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ARTISTIC AND SCIENTIFIC ANALYSIS OF GHAFUR GHULAM'S CREATION

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ANNOTATION

This scientific article describes the life and work of Gafur Ghulam, the artistic interpretation of his stories.

Key words: *«Winter», «Wife», «Unfortunately, she did not bury her regrets», «Garden», «Grief», «Autumn has come», «Autumn seedlings».*

Gafur Ghulam is one of the brightest figures of Uzbek poetry of the 20th century, a famous poet and writer, a skilled translator, and a great scholar of literature. We get to know Gafur Ghulam more closely through the work «Shum bola». Gafur Ghulam is a well-known writer of Uzbekistan and a creator in whose poetry and prose the history of the Uzbek people found its artistic embodiment. The writer's creativity is diverse – it consists of poems, songs, epics, odes, stories, short stories. Gafur Ghulam, the beloved creation of the Uzbek people, was born on May 10, 1903 in Tashkent, in a peasant family. Despite the fact that his father was a farmer, he was one of the literate people of his time. He read Uzbek and Tajik classical literature, knew the Russian language, and wrote poems himself. Muqimi, Furqat, Asiri, Khislat and other poets came to his house. It can be seen that Gafur Ghulam grew up among artists.

In the fall of 1916, Ghafur entered the university. He had to work during his student days after his father and mother died. The so-called spell of poverty and lack

has taken the great poet of the future – «the wanderer of the 10th years» - into its arms, along with thousands of children. They took care of the cobbler, during the day he took care of his sisters, and in the evening he worked as a guard at the mill in the neighboring neighborhood. He guarded the garden of a rich man named Sariboy. Many years later, Gafur Ghulam masterfully absorbed the services at this rich door in his story «Shum bola». Gafur Ghulom After trying himself in many professions, he finally got a job as a typist in a printing house, and then studied at pedagogical courses. From 1919 to 1927, he worked as a teacher, school director, chairman of workers of Spiritual Union. Since he was orphaned by his parents at an early age, he provided both moral and practical help in the construction of an orphanage.

Gafur Ghulam's literary career began in 1923. One of his first works, written in 1923, in the poem «Felix's children», he talks about orphans, in which the writer expresses his life, and in the journal «Education and teacher» his second poem «Where is the beauty» is to be published. One after another poetry collections are published: «Dynamo», «Photos of China», «We are alive with you», «Live songs», «Sizga», «Gift», «Morning Song», «Kokokan» epic and others. Many poems, epics, essays, comic stories and short stories were published in newspapers and magazines in the early years of the artist's work.

Gafur Ghulam's poems written in the early 1930s show a turn to new forms, which was significantly influenced by his study of the classical Russian language. In addition, new vocabulary, new poetic colors, new tone and weight were required to describe the amazing changes taking place in his native land, such as the growth of industry and the construction of the Turksib railway.

The poet's poems about eternal life and the eternal blue tree, written between 1929 and 1948, such as «Winter and Snow», «Bread», «Tashkent», «Elections at the Pole», «I'm a Jew», «Winter», «Wife», «Unfortunately, I didn't add to my regrets», «Garden», «Grief», «Autumn has come», «Autumn seedlings» have themes of universality and humanitarianism. Found its reflection. Many of his poems contain the image of an oriental sage – a father: «You are not an orphan» (1942), «Grief»

(1942), «One is a student, one is a master» (1950), «You are the youth» (1947), «Spring songs» (1948) and others.

Gafur Ghulam did not limit himself to writing poems, but also wrote several stories to convey the injustice of the Soviet era to the next generation.

Among them, the stories «Netai» (1930), «Yodgor» (1936), «Shum Bola» (1936-1962), and «Sharia Tricks» (1930), «My Thieving Child» (1965) depict real folk heroes and our nationality. The artist's work «Shum bola» openly shows the injustices of the Soviet regime and the lifestyle of the people of that time.

Gafur Ghulam did not limit himself to creating only poems, short stories and other works, but also translated the works of famous writers of the world. For example, he was famous for his skillful translation into Uzbek of the works of Pushkin, Lermontov, Griboyedov, Mayakovsky, Nazim Hikmet, Rustaveli, Nizami, Shakespeare, Dante, Beaumarchais and others.

The works of Vladimir Mayakovsky had a great influence on the formation of Gafur Ghulom's world view and artistic taste. Gafur Ghulam writes in one of his articles: «I know and love Russian classical artists and have translated many of their works into my native language. But I want to say that I am a student of Mayakovsky, who «opened up the most exciting and unlimited possibilities for me in the fields of weight, vocabulary, symbols, and the melodic structure of poetry.» In addition to anger in Mayakovsky's satire, critical sarcasm, and the tremendous power of feeling in his lyrics, I tried to concentrate in myself… the bold eloquence of his methods, the courage of metaphors, the expressiveness of exaggerations. I even had to use the methodical, melodic and meaningful construction of the poem in the structure of the Uzbek poem.» These are reflected in many poems of Gafur Ghulam, for example: «On the roads of Turksib», «Motherland», «Long live peace!».

Gafur Ghulam made a great contribution to the establishment of the Uzbek translation school. He skillfully translated masterpieces of world literature such as «Othello» and «King Lear» into the Uzbek language. Gafur Ghulam was a full member of the Academy of Sciences of Uzbekistan.

The story of «Netay» is a wonderful work full of broad social generalizations. The plot is based on a true story. The last emir of Bukhara stopped in Tashkent during his trip to Petersburg. The rich do everything to make Amir happy and satisfied. A girl named Netay is brought to him for fun.

The trope of ordinary workers is beautifully expressed – the clans and their women take care of a ten-year-old girl named Netai, who, despite the hardships of life, is rich in spirit and very impressionable. The short story shows Gafur Ghulam's flexibility and ability to skillfully use the technique of prose.

Academician of the Academy of Sciences of Uzbekistan Gafur Ghulom wrote the researches «Navoi and our time» (1948), «Let's learn from folklore» (1939), «About the drama of Jalaluddin» (1945), «Muqimiy» (1941).

The masterpiece of its time was the epic «Yoldosh», which talks about the powerful force in educating the young generation. In the civil war, his loved ones lost Yoldosh. Like other orphaned and neglected children, this boy is taken care of by the state – they create shelters and orphanages for them. As can be seen from the artist's works, he partially embodied his life in them.

Children of the orphanage are always ready to defend the independence of their homeland. In the epic, Yoldosh's meeting with his father is depicted with great skill and warmth, and the image of people faithful to their debt is revealed deeply and broadly. The theme of the defender of the homeland was further developed and deepened in Gafur Ghulam's subsequent works from 1941 to 1945. The poet glorifies the role of the Uzbek woman in the economic development of the country in the post-war period.

In the epic «Two Acts», he praises the resettlement of villages and expresses the Uzbek peasantry and their dreams for the future. The epic is strong in its commitment to real-life reality. A historically reliable picture of Uzbek agriculture is drawn here. This theme is also heard in the epic «Koqan».

In his time, he was popular among the people and served as a propagandist in the struggle to strengthen agriculture.

Gafur Ghulam is also known as a master of stories with a short, sharp plot, and instead of the narrative style, he uses the form of a lively friendly debate filled with the writer's questions and answers, the author's speech and a free address to the reader. Many prose works created by Gafur Ghulam in the 1930s are dedicated to new human relationships. The main problems and solutions that he covered in his works are the struggle for the moral education of a person, his spiritual and cultural development. The author creates vivid positive images in his prose works. Jora, a positive character with a big heart in the story «Yodgor», brings up a stranger's child. It is through the attitude of an ordinary person to a stranger that the author shows the high moral level of Jora.

Gafur Ghulam dedicated many of his works to children. The well-known story «Shum Bola» is relatively lucky. The hero talks about his tragic life. The boy ran away from his house to his aunt's house because of his mother's punishment while taking the products out of the house. However, the boy is not lucky here either: he accidentally kills his uncle's quail and leaves this house. Thus, he begins to be darbadar and trouble. The writer focuses on describing the worries and inner experiences of this child. Depicting external events, objects and everything surrounding the little hero serves to deeply express human feelings. Everything is subject to it – the point of view of the story statement, the scenery and the symbolic basis of the work. This work of Ghafur Ghulam is a retro movie that has been filmed and is still loved.

During the war, Gafur Ghulam wrote such wonderful poems as «You are not an orphan», «I am waiting for you, my son!», «Time», «Kuzatish», «Ayol», «There will be a holiday on our street». «I'm waiting for you, my son!» in his poem, the poet praises the patience and strength of the fathers behind the front lines, who brought victory over the enemy closer through their heroic work.

In difficult times, people's love for children gained great meaning. This is evident in the wonderful poem «You are not an orphan», which talks about the sincere care of ordinary people after losing their parents. The poet's poems

«Bahaybat», «Song of the Victors», «Time», «Khotin» written during the war years are examples of high civic poetry. They are included in the collection «From the East». Excerpt from Gafur Ghulam's poem «Time»:

Let's compare the time before the bud opens to the life of a butterfly.

Sometimes a respite—

Enough for a thousand stars to fade.

/-/-/-

The golden hand of the watch of life is a world of time.

The universe is in its infancy right now

A new world can be created.

What is the moment? An opportunity that passes in the blink of an eye. As if it is not worth paying attention to. For most people who think that their life is endless, the moment may not have a yellow childhood value. However, through this poem, the poet proves with extraordinary examples that the whole human life – its joys and worries, and even its fate – is based on these moments.

After the war, Gufur Ghulam published a number of poetry collections: «New Poems», «Uzbekistan Olovli», «Mothers», «Pride of the Uzbek People», «Morning Song», «Long Live Peace!», «This is your signature». In the poems from these collections, the poet tries to find answers to the important questions of the peacetime, to show the successes of the Uzbek people in their labor activities. The heroes of his works are ex-soldiers busy with world affairs and peaceful work.

MAQSUD SHAYXZODA IJODIDA VATANGA MUHABBAT TUYG‘ULARINING IFODALANISHI

Husanova Nihola,
TDTrU talabasi

Annotatsiya: *Maqolada yosh avlodni vatanparvarlik ruhida tarbiyalash va ta’lim berish davlatimiz oldidagi eng asosiy vazifalardan biri ekanligi va shuningdek, shoir, dramaturg, tarjimon, olim va pedagog Maqsud Shayxzodaning vatanparvarlik tuyg‘lari bilan yug‘rilgan igod namunalari tahlil etilgan.*

Kalit so‘zlar. *ta’lim, tarbiya, qahramonlik, bag‘rikenglik, totuvlik, vatan, vatanparvarlik, sh’riyat, Maqsud Shayhzoda.*

O‘zbekistonda amalga oshirilayotgan tub islohatlarning diqqat markazida, shubhasiz, yoshlar masalasi va muammosi turadi. Aynan shuning uchun ham yosh avlodni vatanparvarlik ruhida tarbiyalashdek muhim maqsad milliy ta’lim tizimi oldidagi eng asosiy vazifalardan biri hisoblanadi. Shu o‘rinda, albatta, yoshlarni mustaqil fikr va dunyoqarash, zamonaviy bilim va tafakkur, eng asosiysi, o‘z ona vatanini sevishni, o‘z ona tilisi va chet tillarida to‘g‘ri va ravon so‘zlashni o‘rgatish har bir pedagog uchun asosiy vazifa sanaladi.

Bugungi kunda adabiyot o‘qitishning metodologik asoslarini ishlab chiqishda shaxsga yo‘naltirilgan ta’lim nazariyasiga tayanilmoqda. “...bu o‘rinda gap, eng avvalo, yoshlar va aholi o‘rtasida mamlakatimizning boy tarixini,uning betakror madaniyatini keng targ‘ib qilish,jahon ilm-fani va adabiyoti yutuqlarini etkazish uchun zarur muhit va shart-sharoit yaratish” – degan yurtboshimiz. Yo‘qotilgan urf-odatlarni tiklash, har bir etnik guruh madaniyati o‘ziga xosligini anglash davrimizning ustuvor vazifalaridir.

Davlat yosh avlodda bag‘rikenglik va o‘zaro hurmatni tarbiyalashga intiladi. Har qanday davlatning ustuvor vazifasi vatanparvarlik tarbiyasidir. Shaxsiy intilishlardan tashqari, insonga umuminsoniy qadriyatlar kerak va ulardan biri vatanparvarlik tuyg‘usi, bu vatanparvarlik, o‘z Vataniga muhabbat, bu barcha odamlarni yagona jamiyatga bog‘laydigan axloqiy xususiyatdir. Vataniga muhabbat bilan birlashgan jamiyatgina davlatni yaxlit va obod qilishi mumkin. Vatanparvarlik tarbiyasi bir necha bosqichlardan o‘tadi: oilangizga bo‘lgan muhabbatdan Vatanga muhabbat. Vatanga muhabbat – vatanparvarlikning eng yuqori darajasi.

So‘nggi yillarda o‘quvchilarni badiiy asarni tahlil qilishga o‘rgatish masalasiga alohida e’tibor qaratilmoqda. Bu masala uzoq yillardan buyon olimlarning e’tiborini o‘ziga jalb qilib kelmoqda. Shu o‘rinda shoir, dramaturg, tarjimon, olim, pedagog Maqsud Shayxzodaning ijodi sof muhabbatga, odamlar o‘rtasidagi munosabatlarga, do‘stona aloqalarga, beg‘ubor fikrlarga va vatanparvarlikning eng yuqori tuyg‘ulariga asoslangan. Maqsud Shayxzodaning she’riyati har bir satrida zamonaviylik bilan chambarchas bog‘liq uning fuqarolik lirikasi juda dolzarbdir. Maqsud Shayxzodaning she’rlari mazmunan chuqur, ma’no jihatidan juda mantiqiy. She’riyatining asosini qahramonlik, psixologik, dramatik jarayonlar tashkil qiladi. Uning 437 sahifadan iborat “25 yillik bahs” kitobida ham vatanga bo‘lgan lirik ijod namunalari aks etgan.

Hozirgi kunda o‘tmish ajdodlarimizning urf - odatlari va yutuqlarini qayta tiklash uchun sharoit yaratmoqdamiz. Bu yoshlarga bag‘rikenglik, tinchlik va barqarorlikni ta’minlash omili sifatida xizmat qiladi. Zamonaviy yoshlar orasida vatanparvarlikni shakllantirishning ajralmas qismi bu Ulug‘ Vatan urushi qahramonlari misolida ta’lim berishdir. Ikkinchi jahon urushi yillarida Maqsud Shayxzoda bir nechta she’riy to‘plamlarini nashr ettirdi: “Jang nima uchun?”, “Jang va qo‘shiq”, “Yurak gapiradi”, “Momaqaldiroq bilan tug‘ilgan” kabi. Shu bilan bir qatorda, Yo‘ldosh Oxunboboyev haqida “O‘n birinchi”, “Zhenya”, “Uchinchi o‘g‘il”, “Oqsoqol” she’rlarini yozgan.

Tarixiy voqealarni bilish zamonaviy yoshlar orasida vatanparvarlik tuyg‘ularini shakllantirishga asos yaratadi. Ulug‘ Vatan urushi va vatanparvarlik mavzusi Maqsud

Shayxzoda ijodida o‘z ahamiyatini yo‘qotmagan, chunki bu voqea har bir oilaga ta’sir ko‘rsatgan. G‘alaba kuni har yili fashist bosqinchilariga qarshi kurashgan mamlakatlarda keng nishonlanadi. Minglab yoshlar jang maydonida halok bo‘lishdi. Ular g‘alaba qozonish g‘oyasidan ilhomlangan. Ular bizning gullab yashnashimiz uchun yoshlarimiz va davlatimiz uchun jonlarini fido qilganlar. Har bir inson erkin mamlakatda chuqur nafas olayotgani uchun minnatdor bo‘lishi kerak.

Shuni ta’kidlash kerakki, vatanparvarlik ko‘plab omillar ta’siri ostida shakllanadigan shaxsning ma’naviyati, fuqaroligi va ijtimoiy faoliyati birligida namoyon bo‘ladi. Bunday holda, asosiy rolni ta’lim egallaydi. Axir, u har doim shaxsning shakllanishiga va natijada butun jamiyat farovonligiga hal qiluvchi ta’sir ko‘rsatadi. Zamonaviy avlodni vatanparvarlik tarbiyasi muammolarini hal qilishda yoshlarning o‘zlari ishtirok etishlari, Vatan tushunchasi ahamiyatini anglab, uning madaniyati, urf-odatlari va tarixini sevish, bilish va hurmat qilishlari kerak. Ma’lumki, vatanparvarlik tuyg‘usi mazmunan ko‘p qirrali. Bu nafaqat Vatanga bo‘lgan muhabbat, balki o‘z tug‘ilgan joyiga bo‘lgan muhabbat va o‘z xalqi uchun g‘ururlanish, o‘z mamlakatining boyligini saqlash va rivojlantirish istagidir.

Shu ma’noda, Uiug‘ Vatan urushi davrida Maqsud Shayxzoda o‘zbek folklori va mumtoz she’riyatining eng yaxshi she’riy an’analarini zamonaviy adabiyot yutuqlari bilan birlashtirgan. Maqsud Shayxzoda mumtoz Sharq she’riyatining mumtoz janrlarida asarlar yozadi. Xususan, vatanparvarlik mavzusi “Toshkent haqida she’r” (“Toshkentnoma”, “Chorak asr divan” tanlangan asarlar to‘plami, “Yillar va yo‘llar” lirik to‘plami, “Istiqbol”, “Lirik va falsafiy asarlar” da ko‘tarilgan. Maqsud Shayxzodaning vatanparvarlik tarbiyasi mavzusi “Jaloliddin Manguberdi” tragediyasida o‘z yurtining ozodligi va mustaqilligi uchun mo‘g‘ul istilochilariga qarshi kurashgan so‘nggi Xorazm shohining jangovar jasoratini tarixan aniq va haqqoniy tasvirlagan.1988-yilda “Jaloliddin Manguberdi” birinchi marta o‘zbek tilida yozuvchining “Boqiy dunyo” degan kitobida to‘la bosilib chiqarildi. Odamlar qalbida vatanparvarlik tuyg‘usini jo‘sh urdiruvchi, qahramonlik ruhidagi bu asar bugun ham

o‘z ahamiyatini yo‘qotgani yo‘q. Oradan ko‘p yillar o‘tsa ham Shayxzoda asarlari o‘z kuch-qudratini namoyon etib kelmoqda.

Maqsud Shayxzodaning xalqimiz tarixiga, jumladan, Jaloliddin Manguberdi taqdiri va kurashiga odilona yondoshganligini, haqiqatni himoya qilganligini asarni o‘qish jarayonida tusnunib olamiz. “Jaloliddin Manguberdi” asari yoshlarda o‘zligini anglash, millati bilan g‘ururlanish ruhini uyg‘otadi. Shuning uchun ham bu asarlar Shayxzodaning yozuvchilik shuuri va ijodkorlik zehnining o‘tkirligini yana bir bor isbotladi. Maqsud Shayxzodaning o‘zbek adabiyotiga qo‘shgan yana bir ulkan hissasi “Mirzo Ulug‘bek” tragediyasidir. Tragediya 1964 yili yozildi, o‘sha yili bu asar Hamza teatri sahnasida qo‘yildi, keyinchalik uning asosida kinofilm yaratildi.

Maqsud Shayxzodaning yuqorida tilga olingan dramatik asarlari va boshqa bir qator ijod namunalarini o‘qir ekanmiz, ularning har birida yuksak vatanparvarlik tuyg‘ularining mahorat bilan ifodalanganligini guvohi bo‘lamiz. Xalqning tarixiy xotirasi avloddan avlodga o‘tib boradi. O‘tmishda yaratilgan ma’naviy va madaniy qadriyatlar zamonaviy jamiyat mulkiga aylanadi. Buning yorqin namunasi Maqsud Shayxzodaning mana shunday vatanparvarlik va Vatanga muhabbat ruhida yozilgan asarlaridir.

Xulosa qilib aytadigan bo‘lsak, O‘zbekiston Prezidenti Shavkat Mirziyoev o‘z nutqlarida ta’kidlaganidek: “Hozirgi paytda yoshlar o‘rtasida barqaror fuqarolik pozitsiyasini shakllantirmasdan, tashabbuskorlikni, mustaqillikni rivojlantirmasdan va o‘z mamlakati manfaatlarini himoya qilishga tayyor bo‘lmasdan iloj yo‘q”. Ta’limni rivojlantirishning hozirgi bosqichida yoshlarni tarbiyalash jarayonining muhim vazifalaridan biri bu talabalarda bebaho durdonalarimiz orqali vatanparvarlik tuyg‘usini shakllantirish va rivojlantirishdir, chunki bu tuyg‘usiz chinakam barkamol insonni tarbiyalash haqida gapirish mumkin emas.

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PYTHON VA UNING IMKONIYATLARI. NEGA KO‘PCHILIK PYTHONNI O‘RGANISHI KERAK?

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Annotatsiya*: Ushbu maqolada python va uning imkoniyatlari, python dasturlash tilining qulayliklari va afzalliklari, bu dasturlash tilining o‘rganishga osonligi va soddaligi, ko‘plab mukammal kutubxonalarning mavjudligi hamda, qo‘llanish soxalarining kengliklari bayon qilingan.*

Kalit so‘zlar*: Axborot texnologiyalari, dasturlash, dasturlash tillari, Python dasturlash tili, operatsion tizim, Java, sun’iy intellekt.*

Abstract*: This article describes python and its capabilities, convenience and benefits of python programming language, ease and simplicity of learning this programming language, availability of many excellent software frameworks and wide range of applications.*

Keywords*: Finance Information Technology, programming, programming languages, Python programming language, operating system, Java, artificial intelligence(AI).*

Аннотация*: В этой статье рассказывается о Python и его возможностях, удобстве и преимуществах языка программирования Python, легкости и простоте изучения этого языка программирования, наличии множества отличных библиотек и широкого спектра приложений.*

Ключевые слова*: Информационные технологии, программирование, языки программирования, язык программирования Python, операционная система, Java, искусственный интеллект.*

Xozirgi kunda axborot texnologiyalari jadallik bilan rivojlanib bormoqda, hususan dasturlash sohalari va dasturlash tillari xam juda tez koʻrsatkichlarda rivojlanib mukammallashib hamda rivojlanib bormoqda. Shular qatori Python dasturlash tili ham. Keling eng avvalo Python dasturlash tiliga toʻxtalib oʻtsak. Python dasturlash tili 1980-yillarning oxirida yaratilgan va uni joriy etish 1989-yil dekabr oyida Gvido van Rossum tomonidan Niderlandiyadagi CWI-da Amoeba operatsion tizimi bilan istisnoli ishlov berish va interfeysga ega boʻlgan ABC vorisi sifatida boshlangan. Van Rossum Pythonning asosiy muallifi hisoblanadi.[1.1]

Python-bu oʻrganishga anchagina oson va sodda, foydalanish qulay va yengil, ingliz tiliga oʻxshash til hisoblanadi. Dasturlashni bilmaganlar ham yoki endi oʻrganishni boshlaganlar ham bu tilni tez oʻrgana olishlari mumkin. Python dasturlash tilida yozilgan kodlar nisbatan kamroq kalit soʻzlardan foydalaniladi, oddiy tuzilish va aniq belgilangan sintaksisga ega. Buning natijasida oʻrganuvchilar kodlarni tez va oson yodlab olish imkonini beradi. Misol uchun Python va Java dasturlash tilida yozilgan kodlarni solishtirib koʻramiz.

#JAVAda “Salom Dunyo” degan soʻzni yozilishi

```
public class Main {
  public static void main(String[] args) {
    System.out.println("Salom Dunyo");
  }
}
```

#Pythonda “Salom Dunyo” degan soʻzni yozilishi

```
print("Salom Dunyo")
```

Koʻrinib turibdiki Pythonda “Salom Dunyo” soʻzini yozish Javaga qaraganda ancha oson, ya’ni bir qator kod bilan yozish mumkin ekan. Bu osonlik va soddalik dasturchiga vaqtdan unimli foydalanish va yoʻl qoʻyilgan xatolarni tezda topishga yordam beradi. Qolaversa dasturlashni endi boshlaganlar uchun ham qilgan ishlarini tezda natijalarini koʻrishga yordam beradi va bu yangi oʻrganuvchilarga qoʻshimcha motivatsiya boʻladi, ya’ni dasturlashga qiziqishlarini ortiradi.

CodingDojo portalining “2023 yilning eng yaxshi dasturlash tillari qaysilar?” so‘rovnomasiga ko‘ra Python TOP o‘rinlarda turibdi va bunga bo‘lgan talab eng yuqori ko‘rsatkichlarda, shuningdek eng yaxshi uchta til - Python, SQL va Java - barchasida 50 000 dan ortiq ish o‘rinlari mavjud .[2.1]

The top 10 programming languages of 2023 are:

1. Python
2. SQL
3. Java
4. JavaScript
5. C
6. C++
7. Go
8. C#
9. Assembly
10. MATLAB

Yuqoridagi ko‘rsatkichlardan ko‘rinib turibdiki Python dasturlash tilini o‘rganishga bo‘lgan talab juda yuqori hisoblanadi va bu dasturlash tilini biluvchilarga bo‘sh ish o‘rinlari soni anchagina.

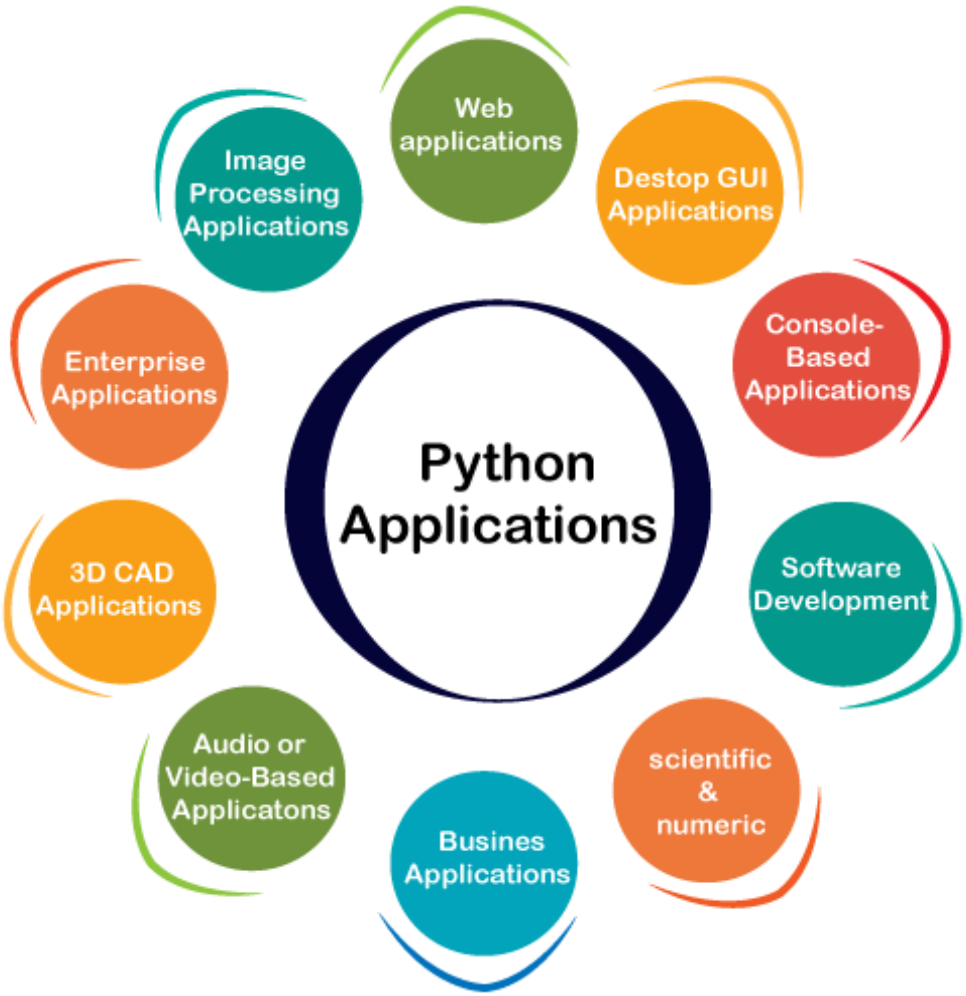
Python soda va qulay tili bo‘lishi bilan birgalikda deyarli barcha platformalarda ishlay oladi, Windows, Linux, Mac OS X, Palm OS Mac OS va boshqalar shular jumlasidandir. [3.1]

Python dasturlash tilining eng katta imkoniyati ochiq kodliligi va kutubxonalarining ko‘pliligi. Deyarli xar qanday ishlarni bajarish uchun uning ko‘plab kutibxonalari mavjud.

Shuningdek Python dasturlash tili Web dasturlashda keng qo‘llaniladi, uning Django, Flask, Pylons va boshqa kutibxonalari orqali veb saytlarni oson va tezda yaratish mumkin. Python dasturlash tili veb dasturlash bilan bir qatorda quyidagi sohalarda ham keng qo‘llaniladi:

- Decktop aplicationlarda;

- Robototexnika;
- Sun’iy intelekt (AI);
- Machine Learning;
- Computer Science Education;
- Computer Vision and Image Processing;
- Biologiya va bioinformatikada;
- Tibbiyot va farmasevtika;
- Astronomiya;
- O‘yinlar yaratishda;
- Ma’lumotlar bazasi bilan ishlashda (DB);



Python terminalda ishlash uchun juda qulay, shuningdek juda ko‘plab platformalarda ishlaydi va deyarli barcha platformalarda bir xil interfeysga ega, hamda OOPni qo‘llab quvvatlaydi. Python ko‘plab dasturlash tillari bilan bog‘lana

oladi. Xususan C, C ++, MAQOMOTI, ActiveX, CORBA va Java bilan osonlik bilan bog‘lanishi mumkin.

Python shuningdek sun’iy intelekt tili hisoblanadi. Xozirda juda ko‘plab suniy intelektlarda Pythondan keng miqyosda foydalanib kelinmoqda. Jumladan Pythonning NumPy, SciPy, Theano, Pandas, Plotly va boshqa ko‘plab frameworklari sun’iy intelektda keng qo‘llaniladi.

Xulosa qilib shuni aytish mumkinki, Python dasturlash tilini imkoniyatlari juda keng va turli sohalarda qo‘llaniladi va bu tilga bo‘lgan talab oshib bormoqda, hamda bu tilni yaxshi biluvchi dasturchilarga yuqori maoshli haq to‘lanadi, shunday ekan bu tilni deyarli barcha kishi o‘rganishi kerak va bilishi kerak deb o‘ylayman. Ayniqsa yosh bollarni, xususan maktab yoshidagi bolalarni bu tilni o‘rganishi uchun qiziqtirish bilan birgalikda sharoit va imkoniyatlar yaratib berish kerak.

FOYDALANILGAN ADABIYOTLAR

1. https://en.wikipedia.org/wiki/History_of_Python
2. https://www.codingdojo.com/blog/top-programming-languages
3. https://uz.wikipedia.org/wiki/Python

GENERAL INSIGHT INTO COMPOSITE MATERIALS IN SCIENCE

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ANNOTATION

The article discusses the core ideas of origins of composite materials, new ways of obtaining them to use in mechanical engineering and physical treatments to broaden scope of their application in today’s world. The results of this theoretical analysis, in particular, are intended to give main insight into composite materials for students, studying in material science and business people who are having desires to introduce composite materials at the minimum low cost by taking necessary treatments in the condition of laboratory in Uzbekistan.

Keywords*: traditional materials, manufacturing processes, fracture resistant, flexural strength, structural purposes, insulation properties, thermal shock.*

АННОТАЦИЯ

В статье рассматриваются основные идеи происхождения композиционных материалов, новые способы их получения для использования в машиностроении и физических обработках для расширения сферы их применения в современном мире. Результаты этого теоретического анализа, в частности, предназначены для того, чтобы дать основное представление о композиционных материалах студентам, обучающимся в области материаловедения и деловым людям, у которых есть желание внедрить композиционные материалы с минимальными затратами путем прохождения необходимых процедур в условиях лаборатория в Узбекистане

Ключевые слова: *традиционные материалы, технологические процессы, сопротивление разрушению, прочность на изгиб, конструкционное назначение, изоляционные свойства, термоудар.*

INTRODUCTION

The development of modern technologies creates new materials with high mechanical performance compared to traditional materials, demand for elasticity and other new features. Composite materials based on polymers, ceramics and metals are among the most interesting and promising products. Polymer, ceramic, metal matrix composite materials are used more in engineering, and they are used in the absence of new technology or other materials that respond to production. Nowadays, we encounter composite materials every day, not only in technology, but also in daily practice, so it is important to know the main properties of these materials and use them correctly. Composite materials are the main class of materials that meet strict, often contradictory requirements, for example, they are used for the production of products resistant to high temperatures, mechanical forces and aggressive chemical environments. Composites can effectively compete with construction materials such as aluminum, titanium, and steel. Industries that actively use composite materials include aviation, cosmonautics, marine transport, chemical engineering, medicine, sports, tourism, and mechanical engineering. Composites are used for the production of cars, railway vehicles, airplanes, space and sea ships, yachts, submarines, special containers for storing liquids, pipes, and sports equipment. Originally developed for military use, materials were first used in aeronautics and are now being used in many industries. As a rule, the high cost of composite materials can be noted, which is related to the complexity of the technological processes and the high cost of the components used. At the same time, it should be noted that there is an opportunity to save as a result of reducing the number of technological processes, the number of components, and reducing assembly work in the production of complex structures. The complexity of composite materials production technology can be reduced by 1.5-2 times compared to metal products. In the early 80s, in the development of modern composite materials.

Figure.1 the origin of composite materials

The history of the creation of composite materials goes back to the beginning of the development of civilization. The history of man's use of composite materials has a long history, for the first time people learned the idea of composite materials from nature. The first bricks and pottery, found before 5000 BC, were considered to be complex sun-dried products. But it was observed that their shrinkage during cooking causes the product to crack. In order to prevent this phenomenon, since ancient times, sand and organic additives (such as straw, river reeds) were added to the clay-soil and a composite material was obtained.

In the territory of Uzbekistan, composites containing sand and organic additives (such as straw, river reeds) were used in the construction of ancient structures. l came In particular, more than 50 monuments such as Uzunqir, Erkurgan, Afrosiyab, Lolazor, Khoja Boston, Sangirtepa, Chordara, Kurgancha, Koktepa have been preserved. The scale of production of industrial products with added value in our country is expanding day by day. As a result, as the domestic market is filled with import-substituting products, the export potential is increasing. Undoubtedly, the projects implemented on the basis of industrial cooperation on the localization of production of finished products, components and materials are an important factor in this regard. It should be noted that many such promising projects are being successfully implemented in the building materials industry, which is one of the leading sectors of our economy. As a result, the production of a new construction material that replaces the fittings - mirror fittings has been mastered. This product,

manufactured under the trademark "Arm Composit", is the result of research carried out in the framework of the Localization Program at the limited liability company "Boston Textile" in our capital.

MATERIALS AND METHODS

Composite materials are complex systems made up of components with different properties, which consist of a mixture of elastic and hard phases that provide integrity and strength. In this case, each separate component cannot fully meet all the characteristics of the composite material. It is possible to create a composite material that meets the specified requirements by collecting components that meet the optimal conditions.

This is one of the strengths of composite materials: it is possible to choose different components to provide the desired properties, creating a special material with maximum efficiency for each operating condition (for aerospace structures, boats, automobiles or electric motors). there is a possibility. In recent years, a series of artificial composites reinforced (reinforced) with inorganic fibers, fibrous crystals, and inorganic particles with high strength and hardness have been created on the basis of metals and nonmetals.

Threaded forms of various crystals, SiO2, SC, Al2O3, or thin quartz fibers formed by the methods of deposition from a veil to a thin wire are used as fibers.

Depending on the type of filler, composite materials are divided into dispersion-reinforced, fiber and layered composites.

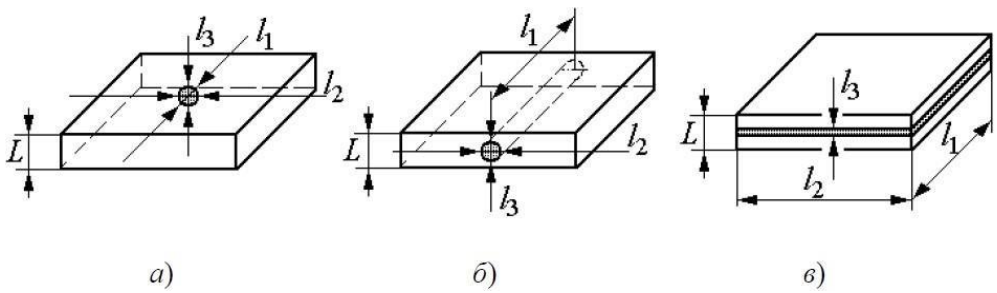

Figure 2. Reinforcement fillers: a- zero size, b - one size; v- two-dimensional, l1, l2, l3 - filler sizes; L is matrix thickness

Reinforcement fillers are zero-dimensional in terms of size (the sizes of the filler have a uniform small value in the three-way direction: powder, dispersed substances, nanopowders); one-dimensional (the dimensions of the filler have a uniform small value in both directions, a large indicator in one direction: continuous and short fibers, grease, needle-like crystals); two dimensional (the dimensions of the filler have a large value in two directions and a small value in one direction: layer, sheet, layers)

How is the mechanical advantage of composite measured?

For example, the axial deflection, ***u***, of a prismatic rod under an axial load, ***P,*** is given by

$$u = \frac{PL}{AE}, \qquad (1.1)$$

where

L = length of the rod
E = Young's modulus of elasticity of the material of the rod

Because the mass, M, of the rod is given by

$$M = \rho AL, \qquad (1.2)$$

where ρ = density of the material of the rod, we have

$$M = \frac{PL^2}{4}\frac{1}{E/\rho}. \qquad (1.3)$$

This implies that the lightest beam for specified deflection under a specified load is one with the highest ***(E/ρ)*** value. Thus, to measure the mechanical advantage, the ***(E/ρ)*** ratio is calculated and is called the *specific modulus* **(**ratio between the Young's modulus ***(E)*** and the density ***(ρ)*** of the material**)**. The other parameter is called the specific strength and is defined as the ratio between the strength ***(σult)*** and the density of the material ***(ρ)***, that is

$$\text{Specific modulus} = \frac{E}{\rho},$$

$$\text{Specific strength} = \frac{\sigma_{ult}}{\rho}.$$

The two ratios are high in composite materials. For example, the strength of a graphite/epoxy unidirectional composite could be the same as steel, but the specific strength is three times that of steel. *What does this mean to a designer?* Take the simple case of a rod designed to take a fixed axial load. The rod cross section of graphite/epoxy would be same as that of the steel, but the mass of graphite/epoxy rod would be one third of the steel rod. This reduction in mass translates to reduced material and energy costs. *Figure 1.1* shows how composites and fibers rate with other traditional materials in terms of specific strength. 3 Note that the unit of specific strength is inches in *Figure 1.1* because specific strength and specific modulus are also defined in some texts as

$$\text{Specific modulus} = \frac{E}{\rho g},$$

$$\text{Specific strength} = \frac{\sigma_{ult}}{\rho g}.$$

where g is the acceleration due to gravity (32.2 ft/s^2 or 9.81 m/s^2).

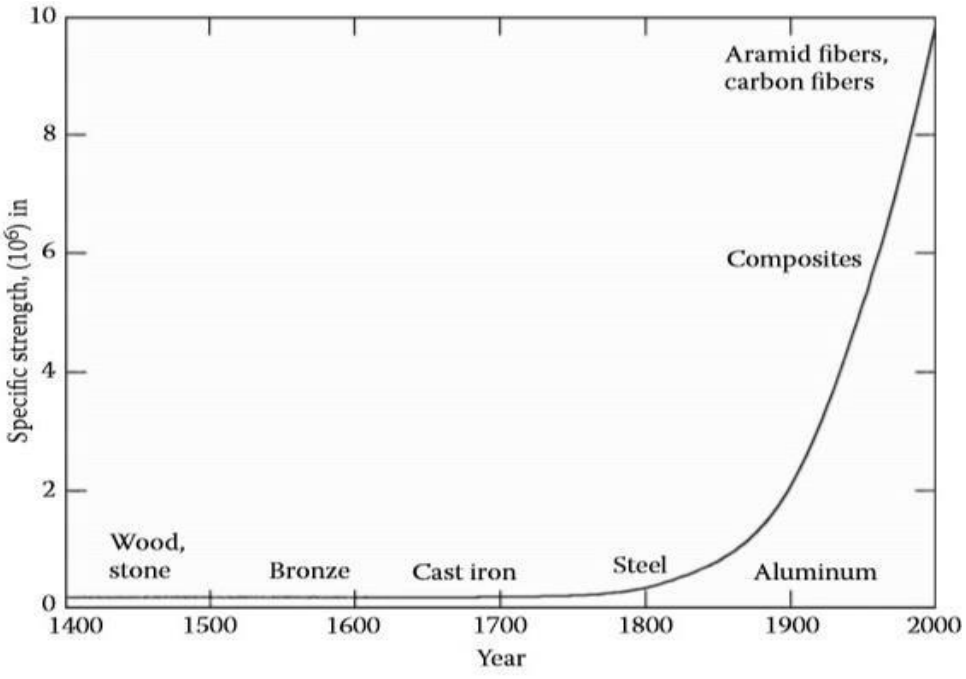

Figure.3 shows how composites and fibers rate with other traditional materials in terms of specific strength

DISCUSSION

The Well-Known, composites have distinct advantages over metals. Are there any drawbacks or limitations in using them?

Drawbacks and limitations in use of composites include:

- High cost of fabrication of composites is a critical issue. For example, a part made of graphite/epoxy composite may cost up to 10 to 15 times the material costs. A finished graphite/epoxy composite part may cost as much as $300 to $400 per pound ($650 to $900 per kilogram). Improvements in processing and manufacturing techniques will lower these costs in the future. Already, manufacturing techniques such as SMC (sheet molding compound) and SRIM (structural reinforcement injection molding) are lowering the cost and production time in manufacturing automobile parts.
- Mechanical characterization of a composite structure is more complex than that of a metal structure. Unlike metals, composite materials are not isotropic, that is, their properties are not the same in all directions. Therefore, they require more material parameters. For example, a single layer of a graphite/epoxy composite requires nine stiffness and strength constants for conducting mechanical analysis. In the case of a monolithic material such as steel, one requires only four stiffness and strength constants. Such complexity makes structural analysis computationally and experimentally more complicated and intensive. In addition, evaluation and measurement techniques of some composite properties, such as compressive strengths, are still being debated.
- Repair of composites is not a simple process compared to that for metals. Sometimes critical flaws and cracks in composite structures may go undetected.

CONCLUSION

The science of modern composite materials has undergone dynamic development in the last decade, mainly due to the use of composites in aerospace engineering. An

example of this is the need to solve problems related to the implementation of the project on the development of aerospace vehicles for trans atmospheric flights in the United States of America. It is assumed that the flying device called "Orient Express" can land on the usual runways of modern airfields. A flight from the west coast of the USA to Asian countries takes less than two hours. During the flight, some components of the aircraft can heat up to a temperature of 1800 °C, so it is not advisable to use metal materials for the production of such materials. An effective solution can be achieved only by using composite materials with high mechanical strength, hardness, heat resistance and light weight.

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16K20F3 LATHE CNC MACHINE UPGRADE TO MILLING CNC MACHINE

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ANNOTATION

*The article discusses the practical experience of modernizing the **16K20F3** tool machine for tool processing. It describes a deep modernization with a complete replacement of all drives, electrical and control systems. The goal is to consider the use of modernization of outdated metal-cutting equipment for modern technological tasks as one of the economically feasible options, alternative to the purchase of new expensive equipment. The use of aggregation allows in the process of modernization to create technological equipment for a specific group of products with the implementation of an optimal technological process. Simultaneous equipping of the machine with a modern control system, as well as assemblies and equipment for CAM technologies and HSM-technologies, allows you to get a qualitatively new equipment.*

***Keywords**: equipment, working parts, operation, old units, application, perfect accuracy, outdated controllers, combining elements; 3D model, overhauled machines, mechanical stresses.*

АННОТАЦИЯ

В статье рассмотрен практический опыт модернизации инструментального станка 16К20Ф3 для обработки инструмента. Описывается глубокая модернизация с полной заменой всех приводов, электрооборудования и систем управления. Цель - рассмотреть использование модернизации устаревшего металлорежущего оборудования под современные технологические задачи как один из экономически целесообразных вариантов, альтернативный закупке нового дорогостоящего оборудования. Использование агрегатирования позволяет в процессе модернизации создавать технологическое оборудование для конкретной группы продукции с реализацией оптимального технологического процесса. Одновременное оснащение станка современной системой управления, а также узлами и оборудованием для CAM-технологий и HSM-технологий позволяет получить качественно новое оборудование.

Ключевые слова: *оборудование, рабочие органы, эксплуатация, старые узлы, применение, идеальная точность, устаревшие контроллеры, комбинирующие элементы; 3D модель, капитально отремонтированные машины, механические воздействия.*

INTRODUCTION

The progress in all sectors of the national economy is inextricably linked with the level of development of the country’s mechanical engineering and machine tool engineering, which is its main branch. It is also characterized by the constant complexity of design due to the requirements to reduce the time of mastering new products.

The level of mechanical engineering largely determines the quality and quantity of products produced by all sectors that ensure the functioning of the market economy. Therefore, attention is being paid to the effective development of mechanical engineering.

The development of computer technology, which led to the creation of flexible production systems, had a special impact on modern engineering. Such complexes, formed on the basis of numerically controlled control computers and machine tools, as well as industrial robots, have firmly entered the equipment of modern machine-building plants.

The restructuring of machine-building production in our country led to a sharp decline in the production of machine tools with digital control and automation equipment for machine-building. However, the development of a network of small enterprises that could not afford expensive automated technological equipment led to the need to modernize the equipment, including the CNC, which includes the 16K20F3 machine.

In such conditions, a new approach is needed that meets modern requirements and is able to increase labor productivity with small investments with a constantly changing range of manufactured products. .

Such upgrades are useful for small and medium-sized businesses, because they allow to have a minimum number of machines with many different processing methods in their composition. This direction was developed in our master's thesis. Work subject is the modernization of the 16K20F3 CNC machine tool to the turning-milling CNC machine tool.

Figure.1 *16K20F3 Lathe - screw cutting machine* CNC

In our country, it is inextricably linked with the level of development of mechanical engineering and machine tool engineering, which is its main branch. The

increase in the range of manufactured products and the frequent changes in production capacities, as well as the adoption of new products is characterized by the constant complexity of the design due to the requirements of time reduction.

Modernization of an outdated machine tool with aggregate elements for certain technological tasks is one of the ways to solve the problem of raising the general mechanical engineering and, in particular, metalworking to a modern level without large capital expenditures.

MATERIALS AND METHODS

Advantages of modernization of machine tools The main advantage of overhaul and modernization of the machine tool is primarily to increase its efficiency and accuracy of machining while reducing costs. Complete overhaul of the machine tool is the restoration of the machine geometric system to the condition defined by the general technical acceptance conditions of the new machine tool, and hence to adapt the machine to the minimum health and safety requirements. Overhauled machines have the advantage over new ones that their body is already naturally seasoned, thanks to which we avoid mechanical stresses. Such a body maintains its geometry in the long-term perspective and more effectively suppresses vibrations. In addition, after the installation of a new control system, the functionality of the machine increases significantly and is equal to the new machine tools. Depending on the complexity of the machine, various control variants may be used, e.g.

- in simple machines – logic control system based on relays and contactors,
- with more complex machines – recommended use of PLCs (the brand of the controller is determined by the customer),
- CNC numerical control in machines requiring such system (Siemens, Fanuc, Mitsubishi)

Depending on the scope of repair and modernization of the machine tool, we can save mark able cost which appears in relation to the purchase of a new machine.

At FERPI MECH-TECHNO unitary enterprise, our team brought a derelict *16K20F3* machine ready for modernization by cleaning the body parts, painting and

taking all precautions. In addition, we ordered and brought the necessary equipment for the modernization of this machine from China.

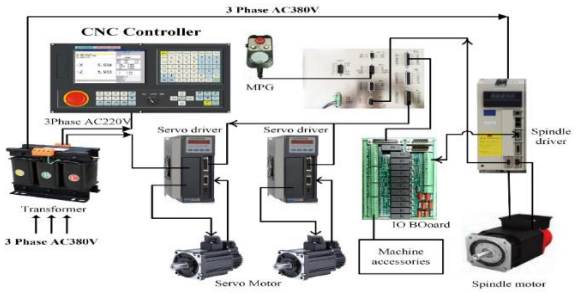

Figure.2 *Installation devices for the 16K20F3 machine*

Installation devices for the 16K20F3 machine.

- 3 servo motors (4 kW) and 1 (7.5 kW)
- CNC remote control
- Special cables
- Resistor 70 Ohm
- IO board

All three servo motors needed for the modern upgrade of the *16K20F3 machine* were mounted on the machine in all axes. These servo motors serve to perform movements along three axes, and we have connected these motors to special drives to ensure movement along all axes.

RESULTS

To modernize the 16K20F3 machine, servo motors, servo drives, operation panels and a number of push cables and relays were used. The assembly of the electronic cabinet of the machine tool is very beautiful and assembled according to the standard. The machine tool is currently used in the unitary enterprise "FERPI-MECHTECHNO". The machine tool was assembled with high accuracy and quality. Using the machine tool in the preventive state required a lot of hard work. When writing the program to the machine tool, G codes were entered as letters, numbers and numbers.

Figure.2 *New and old panel management of the machine*

Modernization was carried out in order to solve the issues of increasing the machine's productivity and working capacity, as well as expanding the technological capabilities that allow processing parts of various shapes. The 16K20F3 CNC lathe has a special device for screw milling. In the course of work, the optimal modes of screw processing were selected based on calculations and experiments. Motor-spindle is also selected. The selection of equipment was made using modern references and the Internet. Maximum processing power, rotation speed and minimum price were used as selection criteria. The parameters of the developed special device fully correspond to the requirements of the technical conditions. Technical documentation for the device has been prepared.

CONCLUSION

16K20F3 the process of modernization of the CNC machine tool for turning - screw cutting. To achieve production efficiency by equipping existing local technologically unsuitable machine tools with modern parts in machine-building enterprises, and to achieve economic efficiency by replacing expensive technological equipment purchased from abroad with local technological equipment, as well as other types of machine tool and localization of modernization. The process of modernization of the 16K20F3 lathe is to increase the production efficiency by equipping existing obsolete machines in machine-building enterprises with modern working parts, and to achieve economic efficiency by replacing expensive technological equipment purchased from abroad, and to localize the modernization of other types of machine tools.

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SIMILES FROM ERKIN AZAM'S STORY "THE YEAR OF HIS FATHER'S BIRTH"

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ANNOTATION

This article talks about the types of similes. The similes reflected in Erkin A'zam's "The Year of His Father's Birth" are explained. Excerpts from the work are cited and analyzed. Lingvokulturology terms are usefully used.

Key words: *individual-author similes, stable similes, standard, sema, lexeme, anthropomorphism, gender metaphor.*

It is no exaggeration to say that Erkin A'zam is considered one of the leading representatives of the world of literature, a creator who used his pen in poetry and prose. Undoubtedly, he is an example of poetry and prose, which plays an important role in ensuring his artistry. one of the tools is similes. Therefore, they always have artistic and aesthetic value in speech. It serves to ensure the emotional-expressiveness, expressiveness, and effectiveness of speech. There are two types of similes: 1) Infividual-author similes or free similes and 2) Universal or fixed (permanent) similes are distinguished. [1,30] Comparison standards were formed as a result of national worldview, comparison and comparison of events in the world according to national ideas. Benchmarks are figurative comparisons of the world. Standards in language often exist in the form of static comparisons, however, any human imagination in comparing the world can also be a standard. So, analogical standards are the essence that compares the nature and quality of subjects, objects and events. "The essence of stable similes is that the image expressed in the standard of simile is stabilized in them. Such similes, despite the fact that they were used by a

specific person, a creator, over time became a tradition in the language community, stabilized as permanent expressions, and took a place in the lexicon of the national language. phrases are brought into speech like ready-made units in the language." [2,6] In Erkin A'zam's short story "The year of his father's birth", universal or static (permanent) like love, beautiful girl, life is flowing. used similes. "Most of the linguists who have studied similes in the language believe that fixed similes are close to idioms or have the status of idioms, which have stabilized as a result of their use in human speech over many centuries and become fixed in the minds of speakers in the form of certain models. emphasizes that the standard of analogy, i.e., the image based on the analogy, is regularly and strictly connected with a specific sign-object". [2,7]

In addition to the general or stable similes discussed above, Erkin A'zam effectively used individual-author similes in the short story "The Year of His Father's Birth". The state of the characters in the story "The Year of the Father's Birth", their inner experiences, lifestyle, worldview, appearance of things and concepts are expressed through a series of similes. It was created as a product of Erkin A'zam's artistic and poetic interpretation, artistic taste, and influenced the artistry of the work.

Erkin A'zam was able to show his artistic skills by introducing unique examples of similes into his story. The writer took the standard of simile from the environment and created an individual simile in proportion to the physical laws in nature. In particular, the character of Madhiddin, the hero of the story "The Year of His Father's Birth", is compared to a cymbal. It is quoted in the work: "I know that Madhiddin will live long." Because he never hurts anyone, and he himself never hurts anyone; Even when faced with any kind of meanness and laziness, he stands like a rock, shows his nerves, does not disturb his peace - for the sake of the next world! In this place, Madhiddin's behavior is said to be like a ringing stone, and an individual-author simile is created. It is known that the word zil is used for a heavy object or a load that cannot be detached from the ground. In the dictionary, this simile is given in the form "zilday" and is explained by the terms "heavy" (very heavy), "suffering". Through the simile of Madhiddin standing like a rock in any situation, the addressee

was able to convey information about the people around Askar, the main character of his work, to the addressees. At the same time, likening a person to a cymbal stone, the fact that a cymbal stone does not move in one place, characteristic of physical laws, is an original example of a free, author-individual simile. "In studies, in this kind of similes, both the basis and the symbol are emphasized as being unusual or sometimes the basis is traditional".[3,23]

During the reading of the story, mainly because the images related to the village life are presented, the author's individual similes about natural phenomena were created. It is written like this in the work: "They are passing without fear, joining the joyful winds, while life becomes a miracle." Anthropomorphism was created through the use of the simile of the horn to the wind. This phenomenon, which is considered the term of linguculturalology, is the transfer of mental and physical signs characteristic of a person to animals, natural phenomena, mythological creatures and objects". shows high skill.

The work, which contains various comparisons, also contains passages that express the feelings, experiences and situations of the characters. In one place, a raisin is taken as a standard of analogy. It is quoted in the work: "Why am I not as polite as a raisin like my fellow student Madhiddin, a soft-spoken person who says ''thank you, thank you'' in one of two sentences?" By comparing the character of one of the heroes of the story to a raisin, the writer was able to achieve his artistic goal, and the fact that the raisin lexeme became the benchmark of the simile increased the impact of the quoted passage.

"If I don't tell you, for a few days I'll be restless and restless like a hedgehog crawling around my body." In this passage, the hedgehog is the benchmark of simile. The term Tipratikan embodies the terms "cold", "unpleasant", "shocking", "painful". The situation of the main character Askar and his attitude to reality are reflected through the created simile.

The writer effectively used similes to embody the appearance of his characters and reveal their facial expressions in different situations. For example, "My mother

always praises the daughter of our mountain cook; "Two faces as red as an apple." The crimson compound, similar to an apple, has been the standard of comparison. It is known that among the means of similes, such as -like, -dek, example, like, like, like, etc. are often visible. "Usually, if one subject-state is to be likened to another not according to a specific sign, but as a whole, completely, the basis of likeness is not expressed directly. In such cases, the simile verb is used as a formal indicator of the simile". [5,61] The author compares the state of the face to a red apple and gives it through the simile verb, which ensures the integrity of the simile. We come across such comprehensive similes several times in the work. To prove my point, let's consider this passage: "Why was the cat created - not to cut off the path of man and dull his tongue?" Javliboy looks like a cat." In this passage, the simile of the cat is taken as the standard of simile, because it contains "unpleasant" and "mind-numbing" similes.

Everyone who reads the short story will feel as if they have accidentally fallen into its plot lines. It is no exaggeration to say that the reason for this is Erkin Azam's skill in using words. Author-individual analogies from nature, everyday life, events that seem normal to us are included in his work. Excerpt from the work: "I passed the exam, I went to the Eskijova market, I bought a whistle from a man with a wooden leg, I went to Hadra, a thug sitting on the fences on the roadside like a musical instrument, talking about the past I joined the ranks of the children." The lexeme musica, which serves as a standard of analogy, can sufficiently embody the image of people standing in one line.

"I felt like I was living in the time of Shahrizad's tales from "One Thousand and One Nights" while I was admiring the beauties of Iraq." It is natural that this simile attracts the attention of the reader who begins to read each work. The simile verb is also used because of the overall simile. This piece clearly proves that Erkin Azam's style of simile is different from other artists. Such fragments are found in many places of the work. "I know that by doing something like "Askander's Horn", I will have to jump through several layers of fiery pit in the future - someone hesitated to

come close, someone openly retreated, someone did not go at all, and naturally, I will fall down many times and stay in the grass. This passage is equivalent to the example given above. The standard of Shahrizod's tales is taken from "Thousand Nights", while the standard of Iskandar's horn is taken from the epic "Iskandar Zulqarnayn". This event is a source of allusion.

In conclusion, despite the fact that in the story "The Year of His Father's Birth" firstly, simile devices are created using traditional means such as day, like, like, etc., these similes are it is distinguished by its uniqueness and the fact that it is not found in other creators, it is unique to this author. Secondly, the author took his similes from everyday life, nature, animals and created unexpected similes. This indicates that his skill in using words is at a high level. Thirdly, the fact that more than one standard of simile and types of simile are reflected in one sentence, which is considered a speech unit, reflects the artist's skill of the author.

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O‘ZBEK VA TURK MAQOLLARINING TASNIFIGA DOIR

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Annotatsiya: *ushbu maqolada turk xalq maqollari va o‘zbek xalq maqollari o‘rtasidagi faqrli jihatlar yoritilgan. Umumiy xususiyatlari aytib o‘tilgan. Lingvokulturologik birliklardan biri bo‘lgan tilning paremiologik fondiga doir fikr-mulohazalar keltirilgan.*

Kalit so‘zlar*: leksema, paremiologik fond, lug‘at, maqol, leksik birlik, fonomen.*

К КЛАССИФИКАЦИИ УЗБЕКСКИХ И ТУРЕЦКИХ ПОСЛОВИЦ

Аннотация: *в этой статье освещаются различия между турецкими народными пословицами и узбекскими народными пословицами. Упоминаются общие черты. Представлены мнения о паремиологическом фонде языка, являющегося одной из лингвокультурных единиц.*

Ключевые слова: *лексема, паремиологический фонд, словарь, пословица, лексическая единица, фономены.*

ON THE CLASSIFICATION OF UZBEK AND TURKISH PROVERBS

Abstract: *this article highlights the differences between Turkish folk proverbs and Uzbek folk proverbs. General features are mentioned. Opinions on the paremiological fund of the language, which is one of the linguistic and cultural units, are presented.*

Key words: *lexeme, paremiological fund, dictionary, proverb, lexical unit, phonomen.*

Har bir xalq asrlar davomida juda katta hayotiy tajribani turli vositalar bilan kelajak avlodlarga meros qoldiradi. Maqollar ana shunday bebaho ma’naviy meros hisoblanadi. Xalqlarning ijtimoiy holatidan kelib chiqib maqollar turlicha bo‘ladi.

Turli xalqlarning maqollaridagi tafovutlarni lingvokulturologiyada o‘rganib chiqish mumkin. V. N. Teliya aytganidek, lingvokulturologiya, avvalo, jonli kommunikativ jarayonlarni va ularda qo‘llaniladigan til ifodalarining sinxron harakatdagi xalq mentaliteti bilan aloqasini tadqiq qiladi.[2;22] Lingvokulturologiya tilni madaniyat fenomeni sifatida o‘rganuvchi fan bo‘lib, o‘zaro aloqadorlikda bo‘lgan til va madaniyat uning predmetini tashkil qiladi. Binobarin, V.N. Teliya bu haqida shunday yozadi: ”Lingvokulturologiya insoniy, aniqrog‘i, insondagi madaniy omilni tadqiq etuvchi fandir. Bu esa shuni bildiradiki, lingvokulturologiya markazi madaniyat fenomeni bo‘lgan inson to‘g‘risidagi antropologik paradigmaga xos bo‘lgan yutuqlar majmuasidir". [2;21] Ma’lumki, lingvokulturologik birliklardan biri tilning paremeologik (maqol va matallar) fondi. Tilning paremiologik fondini xalq durdonalaridan tuzilgan va uning madaniyatidan mustahkam o‘rin olgan javohir sandig‘i deyish mumkin. Maqol va matallar folklorshunoslikda janr matnlari sifatida keng o‘rganilgan. Ularni tilshunoslikda, xususan, lingvokulturologiyada o‘rganish endi boshlanmoqda. Biroq har qanday maqol va matal ham lingvokulturologik tadqiqotlarning predmeti bo‘lavermaydi. Bu o‘rinda faqat muayyan xalq yoki etnosning tarixi, madaniyati, turmushi, ma’naviyati va h.k bilan chambarchas bog‘liq bo‘lgan maqol va matallar o‘rganilishi lozim bo‘ladi. Masalan, Andijonda mehmon kelgan xonadonga hurmat yuzasidan qo‘shnilar dasturxon chiqazishadi. Shuningdek, o‘zbek xonadonlarida qo‘shnilar o‘rtadagi devorning biror yeridan teshik ochib qo‘yishadi. Bu teshik orqali bir-birlaridan hol-ahvol so‘rashadi, tansiq ovqat qilganlarida biron idishda shu ovqatdan uzatishadi. *Mehmon kelar eshikdan, rizqi kelar teshikdan* maqoli ana shu odatning ta’siri tufayli yuzaga kelgan. [2; 29] Mana shunday xususiyatlarga ko‘ra o‘zbek va turk maqollaridagi o‘xshash va farqli tomonlarni ham tasnif qilish mumkin. Misol uchun:

Bir tariqdan bo‘tqa bo‘lmas [4;96].

Aynan ushbu maqolga mazmun jihatdan to‘g‘ri keladigan turk maqoli:

Yalnız taş duvar olmaz. *(*ya’ni *yolg‘iz tosh devor bo‘lmaydi*.) [4 ;96]

Aytib o‘tilganidek, maqollar o‘z ichiga bir olam ma’nolarni singdirgan. Berilgan o‘zbek xalq maqoli qadimdan qo‘llanib kelinmoqda. Ma’lumki, o‘zbek xalqi jonkuyar va odamoxun buning isbotini misol sifatida keltirilgan maqol orqali ham bilishimiz mumkin. Maqolning asosiy hamda tag ma’nosi birlik, ahillik masalalariga doir. Ma’nodoshi *“Yolg‘iz otning changi chiqmas, changi chiqsa ham dong‘i chiqmas”*. Maqolning kelib chiqish tarixiga to‘xtaladigan bo‘lsak, unda ishtirok etgan tariq leksemasi boshoqdoshlar oilasiga mansub bir yillik g‘alla o‘simligi va uning oqlab so‘k qilinadigan mayda doni. [3;735] Bo‘tqa leksemasi bo‘lsa guruch, bug‘doy kabi donlardan qaynatib pishirilgan quyuq ovqat (halim, shavla, shirguruch kabilar) [3;500] Aynan tariq va bo‘tqa leksemalari qo‘llanishining ham bir qancha sabablari bor. Tariq asosiy dehqonchilik mahsulotimiz bo‘lsa, bo‘tqa o‘zbek xonadonlarida sevib iste’mol qilinadigan taomlar sirasiga kiradi. Shu sababli ham aynan ushbu leksemalardan foydalanilgan. Turk xalq maqoliga to‘xtaladigan bo‘lsak, *“Yalnız taş duvar olmaz”(* ya’ni *yolg‘iz tosh devor bo‘lmaydi).* [4 ;96] Bu maqol *“Bir tariqdan bo‘tqa bo‘lmas”*. [4;96] maqoli bilan bir xil mazmunga ega bo‘lganligi uchun ham maqol mazmuni birdamlik va hamjihatlik haqida deb ayta olamiz. O‘zbek xalq maqoli bilan turk xalq maqolidagi umumiylik maqol mazmun planiga singdirilgan ma’nolarda bo‘lib, biri ikkinchisining o‘rnida erkin qo‘llana oladi. Farqli jihati esa uning tarkibida kelgan leksemalar turlicha ekanligidadir. O‘zbek xalq maqolida tariq va bo‘tqa leksemalari orqali mazmun anglashilgan bo‘lsa, turk xalq maqolida xuddi shu vazifani tosh hamda devor leksemalari bajargan. Aynan ushbu leksemalar qo‘llanishining o‘ziga xos sababi bor. Ma’lumki, turklar o‘zbeklar bilan qardosh xalq hisoblanib, ularning milliy mafkurasiga ham birdamlik tamoyillari singib ketgan. Shuningdek, Turkiyani shimoldan Qora dengiz, g‘arbdan Egey dengizi, janubdan O‘rta yer dengiz yuvib turadi. Qadimda dengiz sohillaridagi uy va devorlar turli suv toshqinlariga chidamli bo‘lishi uchun qurilish xomashyosi sifatida, asosan, toshdan

foydalanilgan. Shuning uchun ham tosh va devor leksemalari maqol mazmun planini akslantirib turuvchi vosita sifatida olingan.

Shamol bo‘lmasa, daraxtning uchi qimirlamaydi.

Ateş olmayan yerden duman çıqmaz (ya’ni olov bo‘lmasa, tutun chiqmaydi).

Ushbu maqollar xalqning falsafiy qarashlari mahsuli bo‘lib, “Tabiatda ham, jamiyatda ham ro‘y beradigan har bir voqea-hodisaning muayyan sababi bor. Sababsiz hech qanday oqibat bo‘lmaydi. Masalan, xalq orasida bir gap tarqalibdimi – demak, bir ish bor”, degan ma’noda qo‘llaniladi. “Yelsiz terak tebranmas” ; “It qora ko‘rmasa, hurimas”; “Bulut bo‘lmasa, chaqmoq chaqmas” ; “Besabab oyoqqa tikan kirmas” ; “Chopgan yerdan chang chiqar” ; “ Tagsiz xabar tarqamas” maqollari maznun jihatdan teng keladi. [5;433] O‘zbek xalq maqolida ma’lum sabab bo‘lmay turib, biror xabar tarqamasligini anglatish maqsadida daraxt va shamol leksemalari qo‘llanilgan. Turk xalq maqolida esa xuddi shu mazmunini ifodalash uchun olov va tutun leksamalaridan foydalanilgan. Misol sifatida olingan maqollarning mazmun plani umumiy bo‘lib, faqatgina tarkibida kelgan ma’lum leksemalari bilan farqlanadi.

Usta pichoqqa yolchimas, Etikdo‘z – bigizga [4;94].

Kürkçünun kürkü olmaz, börkçünün börkü.(ya’ni mo‘ynachilar mo‘ynaga yalchimas) [4;94]

Berilgan ikki xalq maqolida bir umumiy mazmun ya’ni ma’lum hunar egasi bo‘la turib ushbu hunar orqali hosil qilinadigan mahsulotlar hunar egalarining o‘zida bo‘lmasligi aks ettirilgan. Ma’nodoshlari: “Temirchi taqaga yolchimas, Bo‘zchi — belboqqa”. [5;100] “Bo‘zchi belboqqa yolchimas, Kulol — mo‘ndiga”.[5;182] O‘zbek xalq maqolida usta hamda etikdo‘z leksemalaridan foydalanib, mazmun izohlangan bo‘lsa turk xalq maqolida mo‘ynachilar leksemasi qo‘llangan. Har ikki xalq maqolining ham ta’sir ahamiyatini oshirish uchun aynan ushbu leksemalar tanlab olingan. Bularning barchasi dono xalq vakillarining so‘z boyligi mahoratini ham ko‘rsatib bergan.

To‘rga tushgan baliq qarmoqdan qo‘rqmas.[4;95]

Olmüş eşek kurttan korkmaz. (ya’ni o‘lik eshak bo‘ridan qo‘rqmaydi) [4;95]

Yuqoridagi o‘zbek va turk xalq maqoli ham aynan bir mazmunni ifodalashga xizmat qiladi. Maqol orqali “ Biror ayb bilan qo‘lga tushib, qamalib chiqqan odam qattiq jazodan qo‘rqmaydi, ayb-gunohning battarrog‘ini qilaveradi”, deyilmoqchi, jamiyatda buni tasdiqlovchi voqea-hodisalar tez-tez uchrab turadi. [5;406] Shu boisdan bu maqol namunalari qadimdan xalq og‘zaki ijodida qo‘llanib, sayqallanib kelmoqda. Mazmun plani umimiy bo‘lgan holda, uni aks ettirib turuvchi leksemalar har ikki tilda turlicha holatda qo‘llangan. O‘zbek xalq maqolida *to‘r, baliq, qarmoq* leksemalari yordamida mazmun anglashilgan bo‘lsa, turk xalq maqolida xuddi shu vazifani *o‘lik eshak hamda bo‘ri* leksemalari bajargan.

Xulosa qilib aytganda, tilning paremiologik fondi hisoblanmish maqollar asrlar davomida xalqlar hayotiga singib ketgan an’ana va voqeliklarni o‘zida mujassamlashtiradi. Turk va o‘zbek maqollaridagi mazmuniy bog‘liqlik ularning qardosh xalq vakillari ekanligi bilan izohlansa, maqollar tarkibidagi leksemalarning o‘zaro farqlanishi ikki xalq til xususiyatlari hamda so‘z qo‘llash texnikasi masalalari bilan uzviy bog‘liqdir.

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THE ROLE OF GENETIC FACTORS IN THE PATHOGENESIS OF AGE RELATED MACULAR

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ANNOTATION

Age-related macular degeneration is part of the group of diseases called degenerative maculopathies (macular degenerations). Specifically, the age-related form is the most frequent, especially in women, and appears from the sixth decade of the person's life onwards. It appears bilaterally, although not always with the same severity. It affects the macula, which is the central part of the eye where distinct, high-resolution vision has its seat.

The pathological picture is rather complicated, comprising several alterations (drusen formation, retinal neovascularization, detachment of the pigment epithelium), which can occur either individually or simultaneously and, if not detected in time and treated, lead to blindness.

The results obtained open up new prospects for understanding the pathogenesis of AMD, which will help develop an active medical management system for patients at the outpatient stage with the determination of individual risks for the development and progression of AMD, the appointment of individual preventive measures for both the patients themselves and their families.

Keywords: *age-related macular degeneration; pathogenesis; complement factor H gene; genes HTRA1, ARMS2/LOC387715, PLEKHA1.*

INTRODUCTION

Age-related macular degeneration (AMD) is one of the most common eye diseases and is the leading cause of vision loss in people over 40 years of age. According to the World Health Organization, 161 million people in the world suffer from eye diseases, including 25-30 million people affected by AMD.

The article presents an overview of studies on the role of genetic factors in the pathogenesis of age-related macular degeneration. The Y402H polymorphisms of the complement factor H gene, HTRA1, ARMS2/LOC387715, and PLEKHA1 increase the risk of developing age-related macular degeneration. Other genes that have been identified to date are described in more detail. Possible schemes of the influence of mutations in these genes on the onset and progression of age-related macular degeneration are considered.

The article presents the results of studying the association of ARMS2, CFH and VEGFA gene polymorphisms with age-related macular degeneration in the population. Studies have proven the association of polymorphic genotypes and alleles rs10490924 of the ARMS2 gene, rs800292 of the CFH gene and rs2010963 of the VEGFA gene with the development of AMD inpatients.

Genetic studies of the development of central retinal dystrophy are timely due to the key role of genetic mutations in the pathogenesis of age-related macular degeneration (AMD), one of the most urgent problems of modern ophthalmology. Age-related macular degeneration (AMD) apparently leads to primary disability in 11%is the leading cause of the irreversible decline in people of working age and in 28%vision among the population over 59 years of age, as in Western-resident patients [1]. Diseases of recent years to an increase in durationing has a steadily progressing course, the number of AMD will beproceeds with damage to the macular area and grows steadily [24].

Involvement in the pathological process of pigmentary risk Factors for the development of retinal epithelium (PES), Bruch’s membrane, as well assame layer of choriocapillaries, eventually leads to loss of central vision.

To date, despite the manyresearch on AMD, etiological the history and pathogenesis of this disease remainnot fully educated.

Both eyes are affected in 61% of caseswhich leads to primary disability in 12%people of working age and 27% moreresidential patients [4, 5]. Due to the trendrecent years to an increase in durationlife in the world, the number of AMD will begrow steadily [21].

Purpose:

To determine which genes cause the dry form of AMD in our region and to study their pharmacogenetic properties.

Methods:

Over the past 16 years, scientists have been trying toestablish the genetic changes underlying the development of AMD.

Numerous studies have demonstrated the family, hereditary nature of the process of development of this disease. According to J.D. Gass, family history is an important risk factor in 22% of patients with AMD. A threefold increase in the risk of developing AMD has been established if the disease occurs in relatives in the first generation [19]. In addition, there is a strict correspondence between the course of the disease in monozygotic twins [13]. For example, J.M. Seddon provides information on the clinical manifestations of AMD in several generations of a large family [23].

R. Klein et al described a family consisting of 20 people, 9 of whom were diagnosed with a “dry” form of age-related macular degeneration with phenotypic manifestations — multiple drusen and geographic atrophy of RPE [17].

The complexity of identifying genetic mutations is due to the peculiarities of the development of AMD. The disease occurs in the elderly, so it is possible to study only one generation. Parents are usually already dead, and children are still too young for the onset of this disease. Phenotypic heterogeneity of AMD also causes difficulties.

To date, it is known that about 50 genes can be responsible for the development of age-related macular degeneration. However, a highly significant association with the development and progression of the disease was established only in a few of them.

Various approaches have been used to identify the exact region of the genome that plays an important role in the pathogenesis of AMD. The initial strategy was to study the genes involved in the development of hereditary macular dystrophies, which had clinical manifestations similar to those of AMD [9, 12]. However, it cannot be reliably stated that most of these genes are in any way associated with the development of AMD.

For example, mutations in the ABcA4 (ABcR) gene lead to the development of Stargardt's disease. Patients with this pathology become more sensitive to the accumulation of lipofuscin, their family history more often shows the presence of AMD [18]. It still remains unproven that the mutation of this particular gene leads to the development of age-related macular degeneration in such patients [18, 16].

In 2003, scientists identified the first gene likely to play a role in the development of age-related macular degeneration. This gene is Hemicentin-1 (HMcn1)/Fibulin-6 (FBLn6), located on the long arm of chromosome 1 (1q25.3–31.1) [17]. In 2004, another gene was discovered that may be involved in the development of AMD. It also belongs to fibulins, Fibulin-5 (FBLn5) [14].

Results:

Complement factor H polymorphism T1277C (tyrosine-402 → histidine-402) is strongly associated with both dry and wet AMD and points to a possible role for inflammation in the pathogenesis of AMD.

As a result of a retrospective study of 277 patients with AMD, it was found that in carriers of 5 risk alleles of the complement factor H gene and the ARMS2/LOC387715 gene, the wet form of AMD develops 12.23years earlier than in people without these alleles [15].

On the discovery of the TLR3 gene (L412F), which is involved in the development of the late stage of the dry form of age-related macular degeneration. The L412F (rs377529) polymorphism leads to the replacement of leucitin-412 by phenylalanine [16]. Toll-Like Receptor 3 (TLR3) is a membrane protein that belongs to the group of receptors that ensure the functioning of innate immunity.

TLR3 binds the double-stranded RNA of viruses and thus plays an important role in the body's antiviral defenses. When activated, TLR3 begins to attack infected cells, and in the case of dry AMD, RPE cells are attacked. Mutation of the TLR3 gene, resulting in TLR3 inactivation, helps prevent the death of retinal cells and significantly reduces the risk of RPE geographic atrophy [21]. These data open up new possibilities in the search for alternative treatments for AMD.

The PLEKHA1 gene is expressed in the macular region of the retina. It encodes a protein that plays an important role in the activation of lymphocytes and also regulates cell proliferation . Despite the fact that a relationship has been found between carriers homozygous for the A allele in the PLEKHA1 gene and wet AMD, there is no unambiguous evidence that predisposition to this disease is not also caused by the presence of changes in the HTRA1 and ARMS2/LOC387715 genes located in the same locus.

A total of 366 articles were reviewed, including 64 additional articles extracted from the references and 25 webpages and online databases from different institutions. At the end, only 244 references were included in this review.

Conclusion:

The pathological process in age-related macular degeneration flows individually, however, with the development of the subretinal neovascular membrane, the time factor becomes of key importance. With early diagnosis of this condition and timely treatment, it is possible to avoid the loss of visual functions, achieve long-term remission (temporary attenuation of the process) or its reverse development.

Age-related macular degeneration is a complex multifactorial disease that has an uneven manifestation around the world but with one common denominator, it is increasing and spreading. The economic burden that this disease poses in developed nations will increase in the coming years. Effective preventive therapies need to be developed in the near future. Thanks to the high level of development of modern medicine and genetics, it became possible to take a fresh look at the pathogenesis of many diseases, including AMD.

To date, more than 50 genes are known that are responsible for disturbances in the normal course of metabolic processes in the retina and pigment epithelium. The role of many of them in the pathogenesis of AMD is not completely clear. However, the fact of their direct participation in many pathological processes, including lipid metabolism disorders, the development of oxidative stress, chronic inflammation, and choroidal neovascularization, has been established.

Of particular interest is the violation of mutations in a number of genes that can stop the progression of AMD or reduce the likelihood of its development. In an age of rapidly developing genetic engineering is a promising direction for finding new methods of treatment and prevention of the disease.

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СПОСОБЫ ЗАКРЫТИЯ МАКУЛЯРНОГО ОТВЕРСТИЯ

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АННОТАЦИЯ

Макулярное отверстие представляет собой дефект сетчатки, расположенный в центре центральной ямки, вызывающий значительное ухудшение зрения. Knapp в 1869 г. первым сообщил о макулярном разрыве травматического происхождения. Термин «отверстие в макуле» использовал Ogilvie в 1900 г. Существует два типа макулярных разрывов, которые можно наблюдать: идиопатические макулярные разрывы (ИМР), которые вызываются тракцией стекловидного тела за фовеальный центр в переднезаднем и тангенциальном направлениях, и травматические макулярные разрывы (ТМР), обычно возникающие в результате механической тупой травмы. глаза. Однако в современной литературе термин «идиопатический» больше не используется, поскольку известной причиной развития МР является тракция стекловидного тела. МР могут разрешаться, оставаться стабильными или прогрессировать до сквозных макулярных отверстий. Согласно Гассу, в случае развития полной задней отслойки стекловидного тела фовеа может вернуться к норме, или если конус клеток Мюллера сорвется с поверхности сетчатки, может образоваться ламеллярное отверстие. Сообщается, что в общей популяции распространенность МР составляет около 3,3 на 1000 человек. До 1991 г. МР считалась неизлечимым заболеванием, но в последнее десятилетие хирургические методики закрытия отверстия и улучшения центрального зрения стали рутинной практикой.

ABSTRACT

The macular hole is a retinal defect located in the center of the fovea, causing significant visual impairment. Knapp in 1869 was the first to report a macular rupture of traumatic origin. The term "hole in the macula" was used by Ogilvie in 1900. There are two types of macular holes that can be observed: idiopathic macular holes (IMRs), which are caused by anteroposterior and tangential traction of the vitreous behind the foveal center, and traumatic macular holes (TMRs) usually resulting from mechanical blunt trauma eyes. However, the term "idiopathic" is no longer used in the current literature, as a known cause of MR is vitreous traction. MR may resolve, remain stable, or progress to penetrating macular holes. According to Gass, if a complete posterior vitreous detachment develops, the fovea may return to normal, or if the Muller cell cone breaks off the surface of the retina, a lamellar hole may form. In the general population, the prevalence of MR has been reported to be about 3.3 per 1000 people. Until 1991, MR was considered an incurable disease, but in the last decade, surgical techniques to close the hole and improve central vision have become routine practice.

ЦЕЛЬ

Применить разные варианты хирургических способов закрытия МР и оценить их клинико-функциональные результаты.

МАТЕРИАЛ И МЕТОДЫ

Под наблюдением находились 20 пациентов. Всем пациентам проводились традиционные (визометрия, безконтактная тонометрия, авторефрактометрия, офтальмоскопия) и специальные (OCT-maestro (Topcon), A-B сканирование) методы обследования.

Примеры: пациент Ф. 67лет, с диагнозом OD - сквозной макулярный разрыв. Считает себя больной в течение 4-х месяцев. Острота зрения OD - 0,03 н/к. Рис.1

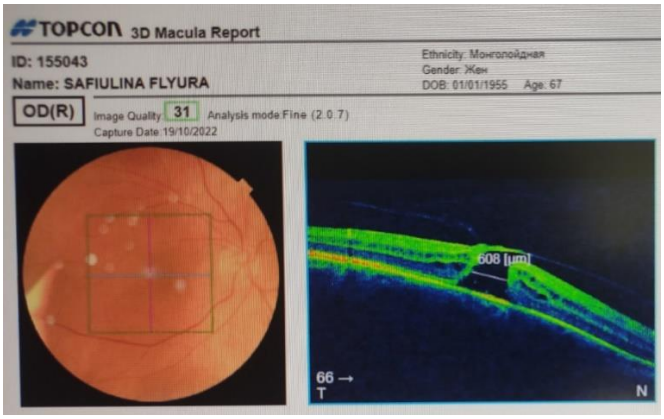

Рис.1 Больная Ф. Сквозной макульярный разрыв. Размер разрыва 608 мкм.

Пациент С. 57лет, с аналогичным диагнозом аналогичного глаза. Считает себя больной в течение 3-х месяцев. Острота зрения OD - 0,05 н/к. Рис.2

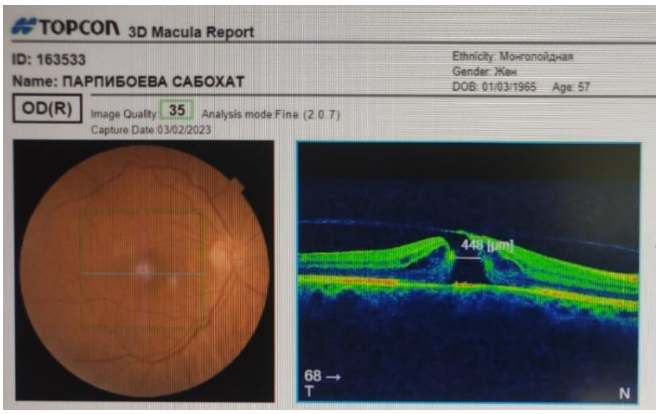

Рис.2 Больная С. Сквозной макульярный разрыв. Размер разрыва 448 мкм.

Пациенты были разделены на 2 группы. В 1-й группе использовалась метод «flower technique», а во 2-й метод перевернутого лоскута.

ТЕХНИКА ОПЕРАЦИИ

Всем пациентам было произведено стандартная 3-х портовая 25-G витрэктомия на аппарате Stellaris Elite (Bausch & Lomb, USA). Использовали офтальмологический микроскоп Zeiss Opmi Lumera 700 с широкопольной системой визуализации глазного дна Resight 700 (Carl Zeiss, Germany). У обоих больных произведена витрэктомия в центральных и периферических частях. Внутренняя пограничная мембрана (ВПМ) окрашена красителем “membrane blue”. У больных первой группы сформирован лоскут ВПМ на 360˚ и у края макулярного отверстия часть лоскута оставлена в виде «цветочка». Рис.3

Рис.3 ILM peeling 360˚ “flower technique”

У второй группе больных сформирована лоскут ВПМ темпоральной части на 180˚ и перевернута на отверстие в виде крышки. Рис.4

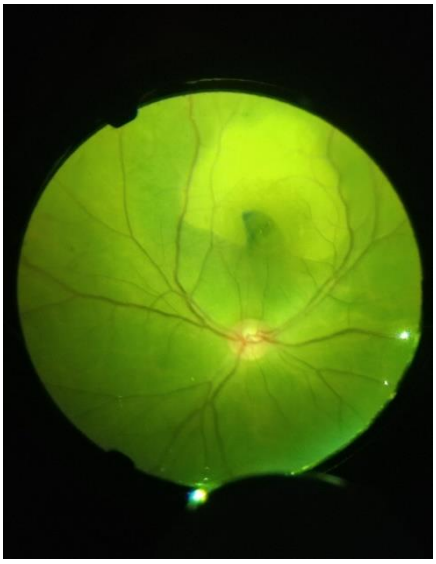

Рис.4 Temporal ILM peeling 180˚ inverted flap

В последнем случае сохранен ВПМ в зоне папилломакулярного пучка.

После произведена газовая тампонада и рекомендована положение «лицом вниз» на 3 дня.

РЕЗУЛЬТАТЫ

У всех больных через месяц после операции наблюдался улучшение объективных и субъективных данных. Острота зрения в среднем составило 0,6. На ОКТ снимках видно восстановление фовеальной ямки.

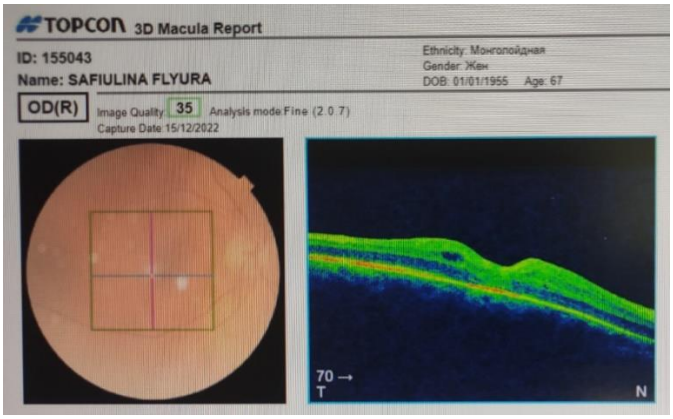

Рис.5 Больная Ф. Через 1месяц после операции

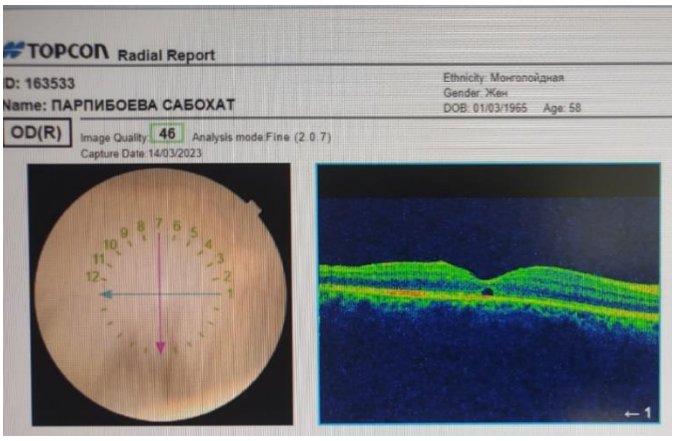

Рис.6 Больная С. Через 1месяц после операции

ВЫВОД

Наши наблюдения показали что у оба метода закрытия макулярного отверстия эффективны. Для достоверной оценки результатов нужно дальнейшее исследование с большим количеством пациентов.

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ANNOTATSIYA

Maqolada ko‘phadlarning ildiz chegaralarini usullari keltirilgan bo‘lib, ma’lumki aniq va tabiiy masalalarning ko‘pchiligi ko‘phadning ildizini topish masalasiga keltiriladi. Haqiqiy ildizlari mavjud yoki mavjud emasligi ildizlarini chegralarini topish orqali ham aniqlanadi.

Kalit so‘zlar: *Ko‘phad, ildiz, quyi chegara, quyi chegara, absolyut qiymat.*

METHODS OF FINDING ROOT LIMITS

ABSTRACT

The article presents the methods of root limits of polynomials, and most of the known obvious and natural problems are brought to the problem of finding the root of a polynomial. The presence or absence of real roots is also determined by finding the limits of the roots.

Keywords: *Polynomial, root, lower bound, lower bound, absolute value.*

KIRISH

Algebra va sonlar nazariyasi fani Oliy matematikaning asosiy qismi bo‘lib, ko‘phadlar uning o‘rganuvchi bo‘limlaridan biri hisoblanadi. Ko‘phadlar nafaqat matematika ta’lim yo‘nalishi talabalariga, balki tabiiy va ijtimoiy fanlar yo‘nalishi talabalariga ham o‘rgtilib, ushbu fanni o‘qitishdan maqsad talabalarning o‘z

yo‘nalishlari uchun zarur matematik bilimlarni berish bilan bir qatorda matematik tafakkurini oshirish ham. Ma’lumki, ko‘p masalalar tenglama yechish yorsdamida hal qilinadi. Tenglamaning o‘ng tomonida joylashgan ifoda odatda ko‘phad bo‘ladi. Ko‘phadning ildizlarini topish masalalasi tenglamaning ildizlarini topish masalasiga ekvivalent bo‘lib, muhim masalalarni yechishda ko‘phadning ildizlarini topishdan ko‘ra uning ildizlari oraliqlarini topish ham muhim ahamiyat kasb etadi. [1]

ADABIYOTLAR TAHLILI VA METODOLOGIYA

Ma’lumki, sonlar hamda harflarning ko‘paytmalaridan tuzilgan ifodaga birhad deb ataymiz. Birhadlarning algebraik yig‘indisidan tuzilgan ifodaga ko‘phad bo‘ladi. Ko‘phadni nolga tenglash natijasida topilgan noma’lumlar ko‘phadning ildizi hisoblanadi. Ko‘phadni ildizlarini topishning bir qancha usullari mavjud bo‘lib, ulardan Nyuton, Shturm usullarini misol qilib keltirish mumkin. Ushbu usullar elemantar matematikadagi usullardan biroz farq qilganligi bilan, ammo qo‘llanilishi jihatidan sodda usullar bo‘ladi.

NATIJALAR

Bizga haqiqiy koeffitsiyentli

$$f(x) = a_0x^n + a_1x^{n-1} + \cdots + a_n\,,\ a_0 > 0$$

ko‘phad berilgan bo‘lsin. Aytaylik, $f(x)$ ko‘phadning dastlabki manfiy koeffitsiyenti a_k bo‘lib, B soni ko‘phad manfiy koeffitsiyentlari absolyut qiymatlarimaksimumi bo‘lsin. U holda $1 + \sqrt[k]{\frac{B}{a_0}}$ soni $f(x)$ ko‘phadning musbat ildizlari yuqori chegarasi bo‘ladi. Chunki ko‘phadda manfiy koeffitsiyent har doim mavjud, aks holda $f(x)$ ko‘phad umuman musbat yechimga ega bo‘lmaydi. Umumiylikka ziyon yetkazmagan holda $x > 1$ deb olib, $a_0, a_1, \dots, a_{k-1}$ koeffitsiyentlarni nol bilan $a_k, a_{k+1}, \dots, a_n$ koeffitsiyentlarni $-B$ ga almashtirsak, $f(x)$ ko‘phadning qiymati kichiklashadi, ya’ni

$$f(x) \geq a_0x^n - B(x^{n-k} + x^{n-k-1} + \cdots + x + 1) = a_0x^n - B\frac{x^{n-k+1} - 1}{x - 1}.$$

$x > 1$ ekanligini hisobga olsak,

$$f(x) > a_0x^n - \frac{Bx^{n-k+1}}{x-1} = \frac{x^{n-k+1}}{x-1}[a_0x^{k-1}(x-1) - B].$$

Agarda $x > 1 + \sqrt[k]{\frac{B}{a_0}}$ bo‘lsa, u holda

$$f(x) > \frac{x^{n-k+1}}{x-1}[a_0x^{k-1}(x-1) - B] \geq \frac{x^{n-k+1}}{x-1}[a_0(x-1)^k - B] > 0,$$

ya’ni, $f(x)$ ning qiymati qat’iy musbat bo‘ladi. Demak, $x > 1 + \sqrt[k]{\frac{B}{a_0}}$ tengsizlikni qanoatlantiradigan x soni $f(x)$ ko‘phadning ildizi bo‘la olmaydi.

Misol. $h(x) = x^5 - 3x^4 + 2x^3 - x^2 + 7x + 5$ ko‘phad uchun $a_0 = 1, k = 1$ va $B = 4$ ekanligidan, uning musbat ildizlari yuqori chegarasi 5 ekanligini hosil qilamiz.

XULOSA

Ko‘phadlarning ildiz chegaralarini topish orqali ularning yig‘indisi, ko‘paytmasi, bo‘linmasidan hosil bo‘lgan funksiyaning ham ildiz chegaralari hamda ildizlarini topish mumkin. Bu bilan yechilishi algebraik tenglama va tengsizliklarga keladigan turli yo‘nalish masalalarini hal qilish mumkin. Ildizlarning aniq yuqori va quyi chegarasini aniqlash orqali dastlab ildizning mavjudligi aniqlanadi.

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KIMYO TARIXINING AHAMIYATI

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Annotatsiya: *Mazkur maqolada kimyo tarixi fanining maqsad va vazifalari, qadimgi davr, alkimyogacha bo‘lgan davr, iatraximiya, stexiometrik qonunlarning ochilishi, kimyodan ma’lumotlar keltirilgan.*

Kalit so‘zlar: *ruda, bo‘yoq, alkimyo, «Ilohiy san’at», «Kimyoning oltin davri», «qora yerliklar», polimerlar kimyosi, noorganik kimyo, islab chiqarish, ruda, nodir metallar, laboratoriya.*

Абстракт: *В данной статье представлены цели и задачи истории химии, древние времена, период до алхимии, ятрахимия, открытие стехиометрических законов, сведения из химии.*

Ключевые слова: *руда, краска, химия, божественное искусство, золотой век химии, чернозем, химия полимеров, неорганическая химия, производство, руда, редкие металлы, лаборатория.*

Abstract*: This article presents the aims and objectives of the history of chemistry, ancient times, the period before alchemy, yatrachemistry, the discovery of stoichiometric laws, information from chemistry.*

Key words: *ore, paint, chemistry, divine art, golden age of chemistry, black earth, polymer chemistry, inorganic chemistry, production, ore, rare metals, laboratory.*

Bugungi kunda noorganik kimyo, organik kimyo, fizik va kolloid kimyo, elektrokimyo, biokimyo, koordinatsion birikmalar kimyosi, polimerlar va yuqori molekulyar birikmalar kimyosi, tovarlar kimyosi kabi zamonaviy kimyo fanlarining sohalari ro‘yxati tobora ortib bormoqda. Biroq, kimyo fanining rivojlanib borayotgan tarmoqlarining nazariy tomonlarini keng qamrovli fundamental tushunchalar to‘plami sifatida bog‘laydigan umumiy bir tushuncha bor. Har qanday nazariy konseptsiyani yaratish har doim katta miqdordagi eksperimental ma’lumotlarni to‘plash va tizimlashtirishdan oldin amalga oshiriladi. Uning asosida kimyo eksperimental va nazariy fan bo‘lgan. Shuning uchun kimyo fanining asosiy fundamental tushunchalarini kelib chiqishi va evolyutsiyasini tavsiflab, nazariy g‘oyalarning dastlabki asoslari faqat aql-idrok bilan boshqariladigan bilim va ko‘nikmalarni to‘plagan odamning uzoq amaliy faoliyati natijalarini tushunishdagina paydo bo‘lgan. Hech qanday nazariyalardan ilhomlanmagan kimyo dastlab odamlarning yashash sharoitlarini yaxshilashga intildi. Shuning uchun kimyo tarixini butun tsivilizatsiya rivojlanishiga hal qiluvchi ta’sir ko‘rsatgan materiallarning texnologiyalarini yaratish va takomillashtirish jarayonida olingan nazariy tushunchalar va amaliy bilimlar evolyutsiyasining uyg‘un birligi sifatida taqdim etish juda o‘rinli.

Kimyo – nihoyatda qadimiy fan hisoblanadi. Uning boshlanish davri asrlar qariga kirib boradi. Agar kimyoni texnologiya bilan bog‘laydigan bo‘lsak, to‘la ishonch bilan aytish mumkinki- kimyo tarixgacha bo‘lgan davrda paydo bo‘lgan. Chunki bizning avlod ajdodlarimiz ayrim texnologik ko‘nikmalarga ega bo‘lishgan (Masalan: rudalardan metallarni ajratib olish va ularga ishlov berish). Asrlar davomida insonlarning kimyoviy texnologik ma’lumotlar zahirasi kengayib boradi, metallarga ishlov berish yoniga asta sekinlik bilan bo‘yoqlar olish, matolarga gul bosish, vinochilik ishi va boshqalar qo‘shilib borgan.

Kimyo tarixi haqidagi boshlang‘ich ishonchli ma’lumotlar qadimgi xalqlar tarixini o‘rganish jarayonida paydo bo‘la boshladi. Bu ma’lumotlarni tilga kiritishi mumkin bo‘lganlar kamchilikni tashkil qilardi. Shunday olimu-tadqiqotchilarning xatti-harakatlari bilan vayronalar ostidan tasodifiy topilgan buyumlar, mehnat va uy

jihozlari siniqlari, diniy marosimlar, urush voqealari tasvirlangan rasmlardan va boshqa holatlardan oz bo‘lsada zaruriy ma’lumotlarni aniqlashga erishildi. O‘zining madaniyati haqida yodgorlik qoldirgan xalqlar kam. Bunday xalqlarga birinchi navbatda qadimiy Sharq xalqlari va O‘rta yer dengizi atrofidagi xalqlar: misrliklar, vavilonliklar, yevreylar, finikiyaliklar, forslar keyinchalik arablar, greklar va rimliklar kiradi. Sharqda kimyoviy bilimlar Xitoyda va Hindistonda rivojlangan bo‘lib, savdo-sotiq orqali qadimgi Sharq va Yevropa madaniyatiga o‘z ta’sirini o‘tkazgan.

Hozirgacha “Kimyo” so‘zining kelib chiqishi haqida aniq bir fikr yoki ma’lumotlar yo‘q. Kimyo fani ham boshqa fanlar qatori, odamlarning amaliy faoliyati natijasida vujudga kelgan bolib, Ozbekiston ensiklopediyasida keltirilishicha kimyo- bu quyma metalldir. Kimyoga doir bilimlar Misrda, Xitoyda, Hindistonda, Gretsiyada to‘plangan.Hatto «ximiya» (chemia) so‘zi, olimlarning taxminicha, Misrda paydo bo‘lgan.

Qadimgi grek faylasufi Plutarxning yozishicha, Misr aholisi «xemi» (chemi) «qora yerliklar» taxallusini olishgan. Bundan tashqari boshqa haqiqat ham mavjudki, alkimyoning asoschilaridan bo‘lgan grek faylasufi Zaosima (III-IV asr) «ximiya» so‘zini “xemesa”dan olingan deb hisoblaydi. Uning fikricha kimyo haqidagi birinchi kitobning afsonaviy muallifi, osmondan haydalgan farishtani shunday atashgan. Boshqa tadqiqotchilar «ximiya» grekcha “xima” so‘zidan kelib chiqqan deb hisoblashadi. Grekcha bu so‘zning ma’nosi metallarni suyultirish, quyish demakdir. Kimyoni butun rivojlanishini asosan 5 ta bosqichga bo‘lish mumkin:

Butun dunyo kimyo tarixini o‘rgangan olimlari quyida keltirgan beshta katta davrga bo‘lishni taklif qilganlar.

1.Kimyoning alkimyodan avvalgi davri.

Bu davr miloddan qariyb 8000 yildan tortib to IV asrga qadar davom etgan bo‘lib, tajribada qo‘lga kiritilgan bilimlar avloddan avlodga o‘tib kelgan.

2.Alkimyo davri.

Bu davr IV-XVI asrga qadar davom etadi. Misrda kimyo ilmi «Ilohiy san’at» deb, u maxfiy saqlangan. Ular asosan qimmatbaho toshlarni qayta ishlash, sohtalashtirish, murdalarni balzamlashni duo o‘qishlar bilan olib borganlar.

3.Kimyo bilimlarning sifat va miqdoriy analizlarning birlashish davri.

Bu davr o‘z ichiga XVI-XVIII asrlarni oladi. Bu davrda boshqa fanlarda tez rivojlanish boshlandi, chunki astronomiyada Nyuton qonuni, fizikada Galiley qonunlari kashf etildi. Ammo kimyo fanida katta o‘zgarishlar bo‘lmadi, chunki kimyo fanida faqat sifat analiz bilan ish yuritilgan edi. Fanning rivojlanishi uchun miqdoriy analiz poydevori kashf etilishi lozim edi.

4.Miqdoriy qonunlar davri.

XVII asrda kimyo fanining asosiy vazifalari asosan tabiiy minerallar tarkibini o‘rganish bo‘ldi, chunki bu davrda metallarga bo‘lgan ehtiyoj juda ham o‘sgan edi. XVIII asrda kimyoviy elementlarni o‘zaro birikishidagi qonuniyatlarni o‘rganishga qaratiladi.

5.Kimyoning hozirgi zamon davri.

Bu davr XIX asrning 60-yillaridan hozirga kunlarga qadar davom etmoqda va bu davrni «Kimyoning oltin davri» deb atash mumkin. Qayd qilingan davr ichida kimyoviy elementlarning davriy sistemasi, stereokimyo, atom tuzilish nazariyalari yaratildi, kimyoviy bog‘lanish va valentlikning aniq tushunchalari yuzaga keldi, fizik kimyo, biokimyo, geokimyo, bioanorganik kimyo, bioorganik kimyo, kosmo kimyo, yadro kimyo, kristallokimyo, polimerlar kimyosi va hokazo fanlar vujudga keldi. Sintetik kimyo kata muvaffaqiyatlarga erishdi, anorganik va organik modda tushunchalari orasidagi keskin chegara yoqolib, materiyaga tog‘ri falsafiy ta’rif berildi.

Kimyo sanoati korxonalarida zamonaviy ilmiy-tahliliy asbob-uskunalarga ega bo‘lgan tajriba - ishlab chiqarish laboratoriyalarini tashkil etish asosida yuqori samarador kimyoviy texnologiyalarni tarmoq korxonalariga joriy etish ko‘lamini kengaytirish; global iqlim o‘zgarishlari sharoitlarida yangi avlod kompleks o‘g‘itlari va biostimulyatorlarini yaratish va qishloq xo‘jaligi ekinlarining o‘g‘itlash

normalarini tubdan qayta tadqiq qilish; analitik kimyo, kolloid kimyo, nanopolimerlar kimyosi va organik sintezga asoslangan tadqiqotlarni qayta tashkil qilish va buning uchun zarur shart-sharoitlarni yaratish; kimyo yo‘nalishidagi ilmiy-tadqiqot muassasalarining mavjud ilmiy yo‘nalishlarini tarmoq korxonalari ehtiyojlari va bozor talablaridan kelib chiqib, tubdan qayta ko‘rib chiqish asosida kolloid kimyosi, rangli va noyob metallar kimyosi, silikat materiallar kimyosi kabi ilmiy yo‘nalishlarga ustuvor ahamiyat qaratish, nodir metallar va nanokimyo yo‘nalishida innovatsion texnologiyalarni yaratish; jahonning ilg‘or tajribalariga muvofiq yangi kompozit materiallar va innovatsion kimyo texnologiyalari asosida qurilish materiallari texnologiyalarini yaratish; jahon standartlari darajasida katta hajmli kimyoviy ma’lumotlarni tahlili va kimyoviy birikmalarning molekulyar tuzilishini yuqori darajada tahlil qilish imkoniyatiga ega milliy laboratoriyalar tarmog‘ini tashkil etish asosida yaqin istiqbolda yuqori samarador texnologiyalarni yaratilishi va kelgusida ilmiy hajmdor mahsulotlarning eksportini kengaytirish; kimyo yo‘nalishida fan-ta’lim-ishlab chiqarish integratsiyasini chuqurlashtirishning ta’sirchan amaliy mexanizmlarini ishlab chiqish va joriy etish; kimyo yo‘nalishida yuqori malakali ilmiy va ilmiy-pedagog kadrlar tayyorlash samaradorligini oshirish, kadrlar malakasini oshirish va qayta tayyorlash tizimini yanada takomillashtirish; kimyo yo‘nalishida yosh iqtidorli olimlarni tayyorlash va ularni ilm-fanga keng jalb qilish maqsadida o‘quv va o‘quv-ishlab chiqarish bazalarini rivojlantirish.

Shunday ekan, kimyoning barcha sohalarini chuqur o‘rganib olish uchun avvallo, kimyo tarixini bilish, o‘rganish zarur va kerak, chunki “tarixsiz kelajak yo‘q”.

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