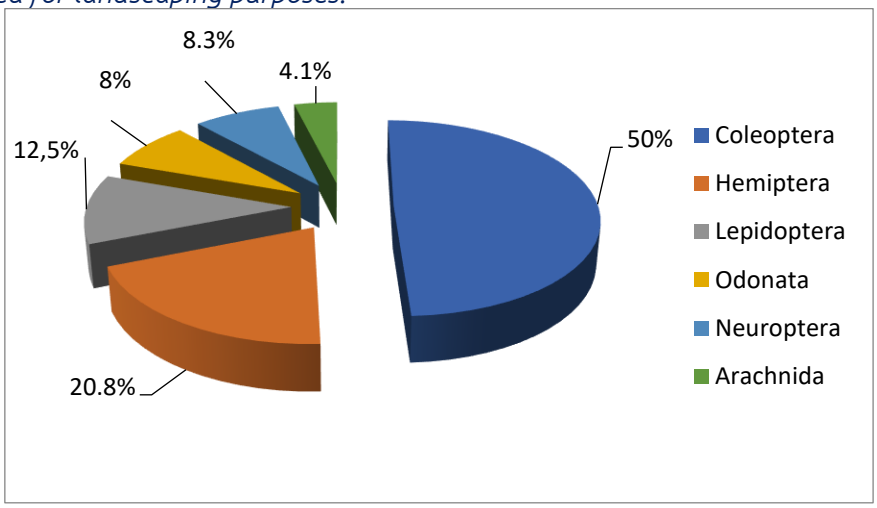


***Figure 1.*** *The ratio of representatives of different orders included in the complex of arthropod coniferous plants of Azerbaijan*

*The identical pest species, PP. fulllo and M. (M.) kiesenwetteri, affect both pine and cypress. Pine and juniper share two species each (O. funesta, T. urticae). Similarly, cypress and juniper have two common pest species (C. aurata, S. russicus). Notably, there is no pest species that affects all three tree types: pine, cypress, and juniper.*

*Despite Odonata and Neuroptera group members not having direct interactions with coniferous trees due to their predatory nature, they fulfill a significant function in the natural control of pest populations by serving as a crucial element within the plant-phytophage-predator chain.*

*Two representatives from the Scolitidae family have been documented on coniferous trees, namely Oligophagus erosus and Hylurgus ligniperda. These two species exhibit oligophagy as a result of their specialization in food sources. Among the three species of jewel beetles considered, Phaenops cyanea is monophagous, while Aphanisticus quadripunctata and Melanophila acuminate are classified as oligophages. In the realm of coniferous arthropods, longhorned beetles encompass a total of seven species. Among these, three species, namely Monochamus (Criocephalus) monticola, Monochamus (Monochamus) kiesenwetteri, and Monochamus minor, are polyphages and are capable of thriving on both coniferous and broad-leaved plants. The remaining four species, Rhamnus (Rhamnus) inquisitor, Stictoleptura russicus, Hesperophanes bajulus, and Monochamus species, are identified as oligophagous.*

*Three beetle species, namely Pogonus fullo, Curculio aurata, and Otiorhynchus funesta, exhibit a broad polyphagous feeding behavior. In contrast, two pine species, Curculio (Curculio) piniaria and Curculio juniperina, are categorized as monophagous, indicating their exclusive consumption of specific plant hosts.*

*Additionally, within the Hemiptera group, Prasocuris floccifera, Lygus pusilla, and Myzus pruinosa are widely polyphagous and are recognized as pests that infest a diverse range of plants.*

*Among the Lepidoptera, Bupalus piniaria, a pine beetle, is monophagous, while the silkworm, Lymantria dispar, poses a significant threat as a polyphagous species capable of causing harm to various broad-leaved and coniferous plants, thus requiring quarantine measures.*

*Figure 2 in the text presents a graphical representation of the percentage of food specialization within the coniferous arthropod complex.*

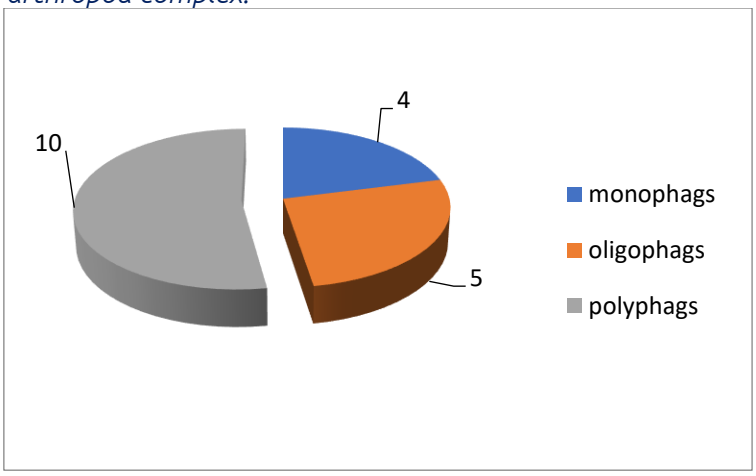


***Figure 2.*** *Percentage ratio by food specialization in the complex of arthropods of coniferous trees in Azerbaijan*

*The complex of arthropods in Azerbaijan encompasses 28 distinct species that primarily infest coniferous trees, some of which are classified as quarantine pests. These arthropods exert deleterious effects on the physiological condition of the trees, resulting in the deterioration of coniferous foliage. This, in turn, hampers the process of photosynthesis, leading to a weakening of the overall plant vitality and, in severe cases, the plant's demise. Furthermore, trank-infesting pests contribute to the degradation of wood, causing damage to the plant's water transport system, ultimately culminating in desiccation. Such stem-dwelling pests significantly diminish the market value of affected trees. Sucking pests, through their activities, also induce plant weakening and, when infestations are extensive, lead to plant mortality due to their mass destruction.*

*The beneficial entomofauna comprises predators and parasitoids. Among the predators are members of the Odonata and Neuroptera arthropod groups, which have been recorded on coniferous trees. Both their adult and larval stages serve a vital function in naturally regulating pest populations by preying on the larvae of these pests.*

*Apart from arthropods, which play a pivotal role in the life cycle of conifers, sporadic organisms have been observed in this context, including earwigs (Dermaptera), as well as Tisanura, among others. These organisms seek refuge among the foliage and beneath the bark of coniferous trees, utilizing these locations for winter hibernation and daytime shelter.*

## *Conclusion*

*The conducted studies lead us to the deduction that in Azerbaijan, the phenomenon of tree drying out primarily affects coniferous trees that have been planted for ornamental purposes. This drying out is not attributed to a singular causative factor but arises from a combination of multiple influences. Several factors contribute to this drying out, with the foremost among them being the pervasive global climate changes, which are occurring worldwide, including within our country. Other factors encompass insufficient precipitation, inadequate maintenance of landscaping trees, failure to promptly address pest infestations, and human-induced disturbances. The cumulative effect of these multifaceted negative influences, persisting over numerous years, leads to a gradual erosion of the adaptability and resilience of coniferous trees to diseases and pests. The pests mentioned earlier easily exploit these debilitated trees, which have already reached a state of health irreparable, thereby rendering them susceptible to complete mortality. In light of these circumstances, we find it necessary to propose several recommendations:*

*1. Annual monitoring is imperative in areas where coniferous vegetation is either cultivated or naturally occurring.*

*2. The utilization of indigenous coniferous flora for landscaping is recommended, with strict scrutiny required for plants introduced for this purpose.*

*3. In the creation of landscaped zones and man-made forests, it is advisable to interplant coniferous species with broad-leaved varieties.*

*4. The precise adherence to technical planting guidelines is essential.*

*5. Diligent and appropriate maintenance is vital for the well-being of plants.*

*6. Deceased trees identified during routine monitoring should be felled and promptly removed from the vicinity.*

*7. To capture pests within nature reserves and parks, deploy pheromone traps attached to trees.*

*For trees afflicted by pests, apply chemical control agents during the early morning or evening hours, when the weather is dry and calm. Extreme heat or rainfall may hinder the effective penetration of the sprayed chemicals into the plant, while wind can result in the dispersion of the chemicals into residential areas.*

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# Economic sciences

## THE CURRENT SITUATION OF INNOVATION-ORIENTED AGRICULTURAL INVESTMENTS IN AZERBAIJAN AND ITS EFFECT ON THE NATIONAL ECONOMY

*Alifov Vusal Yagub*
*PhD., Department of Finance and Economic Theory,*
*Azerbaijan StateAgricultural University*
*Gahramanov Alif Niyazali*
*Senior lecturer, Department of Marketing*
*Azerbaijan StateAgricultural University*
*Suleymanova Aysel Shakir*
*Assistant, Department of Finance and Economic Theory,*
*Azerbaijan StateAgricultural University*
*Rzayeva Amalya Arif*
*Assistant, Department of Finance and Economic Theory,*
*Azerbaijan StateAgricultural University*
*Garayeva Sevinj Shohraddin*
*Assistant, Department of Finance and Economic Theory,*
*Azerbaijan StateAgricultural University*

*Abstract*

*This article examines the current situation of innovation-oriented investment in Azerbaijan and its prospective development opportunities. Particularly, modern scientific analyzes were carried out based on the importance of innovation-oriented agricultural investments to accelerate the integration of liberated areas to the country's economy. The scientific work addressed the vital role of agricultural investment strategy for developing countries in maintaining economic growth and macroeconomic stability. After the transition to a market economy, the continuing growth of agriculture in Azerbaijan, as well as difersification issues of non-oil sector were also included in this study. Proposals include scientific grounds for growing innovative agricultural investment based on the analysis of international experience and the study of existing prospects in the country.*

**Keywords:** *Agriculture, innovation-oriented investment, economic growth, non-oil sector, national economy.*

**Introduction.** *In Azerbaijan, the effective reforms implemented in the development of the non-oil sector in the last fifteen years have created a favorable environment for further expansion of the investment market. Development of non-oil sector causes creation of new job places, elimination the dependence of national economy from the oil sector, sustainability of stability at the macroeconomic level. This aspect also creates potential opportunities in the country's socioeconomic growth in terms of minimizing the country poverty level, regional socioeconomic development, and agricultural competitiveness.*

*The most significant aspect of Azerbaijan's long-term goals is to drive output upwards while identifying its stability and beneficial growth rate. Agriculture's economic success in the contemporary era is a result of innovation-oriented investments. Innovation-oriented economic growth is usually not short-term in the real volume of agricultural production, but in the long run is understood and reflected in the relevant indicators of each area.*

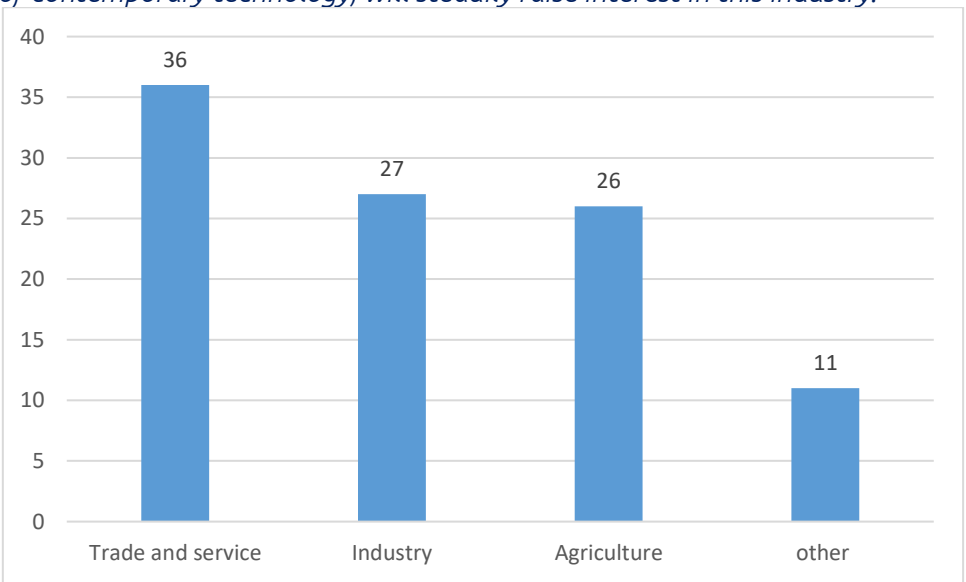
**Methods.** *The research was carried out on the basis of following methods such as analyze, systematic approach, logical generalization including the method of analysis and synthesis. Basically, information about the potential opportunities of innovatiion-oriented investment was collected, grouped and analyzed. The analysis approach was used to simplify views about investment policy, and a comparison review of a number of economic indicators was performed. In addition to the official statistics of the Republic of Azerbaijan's State Statistics Committee, scholarly articles published in local and foreign journals were also reviewed during the research.*

**Results.** *The country's extensive expansion of agricultural reproduction suggests that it has a large number of natural and labor resources. Because the amount of those resources increases, the economy*

*expands the volume of production. This is a common occurrence in Azerbaijan's agriculture. According to statistics, 35.8 percent of the employed population, or 1,753,100 people are expected to be laboring in agricultural fields in 2022 (Agriculture of Azerbaijan, 2023). For comparision, in countries with innovation-oriented economic growth in agriculture, this figure is between 1-3 percent. Agriculture employs 1% of the workforce in the United States, 2.2% in the Netherlands, 1.2% in Germany, and 3.1% in Japan (AFLS, 2022). Based on these facts, it is possible to conclude that agriculture in Azerbaijan runs on broader principles. Furthermore, developing innovation-oriented investments is one of Azerbaijan's economic strategy priority in this area. This priority direction is evident in the liberated areas. Innovation-oriented infrastructural projects, smart technologies and smart villages implemented in these regions are clear examples of the implemented policy. Furthermore, the main objective of innovation-oriented investments is the involvement of agricultural lands in the production of agricultural products. The advantage of this policy is that these regions are directly involved in the innovation-oriented economic growth process without passing the extensive stage.*

*It should be noted that 2.2 billion manats have been allocated in 2021 and 2.7 billion manats in 2022 for the restoration and reconstruction of Karabakh and Eastern Zangezur region. In comparison to previous year, the budget for 2023 includes approximately 11% extra, or 3 billion manats, for the restoration of liberated territories. Significant efforts have been made to bring back socio-economic life to the liberated areas, especially involving the private sector. The government has identified the creation of a favorable environment for local and foreign business representatives to invest in those areas as one of the main priority directions in the economic policy (Aghayeva, 2022). For this purpose, on November 16, 2022, by the Decree of the President of Azerbaijan, "The First State Program on the Great Return to the territories freed from occupation of the Republic of Azerbaijan" was approved. One of the program's key target indicators is the creation of a favorable environment for entrepreneurship to attract new investments for the rehabilitation of the economy in liberated areas. Increasing the attractiveness of the entrepreneurial environment and fostering the development of business operations are also among the primary objectives of the State program (Gulieva, 2023).*

*As shown in Graph 1, 26 percent of those would like to invest in agriculture enrolled for business activities in liberated territories by the beginning of 2023. The fact that these locations are exceptionally favorable for agricultural activities, both climatically and geographically, necessitates this activity. True, it is commonly understood that this industry is riskier and, in certain situations, less profitable. As a result, the proportion of applicants seeking to invest in agriculture lags behind those seeking to invest in trade and services, as well as industry. However, the fertile land conditions, as well as the numerous applications of contemporary technology, will steadily raise interest in this industry.*




*Graph 1. Sectoral distribution of applications for investment projects to be implemented in the liberated territories until the beginning of 2023.*

*Sources: Gulieva, 2023*

*According to UN data, the demand for food will increase by about 70% by 2050 due to the rapid growth of the world population. The existence of a significant proportion of 9.9% of people suffering from hunger in the modern day must raise serious concerns for the future nutrition of 10 billion people.*

*Changes in the environment are impossible to forecast, thus the use of agricultural technological advancements is unavoidable (Mass Challenge, 2023).*

*Recent years, the main directions of innovation-oriented investments in agriculture are "Bee Vectoring Technologies", "Precision Agriculture", "Indoor Vertical Farming", livestock smart farming technologies such as "Automated dairy installations", "Automated cleaning systems", "Armenta's non-antibiotic treatment", "Automated feeder systems", "Faromatics employs robotics", as well as "Laser Scarecrows", "Farm Automation", "Real-Time Kinematic (RTK) Technology", "Minichromosome Technology", "Farm Management Softwares", "Water Management Technology" and etc. (Mass Challenge,2023).*

*Additionally note that the United States began investing in the innovation of climate-based agricultural and food systems from 2021 to 2025, with a goal of investing $1 billion over the next five years. The United States and the United Arab Emirates officially backed this project during the 26th United Nations Conference on Climate Change (COP26) as part of the AIM for Climate Innovation Mission (AIM for Climate), together with 31 countries and more than 48 non-governmental partners. Among the partner countries include Australia, Canada, New Zealand, Brazil, Mexico, and others, as well as countries such as Azerbaijan (U.S. Department of Agriculture, 2021).*

*In Europe, more start-up ventures involving the use of agricultural technology are being implemented. Almost 90% of these projects are located in Europe. More specifically, the use of agricultural technologies is 16% in France, 15% in Germany, and 13% in Italy. In particular, innovations are used in the sectors of digitization, robotics, and internet of things (IoT).*

*According to study, as food demand grows, the market for agricultural robots might reach $21 billion by 2026, up from $5.4 billion in 2020 (US Department of Agriculture, 2021).*

***Conclusion.*** *Thus, in the near future, Azerbaijan will need to considerably strengthen strategic approaches to the formulation of innovation policy and innovation processes, and we believe it is critical to focus on a number of issues:*

*- the innovative growth potential of Azerbaijan should be objectively analyzed and evaluated;*

*- the processes of developing the national innovation system should be accomplished, and the justifiable strategic orientations of the inventive structure should be determined;*

*- the formation of an innovative structure on the management system of innovation processes and application processes of flexible management mechanisms should be ensured;*

*- the financial sources of innovation-oriented investment in agriculture in Azerbaijan should be clearly defined and evaluated;*

*- the role of public-private partnership in the wide spread and development of innovation-oriented investments in agriculture should be increased;*

*- in addition to expanding the role of public-private partnerships, a suitable infrastructure system should be developed to facilitate access to sources of innovative investment;*

*- in accordance with the strategic goals of Azerbaijan's economic development, targets for the national economy's immediate and long-term innovation should be determined, as should innovative development plans and big innovation-investment projects.*

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# Journalism

## PROBLEMS OF PRESERVING CULTURAL HERITAGE IN MODERN MEDIA SPACE

*Yessenbekova Ulbossyn M.*
*Candidate of Philological Sciences, Associate Professor,*
*L.N. Gumilyov Eurasian National University, Kazakhstan, Astana*
*Begim K. Kutym,*
*master's student at Nazarbayev University, Kazakhstan, Astana*

*Abstract*

*The article is dedicated to addressing the contemporary challenges and issues related to the preservation of cultural heritage in the era of digital media and information technology. The authors analyze how modern media impact the safeguarding of cultural values and emphasize crucial factors contributing to the rapid transformation of traditional cultures. Moreover, the article scrutinizes the scholarly works of renowned American scientists E. Toffler and G. Schiller, which delve into the influence of technology and communications on culture, as well as methods for its dissemination.*

*Building upon this analysis, the authors advocate for increased attention to the significance of the interaction between media and society, aiming to ensure the sustainable development of cultural heritage within the modern information space. Additionally, the authors explore the role of contemporary digital communications, providing recommendations for the effective management of cultural heritage in the digital age. They promote a balanced approach that not only preserves traditions but also fosters cultural innovation.*

*Keywords: media, innovation, cultural heritage, online context, digital communications*

### *Introduction*

*In the digital era, there is a noticeable increase in the demand for the communicative and manipulative functions of mass media. This trend is expected, but it is only in societies with well-established democratic traditions that the activities of entities within the information market align with the principles of the "fourth estate." In such conditions, it becomes possible to ensure the independence of the media, protect the rights of citizens, and influence political decision-making effectively.*

*Over the past few decades, journalism has drawn closer to positions of power through the utilization of new technological tools. Simultaneously, it has heightened its influence on the wielders of power by shaping diverse opinions within society. In civil societies, this strengthening of journalism has provided an opportunity for the branches of government to operate on an equal footing. Responsible journalism possesses the potential to subject all branches of government to the oversight of the people. Nevertheless, it's important to note that mass information communications do not always align with the interests of ordinary citizens or safeguard their rights.*

### *Results and Discussion*

*It is well-established that the proportion of information resources under state control is exceedingly small, which is a consequence of the development of global capital and Western information societies. This arrangement finds favor with all stakeholders, whether they be transnational corporations, private producers, or political entities vying for authority. This is because power, capital, and communications are inextricably linked in the new century; they are intricately intertwined. In a scenario where the information environment demands substantial financial resources, significant capital cannot thrive without access to information. Political authority, likewise, necessitates both financial means and access to information. Consequently, in the global information landscape, no means of information communication can function independently or autonomously without financial backing.*

*Notably, American sociologist and futurist Alvin Toffler referred to future human society as "a society of people who create, collect, store, and distribute information." Toffler's projections regarding the challenges, conflicts, and global issues that might confront humanity in the 21st century were encapsulated in the concept of "Highly Industrial Civilization" [1].*

*In American and European nations, research on the foundations and outcomes of media has evolved in several directions, including:*

– *the consideration of journalism as an institution deeply intertwined with political processes;*
– *the exploration of philosophical concepts surrounding mass communication;*
– *econometric analysis of journalism;*
– *the examination of journalism in conjunction with fields such as history, literature, sociology, political science, and psychology.*

*The amalgamation of these diverse studies has given rise to a burgeoning field of study known as "medialogy." Presently, the domain of medialogy is advancing at an accelerated pace, marked by the publication of numerous seminal scientific works.*

*The place and role of the media in society were initially raised by the American writer and journalist Walter Lippmann in his book "Public Opinion" (published in 1922). This work provided the impetus for scientific research into the manipulative capabilities of information tools and their practical application. Among these studies, Herbert Schiller's works, titled "Mind Manipulators" and "Communication and Cultural Domination," have garnered significant acclaim within the scientific community.*

*Herbert Irving Schiller, an American sociologist and renowned media critic, sharply criticized American mass communications for the first time in the history of journalism in his book "Manipulators of Consciousness." Schiller contends that supposedly "independent" mass communications serve the interests of America's industrial groups and function as a necessary mechanism for the power elite to persuade ordinary people to conform to their will, effectively "washing their minds" in alignment with their interests.*

*In another work, "Communication and Cultural Domination," Schiller extends his critique to mass communication systems on a global scale. Both scientists' works are characterized by intense and rigorous criticism supported by numerous arguments. To comprehensively review, study, and understand Herbert Schiller's scientific concept, it is essential to grasp the main purpose of the topic [2].*

*Sooner or later, many individuals pose questions such as, "What type of society do we inhabit?" "Is it possible to comprehend the phenomena unfolding around us?" "Where is our society and the world headed?" "What will the future hold?" And they embark on a quest for answers. Although most of these questions may appear simple and straightforward, they are inherently complex. The essence and foundation of these inquiries are multifaceted and extensive. The answers to these questions evolve daily and reflect the nature of the ever-changing era. This necessitates the identification of the principal characteristics and requisites of the new era.*

*The task of unraveling the laws of technological change and understanding the characteristics of the post-industrial, information-driven world primarily falls on scientists. Meanwhile, the majority of people find themselves as participants in these transformative processes, compelled to adapt to the new information landscape. It is imperative for scientists to delineate the features of this post-industrial, information-driven world to gain insights into the intrinsic nature of politics and power, forecast the scientific underpinnings of all societal phenomena, and discern the conditions and objectives of their development and purpose. Only through this process can patterns be identified, and the role and potential of mass communication in the digital era be determined. This necessitates a scientifically grounded exploration of questions surrounding the extent to which communications can influence society and individuals.*

*The present-day realities in post-Soviet societies have laid bare the fallacy of ideological beliefs regarding the possibility of transitioning from one societal formation to another while disregarding the laws of evolution. The artificial ideology of "from feudalism to communism" inflicted significant harm upon Kazakh society, hindering the development and evolution of the people and their national psyche. The misconception that we had skipped the capitalist development stage between feudalism and communism is now evident as we witness the consequences of capitalism. Meanwhile, the form of communist ideology, "from each according to his abilities, to each according to his needs," is better sought in the concepts of a post-industrial, post-modern, information society.*

*The Kazakh people must embrace the society of the future generation with new intuition and correctly determine the direction of today's strategic development. Experts often define information as the primary sign and symbol of the current times. Phrases such as "We live in an information society" and "We have entered the era of the virtual economy" underscore the centrality of information in contemporary life.*

*The weight of opinions on the view of human civilization in the 21st century from the perspective of the "global information economy" is on the rise. During periods of cyclical crises in the world economy and the financial sector, most countries at the pinnacle of technological development have embraced the concept of a "global information society", society in the digital age, and the digital economy [3].*

*Information security of the state has become a crucial tool for maintaining independence and statehood. It is anticipated that digital technologies, which have received paramount importance in Kazakhstan, will serve as a significant impetus for the state's development. The future of the nation is also contingent on its ability to adapt to the digital world. However, there is another facet of the problem to consider. Humanity is at the center of the digital world, as it shapes this world of digital technology with its own hands. It becomes essential to examine how the digital world, created and encompassing humanity, poses risks and challenges to individuals' faith, reason, and inner spiritual world. Advanced technologies and artificial intelligence raise questions about their dangers to humans. Addressing these concerns should be a collective endeavor involving scientists, politicians, and the international community. Philosophers, sociologists, historians, and politicians have just begun to pay attention to the negative changes induced by the digital environment, and they are actively seeking platforms for the scientific exchange of ideas.*

*In a fundamental sense, the changes in knowledge, beliefs, human physiology, and psychology induced by information technology remain largely unexplored. A theoretical foundation has yet to be established, and a universally accepted system of defining principles has not been developed within the global scientific community. The impact of mass communications and digital culture on the lives of modern individuals presents a formidable challenge to science's ability to address social and cultural issues. Particularly noteworthy is the profound cultural influence of mass communications and online services on the current generation of children and youth. They have grown up in a world saturated with the values of television and other contemporary forms of media. Despite the rising prominence of e-books and various digital works, the printed book continues to thrive robustly in the digital age and remains the preference of the majority of readers, including the youth.*

*In the digital age, the competition between electronic and paper formats intensifies, and digital media is reshaping the way humans interact with information, as the digital world becomes increasingly familiar. Digital versions of print genres, such as newspapers, magazines, and other textual forms, are not mere translations or straightforward adaptations of their offline counterparts into an online context. They have rapidly evolved into new digital genres infused with interactive features, including animated text, the ability to navigate different sections of the text seamlessly, and supplementary materials in both textual and non-textual formats, such as illustrations, music, and video, each with its distinct aesthetic qualities. Children are introduced to the world of storytelling through their early reading experiences, where words on a page, especially those in literary language, can enhance memory, evoke emotions, and stimulate imagination [4].*

*Reading on a screen or online tends to foster a superficial mode of attention driven by curiosity, often lacking the depth of reflection. The Internet significantly alters literacy patterns as reading becomes less intensive and extensive. It is well-established that literary reading is a valuable tool for education and human development. Numerous scholars highlight that reading from a screen is not as efficient and effective as reading from a printed page.*

*All of these factors considerably constrict an individual's spiritual sphere, particularly in societies deeply immersed in a digital environment. Concepts that are vital to citizenship, such as independence, country, and national identity, can become hollow phrases and echoes in societies devoid of a spiritual foundation, having lost touch with language, spirituality, and culture. The challenges confronting humanity are especially perilous for newly independent nations. Consequently, contemporary scientific discourse should center on the extent to which digital technologies will transform human life and the implications of these changes. It is crucial for future generations to recognize the unique nature of information and advance scientific research in this domain.*

*Herbert Schiller's research also delved into the information requirements of advanced capitalism. Another significant focus in Schiller's body of work centers on the issue of employing information to manipulate mass consciousness, redirect it in various directions, and exert control over human consciousness through information dissemination.*

*To address these intricate concerns, a holistic approach is essential—a synergy that combines political and social sciences, philosophy, and psychology. It is noteworthy that not only the average consumer but also a growing number of scholars are grappling with the complexities of the technological revolution, often arriving at superficial conclusions because they are unwilling to delve into the intricate, multi-layered functioning of the information landscape.*

*Decades ahead of his time, Herbert Schiller accurately foretold that profound transformations in information and communication would follow World War II. In his 1976 book "Communication and Cultural Domination," Schiller asserted that the media, including commercial media, serve as the primary*

*ideological amplifiers of the "world capitalist system." To encapsulate the nature of this dominance, Schiller introduced the term "cultural imperialism," signifying "conquest and occupation through culture." According to Schiller, "cultural imperialism" serves as a tool of the ruling elite, designed to create the desired societal model by manipulating people's consciousness through coercion and influence.*

*Herbert Schiller highlights three key facets of information communication:*

*1. Market principles continue to be relevant in the information society. Market dynamics are expanding into new domains and will retain their dominance. Information evolves into a commodity, with increased monetization, following the market's dictates.*

*2. In addition to the familiar wealth inequality, the concept of information inequality has become a prominent factor in our lives. Society stratifies into "information-rich" and "information-poor" groups based on their access to and utilization of information. Citizens are classified into classes akin to the division between rich and poor nations globally, marking the law of the information age. Individuals who possess information enhance their capital by exploiting it to shape and manipulate the consciousness of others for personal gain. For instance, in October 2006, the Government of Kazakhstan endorsed the "Program for Reducing Information Inequality in the Republic of Kazakhstan for 2007-2009." Similar to other nations, Kazakh society witnesses the formation of "information-rich" and "information-poor" segments. In a society progressing along this trajectory, there is no doubt that groups and individuals proficient in information communication will leverage media capabilities for their personal or group interests.*

*3. Herbert Schiller argues that the essence of the contemporary information society lies in the new epoch of capitalist development. The emerging capitalism takes the form of corporate capitalism. Presently, we witness the swift movement and concentration of capital globally. Such extensive transnational capital endeavors to exert its influence over states, a phenomenon evident in the global economic model [5].*

*When examining this trend within the context of the information sector, a prominent pattern emerges: the development of information and information technology in the interests of private enterprise assumes a dominant role. Notably, individuals who possess information wield it to their advantage, exerting "power over the consciousness" of the general public, ordinary citizens. This disrupts the equilibrium among states, nations, and societal factions. The demand for the dissemination of objective, truthful information has prompted public oversight of information communications, compelling them to consider the interests of society [6].*

*The inception of the British public broadcaster BBC, the presence of the American public television channel PBS (Public Broadcasting System), and the public ownership structure of the Japanese television channel NHK all emanated from public demand. These television entities enjoy a strong reputation and boast a wide viewership. Significantly, they maintain financial independence from both state funding and private capital, relying instead on philanthropy, contributions from citizens, and advertising.*

*Kazakhstan features a spectrum of television and radio outlets, including state-run and commercial channels: 149 domestic television channels, 70 radio channels, 122 cable operators offering television and radio broadcasts, and 9 registered satellite operators. Additionally, 219 foreign television and radio channels have received authorization to broadcast in Kazakhstan. Digital television introduces a multitude of opportunities, with the state distributing signals from commercial television and radio channels freely throughout the nation.*

*Discussions surrounding the establishment of a public broadcasting television channel in Kazakhstan are occurring at various levels. Numerous organizational, legal, and economic considerations pertain to issues such as ownership structure and funding sources. However, it is evident that the evolution of Kazakh society, coupled with the heightened demand for impartial information disseminated through channels independent of state control, will elevate this matter to the forefront and facilitate a favorable resolution.*

*The transformation of the information sphere becomes imperative due to changes in the social system, historical imperatives, and the burgeoning social consciousness. Innovative technologies intensify the demands placed on the realm of information communications. Notably, shifts in public consciousness are particularly conspicuous in the era of information technology. Consequently, the overhaul of state information policy is inextricably linked to the populace's grasp of innovative concepts and their understanding of the significance of possessing digital technologies to safeguard cultural and spiritual heritage in contemporary circumstances.*

### *Conclusion*

*Modern media exert a significant influence on the preservation of cultural values and the methods of their dissemination. It is imperative to underscore the importance of enhancing the interaction between media and society to ensure the sustainable development of cultural heritage in the contemporary world. In addition, effective management of cultural heritage in the digital age necessitates adopting a well-balanced approach that embraces the preservation of traditions while also fostering cultural innovation.*

*This study serves as the inaugural segment of a more comprehensive discourse on the impact of emerging communication technologies on the cultural domain and the transformations occurring in the Kazakh language within the new information landscape. Media is now characterized by a novel communicative paradigm, entailing fresh extralinguistic factors. The production of textual content and the escalating information flow, influenced by technology, have established novel norms and begun to shape their own perceptual character. Contemporary scholars acknowledge web journalism as the journalism of the information age, competing with both mobile journalism and traditional journalism.*

*In their forthcoming research endeavors, the authors intend to identify extralinguistic factors that have emerged as generators of new media trends, elucidate ongoing shifts in Kazakh journalism, and facilitate prognostications regarding future developmental trajectories.*

*An analysis of posts made by Kazakh youth on platforms such as Instagram and WhatsApp messenger reveals a discernible trend toward the convergence of written and spoken forms of communication: young individuals write in a manner reflective of their spoken language. A preliminary inference suggests that as the pace of life quickens, speech becomes more dynamic, characterized by increased syntactic density, and permeated by dialogical, oral, and slang elements. Regrettably, these developments have a detrimental impact on writing proficiency, the preservation of the Kazakh language's vocabulary, and its lexical richness within the new technological milieu. The substantiation and validation of these hypotheses will constitute the principal objective of future research endeavors.*

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# Jurisprudence

## BIOMEDICAL ISSUES NECESSITATING LEGAL REGULATION OF GENETICS

*Ismayilova Parvina Fazail*
*PhD in Law, doctoral candidate and teacher on*
*"Human and Information Law" UNESCO department.*
*Baku State University, Azerbaijan*

*Abstract*

*The article analyzes several medical and genetic studies that are extensively used in modern medicine. Genealogical analysis, genetic testing, genome editing, screening, genetic therapy, cloning and genetic passport are still not perceived by society unambiguously. The appearance and use of these processes can be said to have a direct impact on the population and the gene pool of the population. The use of each of these medical and genetic methods in research creates moral-ethical and legal problems. As practice shows, international legislation and national jurisdictions of some countries regulate only a small part of this issue, which inevitably leads to ethical and legal dilemmas in society.*

*The article widely studies the legal regulation of biomedical research carried out in the genetic treatment, the international legislation, the comparative analysis of useful information contained in the legislation of different countries, main principles of legal systems applied in the world. Also in the article shows the biomedical problems that require the legal regulation of genetics, including the elimination of gaps in the Azerbaijani legislation.*

### 1. Ethical and legal regulation of genetic testing and biomedical researches.

*One of the developing areas of medical law is the sphere of providing medical genetic services. Modern genetics, especially human genetics, is a rapidly evolving field of scientific knowledge. The rapid progress of medical genetics is constantly followed by the emergence of new moral and legal issues. Conducting genetic testing, genetic screening, obtaining genetically identical copies of living and dead people – cloning and preventing the transmission of hereditary diseases to future generations as a result of reproductive processes require serious scientific researches.*

*Medical genetics is a technological process of obtaining new structures of genetic material by transferring the gene systems created as a result of experiments with molecules of ribonucleic and deoxyribonucleic acids outside the cell using genetic engineering[1]. The discovery in 1953 of the physical structure of the DNA molecule can be deemed one of the turning points in the history of biology and genetics science. The Nobel Prize in Physiology or Medicine in 1962 was awarded to James Watson, Francis Crick and Maurice Wilkins for this exceptional discovery. DNA (Deoxyribonucleic acid) is a biopolymer that preserves genetic information for the formation and continuation of vital processes of a living organism and is transferred between generations. All organisms, including some viruses, have DNA.*

*Medical genetics covers the creation of drugs, micro- and transgenic organisms, plants and viruses, including genetic engineering or biotechnological processes, and more importantly, molecular and cellular genetic research for treatment of various hereditary diseases. For example, Genetic engineering is the reused method for excluding, changing, crossing and recombining genes in different organisms. Genetic engineering is a scientific field of creating new opportunities for living beings by changing their hereditary characteristics[2]. But more dangerous activity is the modification of human essence by interfering with genes or human cloning. In this sense, the legal regulation of any genetic experiment must be aimed at solving vital problems.*

*The subject of genetic experiments and genetic testing is to care for the health of unborn children and future generations. But the advent of genetic testing has raised concerns about the protection of genetic information and the potential for discrimination based on one's genetic makeup. Legal regulation is required to ensure that individuals are protected from discrimination in employment, education, insurance, and other areas, based on their genetic information. Genetic testing and research often*

*involve the collection and analysis of individuals' genetic material. Legal regulations are necessary to ensure that individuals are adequately informed about the potential risks, benefits, and implications of genetic testing or research.*

*Harmful diseases in humans that can be detected through genetic testing methods and predicted changing the initial constitution of a person and now those medical methods become affordable. For example, Legal and ethical issues surrounding genome editing, particularly the use of the CRISPR-Cas9 system, are important considerations. When editing the human genome, informed consent is essential. Individuals must have a clear understanding of the potential risks, benefits, and limitations of genome editing technologies. It is crucial to respect their autonomy and ensure that informed decisions are made freely and without coercion[3]. Germline editing involves making changes to the DNA that can be inherited by future generations. This raises ethical questions about the potential long-term effects and unintended consequences of altering the germline.*

*There is ongoing debate about the appropriateness and implications of modifying human germline cells. Genome editing technologies have the potential to create disparities in access to healthcare based on socioeconomic status. Concerns arise over whether genome editing will primarily benefit those who can afford it, leading to an increased divide between the privileged and the disadvantaged. Also, Genome editing techniques are not always 100% accurate, and off-target effects can occur. Unintended changes to the genome might have unforeseen consequences, causing harm to the individual or future generations. Ensuring the safety and minimizing the risk of off-target effects is a significant challenge. There are concerns that genome editing could be used for non-medical purposes, such as creating "designer babies" with enhanced traits. This raises profound moral and ethical questions about the boundaries of genetic intervention and the potential creation of an "unequal playing field" in society.*

*Addressing these legal and ethical issues requires a robust framework that balances scientific progress, individual autonomy, safety, and social responsibility. Open and transparent dialogue among scientists, policymakers, ethicists, and the general public is crucial to ensure responsible and ethical use of genome editing technologies.*

*Developmental abnormalities in humans can be detected through genetic testing. The information obtained as a result of testing makes it possible to diagnose the existence of genetic disease in the person who manifests the symptoms. The study of genetic characteristics can have very serious consequences in the life of each person. Thus, the detection of certain severe and incurable diseases can cause serious psychological shocks in a person in the future, to a change of views on his/her life and, finally, to a change society's attitude towards him/her[4]. The results of genetic testing, unlike other medical data, are predictive in nature and can affect the interests of other family members. Summing up, it is necessary to emphasize that genetic experiments and genetic testing that are developing every year raises serious issues for medicine, public health, and social policy.*

*Currently, there are more than 10,000 genetic diseases and genetic disorders known to exist in the world. Many of them are related to a specific gene mutation: for example, Down's syndrome (caused by a copy of chromosome 21). Hemophilia disease (widespread in Absheron Peninsula, Azerbaijan) is a genetic disorder of blood coagulation. According to the disease, men are infected, and women (mothers) act as genetic carriers of the disease. Another type of blood disease – Thalassemia is a hereditary blood disease characterized by impaired hemoglobin synthesis and chronic anemia as a result of a genetic defect. Another type of blood disease - Thalassemia is a hereditary blood disease characterized by impaired hemoglobin synthesis and chronic anemia as a result of a genetic defect. On average, more than 6 percent of Azerbaijanis are carriers of thalassemia (2018). This indicator is high compared to neighboring countries. One of the ways to prevent the spread of this disease is to undergo by couples a medical examination prior to getting married[5].*

*As a result of "For Life Without Thalassemia" program initiated by First Vice-President of Azerbaijan and the President of Heydar Aliyev Foundation Mrs. Mehriban Aliyeva starting from 2015, a step was taken against this disease by directing the couples who are going to get married to a medical examination. The examination is compulsory by law and is carried out along with the examination of other diseases (HIV/AIDS, syphilis, etc.). The Law of the Republic of Azerbaijan "On State Care for Persons*

*Suffering from Hemophilia and Thalassemia Genetic Blood Disorders"[6]adopted in 2005 regulates the organizational and legal bases of state care for persons suffering from hemophilia and thalassemia genetic blood disorders, as well as relations in the field of treatment and prevention of those diseases[7].*

*For the first time, genetic engineering on humans was used in the treatment of four-year-old Ashanti De Silva, who suffered from immunodeficiency disease. Deficiency of adenosine deaminase (ADA) protein and lack of this protein caused the patient's body to be defenseless against viruses. To eliminate the lack of this protein, another episode of ADA gene is modified and inserted into the patient's blood cells via a virus. Consequently, the composition of cells in the patient's body adapts to the normal state[8].*

*Genetic testing and biomedical research are aimed at ensuring the efficiency of genetic diagnosis and treatment. Legal issues in medical genetics are of greater interest, mainly in genealogical analysis, testing, screening, and genetic therapy. Application of each of these methods is related to certain moral and legal issues.*

*Genetic testing ensures the confirmation of the genetic basis of the existing disease. Pre-symptomatic testing covers the testing a person before symptoms of an inherited, genetic disease manifest themselves. So, some genetic diseases, like Huntington's Disease (HD is an inherited disorder that causes nerve cells (neurons) in parts of the brain to gradually break down and die. The disease attacks areas of the brain that help to control voluntary (intentional) movement, as well as other areas. People living with HD develop uncontrollable dance-like movements (chorea) and abnormal body postures, as well as problems with behavior, emotion, thinking, and personality) manifest themselves only after 40 years old[9]. Genetic predisposition to disease testing provides information on the multifactorial disorder in a person, confirmation of the genetic nature of the disease. For example, if a BRCA1 and BRCA2 gene mutation is found in a person, the occurrence of breast cancer after age 50 is 40 percent in the first case and 20 percent in the second case[10].*

*One direction of the tests is related to the tests that determine the genetic carrier. Even if a person is not symptomatically sick, he/she can be a disease carrier (e.g., Beta-Thalassemia) genetically, and the test is also applied for this case.*

*There are several levels of genetic testing in medical genetics: Discussion of genetic problems, consultation with a geneticist, giving consent for testing, collecting samples from human body, genetic analysis – examining DNA or chromosomes, examining DNA, examining mutations, interpreting results, and finally, the consultation of the geneticist again. As was mentioned above, the legal requirement during all these processes is that privacy, dignity and individuality of the person must be protected, which is consistent with the no harm or accountability principle.*

*Conducting genetic testing is one of the most important services provided to the population in the present-day world. Genetic testing is conducted based on the person's voluntary consent, and the person can withdraw the consent at any time. Medical personnel must inform the patient about both positive and negative aspects of genetic testing. All information must be confidential and the physician must strictly protect medical secrecy and regardless of medical test result, he/she must provide all kinds of support to the patient. At the same time, during the testing conducted before having symptom, the physician must protect the confidentiality of the information he/she receives, give detailed information about the impossibility of determining the age and severity of the disease as a positive result and about the availability of counseling and psychological support programs. Since the testing of minors and potential patients can seriously harm children's rights, WHO advises to defer elective genetic testing of minors until reaching maturity[11].*

*Another direction of testing in genetics is applied in case of determining the genetic predisposition to the disease. This testing is specifically aimed at assessing the possible development of the disease and for preventive treatment or prevention. At this time, the physician must explain to the patient the possible variants of the testing and give detailed information about the development of the disease and*

*preventive treatment methods. WHO recommends to conduct multifactorial disease testing willfully and if the test results will help to effectively treat and prevent the disease[12].*

*Genetic screening is one of the biomedical researches that is important in terms of protection of human rights in medical law. Genetic screening is a medical genetic diagnosis that covers mass genetic examination of people. In this case, it is intended to solve issues such as hereditary pathologies, the sex of the child in the embryonic stage, the sex of the child during artificial insemination, and prenatal diagnosis of the fertilized child. Heredity is a combination of a number of internal (genotype) and external (phenotype) characteristics, long before the child is visible through an ultrasound device, even during fertilization[13]*

*Hereditary diseases are the result of defective changes (mutations) in the structure of the genetic apparatus of the cell. Genetic changes do not manifest themselves in any way in the parents of the fetus, but can cause serious hereditary diseases in future generations. Many of these issues can be identified during prenatal examination (diagnosis). "Perinatal" ("prenatal") means "before birth" and covers the entire period of pregnancy. Of course, this diagnostic operation makes it possible to prevent a number of serious diseases while the child is still in the mother's womb, but on the other hand, it allows people to carry out legally and ethically incorrect procedures. For example, choosing the child's sex is possible as a result of prenatal and preimplantation diagnostics. Choosing fetuses and embryos is a violation of the fundamental personal rights of the person born and leads to a violation of the sex ratio in society in the future[14 ].Due to becoming the major problem of the world today, Oviedo Convention adopted by the Council of Europe in 1997 (Article 14) prohibits choosing a future child's sex without any reason provided for by national legislation.*

*In general, it is known that during the application of the screening program in the world, it is possible to have a moral and ethical conflict in relations. The principle of confidentiality underlying this conflict in the field of medicine and the obligation of advance warning to prevent the occurrence of serious illness conflict with each other[15].Specific issues arise when the medical and genetic testing procedure causes the risk of harm. For example, the diagnosis of a number of hereditary diseases of the fetus can be made thanks to amniocentesis in a mother's womb. It relates to the risk of accidental termination of pregnancy. If there are medical and genetic indicators that confirm that the child is likely to be born with a genetic pathology, physician may take this risk (the risk of miscarriage) into consideration. However, if a healthy woman who does not have appropriate indicators and has a low risk of hereditary pathology personally requests amniocentesis and examination of the fetus, then a serious moral problem arises. Although the unborn child is not protected by law, morally he/she has the right to live, and in this case, his/her interests and also risks must be taken into consideration.*

*Population genetic screening is conducted only to identify gene carriers of severe hereditary diseases. One of the classic examples of the neonatal screening program is the identification of the hereditary disease phenylketonuria (PKU) in newborns. This disease is a severe hereditary disease that damages the head and spinal cord and, if left untreated, can lead to mental retardation, short stature, cataracts and other serious problems, and an untreated child will become disabled when he/she grows up. Timely diagnosis of genetic defects and the application of a special diet excluding phenylalanine, as well as the combined use of psychological correction therapy and social adaptation methods allow to obtain a positive result in many cases.*

*Phenylketonuria screening test – known in Azerbaijani medical society as "Ankle analysis", this screening test varies from country to country. In many countries, this screening test is compulsory and free of charge at the state level, to protect the future gene pool. In Azerbaijan, this screening is payable and not compulsory. Because the screening test itself is expensive for middle- and low-income families, parents usually refuse to conduct it. As a result of the development of biotechnology, the simplicity and relative reliability of the screening test method for PKU detection allowed its wide application in medicine.*

*The problem is that there are no statistics in this field in Azerbaijan. The necessary measures were not taken by the competent state authorities in this field within the framework of the "State Program for Improving the Maternal and Child Health for 2014-2022." According to the State Statistics Committee, 122,846 babies were born in Azerbaijan in 2022. According to the State Agency for*

*Compulsory Medical Insurance, within the framework of the "Action Plan for the Implementation of the Strategy for Children for 2020-2025", to detect congenital and hereditary diseases among newborns, since May 2022, 700 children have underwent neonatal screening tests in state medical institutions. As a result of screening tests, phenylketonuria was not detected in the children who underwent testing[16].*

*This confirms once again that the phenylketonuria screening, which is one of the necessary elements for gene pool protection, and the collection of statistical data in the country is not at the desired level. So, in the statistics of the world countries, the numbers differ between 1:2,500 (in Türkiye)[17], 1:15,000 (in the USA)[18] and 1:200,000 (in Finland)[19]. Note that this hereditary disease is more common in children of inbreeding[20] families. Given that this tradition is widespread in Azerbaijan, the number of diseases in the country is not an exception.*

*The development of modern technologies allows to determine the risks of this disease even before the child is fertilized in the mother's womb if both parents undergo genetic testing. However, screening for phenylketonuria must be compulsory after birth. So, there is legislative practice in this regard in the world countries. For example, in Russia, this procedure is a compulsory analysis included in neonatal screening. In Russia, for 15 years now, babies have been examined for five hereditary diseases for free at the maternity hospital immediately after birth.*

*During this period, more than 20 million children have passed such screening, and about 15,000 people have been diagnosed with this disease[21]. Article 44 of the 2011 Law of Russia "On Protection of Population Health" states that neonatal screening for phenylketonuria, which is one of the developing diseases that pose a serious threat to human life and health, is provided at the expense of state funding[22] The same legislative practice is observed in one of the developed countries of Europe – Portugal [23].*

*According to legislation of the Republic of Azerbaijan, the highest objective of the state is to ensure people rights and liberties (Article 12 of the Constitution of the Republic of Azerbaijan). In particular, in the concept of National Security of the Republic of Azerbaijan, in Law "On Protection of Population Health" (Articles 1 and 2), the state guarantee of human and civil rights..., the implementation of preventive measures for population health protection and other provisions include neonatal screening test for phenylketonuria which is one of the diseases that threaten people's health from the day of birth. Taking into consideration the practice of the world countries, the concept of neonatal screening, the list of diseases and their classification system must be established by additions to the Law "On Protection of Population Health" or by a separate legislative act. Screening for diseases that pose a threat to human health from birth can also be conducted by regulating our legislation according to the WHO a short guide on "Screening programmes: Increase effectiveness, maximize benefits and minimize harm" (2020, Copenhagen)[24].In the end, taking into consideration that the supreme goal of the state and the protection of the country's gene pool (Article 16.1 of the Constitution of the Republic of Azerbaijan), the analysis and prevention of progressive diseases that pose a serious threat to human life from birth must be ensured either mandatorily or at expense of the state or by including it in the legislation on Compulsory Medical Insurance.*

## *2. Ethical and Legal Aspects of Gene Therapy*

*Gene Therapy involves the modification of an individual's genetic material to treat or prevent genetic diseases. While it holds great potential for the treatment of various genetic disorders, there are several ethical and legal aspects that need to be considered:*

*1. Informed consent: Proper informed consent is crucial when conducting gene therapy. Individuals should be fully informed about the risks, benefits, and potential outcomes of the treatment before giving their consent.*

*2. Privacy and confidentiality: The genetic information obtained during gene therapy carries sensitive personal information. It is important to ensure strict privacy and confidentiality to protect the individual's genetic data from misuse.*

*3. Access and equity: Gene therapy is a groundbreaking medical intervention that has the potential to significantly improve quality of life. However, ensuring equitable access to the therapy for all individuals, regardless of economic status or geographical location, is essential to prevent further disparities in healthcare.*

*4. Human enhancement: While gene therapy is primarily aimed at treating diseases, the ability to modify one's genetic makeup also raises concerns about the potential for human enhancement. Ethical considerations need to be taken into account to prevent the misuse of gene therapy for non-medical purposes.*

*5. Long-term effects and safety: Gene therapy is still a developing field, and its long-term effects are not fully understood. Thorough evaluation of safety and efficacy is essential to minimize potential risks to patients.*

*On the legal front, there are several regulatory and legal considerations that govern gene therapy:*

*1. Regulatory approval: Gene therapy is regulated by government agencies and must undergo rigorous testing and approvals before being made available to the public. These regulations aim to ensure the safety and efficacy of the treatments.*

*2. Intellectual property: Gene therapies are the subject of intellectual property rights, including patents. This raises ethical concerns about access to and affordability of these treatments, as well as the potential for monopolies hindering innovation.*

*3. Liability and accountability: In the event of any adverse effects or harm resulting from gene therapy, legal frameworks and liability systems determine who is accountable and what compensation should be provided.*

*4. Genetic discrimination: There are legal provisions in many countries that prohibit genetic discrimination, ensuring that individuals are not discriminated against based on their genetic information when it comes to employment, insurance, or other services.*

*5. Regulatory oversight and monitoring: Gene therapy research and treatments are closely monitored by regulatory bodies to ensure compliance with ethical and legal standards. This oversight helps maintain public trust and prevents unethical practices.*

*Overall, gene therapy offers great promise in the field of medicine, but close attention must be paid to ethical and legal considerations. Ensuring informed consent, privacy protection, equitable access, and regulatory oversight are crucial to harness the potential of gene therapy in a responsible and ethical manner.*

*Gene therapy is one of the newest areas of medical development. This method, which has been applied to hundreds of patients so far, has given quite good results in many cases. Although the application of gene therapy[25] is deemed more promising for the treatment of monogenic hereditary diseases, a number of legal issues remain. Thus, it is likely that the introduction of genetic material containing a normally functioning gene into the body will have a decisive therapeutic effect. Currently, there is uncertainty about the effectiveness of gene therapy, as well as possible negative consequences of transferring genetic material into the patient's body. That is why, for example, testing of gene therapy methods in human germ cells is prohibited in the world. This prevents the transmission and spread of potentially negative genetic changes to future generations. However, note that germ cells are not isolated from the body.*

*Consequently, there remains the possibility of influencing them by carriers of genetic material during gene therapy of somatic cells. To obtain permission to conduct gene therapy clinical trials, the following conditions must be met:*

*1) During experiments on animals, it must be proven in advance that the necessary gene can be transferred to suitable nuclear cells and have an active function there for a long time;*

*2) It is necessary to make sure that the gene transferred to the new environment will maintain its effectiveness;*

*3) It must be fully guaranteed that the transferred gene will not cause negative consequences in the body[26].*

*As much as personal specificity (individuality) manifests itself as a genetic issue, its protection is as much an issue of Medical law. In this sense, the concept of genetic passportization was created. A genetic passport is a confirmation of information about individual genetic characteristics that distinguish a person from others among citizens. A genetic passport is the result of genetic dactyloscopy (or DNA-dactyloscopy). This type of passport can be referred to as a forensic passport, because it determines the unique sequence of nucleotides of a person's DNA. In some cases (investigation of crimes, determination of paternity, identification of human remains, etc.), it enables identification of a person. Moreover, a genetic passport is the profiling of the human genome through biomaterial (saliva and blood) [27].*

*From a bioethical and legal point of view, the "gold standard" of genetic material donation (without which it is impossible to create a genetic passport) is voluntary informed consent. "Voluntary" means the conscious, free, independent and uncoerced consent. "Informed" means that the citizen consciously gives consent based on reliable and detailed information presented to the subject of consent in an understandable form based on the biomedical experiment presented by physician or organizers [28]*

*Detailed information on giving genetic material to a biobank must help the citizen to make an independent decision, and he/she must also give consent for the use of biomaterial in scientific research. The use of diagnostic methods based on the analysis of genetic markers makes it possible to conduct early diagnosis of pathology and diseases that do not manifest in a person and to ensure adequate therapy on time. The effect of drug treatment depends mainly on the individual genetic characteristics of the patient. Thanks to gene diagnostics, it is possible to reduce the time spent on choosing drugs and determining their dosage several times.*

*The creation of a genetic passport will make it possible to obtain an individual approach to the treatment of a person. However, the main risk when obtaining personal (genetic) and especially medical information is the protection of personal information, confidentiality. Genetic information is highly personal and sensitive. Legal regulations are needed to protect individuals' privacy and confidentiality concerning their genetic information, including how it is collected, stored, accessed, and shared. The discovery and development of genetic tests, therapies, and technologies raise questions about the ownership and control of genetic material and associated technologies. Legal regulation is essential to ensure that property rights are granted in a manner that promotes innovation, fair access, and ethical considerations.*

*So, the ethical and legal side of the matter requires confidential and comprehensive protection of data. UNESCO 1997 "Declaration on the Human Genome and Human Rights" states that everyone has a right to respect for their dignity and for their rights regardless of their genetic characteristics; that dignity makes it imperative not to reduce individuals to their genetic characteristics and to respect their uniqueness and diversity" [29].*

*The main ethical, legal and social implications of the Human Genome Project are privacy and confidentiality, genetic testing, education, reproductive issues, psychological impact and stigmatization, standards and quality control, commercialization, conceptual and philosophical implications.*

*The fact that the use of genetic passports can lead to eugenic relations again requires legal regulation. Because the state will determine for people with genetic problems to live and work within certain requirements, for example, whether they have children or not, etc. However, note that there are many positive aspects of the application of genetic passports. States also protect their biological security by applying passports.*

*In such a way, countries where hereditary blood diseases are common (Azerbaijan, Turkiye and etc.) can prevent the disease from developing. Thus, 1) the creation of a genetic passport will make it possible to obtain an individual approach to the treatment of a person; 2) genetic passportization, as a new field in medical law, will provide a preventive regulatory function in the fight against various serious diseases.*

## *Conclusion*

*Genetic research and the use of genetic technologies raise complex ethical considerations, including issues related to consent, potential harm, use of vulnerable populations, and conflicts of interest. Legal regulations are required to establish guidelines and oversight mechanisms to ensure that genetic research is conducted responsibly, ethically, and with due consideration for the welfare of individuals involved. Advances in genetics, such as gene editing and manipulation technologies, have sparked debates about the personhood and rights of individuals whose genetic material is altered. Legal*

*regulation is necessary to define and protect the rights and interests of individuals and to establish ethical boundaries for genetic interventions.*

*Overall, legal regulation of genetics is necessary to address these and other biomedical issues, safeguard the rights and well-being of individuals, and promote responsible and ethical practices in the field of genetics.*

*In the article it is emphasized to carry out genetic screening in Azerbaijan, to define a list of diseases that pose a serious threat to human life, and to include them in compulsory form of state insurance or to be included in the regulation of Compulsory Medical Insurance. Also in the field of gene therapy, which is one of the newest directions of medical development, proposals for legal regulation of genetic passports have been put forward. Among them: 1) the creation of a genetic passport allows obtaining an individual approach to the treatment of a person; 2) genetic passporting as a new field in medical law, the function of preventive regulation in the fight against various serious diseases was analyzed.*

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## *THE LATEST LEGAL APPROACHES OF THE COUNCIL OF EUROPE REGARDING LIABILITY FOR ENVIRONMENTAL CRIMES DURING ARMED CONFLICTS*

*Orlenko Kyrylo*
*Master's student of the second year of studies in the specialty "Law"*
*Alfred Nobel University, Dnipro (Ukraine)*

## *НОВІТНІ ПРАВОВІ ПІДХОДИ РАДИ ЄВРОПИ ЩОДО ВІДПОВІДАЛЬНОСТІ ЗА ЕКОЛОГІЧНІ ЗЛОЧИНИ В ПЕРІОД ЗБРОЙНИХ КОНФЛІКТІВ*

*Орленко Кирило*
*Магістрант другого року навчання спеціальності «Право»*
*Університет імені Альфреда Нобеля, м. Дніпро (Україна)*

*З початку 1970-х років екологічна політика ЄС формулюється в програмах дій у галузі охорони навколишнього середовища. Першу Програму дій Європейського Співтовариства в галузі охорони навколишнього середовища було прийнято у 1973 році, коли ще ЄС був Європейським співтовариством. Після цього було прийнято ще 7 програм, остання 8-я Програма дій у галузі охорони навколишнього середовища визначає напрям європейської екологічної політики на період до 2030 року [1].*

*За час існування ЄС була напрацьована певна юридична база з питань захисту навколишнього середовища, у тому числі в специфічних умовах збройних конфліктів і відповідальності держав за екологічні злочини під час воєнних дій.*

*Радою Європи розроблено кілька правових інструментів для захисту навколишнього середовища: Конвенція про цивільну відповідальність за шкоду, спричинену діяльністю, небезпечною для навколишнього середовища (CETS № 150) [2], Конвенція про захист навколишнього середовища за допомогою кримінального права (CETS № 172) [3], Конвенції про охорону дикої флори і фауни та природних середовищ існування в Європі («Бернська конвенція») [4], Рамкова Директива 75/442/ЄЕС, Директива 2008/50/ЄС Європейського Парламенту та Ради від 21 травня 2008 року [5].*

*Однак ці конвенції або прямо не охоплюють збитки, заподіяні актом війни чи військовими діями, або прямо виключають їх.*

*25 січня 2023 року Парламентська асамблея Ради Європи (ПАРЄ) ухвалила історичну резолюцію «Екологічний вплив збройних конфліктів» (Res.2477) про негативний вплив війни на довкілля [6].*

*Новим у Резолюції є те, що було чітко визначено новий кримінальний злочин «екоцид». Серйозне руйнування або погіршення природи, яке можна кваліфікувати як екоцид, може мати місце в мирний або військовий час. Зазначено необхідність кодифікувати це поняття як у національному законодавстві, відповідно, так і в міжнародному праві.*

*Для вирішення проблем відповідальності за екологічні злочини Резолюцією було прийнято ряд рішень щодо необхідності внесення змін до Римського статуту Міжнародного кримінального суду [7], щоб додати екоцид як новий злочин. Вказується на потрібність визнання «універсальної юрисдикції для екоциду та найсерйозніші екологічні злочини» та ввести «злочин екоциду в національне кримінальне законодавство».*

*Парламентська асамблея Ради Європи в Резолюції нагалошує, що норми міжнародного звичаєвого права забезпечують непрямий захист навколишнього середовища під час збройних конфліктів. З цією метою вказується на важливе значення:*

*- Рекомендацій Міжнародного комітету Червоного Хреста щодо військових посібників та інструкцій щодо захисту навколишнього середовища під час збройних конфліктів [8], оновлені у 2020 році, які сприяють, практично та ефективно, підвищення обізнаності про необхідність захисту навколишнього природного середовища від впливу збройних конфліктів. Однак таким чином навколишнє середовище захищається лише побічно, підпорядковуючись вимогам воєнного часу та гуманітарним імперативам;*

*- Принципів захисту навколишнього середовища у зв'язку зі збройними конфліктами прийнятими у спеціальній резолюції Генеральною Асамблеєю Організації Об'єднаних Націй 7*

*грудня 2022 року [9]. ПАРЄ заохочує якомога ширше розповсюджувати їх в усіх європейських державах і серед їхніх глобальних партнерів.*

*Парламентська Асамблея в Резолюції закликає до кроків для визнання на національному рівні права на здорове довкілля як права людини. Зазначається, що в Рекомендації CM/Rec(2022)20 Комітету міністрів державам-членам про права людини та захисту навколишнього середовища, яка прийнята 27 вересня 2022 року [10], згадується «екологічна шкода, завдана збройними конфліктами», підтверджується, що «усі права людини є універсальними, неподільні, взаємозалежні та взаємопов'язані».*

*Резолюція вказує на існування того факту, що, незважаючи на вражаючий міжнародно-правовий арсенал, існують значні прогалини в захисті навколишнього середовища в контексті збройних конфліктів та їх наслідків.*

*Існуючим правовим інструментам бракує універсальності з точки зору ратифікації, точності використовуваних термінів (наприклад, уточнення того, що мається на увазі під «широко поширеними, тривалими або серйозними наслідками»), всебічного охоплення правопорушень, пов'язаних із заподіянням шкоди навколишньому середовищу, і достатньо широкого кола додаток. Крім того, відсутній постійний міжнародний механізм для виявлення правопорушень і розгляду позовів про компенсацію за шкоду, завдану довкіллю.*

*Асамблея закликає держави-члени Ради Європи вжити всіх необхідних заходів для заборони та судового переслідування використання забороненої зброї під час збройних конфліктів, які, серед інших бід, мають непропорційний вплив на навколишнє середовище та роблять неможливим життя людей у постраждалій зоні.*

*В резолюції наголошується, що Рада Європи повинна взяти на себе провідну роль у розробці нових правових інструментів, якими керуватимися члени держав у запобіганні величезній шкоді навколишньому середовищу та зменшенні масштабів такої шкоди, наскільки це можливо, під час збройних конфліктів та після них. Це має прокласти шлях до міжнародного визнання злочину екоциду.*

*У зв'язку з викладеним Асамблея пропонує державам-членам Ради Європи, а також державам, чий парламент має статус спостерігача або має статус партнерства:*

*- створити та зміцнити правову базу для посиленого захисту навколишнього середовища під час збройних конфліктів на національному, європейському та міжнародному рівнях шляхом (вжиття заходів для підтримки створення постійного міжнародного механізму для виявлення правових порушень та розгляду позовів про компенсацію за шкоду, завдану довкіллю внаслідок збройних конфліктів; сприяння більш узгодженому та комплексному тлумаченню існуючих правових норм щодо захисту навколишнього середовища під час збройних конфліктів; підтримка створення стандартних методологій для збору доказів шкоди навколишньому середовищу);*

*- усунути розриви між різними галузями права та реальністю на місцях з метою належного захисту людського життєвого простору, навколишнього середовища та прав людини на життя та здорове довкілля в контексті збройних конфліктів (посилення відповідальності держав за екологічну шкоду, що поширюється за межі їх територіальних меж; проведення дослідження під егідою Ради Європи про можливий взаємозв'язок між існуючим міжнародним кримінальним правом і шкодою для навколишнього середовища, яка виникає під час збройних конфліктів, зокрема щодо можливості посилатися на існуючі військові злочини).*

*Таким чином, можна зробити висновок, що в процесі розвитку міжнародно-правового законодавства щодо екологічної безпеки під час збройних конфліктів має місце посилення захисту як навколишнього середовища так і міжнародної відповідальності за екологічну шкоду.*

*Резолюція Парламентська асамблея Ради Європи наглядно демонструє розвиток європейського права у сфері захисту навколишнього середовища у період військових конфліктів.*

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# Pedagogical sciences

## METHODS OF MASTERING VOCAL IMPROVISATION BY SENIOR PRESCHOOL CHILDREN'S

*I.G. Koltsovskaya*
*k.p.n., music teacher,*
*Honored Worker of the Education Sector of the Russian Federation*
*MBDOU № 80, g. Dzershinsk, Nizhegorodskaya oblast, Russia*

## МЕТОДИКА ОСВОЕНИЯ СТАРШИМИ ДОШКОЛЬНИКАМИ ВОКАЛЬНОЙ ИМПРОВИЗАЦИИ

*И.Г. Кольцовская*
*к.п.н., музыкальный руководитель,*
*Почетный работник сферы образования и науки РФ*
*МБДОУ № 80 г. Дзержинск Нижегородская область, Россия*

*Abstract*

*The topic of children's musical creativity is relevant, timely and promising from the point of view of the modernization of preschool education, is in demand for a significant number of specialists in the field of pedagogy. Professional activity in this direction allows to take into account individual characteristics of children, to organize their productive work in the music business, to develop creative abilities. Many scientists talk about the need to take into account the gradual development of children's song creativity, which makes it possible to ensure the dynamics of the development of the artistic and figurative embodiment of the plan by means accessible to children. Scientists consider vocal improvisation to be the most effective means of activating children's creative abilities in singing. The essence of vocal improvisation is the process of creating a vocal-musical fabric simultaneously with its reproduction. It is based on a principle that realizes a sudden creative impulse directly in sounds, impromptu and immediately in a finished form. Vocal improvisation is an act of self-expression, so any spontaneous manifestation of a child in sound will be improvisation. The ability for vocal improvisation manifests itself already in preschool age: by the age of seven, children have enriched the figurative content of vocal improvisations, they use more complex musical and linguistic techniques and means, and the formation of artistic and imaginative thinking occurs, which is associated with the accumulation of life impressions. Competent improvisation requires the child to know certain themes, their harmonic structures, and the form of the future work (at least in general terms). The more different musical phrases, modes, rhythmic patterns, and methods of creating tension-resolution that a child knows, the more original the improvisation turns out. That is why the system of preparatory work for a child improviser is so important, starting with speech improvisation and ending with the highest level of vocal improvisation, which provides for the presence of a certain role with the child played and the simultaneous improvisation of a melody to a given text. Special attention is paid to the independence of the child, as it is closely connected with independence, creativity, initiative, creativity and self-control of the preschool, these qualities of personality are necessary for the implementation of the process of vocal and improvisation activities. Very often, vocal improvisation occurs in preschoolers and out of play situations, influenced by various experiences. These pro-phenomena are considered as a form of expression of emotions of children and is called conditional «freedom-fantasy». The necessary condition for their appearance is the introduction into the independent activity of those attributes, toys, costumes that were used for holidays, entertainment. It is only in a creative musical and educational environment that a pre-school educational organization that brings together all forms of organization and self-organization of children is able to develop the child's personality creatively in musical activities. Thus, the mastery of vocal improvisation of preschoolers is realized when setting and solving tasks aimed at developing the ability to improvise the students' vocal; under the conditions, stages and methods of its development. Next, a step-by-step method of mastering vocal improvisation in musical and theatrical activity by senior preschoolers is presented to your attention.*

*Аннотация*

*Тема детского музыкального творчества актуальна, своевременна и перспективна с точки зрения модернизации дошкольного образования, востребована для значительного числа специалистов в области педагогики. Профессиональная деятельность в этом направлении позволяет максимально учесть индивидуальные особенности детей, организовать их продуктивную работу на занятиях музыкой, развить творческие способности. Многие ученые говорят о необходимости учитывать постепенность развития детского песенного творчества, что позволяет обеспечить динамику развития художественно-образного воплощения замысла доступными детям средствами. Вокальную импровизацию ученые считают наиболее действенным средством активизации творческих способностей детей в певческой деятельности. Сущностью вокальной импровизации является процесс создания вокально-музыкальной ткани одновременно с ее воспроизведением. В ее основе лежит принцип, реализующий внезапный творческий импульс непосредственно в звуках экспромтом и сразу в законченном виде. Вокальная импровизация есть акт самовыражения, поэтому любое спонтанное проявление ребенка в звуке будет импровизацией. Способность к вокальной импровизации, проявляется уже в дошкольном возрасте: к семи годам у детей обогащается образное содержание вокальный импровизаций, они используют более сложные музыкально-языковые приемы и средства, происходит формирование художественно-образного мышления, что связано с накоплением жизненных впечатлений. Грамотная импровизация требует от ребенка знания определенных тем, их гармонических структур, формы будущего произведения (хотя бы в общих чертах). Чем больше различных музыкальных фраз, ладов, ритмических рисунков, способов создания напряжения-разрешения, которые знает ребенок, тем оригинальнее получается импровизация. Поэтому так важна система подготовительной работы для ребенка-импровизатора начиная с речевой импровизации и заканчивая наивысшей ступенью вокальной импровизации, предусматривающая наличие с игранной ребенком определенной роли и одновременного импровизирования мелодии на заданный текст. Особое внимание уделяется самостоятельности ребенка, так как она тесно связанна с независимостью, креативностью, инициативностью, творческой активностью и самоконтролем дошкольника, эти качества личности необходимы для реализации процесса вокально-импровизационной деятельности. Очень часто вокальная импровизация возникает у дошкольников и вне игровых ситуаций, под влиянием различных переживаний. Эти проявления расцениваются как форма выражения эмоций детей и называется условно «свободным фантазированием». Необходимым условием для их возникновения является внесение в самостоятельную деятельность тех атрибутов, игрушек, костюмов, которые использовались на праздниках, развлечениях. Лишь в условиях творческой музыкально-образовательной среды дошкольной образовательной организации, которая объединяет все формы организации и самоорганизации детей возможно творческое развитие личности ребенка в музыкальной деятельности. Таким образом, освоение вокальной импровизации дошкольников осуществляется при постановке и решении задач, направленных на развитие способности к вокальной импровизации воспитанников; при соблюдении условий, этапов и методов ее развития. Далее вашему вниманию представлена поэтапная методика освоения старшими дошкольниками вокальной импровизации в музыкально-театрализованной деятельности.*

***Keywords:*** *vocal improvisation, styles and types of vocal improvisation, stages of complication development of vocal improvisation, senior preschoolers, creativity, theatrical and musical activity.*

***Ключевые слова:*** *вокальная импровизация, типы и виды вокальной импровизации, этапы усложнения вокальной импровизации, старшие дошкольники, творческие способности, театрализованная и музыкальная деятельность.*

***Специфика развития песенного творчества.***

*Задача развития детского творчества, в том числе и музыкального на дошкольной ступени образования, является одной из приоритетных. Для ее реализации был поставлен акцент на вокальную импровизацию, которая будет эффективно и динамично развиваться в*

*условиях интегрированной музыкально - театрализованной деятельности. Выбранное направление весьма актуально и связанно с обновлением музыкально-воспитательного процесса в системе дошкольного образования и введением в его контекст новых теоретико-методических ресурсов, направленных на развитие способности старших дошкольников к вокальной импровизации. Специфика заключается в разработанном теоретико-методическом обеспечении процесса подготовки старших дошкольников к овладению вокальной импровизацией и рассмотрения ее в качестве важного фактора развития творческих способностей.*

*Существующие ныне музыкально-педагогические системы развития импровизационных способностей дошкольников ориентированы преимущественно на речевую или инструментальную импровизацию (системы К. Орфа и Ш. Судзуки). Вокальная деятельность детей стоит в центре внимания традиционной венгерской системы музыкального воспитания, созданной З. Кодаи. Однако основой этой системы является вокальная деятельность с опорой на национальный фольклор. Сравнивая принципиальные отличия в подходах к предмету, следует признать, что избранный метод, связанный с вокально-импровизационной деятельностью дошкольников, является инновационным. Развитие способности к вокальной импровизации представляет собой процесс целенаправленного и организованного овладения личностью целостными устойчивыми качествами. Все эти качества имеют яркую личностно-формирующую направленность и свидетельствуют о продуктивности концептуальных идей, их яркой, точной педагогической обусловленности.*

*Импровизация (от лат. improvisus — неожиданный, внезапный) – наиболее древний тип музицирования, при котором процесс сочинения музыки происходит непосредственно во время ее исполнения [13].*

*В то же время истоки импровизации в профессиональном искусстве следует искать в народном творчестве. «Песенная импровизация – первичный и самый древний вид музыкального творчества. Самой выразительной и прекрасной частью народного творчества является песня» [18, с.10].*

*Говоря об импровизации в детском саду, следует иметь в виду ее простейшие проявления. Вокальная импровизация дошкольника является высокой ступенью в развитии песенного творчества и представляется как одна из форм продуктивной художественной деятельности, в результате которой появляется новое произведение. Сущностью вокальной импровизации является процесс создания вокально-музыкальной ткани одновременно с ее воспроизведением. В ее основе лежит принцип реализации внезапного творческого импульса в звуках, экспромтом и сразу в законченном виде. По словам Т.Э. Тютюнниковой, импровизация есть акт самовыражения, поэтому любое спонтанное проявление ребенка в звуке будет импровизацией. Способность к вокальной импровизации, по мнению К.В. Тарасовой, проявляется уже в дошкольном возрасте к семи годам. Г.М. Цыпин рассматривает импровизацию и сочинение музыки как «наиболее полные и естественные формы творческого самовыражения музыканта – наилучшим образом инициируют художественную фантазию, дают живительные импульсы воображению, активизируют самостоятельную и ... творческую мысль» [17, с.101]. При этом важен не столько результат сочинительской деятельности, сколько сам ее процесс. Автор считает важным еще до того, как дети получат творческое задание, дать им «первоначальные представления об «азах» музыкальной грамотности, о простейших нормах, категориях и закономерностях этого вида искусства» [17, с.99].*

*В музыкальной деятельности, по мнению Е.В. Николаевой, Э.Б. Абдуллина, возможность творческого поиска «проявляется в создании учащимся своего личностного «ви́дения» – восприятия, сознания, воспроизведения, сочинения, возникающих при этом жизненных и художественных ассоциаций, сравнений, сопоставлений» [1, с.81].*

*До настоящего времени остаются актуальными известные методы освоения песенной импровизации, использованные в практике с детьми (Б.В. Асафьев, К.Орф) Применение данных методов освоения вокальной импровизации в дошкольных образовательных организациях актуально для развития песенного творчества.*

*Известны различные виды импровизаций (П.Г. Богатырев): принудительная, преднамеренная, подготовленная, неподготовленная импровизация [5].*

*Другие педагоги (Г.С. Ригина, В.А. Алексеев и др.), разрабатывая программу музыкального воспитания для шестилетних детей, вводят импровизацию в процесс хорового пения (импровизация музыки без текста в заданном характере, мелодизация стихотворений,*

*сочинение подголосков к известным мелодиям) и др. [4]. Этих же позиций придерживается В.А. Дмитриев, отмечая, что практически все виды музыкальной деятельности детей могут быть творческими [11].*

*Вокальная импровизация старших представлена следующими типами:*

*а) речевая импровизация – дифференцированное использование средств музыкальной выразительности в речи;*

*б) звукоподражание–элементарное воспроизведение:*

*- звуков окружающего мира (абиотические, биотические, антропогенные этюды),*

*- конкретного образа (ситуативные этюды),*

*- образа в развитии (действенные этюды);*

*в) музыкально-подголосочная импровизация - придумывание подголосков или восклицаний (междометия «ах», «ой» или «да») к знакомой мелодии; количество подголосков дети импровизируют самостоятельно;*

*г) вопросно-ответная импровизация - экспромт окончания мелодии (фрагмент), начатой взрослым в форме диалога, состоящего из двух строчек: вопрос – ответ;*

*д) вокально-ролевая импровизация – импровизация мелодии на заданный текст, соответствующей показателям развития шестой или седьмой ступеням детской певческой деятельности.*

*Способность к вокальной импровизации является одной из музыкально-творческих способностей, которая позволяет спонтанно создавать продукт вокально-импровизационной деятельности, т.е. мелодию или отдельные ее составляющие.*

*В зависимости от условий педагогической организации вокально-импровизационной деятельности, готовности ребенка к самостоятельным действиям и уровня его успешности в данной деятельности вокальная импровизация может быть:*

*- принудительной (приходится изменять мелодию);*

*- преднамеренной (осознается необходимость, обязательность импровизирования);*

*- подготовленной (используются заранее продуманные мелодические варианты);*

*- неподготовленной импровизацией (экспромт).*

*Поэтапный процесс развития способности к вокальной импровизации старших дошкольников реализуется на основе разработанной методической модели, которая предусматривает: цель, задачи; принципы, условия ее реализации; специфическое содержание; адекватные специфике способности методы и приемы ее развития (использование атрибутов и качественной музыкально-образовательной среды для активизации самостоятельных музыкально-творческих способностей детей).*

***Усложнение вокальной импровизации.***

*Определено, что логика усложнения вокальной импровизации детей старшего дошкольного возраста происходит в соответствии с 6-ю этапами ее развития, предусматривающие постепенное усложнение:*

*- типов вокальной импровизации в зависимости от появления в них мелодии;*

*- творческих заданий внутри каждого этапа вокальной импровизации;*

*- задач музыкального образования: дифференцированное использование средств музыкальной выразительности (музыкальные и внемузыкальные); стимулирование передачи конкретного музыкального образа, образа в развитии; стимулирование подпевания восклицаний, придумывая их количество, ритм и динамику; стимулирование в импровизации передачи интонации вопроса и ответа; совершенствование: правильности звукообразования, смены способов звуковедения, особенностей певческой дикции, точности интонирования, ритмических особенностей;*

*- уровня освоения вокальной импровизации в зависимости от ее развития в музыкально-театрализованной деятельности по критериям: оригинальность, психологическая готовность к вокально-импровизационной деятельности (скорость вхождения в образ); использование исполнительских средств музыкальной выразительности;*

*- дифференцированного использования классической, народной и современной музыки.*

*Как известно, главенствующую роль в вокальной импровизации играет мелодия, ведущими компонентами которой являются высота, длительность музыкальных звуков, темп, динамика и др. Чтобы детям научиться импровизировать мелодию, в первую очередь им необходимо освоить речевую импровизацию как необходимый первый этап в развитии вокальных импровизаций. Дети упражняются в придумывании интонации, динамических оттенков,*

*ритмического рисунка, темпа будущей мелодии (см. табл.1)*

*Таблица 1*

*Усложнение вокальной импровизации*

| *Этапы* | *Задачи развития способности к вокальной импровизации в музыкально-театрализованной деятельности* | |
|---|---|---|
| | *Старшая группа* | *Подготовительная группа* |
| *1-й этап Речевая импровизация* | *Содействовать выразительному, осознанному исполнению:* | |
| | *различного настроения, характера (торжественного, шутливого);<br>*изменений различных интонаций (нежных, грубых)* | *различного настроения, характера (в том числе мужественного и таинственного);<br>*отдельных ярких интонаций (в том числе грозных и пугливых), возможно, полутонов интонаций* |
| | *Побуждать дифференцированно, использовать средства музыкальной выразительности будущей песни: а) музыкальные:* | |
| | *темп (быстрый, умеренный, медленный);<br>*регистровый тембр (высокий, средний, низкий);<br>*динамику(f, mf, p)* | * темп (ускорение, замедление);<br>* регистровый тембр (высокий, средний, низкий – в пределах октавы);<br>* изменение динамической (усиление – ослабление звучания) и тембровой окраски |
| | *б) внемузыкальные* | |
| | *невербальные (мимика, жесты, движения, поза исполнителя);<br>*вербальные (выразительность слов, фразы)* | *невербальные (изменения осанки, позы, жестов, мимики, максимально соответствующие эмоционально-образному содержанию);<br>*вербальные (выразительность слов, фразы, обращать внимание на смысловые особенности текста)* |
| *2-й этап Звукоподражание* | *1) Побуждать подражать звукам окружающего мира по абиотическим, биотическим и антропогенным факторам;<br>2) Стимулировать передачу конкретного музыкального образа (ситуативные этюды)* | *1) Содействовать развитию музыкального образа (действенные этюды), взаимодействию двух-трех музыкальных образов, построенных на контрасте. Побуждать использовать разную тембровую окраску голоса для передачи необходимых нюансов соответствующего образа* |
| *3-й этап Музыкальноподголосочная импровизация* | *1) Побуждать подпевать на сильную долю восклицания, используя междометия или слоги «ах», «да» и др.* | *1) Стимулировать подпевание восклицаний, придумывая их число, ритм и динамику;<br>2) Способствовать растягиванию одного слога (наиболее устойчивой длительности напева) на два или более звука.* |
| *4-й этап Вопросно-ответная импровизация* | *1) Побуждать в импровизации передавать интонацию ответа, заканчивая фрагмент мелодии тоникой. Вопросы импровизирует педагог, а дети по цепочке импровизируют ответ друг другу;<br>2) Содействовать воспроизведению звуковысотных отношений (призывность кварты, покой терции, жалость звучания секунды и т.п.), контрастных* | *1) Стимулировать в импровизации передачу интонации вопроса и ответа, которые дети импровизируют друг другу сами, без участия взрослого. Постепенно усложнять интонационный строй фраз, объем вопроса и ответа доводить до предложения;<br>2) Побуждать воспроизводить звуковысотные отношения (интервалы от октавы до примы), звуки трезвучия (вниз-вверх, в любой последовательности), контрастность ритмических рисунков (пунктирный ритм), изменения динамической (усиление – ослабление звучания) и тембровой окраски* |

| | | |
|---|---|---|
| | *ритмических особенностей (  ,  )* | |
| *5-й этап Вокально-ролевая импровизация* | *1) Побуждать импровизировать мелодию на заданный текст* | |
| | *2) Совершенствовать: правильность звукообразования, смену способов звуковедения, особенности певческой дикции, точность интонирования, ритмические особенности (исполнять ритмы суммирования, дробления, осознавать акцент, сильную долю)* | *2) Совершенствовать: правильность звукообразования, красоту звуковедения (протяжность напевного пения, легкость отрывистого), точность, внятность, ясность певческой дикции, правильность дыхания, точность интонирования мелодии и ритмического рисунка песни, пение в знакомых видах певческой техники (с солистом, дуэтом…), ритмические особенности (ритм польки, вальса, марша)* |
| *6 этап Свободное использование разнообразия типов вокальной импровизации* | | |

*Усложнение импровизации на первом этапе модели развития вокальной импровизации происходит в соответствии с развивающими задачами музыкального образования дошкольников (табл. 2).*

*Начиная со второго этапа (звукоподражания) в импровизациях появляется звуковедение, обусловленное принципом работы дыхания и фонетической структурой вербального текста. Возрастные особенности детей, несомненно, учитываются на этапе звукоподражания, как и на всех остальных этапах: чем младше возраст, тем они проще и доступнее.*

*Таблица 2*

*Усложнение задач развития детской вокально-импровизационной деятельности*

| *Группа* | *Задачи развития детской вокальной импровизационной деятельности* |
|---|---|
| *Старшая группа* | *Побуждать передавать в вокальных импровизациях:*<br>**различное настроение, характер (торжественный, шутливый), его изменение;*<br>**изменение различных интонаций (нежных, грубых);*<br>**особенности развития музыкального образа, взаимодействие двух образов, построенных на контрасте.*<br>*Использовать в вокальных импровизациях средства музыкальной выразительности:*<br>*а) музыкальные*<br>**темп (быстрый, умеренно медленный, медленный);*<br>**регистр (высокий, средний, низкий);*<br>**динамику (громко, умеренно громко, тихо);*<br>**контрастные ритмические особенности;*<br>**тембр (нежный, звучный, яркий);*<br>*б) внемузыкальные*<br>**невербальные (мимика, жесты, движения, поза исполнителя);*<br>**вербальные (выразительность слов, фразы).*<br>*Воспроизводить в вокальных импровизациях основные выразительные отношения музыкальных звуков:*<br>**ритмические (исполнять ритмы суммирования, дробления, пунктирный, осознавать акцент, сильную долю);*<br>**динамические (умеренно громко, тихо, очень тихо).* |
| *Подготовительная группа* | *Содействовать выразительному осознанному исполнению вокальной импровизации:*<br>**различного характера (в том числе мужественного и таинственного);*<br>**отдельных ярких интонаций (в том числе грозных и пугливых), возможно, полутонов интонаций;*<br>**взаимодействие музыкальных образов (двух-трех).* |

| | |
|---|---|
| | *Дифференцированно использовать в вокальных импровизациях средства музыкальной выразительности:*<br>*а) музыкальные:*<br>**контрастность ритмических рисунков;*<br>**изменение динамической (усиление-ослабление, ускорение-замедление звучания) и тембровой окраски;*<br>*б) внемузыкальные:*<br>**невербальные (изменение осанки, позы, жестов, мимики в соответствии с эмоционально-образным содержанием будущей мелодии);*<br>**вербальные (выразительность слов, фразы, смысловые особенности текста будущей мелодии).*<br>*Воспроизводить выразительные основные отношения музыкальных звуков:*<br>**ритмические (ритм польки, вальса, марша), выделять метроритм, а также долгие и короткие звуки;*<br>**динамические оттенки в различных вариациях, а также усиление и ослабление звука;*<br>**темповые изменения (ускорение, замедление), использовать разную тембровую окраску голоса для передачи необходимых нюансов образа песни.* |

*Для детей старшей возрастной группы доступна элементарная передача звуков окружающего мира в виде этюдов:*

*а) по абиотическим (явления неживой природы), биотическим (явления живой природы) и антропогенным (прямое и косвенное воздействие человека на окружающий мир) факторам. Например, абиотический этюд: вода – грустный дождик – веселый дождик, биотический этюд: грустный котенок -веселый котенок, антропогенный этюд: молоток стучит медленно - быстро;*

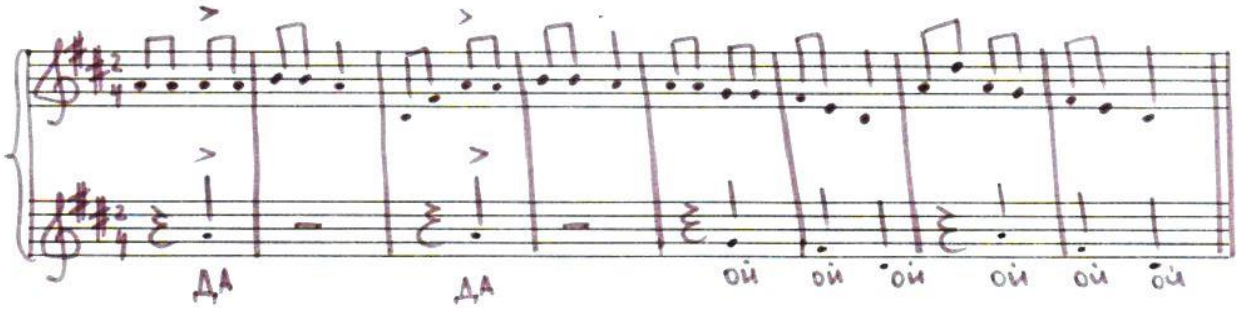
*б) ситуативных этюдов, которые выполняются как иллюстрации к определенным ситуациям, возникающим в жизни. Например, приезд бабушки, игра в снежки, катание на лыжах и коньках, игра с котенком.*

*Для детей подготовительной возрастной группы на втором году содействия в развитии звукоподражания предлагаются указанные выше этюды в действии. Действенные этюды -это эмоционально-игровые ситуации, в которых ребенок по предложенной взрослым теме создает определенные звуковые, художественные образы. Например, цветок закрыт – цветок расцветает, ежик спит – просыпается (слышится сап ежика на фоне шума леса и пения кукушки), машина едет далеко – подъезжает – застряла – уехала и т.д. Задача данных этюдов - создание звукового рисунка, адекватного музыкальному образу.*

*На третьем этапе (музыкально-подголосочном) в импровизациях появляются подголоски и восклицания. Дети, используя междометия (количество придумывают сами) «ах», «ой», «да» поют их «вторым» голосом, «накладывая» на готовую мелодию (рис. 1).*

*Рисунок 1*

*Пример музыкально-подголосочной импровизации*




*Усложнение музыкально-подголосочной импровизации происходит на втором году содействия (подготовительная группа): ребенку предлагается растягивать один слог (наиболее устойчивую длительность напева) на два или более, а другому придумывать подголоски. Такие импровизационные вставки в поэтический текст, могут быть весьма длительными и прихотливыми по узору, особенно в протяжных песнях.*

*Усложнение вокальных импровизаций, начиная с третьего этапа разработанной модели, происходит также и в соответствии с задачами, согласно которым, к указанным выше задачам развития детской вокальной импровизационной деятельности добавляется задача, направленная на формирование звукового восприятия (табл. 3).*

*Таблица 3*

*Усложнение задач развития детской вокальной импровизационной деятельности*

| *Группа* | *Задачи развития детской вокальной импровизационной деятельности* |
|---|---|
| *Старшая группа* | ** Воспроизводить в вокальных импровизациях основные выразительные отношения музыкальных звуков: звуковысотные (призывность кварты, покой терции, жалость звучания секунды и т.п.).*<br>** Совершенствовать в вокальных импровизациях: правильность звукообразования, смену способов звуковедения, особенности певческой дикции, точность интонирования, передачи ритмической особенности техники певческого исполнительства.* |
| | ** Дифференцированно использовать в вокальных импровизациях средства музыкальной выразительности песни: передавать красоту звучания мелодии песни*<br>** Воспроизводить выразительные основные отношения музыкальных звуков: звуковысотные (интервалы от октавы до примы), звуки трезвучия (вниз-вверх, в любой последовательности).*<br>** Совершенствовать в вокальных импровизациях: правильность звукообразования, красоту звуковедения (протяжность напевного пения; легкость отрывистого), точность, внятность, ясность певческой дикции, правильность дыхания, точность интонирования мелодии и ритмического рисунка песни, пение в знакомых видах певческой техники.* |

*Четвертым этапом являются вопросно-ответные импровизации – экспромт окончания (фрагмента) мелодии, начатой взрослым. Например, Г. Зингер "Зайка, зайка, где ты был?" и др. Вопросно-ответные импровизации способствуют активизации внутреннего слуха, развитию творческой инициативы. Такие импровизации в разработанной методической модели направлены на формирование ладотонального слуха и состоят из двух строчек: вопрос – ответ, усложнение которых происходит от простого к сложному. В старшей возрастной группе - вопросы задает педагог, а дети по цепочке поют друг другу ответы; в подготовительной возрастной группе вопросы и ответы поют друг другу дети сами, без участия взрослого. На данном этапе диалоги между педагогом и воспитанниками в вопросно-ответной форме исполняются вокализом. Фразы, оканчивающиеся на V или на II–VII ступени, заканчиваются обязательно тоникой. Постепенно усложняется интонационный строй фраз, объем вопроса и ответа доводится до предложения.*

*Пятым этапом является вокально-ролевая импровизация – импровизация мелодии на заданный текст. Такая мелодия предполагает изобилие динамических оттенков, силы звука, ритмического рисунка и соответствует показателям развития шестой и седьмой ступеней музыкального образования. Вокально-ролевая импровизация может быть направлена на придумывание мелодии: на определенную эмоционально-образную ситуацию; на жанр (марш, полька, вальс); на определенное настроение; в заданный лад (мажор или минор); на заданный ритм (вальс, пунктирный ритм); на определенную форму (песня - танец - марш).*

*Шестым, завершающим, этапом в разработанной методической модели является свободное использование разнообразия типов вокальной импровизации в музыкально-театрализованной деятельности.*

*Таким образом, тесное взаимодействие различных приемов активизации творческих возможностей, учет психологических и возрастных особенностей ребенка, позволяет развивать его способность к вокальной импровизации.*

*Методы освоения вокальной импровизации:*

*- традиционный (речевая импровизация, звукоподражание, музыкально-подголосочная импровизация);*

*- досочинения (вопросно-ответная импровизация);*

*- вариативности (вокально-ролевая импровизация) (табл. 4).*

*Таблица 4*

*Поэтапное развитие способности к вокальной импровизации*

| *Этапы* | *Последовательность* | *Методы освоения (Б.В. Асафьев)* | *Срок освоения* |
|---|---|---|---|
| *1* | *Речевая импровизация* | *традиционные методы* | *1- 2 недели* |
| *2* | *Звукоподражание* | *традиционные методы* | *1- 2 недели* |
| *3* | *Музыкально-подголосочная импровизация* | *традиционные методы* | *1–2 недели* |
| *4* | *Вопросно-ответная импровизация* | *метод досочинения песни* | *1–2 недели* |
| *5* | *Вокально-ролевая импровизация* | *метод вариативности* | *2–3 недели* |
| *6* | *Свободное использование разнообразия типов вокальной импровизации* | *традиционные методы метод досочинения песни метод вариативности* | *2–3 недели* |

*Наличие самостоятельных действий вслушивания, выделения, различения, сочинения звуков, ритма, мелодии и других выразительных средств музыкального искусства являются важным показателем освоения вокальной импровизации детьми старшего дошкольного возраста. Показателем эффективности разработанной методики освоения старшими дошкольниками вокальной импровизации является результат: дети, способные импровизировать мелодию или отдельные ее составляющие.*

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# *PEDAGOGICAL FOUNDATIONS OF MUSICAL ART IN THE FORMATION OF STUDENTS' FREE TIME*

*Zhantaeva M.K.*
*Taraz Regional University named after M.H. Dulati*
*Senior teacher of «Music and applied arts» department,*
*Taraz, Kazakhstan*

# *ОҚУШЫЛАРДЫҢ БОС УАҚЫТЫН ҚАЛЫПТАСТЫРУДАҒЫ МУЗЫКА ӨНЕРІНІҢ ПЕДАГОГИКАЛЫҚ НЕГІЗДЕРІ*

*Жантаева М.К.*
*М.Х. Дулати атындағы Тараз өңірлік университеті*
*«Музыка және қолданбалы өнер» кафедрасының аға оқытушысы,*
*Тараз, Қазақстан*

*Abstract*

*In this article, teams of modern secondary schools systematically work to solve multidisciplinary problems that require time. It is clear that the main task of today is to be able to recognize the talent given by nature in a young man, guide him in further development, be able to adapt to the times, and absorb the advanced morality of his time in his mind. Places for musical and aesthetic education of children - family, kindergarten, school, cultural topics broadcast on radio and television, etc. and depending on whether the student can fully relax in his free time. Thanks to them, children's interest in creative activities arises. Parents and music teachers are the main people who have a direct influence on the development of this interest. Any creativity of a child should be welcomed. This is because he has untapped creativity. Although he will not become an artist, musician or poet, he will definitely be a great mathematician, doctor, teacher. This is when we notice that children's creativity and imitation show their value. Enriching young people's knowledge of music and the arts and further supporting their creativity often occurs in their free time and in extracurricular musical activities. Thus, we must have a beneficial influence on students' minds, especially their emotions and vivid imagination. As a rule, teenagers do not have the same musical and aesthetic taste. Even if one of them perceives music quickly, the second - moderately, and the third - slowly. It depends on the natural abilities of the child, and then develops depending on the environment of his upbringing, the development of musical and aesthetic taste, the ability to perceive, feel and natural talent. Therefore, the main responsibility of a music teacher is to increase the child's love for songs and music and guide him in the right direction.*

*Аннотация*

*Бұл мақалада қазіргі жалпы орта білім беретін мектептер ұжымдары да уақыт талап етіп отырған осындай сан -салалы міндеттерді шешуге жүйелі жұмыс жүргізіп келеді. Жас өркеннің бойындағы табиғат берген дарындылықты тани білу, оны ары қарай дамуына бағыт-бағдар беру, заманына қарай икемдеп, өз заманының озық өнегесін оның санасына сіңіре білу - бүгінгі күннің басты міндетіне айналып отырғандығы айқындалады. Балаларға музыкалық-эстетикалық тәрбие беретін орындар – отбасы, балабақша, мектеп, радио-теледидардан берілетін мәдени тақырыптар т.б. және оқушы бос уақытында дұрыс тыныға білуіне байланысты. Осылар арқылы балалардың шығармашылық талпынысқа қызығушылығы басталады. Ал, сол қызығушылықтың даму үрдісіне тікелей әсерін тигізетін негізгі тұлға – ата-ана мен музыка мұғалімі. Баланың кез-келген шығармашылығын құптау керек. Себебі, оның бойында ашылмаған шығармашылық бастауы жатыр. Ол бір суретші, музыкант немесе ақын болып кетпесе де, керемет математик, дәрігер, мұғалім болары анық. Міне, дәл сол кезде балалық шақтағы шығармашылық пен еліктеулердің өз бағасын көрсеткендігін байқаймыз. Жасөспірімдердің музыка және өнердің салалары туралы түсініктерін байыту және олардың шығармашылық қабілеттерін одан әрі ұстау көбінесе бос уақыттарында және сабақтан тыс музыкалық іс-шараларда іске асады. Сөйтіп, оқушылардың санасына, әсіресе, олардың эмоциясы мен ұшқыр қиялына пайдалы әсер етуіміз керек. Әдетте, жасөспірімдердің музыкалық-эстетикалық талғамы бірдей бола бермейді. Тіпті олардың бірі музыканы тез қабылдаса, екіншісі орташа, үшіншісі баяу қабылдайды.*

*Бұл баланың табиғи қабілетіне байланысты болады да, кейіннен баланың өскен ортасына, музыкалық-эстетикалық талғамының жетілуіне, қабылдау, сезіну қабілетіне және табиғи дарындылығына байланысты дамиды. Сондықтан, баланың ән, музыкаға деген сүйіспеншілігін арттыру, дұрыс бағыт -бағдар сілтеу музыка мұғалімінің басты міндеті болып саналады.*

***Keywords:*** *recreation, free time, music, family, education, interest, creativity*
***Кілт сөздер:*** *тыныгу, бос уақыт, музыка, отбасы, тәрбие, қызығушылық, шығармашылық*

*Қазақстан Республикасы Білім және ғылым министрлігінің жастар арасындағы тәлім - тәрбие тұжырымдамасында: «Ұлттық мәдениет пен өнер негізінде жастарға жан-жақты эстетикалық тәрбие берудің бір бөлігі – эстетикалық мәдениетті қалыптастыру; сұлулыққа, тазалыққа үйрету; мәдениеттілікке баулу; адамзат қоғамына бұрын -соңды жасалған мәдени мұраның жүйелі меңгеруге жалпы әлемдік рухани игіліктерді бағалай білуге тәрбиелеу қажеттігіне баса көңіл бөлу керектігіне мән берілген» [1] деген.*

*Мектеп оқушыларының музыкалық тыныгу жұмысы, мектептегі оқу-тәрбие іс-әрекетінің табиғи жалғасы әрі маңызды элементтерінің бірі ретінде, музыка сабақтарында алған білім, іскерлік дағдыларын әрі қарай тереңдетіп жалғастырушы құралы. Әрине, оқушының музыкалық тыныгуы сыныптан тыс жұмыстарда іске асырылатыны анық.*

*Осы аталған сыныптан тыс жұмыстарда жүргізілетін музыкалық жұмыстардың барлық түрлері оқушылардың музыкалық тыныгу тәрбиесіне, музыкалық талғамы мен қызығушылығына бағытталуы тиіс. Бос уақытын тиімді өткізуде сыныптан тыс жұмыстарда оқушылардың көркемдік қызығушылығын, көркемдік қиялдарын, музыкалық-шығармашылық қабілеттерін оятуға әртүрлі әдістерді кеңінен қолдануға себебін тигізеді.*

*Біздің егеменді елімізде жас жеткіншектердің музыкалық білімін, эстетикалық талғамын, музыкалық шығармашылығын, белсенділігін, танымдылығын әрі қарай жетілдіре түсу, оны дамытудың тиімді жолдарын іздестіруде, бірқатар игі жұмыстар атқарылып жатыр. Олар оқушылардың белсенділігін, музыкалық - эстетикалық даярлығын ұлғайту мен тереңдетудің аса маңызды факторы болып табылады.*

*Бүгінгі жастар мен XVIII-XIX ғасырдағы жастардың тұрмыс-тіршілігінде, дүниетанымында, өмір салттарында елеулі өзгешеліктер туды. Осы белгілеріне орай эстрадалық музыка да жастарға тән өрнек-ырғақтармен толысып келеді. Бүгінгі оқушы – ертеңгі біздің болашағымыз Қазақстанның келешегі жеткіншектердің қолында екені бәрімізге мәлім. Олай болса, XXI ғасыр жас жеткіншектердің жан-жақты терең білімді, интеллектуалды деңгейі жоғары болуын талап етеді. былай делінген.*

*«Оқушылардын мәдени ой-өрісін кеңейтуде, құштарлығын және білім сапасын арттыруда олардьщ бос уакыттарында әдеби көркем шығармаларын окуының пайдасы көп. Ол үшін оларды жүйелі түрде кітап оқуға дағдыландыру қажет. Сынып жетекшісі мектеп кітапханашысымен ақылдаса отырып, қай оқушыға, қандай кітаптарды оқу кажеттігі туралы кеңес беріп, оны таңдауға, оқу дағдысын итеруіне көмектеседі. Көркем шығармаларды аз оқитын окушыларға үнемі көңіл болу кажет. Көбінесе, сондай окушылардын окыған кітаптары бойынша әңгіме ұйымдастырып, олардың кызығушылығын арттырып отыру міндетті» [2, 167 б.].*

*Осы тұрғыдан келгенде, Әл-Фарабидің, «Адамға ең бірінші білім емес, тәрбие берілу керек. Тәрбиесіз берілген білім – адамзаттың қас жауы, келешекте оның барлық өміріне опат әкеледі» [3], деп айтып кеткенін келтіруге болады.*

*Баланы тәрбиелеу үздіксіз процесс, ол оның уақытында да жүзеге асырылады. Адам өмірінде бос уақыттың рөлі өте ерекше. Ол демалы, жай ғана тыныгу үшін емес, рухани қажетін өтеуге, ойлау қабілетінің жетілуіне, жалпы жан-жақты болуына арналады. Әр адам бос уақытын өзінше бір нәрсеге арнайды. Бірақ, бос уақытты ұтымды етіп өткізу әлдеқайда тиімді. Бос уақытты пайдалана отырып, қоғам, ұжым, отбасы оқушылардың демалысын тиімді етіп ұйымдастырылуына күш жұмсауы қажет. Дұрыс тиімді ұйымдастырылған бос уақыт – олардың рухани өмірін, көзқарасын толықтырылуын қамтамасыз етеді.*

*Оқушының бос уақытын тиімді ұйымдастыру, оған дұрыс бағыт беріп отыру - барша қауымның ортақ ісі. Оқушы жан-жақты болып өсу тек қана оның мектепте өткізген*

*уақытымен шектелмейді. Бүгінгі таңда жаңа білімді адамды қалыптастыру мектептің қызметі күннен-күнге ұлғая түсуде. Сонымен қатар, оқушының бос уақыттын әлеуметтік құбылыс ретінде қарастыру мәселесі әлемдегі барлық ғылымдардың назарын аударып отыр, өйткені қоғамымыздағы әлеуметтік - экономикалық, саяси және мәдени өзгерістер тұлға санасына да жаңаша көзқарас қалыптасуын қамтамасыз етуде.*

***Оқушының бос уақытын ұйымдастырылуы.*** *Тәрбие үрдісін ізгілендірудің және мектептен тыс тәрбие жұмысын жетілдірудің негізгі шарты – оқушыларға даралап ықпал ету тәсілі болып саналады. Оқудан бос уақытында жасөспірім ортақ істің ұйымдастырушысы, белсенді қатысушысы болуға үлкен мүмкіндік алады. Іске қатысушы ретінде ол алдына міндеттер қояды, оларды шешу жолдары мен құралдарын таңдайды ақпарат алды яғни жеке тұлғаның дамуы, ержетуі және әлеуметтік бағытталуы іске асады. «Бос уақытты жүйелі ұйымдастыру, мәдени құнды мазмұнмен толықтыру, әлемдік және отандық мәдениетке баулу, өзін-өзі саналы түрде бағалай білу сияқты аса маңызды әлеуметтік-педагогикалық шешуге көмектеседі. Оқушының бос уақытын өткізуі тәрбие ісінде маңызды функцияны атқарады, оны тек әлеуметтік тұрғыдан қорғау ғана емес, сондай-ақ, шығармашылық дамыту, рухани байыту мен интеллектуалдық ахуалын кеңейту үшін жағдай жасалған. Әрбір ата-ана өз баласының толыққанды демалуын ғана көздеп қоймайды, сонымен қатар олардың қажетті дағды мен біліктерді меңгеруін, ой-өрісі мен іс-әрекетінің кеңейгенін қалайды» [4].*

*Оқушылардың бос уақыттары мәдени шараларға оның ішінде музыкалық тыныгу жұмысына аса көңіл бөлу керек. Өйткені жасөспірімдерге тыңдауға болатын, тыңдауға келмейтін (жас ерекшеліктеріне сәйкес) әндері, түрлі жанрдағы шығармалар бар, немесе батысқа еліктеп шет тілдерде айтылатын әндерді тыңдауға әуес, бірақ ол ән туынды нені дәріптейтінінде істері жоқ [5].*

*Жас ұрпақ мәселелерінің теориялық және қолданбалы зерттеулері әлемдік ғылымдағы ең белсенді әзірленетін бағыттардың бірін құрайды. Танымдық үдерістер дамуының сыртқы әлеуметтік және ішкі ғылыми факторлары жаңа тұжырымдамалық рәсімделген бағыттар мен мектептерді қалыптастыруға септігін тигізді.*

*Жастардың проблемеларын зерттеуге қолданылатын тәсілдер әлеуметтік қатынастардың деңгейі мен талдау элементтері бойынша өзгешеленеді:*

- *жеке адам, әлеуметтік институттар, әлеуметтік қауымдастық пен мәдениет жас адамның жеке басы мен әлеуметтік топтың, жалпы қоғамның өзара байланысы мен іс-қимылын түсіну және бағалау бойынша;*
- *жас адамның құндылықта бағдарлану жүйесінің жұмыс істеу сипаты бойынша.*

*Түрлі теориялар мен тәсілдердің барлық саналуандығына бағдарлану үшін оларды жастар жөніндегі мәселелерді зерделеуге қандай ықпал тигізетініне қарай бірнеше бағыттарға бөліп қарастыруға болады [5].*

*Жас буын өкілдері рок, поп, джаз музыкаларын жақсы қабылдайды, бірақ олардың музыка өнерінің бұл аймақтары жағынан білімдерінің төменгі көрсеткішті екендігін аңғаруға болады. Сондықтан да жас жеткіншектерді қазіргі заман эстрада музыкасынан түсініктерін арттыру үшін оқытушы өзінің бос уақытында музыкалық тыныгу жұмысты жақсы меңгеруі қажет.*

*«Қазақ халқының музыкалық және поэтикалық шығармашылығында жырлаған халықтың Отан-анаға, туған жерге, көз жетпейтін ұлан-байтақ қазақ даласына, оның табиғат байлығына деген сүйіспеншілігі музыкалық және эстетикалық тәрбие құралы болды. Сондықтан да қай кезде болмасын жыршылар, күйшілер, өлеңші-әншілер қазақ халқының музыка мәдениетін сақтау мен байытуда, жастарлың эстетикалық талғамдарын, көзқарастарын тәрбиелеуде айрықша маңызды роль атқарады. Олар өздерінің дидактикалық әндерінде халықты Отансүйгіштікке, ұлтына деген адалдыққа, әділетке шақырып, жақсылықтың жеңіп шығатынына сенуге, жамандықпен күресе білуге, жақсы атаулыға ұмтылуға дәріптеп отырды» [6]. Сонымен, музыкант-педагог ұйымдастырушы, тәрбиеші ретінде жетекші өзінің музыкалық-педагогтық шеберлігін арттырып, барлық жағынан үлгі болуға міндетті. Ол дайындықты ұйымдастырудың барлық мәселелерін шешуге, оның жоспарын жасауға, музыкалық шығармамен жұмыс істеудің мазмұны мен әдістерін, жеке-дара және топтың сабақтардың формаларын, тәсілдері мен әдістерін құралдарын динамикалық келісімділігін және т.б. мұқият ойластыруға тиіс.*

*Музыкант-педагог оқушылардың білімді, шеберлік пен дағдыларды игеруде белсенділік пен дербестікті дамыту және халық музыкалық творчествосының негіздерін оқып үйреніп, оларды оқумен көркемөнер практикасында қ олдануы жөнінде жүйелі жүргізуді қамтиды.*

*Бос уақыты мен музыкалық тынығу жұмыстарды өткізу барысында оқушы:*

*- Қазіргі заман эстрада музыкасының ағымдарына тез ыңғайлануды үйрену керек;*

*- Кез-келген эстрадалық топтардың және шығармашылығы туралы қысқаша мәлімдеме дайындауы керек;*

*Музыкалық тынығу кештер - тәрбие жұмыстарының өзегі. Ол мектеп оқушылары ғана емес, мұғалімдердің өзін де шығармашылыққа баулиды, рухани өсіреді. Музыкалық тынығу кештерді дұрыс ұйымдастыра білу білімділікті, шеберлікті қажет етеді. Әр тақырып бойынша іс-шаралар өткізуге болады. Солардың барлығындағы ортақ қасиет – өз халқының адами ұрпағын тәрбиелеу. Жан – жақты білімді, мәдениетті, ұрпақты тәрбиелеу үшін алдына мақсат қойған ұстаз көп ізденіп, шәкірттерін де қызықтыра біледі.*

*Музыкалық тынығу жұмыстың басты мақсаты: оқушылардың музыкалақ мәдениетін арттыратын сабақтан тыс уақытта кештер өткізу шараларын ұйымдастыру және оның әдістерімен және қазіргі заман эстрада музыкасының негізгі бағыттарымен таныстыру.*

*Музыкалық тынығу жұмыстың басты міндеттері:*

*- мектеп оқушыларын эстетика жағынан тәрбиелеу;*

*- оқушылардың, жастардың музыкалық түсінігін арттыру және музыкалық талғампаздығын тәрбиелеу;*

*- сабақтан тыс кештер ұйымдастыру әдістерінің негізгі бағыттарымен таныстыру.*

*Жеке тұлғаның қалыптасып дамуы үздіксіз сипатта болатыны мәлім. Ол әдетте сыныптан тыс жұмыста көрініс табады [7].*

*Қорытынды*

*1. Оқушыларға музыкалық-эстетикалық тәрбие беруде музыкалық тынығу жұмыстардың маңыздылығы анықталды;*

*2. Музыкалық-эстетикалық тәрбие беруде музыкалық ағымдарды музыка пәнінде пайдалана білу оқушылардың танымдық белсенділіктерін, білімдері мен біліктерін, дағдыларын қалыптастыруға мүмкіндік береді;*

*3. Жалпы білім беретін қазақ мектептерінде түрлі бағыттағы музыка өнерімен, мәдениетімен дәстүрімен терең таныстырып, халқымыздың педагогикалық ой-пікірін оқу тәрбие ісінің тірегіне айналдыру, музыкалық-эстетикалық тәрбиенің тірегіне жаңарған жүйесін жасау бүгінгі күннің өзекті мәселесі қарастырылды;*

*4. Музыкалық тынығу жұмыстардың келешек ұрпаққа тигізетін әсерін, маңыздылығын айқындалды;*

*5. Музыкалық тынығу жұмыстардың тәрбиелік мүмкіндіктері және оның музыка мұғалімдерінің педагогикалық іс –әрекетіндегі орны анықталды;*

*6. Музыкалық тынығу жұмыстардың ұрпақ тәрбиесіндегі тағылымдық мүмкіндіктерінің жоғары екеніне көз жеткіздік, оқушылардың көркемдік талғамын дамытуға, музыкалық-эстетикалық көзқарасын арттыруға әсер ететінін айқындалды;*

*7. Оқушыларға музыкалық-эстетикалық тәрбие беруде олардың шығармашылық әрекетіне қызмет етуге музыкалық тынығу жұмыстардың рөлі ерекше екендігі көрсетілді;*

*8. Тәжірибе жұмыстарда қолданылған әдіс-тәсілдер арқылы оқушылардың көркемдік талғамы, өнерге деген қызығушылығы анықталды;*

*9. Эксперименттік жұмыстардың кезеңдеріне тоқталып, салыстырып, сараптама жасап қорытынды жасаланды.*

*Егер де баланың бос уақыты тек көше кезіп, ойын ойнап немесе ертелі кеш компьютердің алдында отырса, әрине ол келешекте өзінің өміріне, болашағына нұқсан келтіріп, тіпті түрлі қылмыстарға да баратыны анық. Сондықтан оның әр бос уақыты пайдалы өтілуі керек.*

*Сол тынығу кезінде музыкамен тәрбиеленіп, оның тыңдалған әндері, шығармалары болашақты меңзейтін, мағыналы болуын қадағалауымыз қажет.*

*Музыкалық тынығу жұмыстарды жүргізу барысында қазақ халықтық музыкалық өнерімен қатар әлемдің деңгейдегі музыкалық ағымдардың шығу тарихы жайлы оқушылардың білімдерін, ой-өрісін кеңейту, оны саналы жан дүниесімен қабылдап, түсініп, тыңдай білуге тәрбиелеу;*

*Музыкалық тынығу іс-шараларда орындалып тыңдалған музыканың көркемдік, мәнерлік құралдарын, сипатын, тегін талдап, ажырата білу дағдысын дамыту. Қорыта келе ғасырлар бойы, тәуелді бодандықта келген бұқара қазақ халқы, болашақ дәуірде еңсесін көтеріп ұшан-теңіз білім, техника, ғылым, музыка, мәдениет сарайында қол сермеп, ұлттық түрлі мазмұнды халықтың өнерін өркендетіп дамытуда.*

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# Sociological sciences

## ACTIVITY-BASED SOCIAL WORK WITH FAMILIES

**Sevda Aghayeva Aydin**
*Azerbaijan State Pedagogical University, Baki, Azerbaijan*
*Foreign Languages Centre*
https: //orcid.org/0000-0002-5615-6923
**Lala Majidova Adalat**
*Azerbaijan State University of Culture and Arts,*
*master's student in social work*

**Abstract**

*Many workers left social work . In addition to the social aspect, pathological and problematic aspects have also emerged, or the problem has been resolved and the dysfunction has simply been eliminated. Rather, we look at functionality, comprehensiveness, and even social issues. This problem is multifaceted and from a healed wound state we can solve it in more versatile and powerful ways.*

*Social work practice occurs between individuals within the family and other social institutions such as schools, healthcare systems, social security systems, and courts. This article uses multidisciplinary theoretical resources to combine social work and family therapy to develop a contemporary model of social work practice with families. There are five general principles of family systems practice. 1) People are related from birth. 2) Families have their strengths. 3) The family life cycle continues systematically and creates communication difficulties for family members. 4) Relationship structures form through repeated interactions between family members. 5) The culture perceived by family members is dynamic and changing, which requires cross-cultural understanding of family interactions.*

**Keywords:** *research, problematic aspects, functionality, family life, cases of guilt, educational institutions, family therapists, advocacy, cooperation, case management*

*According to A. Q. Kharchev, the family is a union established on the basis of marriage and blood kinship, which has an interactive relationship with each other. According to Giddens, the family is a group of relatives engaged in the education of children (**A Giddens, A Cosentino, M Cook, 2007**). Marriage is based on a formal contract between husband and wife. The rights, freedoms and duties of husband and wife are regulated on the basis of marriage. The tasks performed jointly by each member of the family are determined based on the functions of the family (**NB Epstein, DS Bishop, S Levin, 1978**).*

***The functions of the family include (SB Morgan, 1988):***

*1. function of generation increase*
*2. training and education function*
*3. household and material security function*
*4. parenting, mutual assistance, effective spending of free time, etc.*

*The structure of the family, the mutual relations of its individuals with each other, as well as its spiritual and moral qualities, as well as judicial relations. Families are divided into 2 groups: authoritarian and independent (**SD Lamborn, NS Mounts, L Steinberg, 1991**). In a patriarchal family, the head is a man, and a woman is economically dependent on her husband. Compared to the patriarchal family, the matriarchal family is the complete opposite (**CL Chukwudi, UU Igwilo, BE Ogunnowo , 2022**). In democratic families, tasks are distributed equally between men and women, problem situations are solved together, family decisions are made together (**KC Mandal, 2013**).*

*There are two types of families according to the duties of kinship relations:*

***The 1st type** of family is a nuclear family, that is, a simple family, formed on the basis of parents and children.*

***The 2nd type** of family is a complex family consisting of 2 or more simple families and is associated with a common economy and cohabitation. In family life, in some cases, people may experience problems such as health disorders, losing their jobs, and reaching the point of losing their health (**J Ablon, 2016**). Sometimes death, divorce, separation, etc. The structure of the family can be divided due to such reasons.*

*Whatever the reason, the family needs professional help. Family-focused professional intervention is similar to the process of intervention with other organizations in need. But the family shows different characteristics from other groups (K Boyd, CM Trivette, DW Hamby, 2002). The family is a system formed by the interactive relations of the individuals who make it up. Each individual family is connected to other members of the family through relationships. It is based on multilateral relations, interactive and mutually influencing mutual relations. Thus, the problematic situation faced by any of the family members will directly and indirectly affect the whole family. As an example, let's note that the fact that the father is unemployed should not be considered only his problem (AE Goldberg, KR Allen, 2013). Unemployment can damage the father's self-confidence, feel bad about himself, and make it difficult for the family to provide financially. The purpose of helping the family is to support family members to change the problematic situations in the family's life. Family agreement with the phase of assistance is necessary for positive and lasting changes (L Binnendyk, JM Lucyshyn, 2009).*

*Intervention process for families (KA Crnic, CL Neece, LL McIntyre, J Blacher, 2017):*

*Building mutual understanding*

*Initial assessment / Information collection, concise analysis of the issue by family members, information about children in the family, information about family composition*

*Investigating a problematic situation*

*Making an initial intervention*

*Investigating comprehensive options*

*Final evaluation*

*Inspection*

*What should be considered during the support period?*

*In order for the services provided to families to be constant and optimal, we must thoroughly study the living conditions and environment of the family being served.*

*The family should be aware of the progress of each individual intervention.*

*Each individual of the family should be actively involved in the intervention phase.*

*It is necessary to work together with the family.*

*"If the main members of the family are familiar with the intervention stage and do not actively participate in it, the intervention process will not give its results. A specialist can develop detailed intervention plans, but without strong collaboration, those plans will not be worth it."*

*Try to make the family familiar with the intervention plan. Otherwise, the parent or any individual in the family will not be aware of the future stage and will not work to achieve an effective result.*

*When the family is familiar with the intervention plan, they will be directly involved in the intervention phase and will try to make the necessary effort to achieve any changes.*

*In order to achieve a successful result during the support period for families, it is necessary to focus on the following nuances (LM Lapierre, TD Allen, 2006):*

*Always explore family strengths*

*Building on those strengths*

*Based on the idea that "the family can benefit from its potential as much as it can".*

*To cooperate*

*Meeting at a convenient time for the family*

*To respect the material and moral values of the family, as well as the culture*

*In order to achieve optimal results, it is necessary to observe the following (V Seitz, LK Rosenbaum, NH Apfel, 1985):*

*Constantly interested in the house*

*Working from home*

*Having the ability to empathize*

*Gaining confidence*

*To communicate interactively*

*Investigate and resolve situations that hinder mutual cooperative relations*

*To be a person the family trusts:*

*Being disciplined*

*He should provide information about his identity, the organization he is an employee of, and the content of the activity to be performed*

*Act according to the objective and purpose*

*During the period of helping the family, the social worker should keep these thoughts away from him:*

*Negative stereotypes*
*Critical approach*
*Cases of guilt*
*Investigate who the culprit is*
*Disrupting family behavior*
*Struggle for governance*

*Who is a social work specialist working with families and what are the areas of activity (B Featherstone, K Morris, S White, 2014)?*

*A family social worker works directly with individuals, families, and organizations to address the various social and psychological issues they may face. These social workers participate in social work conferences, trainings, symposiums, and internship programs and specialize in providing assistance, intervention, and resources to improve the social well-being and lifestyle of families. Social work specialists working with families aim to increase family well-being, strengthen mutual relations and create safe conditions for all population categories.*

*The position of a social worker working with families involves monitoring the needs and concerns of each family with problems, developing and then implementing individual action programs for intervention, and providing counseling and treatment services. They cooperate with families in order to overcome the difficulties of being a parent, their responsibilities, domestic violence, addiction to harmful habits, problems related to psychological health, children's well-being, and crisis situations. Family social workers also collaborate with other professionals and organizational resources to provide the necessary assistance and services to support families' coping and well-being.*

*Family social workers support families in need to improve their life activities. At the same time, social workers work to ensure the safety of vulnerable population groups within the framework of family unity. For this reason, families are consulted, campaigns are carried out, and at the same time, by connecting families with resources, social work specialists provide invaluable services in strengthening and maintaining the stability of families, forming optimistic relationships and progressing evolution in a positive direction.*

*Powers and responsibilities of social workers:*

*The duties and powers of social workers working with families may differ from their professional function, existing conditions, and the population category they serve. For this, there are a number of general responsibilities of social workers.*

***Conducting monitoring**: Social workers working with families are responsible for conducting extensive checks in order to clarify the main aspects, needs and problems of families. Social workers conduct surveys to determine the development trend, behavior and current risk factors of the family, obtain information through observation and general assessment.*

***Development of action plans**: Based on assessments, social workers partner with families to develop individualized intervention programs. These programs describe specific goals, management methods, and resources to address identified problems and promote positive changes in the family system.*

***Counseling and treatment planning**: Social workers working with families offer counseling and treatment services to members, groups and families. Social workers use evidence-based therapeutic concepts to support their beneficiaries in developing effective coping goals, developing communication skills, overcoming problems, and improving relationships.*

***Advocacy and case management**: Social workers who work with families demand their clients' rights and well-being within different systems. Social workers help families access community resources such as medical, housing services, education and financial assistance. Social workers also provide social work management by coordinating services, counseling, and interacting with other professionals empowered to provide family welfare.*

***Crisis management**: In crisis situations or any emergency, social workers quickly implement the intervention process. They also measure safety risks, conduct assessments, design safety programs, and connect families with appropriate emergency services and resources.*

***Cooperation and networking**: Social workers collaborate with teachers, health professionals, psychologists, psychotherapists, as well as lawyers and other professionals to develop a holistic approach to meet the needs of the family. Social workers actively participate in multidisciplinary teams and conferences in order to network services and protect the interests of their clients.*

*Documenting and accounting: Social workers working with families maintain the objectivity and confidentiality of interactions with clients, monitoring, intervention and progress. Social workers adhere to ethical principles and legal requirements regarding documentation, reporting, and confidentiality.*

*General evaluation and supervision: Social workers monitor the effectiveness of the intervention process, conduct evaluations in this direction and prepare the necessary plans. They provide ongoing support to ensure families reach their goals and participate in appropriate long-term care services (M Payne, 2006).*

*Types of social workers working with families according to their activities:*

*There are several types of family social workers who specialize in different areas of social work, as well as serve a specific population category.*

*Some common types of social workers who work with families include:*

*Child and family social workers: Child and family social workers specialize in working with children and families with a focus on improving the lives of children, ensuring their safety, protecting their rights, and protecting the family. Social workers have the right to be closely involved in investigating allegations of abuse or neglect, assisting families in crisis, and facilitating reunification and foster care.*

*Social workers working in educational institutions: Social workers working in educational institutions work in educational institutions to help students and their family members. Social workers address situations such as communication difficulties, academic problems, socio-psychological trends, and family developmental dynamics that affect a child's educational experience. They collaborate with educators, administrators, and parents to develop intervention programs and connect families to community resources.*

*Clinical social workers: Clinical social workers provide therapeutic services to individuals, groups, and families dealing with psychological health problems or emotional situations. They monitor the objectivity of the overall assessment process, design therapeutic treatment programs, and conduct consultative conversations to overcome discomfort, depression, trauma, and interpersonal problems.*

*Health care social workers: Health care social workers work in health care facilities such as hospitals, clinics, or hospices. They help patients and their family members and caregivers, guide them through the medical system, provide access to resources, and help them cope with health problems or disabilities, as well as psychological and social needs related to their health condition.*

*Geriatric social workers: Geriatric social workers specialize in working with the elderly and their family members. Geriatric social workers (gerontologists) address challenges related to aging, continuing care, caregiver support, end-of-life planning, and access to community resources that improve seniors' living conditions while enabling independence.*

*Marital family social workers: Marital social workers, also known as family therapists, are licensed mental health professionals who specialize in providing therapeutic treatment to families in general. They work with families to resolve inter-couple problems, communication problems, as well as conflict resolution and the speed of development of intra-family relationships. Their theory is aimed at improving the general life activity of the family unit (AR Matos, LM Sousa, 2004).*

*The working environment of a social worker working with families (TJ Early, LF Glen Maye, 2000):*

*The work environment of a social worker working with families can vary according to the specific image and environment they are working on. Social workers from that category can work in many institutions, including state institutions, non-governmental organizations, medical institutions, educational institutions, and special practice (TJ Early, 2000).*

*Social workers working with families in state institutions often work in state institutions. These social workers interact with clients and families who come to the agency to provide service or support by cooperating with their colleagues, participating in trainings, or providing support. In addition to their specific business ventures within the agency's internal capabilities, they can also conduct general assessments, develop individual action plans based on intervention, and document mutual cooperation with clients (LF Glen Maye, 2000).*

*Non-governmental organizations that provide social services to individuals and their families also employ social workers who work with families. Those institutions can focus on specific areas such as improvement of children's and families' life activities, psychological health, family-domestic violence or social development trends. Social workers working with families operating in those institutions may have an office within the facility's facilities or may operate in community-based support facilities. Social workers connect directly with clients and families, conduct counseling, support and ensure their access to necessary resources. Social workers who work with families in health care organizations such as medical facilities, clinical centers, and medical organizations work as part of the medical team. These*

*social workers collaborate with doctors, other medical professionals and specialists to help patients and their families. They may have specific offices or workplaces within the facility where they provide consultation, help plan action, and coordinate with care services.*

*Social workers working in education often work in educational institutions such as elementary, middle, or high school. Social workers from that category have their own offices or workplaces within the school, and they interact with students, their parents, and teachers and pedagogical staff working in that school. Social workers have the authority to conduct monitoring, conduct consultations, establish corporate relations with educational specialists, and organize pedagogical trainings or webinars in order to support the social and psychological development of students and their family members (G Jack, 2010).*

*Most social workers who work with families choose to build their own specific practice. In this environment, they have a specific facility or clinical center where they receive clients for therapeutic, consultation, and intervention services. The specific empiric skills of social workers enable them to design their own programs of action, while at the same time clarifying the level of complexity of the clients' work. In addition, social workers can also display administrative functions such as documentation, reporting, and economic theory of their empirical experience.*

*Regardless of the specific direction of activity, social workers working with families spend the necessary part of their time in direct contact with their clients, conducting monitoring, consulting, and facilitating the intervention process. Social workers in that category can also carry out organizational structure functions such as documentation, management and final reporting. The work environment of a social worker working with families can be dynamic and adaptability, requiring strong communication skills, as well as the ability to cooperate with individuals with different characteristics, community organizations and their resources.*

*In their career, social workers working with families support each individual and their family to easily overcome obstacles or receive additional help. Social workers who work with children and families know that people deserve special care. Family social services give people and families the satisfaction of restoring harmony and getting back on track in their lives. Throughout her career as a family social worker, she has worked in nonprofit organizations, business and social services, and all levels of government (T Cluse, 2006).*

*In this article, we will discuss what a family social worker is, how to become a family social worker, types of family social workers, how social workers help families, family social worker jobs, and family social worker career opportunities. A career as a family social worker involves supporting people who have grown up in dysfunctional families and suffer from mild to severe dysfunction. Some people are able to overcome the obstacles they faced in childhood and have a positive impact on their future. This negative behavior puts a lot of pressure on the family. In some cases, you may need help learning how to deal with certain family situations or problems you are facing on a personal level. Those who choose a career as a family social worker can restore balance by supporting families in crisis.*

*Types of family social workers*

*School Social Workers: School social workers work with teachers, parents, and school administrators to ensure student development. It develops strategies and programs to improve students' learning skills and interest in education.*

*Health Social Workers: Health social workers counsel frail or ill people who have been diagnosed with an illness or other health problem. Takes necessary measures regarding the patient's lifestyle, residence and medical care. Medical social workers help people in the hospital until they recover and return home. Help doctors understand how certain diseases and treatments affect a patient's emotional and mental health.*

*Mental health and substance abuse social workers: Mental health and substance abuse social workers help patients who suffer from mental health disorders such as anxiety and depression. It also supports addicts and provides information and emergency services.*

*Communication Skills: family social workers must be prepared to communicate with clients so that they can talk openly about problems in their lives and feel free to ask for help when expressing their needs. Good reputation skills are effective in this pursuit for several reasons. Family welfare workers with social skills can make it easier for patients to receive treatment. It can also help disadvantaged children learn effective communication skills (D Forrester, 2008).*

*Emotional stability: people who choose careers as family social workers often work with people who are emotionally distressed or have personal problems that lead to increased stress and emotional*

*distress. It is important to build emotional relationships with customers to further support and guide them. Customer relationships should be filled with passion, care and empathy (M Wang, 2013).*

***Dealing with interpersonal relationships**: family workers work with diverse groups of people. Interpersonal skills to communicate with NGOs and build strong, healthy relationships. For both, interpersonal relationship management is critical because it can promote healthy communication between clients and social workers. Family welfare providers serve diverse people, groups, and community groups with diverse cultures and dietary habits. Organizational skills: Organizational skills play an important role in supporting disadvantaged groups from different cultures. Must work with multiple clients who need different help and support. Low-income children need education, and disabled people need treatment to lead independent lives. Organizational skills are essential in this profession to provide services tailored to the needs of each client.*

***Problem-solving skills**: family workers must find effective solutions to client problems and alleviate them. Learn effective measures to support and solve various problems. A family social worker is an excellent candidate to solve the problem. We support people who want to lead independent lives. Family welfare workers teach skills such as driving, sewing and car repair to help them achieve their dreams. Individuals organize training programs to help young people find the ideal job in their career as a family social worker.*

*In such a changing situation, families need outside help. The purpose of social work is to provide social support to families who cannot solve their life problems and fulfill their social functions without outside help:*

*1. Reproductive and productive functions - the birth of children and the survival of mankind.*

*2. Formation and function of primary socialization - development of children's social interaction skills, integration into society, including social life.*

*3. Economic and domestic functions - the formation of intra-family relationships in which various human needs of children are met in connection with various types of economic activities (providing food service, buying household items, repairing the house, etc).*

*4. Rest and psychotherapeutic functions - the ability to recover and restore the lost physical and mental strength of the family.*

*5. Communication functions - improvement of children's general communication skills, intellectual communication, etc development. When a person cannot perform a certain function, various problems arise within the family. In the socio-pedagogical literature, housing problems, economic and economic problems, employment and unemployment problems, family planning problems and domestic violence problems are considered the most urgent problems of modern families.*

*In accordance with the Decree No. 3 "On measures related to the implementation of the World Declaration on ensuring the survival, protection and development of the child in the 1990s", the Executive Powers of the Russian Federation, the federal agency "Families and Children" led. He recommended and contributed to the creation and strengthening of regional networks of new types of social welfare institutions. These new types of facilities include social assistance centers for families and children, psychological and educational assistance centers for the population, emergency telephone call centers for psychological assistance, and social rehabilitation centers for minors. It was a social housing facility and child welfare center for children and young people. Rehabilitation center for disabled children and adolescents deprived of parental care. Other social institutions also open departments that work with families and children. Preschool Social Education Support Center carries out psychological and pedagogical rehabilitation for children with developmental disabilities by conducting educational training in accordance with the kindergarten curriculum. Here we create individual rehabilitation programs for each child and provide psychological and pedagogical support in the rehabilitation process. Rehabilitation centers for children with disabilities provide psychological, educational and medical assistance, as well as vocational training. The recreation center organizes entertainment and cultural events for the whole family. Here, fathers are busy raising children, and parents have the opportunity to leave their children at the center for a few hours. The Department of Youth and Social Services helps young people find work, supports young families, youth returning from prison, alcoholics and drug addicts. Medical and social centers support not only children, but also families and all population groups. We protect families with young children, promote a healthy lifestyle and provide preventive health care. Special attention is given to families with disabled or sick children. When social services identify families in need, they provide a variety of support, including visits to shops and workshops.*

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# Veterinary sciences

## THE RESULTS OF THE USE OF THE ASSOCIATED VACCINE AGAINST HEMOPHILIC POLYSEROSITIS (GLASER'S DISEASE), SALMONELLOSIS AND EDEMA DISEASE OF PIGS ON FARMS IN UKRAINE

*Ayshpur O.Ye.*
*Institute of Veterinary Medicine of the National Academy of Sciences, Kyiv, Ukraine*

*Abstract*

*Respiratory diseases of pigs, their prevention and treatment are a problem of modern pig farming in our country and abroad. Diseases occur more often in an associated form, while several pathogens, in particular bacteria, are released. There are a number of mono- and associated vaccines against infectious diseases, but the selection of antigens in the vaccine does not always give the proper effect and corresponds to the epizootic situation in a particular farm. The paper presents data on the testing of hemoenterotoxal in conditions associated with the course of respiratory diseases in pigs.*

**Keywords:** *vaccine, Glaser's disease, salmonellosis, edema disease, pigs.*

**Introduction:** *It is known that piglets after weaning from sows often fall ill with various diseases, including infectious ones. This is facilitated by weaning, when piglets are left without mother's milk, which during the post-sucking period acts as a biological regulator of all processes in the piglets' body.*

*In the infectious pathology of piglets, bacterial diseases occupy a leading place. According to our research (2004-2022), 41.6 % of dead piglets in the suckling period and the first 15-25 days after weaning from sows had signs of coli infection, including edema disease. Later (up to 120 days after birth), 33.4% died from hemophilic polyserositis (20.4 %), actinobacillosis (3.8 %), pasteurellosis (5.0 %), salmonellosis (4.2 %).*

**The goal** *of our work was to analyze the results of using the created associated vaccine against hemophilic polyserositis (Glaser's disease), salmonellosis and porcine edema disease.*

**Materials and methods:** *"Hemoenterotoksal" - an inactivated, associated formolhydroxide aluminum vaccine against hemophilic polyserositis, salmonellosis, and porcine edema disease was developed by scientists of the Laboratory of Animal Bacterial Diseases of the Institute of Veterinary Medicine of the National Academy of Sciences and used on Ukrainian farms of various capacities.*

*The vaccine includes strains of bacteria Haemophilus parasuis, Salmonella typhimurium, Salmonella choleraesuis, E. coli. In the body of vaccinated pigs, the "Hemoenterotoxal" vaccine creates immunity 14-15 days after the second vaccination and lasts up to 7-8 months against each of the three diseases. The vaccine was administered to: farrowing sows twice 30 and 15 days before farrowing (5 $cm^3$, 10 $cm^3$); to piglets before weaning from sows with an interval of 7-8 days, so that the second administration is no later than 5 days before weaning (2 $cm^3$, 3 $cm^3$).*

**Results and discussion:** *The "Hemoenterotoksal" vaccine has the following advantages over analogues:*

*- whole-cell, corpuscular, from reference and epizootic strains;*

*- provides immune protection of piglets during their rearing against the most dangerous bacterial infections during the associated course, and in the case of monoinfection;*

*- helps to reduce the manifestation of the pathology of the reproductive system of sows (reduction of late miscarriages, extension of the period of use).*

*According to the results of use, it has been proven that the Hemoenterotoxal vaccine is a drug with high immunogenicity and economic efficiency (on average 59.7 hryvnias per 1 hryvnia spent). Its use in the listed bacterial diseases of pigs increases the survival of the herd during the rearing period by 3.2% and the average weight of piglets when transferred to fattening by 2.8 kg. It was established that the use of the Hemoenterotoxal vaccine prevented losses in farms of almost 1.5 million hryvnias. Farms where the vaccine was used for 3-4 years were cured of salmonellosis, edema disease and hemophilosis; in them, the number of miscarriages in sows decreased by half, their culling was reduced by 30%. After vaccination with the "Hemoenterotoxal" vaccine, 19% more piglets were saved during the growing period than in the unvaccinated control groups.*

*During production trials of the vaccine in a farm where 15,000 pigs are raised per year, 50% of unvaccinated piglets died, and 13% among vaccinated piglets died of an acute infectious process during the period of growing piglets aged 80-90 days. The total departure was also halved. Additionally, almost 700 heads were saved among the vaccinated. When selling them, the farm received at that time no less than 400,000 hryvnias, which is many times higher than the cost of the vaccine.*

***Conclusions:*** *In the conditions of an acute associated virus-bacterial course of respiratory diseases of pigs, the use of "Hemoenterotoksal" contributed to stopping the epizootic process.*

*The effectiveness of "Hemoenterotoxal" - an inactivated associated formolhydroxide aluminum vaccine against hemophilic polyserositis, salmonellosis and edema disease of pigs has been proven and is recommended for use in the presence of hemophilic polyserositis (Glaser's disease), salmonellosis and edema disease in an associated form or monoinfection on the pigfarms.*

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