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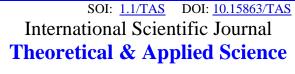
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FEATURES OF THE PLOT AND MOTIVES IN VERSIONS OF THE DASTAN «SAYATHAN HAMRA»

Abstract: Article is dedicated to study Karakalpak lyric-epic epos "Sayatkhan - Khamra" composite construction, system of characters, art features, and also comparative learning with other similar epos of other

Key words: epos, composition, image, skill, plot, motive.

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ОСОБЕННОСТИ СЮЖЕТА И МОТИВОВ В ВЕРСИЯХ ДАСТАНА «САЯТХАН ХАМРА»

Аннотация: Article is dedicated to study Karakalpak lyric-epic epos "Sayatkhan – Khamra" composite construction, system of characters, art features, and also comparative learning with other similar epos of other

Ключевые слова: epos, composition, image, skill, plot, motive.

Введение

Одним из народных дастанов, занимающих место из ряда различных лиро-эпических дастанов, сформировавшихся в каракалпакской народной национальной среде является дастан «Саятхан Хамра». Дастан значим тем, что среди дастанов каракалпакского народа лиро-эпического направления он отличается своим композиционным строем, художественностью илейной особенностью, особенно ярко бросается в глаза особенности дастана, обогатившиеся за счет национального эпического содержания различных событий. Действительно, события, испытанные героями дастана имеют национальный бытовой характер, но вместе с тем пересекаются с различными событиями, сюжетами, свойственными общим лирическим дастанам и придает эстетическое качество национальному самосознанию и чувствам. Обычно, лирические дастаны, в целом исполнялись с помощью дутара ведущими знатоками музыки - бахсы, посредством

передачи путем наставник-ученик дастаны дошли до наших дней. При этом основной смысл эпических творений связан с судьбой влюбленных друг-друга молодой девушки и джигита, рассказывается об их преодолении сложных препятствий на пути достижения цели. Если сказать простыми словами, состоит в изображении объемного практического содержания народного понятия «жанына от түспей жанана қайда?!» - «нет красавицы джигиту без испытаний и трудностей». События в дастане возникают в определенной эпической и географической среде и действия героев насыщены глубоким главных психологизмом, изображаются типами персонажей с богатым душевным миром, которые верны и преданны своей любви, чисты и добры, и которые не свернут назад с избранного пути. Еще одной особенностью подобных дастанов является то что, почти все главные герои дастана - музыканты или поэты, которые «смогут заставить запеть соловья у уха дутара». В раскрытии образов героев играет



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важную роль исполнительское искусство музыкантов. Все препятствия на пути преодоления трудностей разрешаются с помощью музыки и

Среди основных особенностей дастана в том, что творение «Саятхан Хамра» относится к числу заимствованных дастанов, как и другие лироэпические дастаны. Он под влиянием культурных связей с соседними народами пропитан национальной средой, и является народным шедевром, превратившимся в настоящее духовное наследие

Каракалпакские ученые К. Айимбетов, К.Максетов в своих трудах оставили свои ценные сведения о дастане, его жанровых особенностях, художественности, идее и исполнителях-бахсы. Исходя их рассуждений специалистов ученых по этой проблеме, эти сведения дополняют друг-друга данными о причинах становления дастана в одну из национальных ценностей, распространившихся лиро-эпосах среди каракалпаков, и считаем что этот основан фактах, на связанных повседневными бытовыми И историческими условиями правильного направления. Никакая каракалпакская версия дастанов, занимающих место в культурной среде соседних народов - не является прямым и дословным переводом. В них впитаны начиная с языковых особенностей до национального качества бытовые условия народа, значимые стороны наших обычаев и традиций, национальные народные взгляды, богатые образцы народной мысли. А это означает обновление известных сюжетов соединенных вновь, получение нового национального направления.

Сюжеты, эпизоды и мотивы, обеспечивающие разрешения событий в дастане «Саятхан Хамра», имеет заключительный характер для целого содержания творения. Столкновения до этих событий постепенно усиливаются и поднимаются до освещения своего конкретного содержания.

Например, Хамра после встречи с Саятхан в её саду задерживается там некоторое время, со своей возлюбленной проживает в уединении, различные прогулки в саду помогают формированию и упрочению действий героев на пути достижения цели. То есть, они начинают готовиться к соединению друг с другом, проведению свадьбы на родине. Их официальное воссоединение становится нелегко. Приходится испытывать самые сложные препятствия. То есть, осложнение ситуаций доходит до своего апогея. В дастане отец Саятхана Маматхан (Мамметхан) остается в неведении от проделок дочери. Узнав «преступные» действия своей дочери от чужих людей, старается всеми силами предотвратить нелицеприятное положение. В каракалпакской версии дастана в центре этого сюжета стоит сам Маматхан и гонится за своей дочерью один (в разных вариантах с 40 воинами).

Отъезд от родины Саятхан в каракалпакских вариантах дастана имеет различные особенности. В одном варианте говорится, что Саятхан пускается в путь, «из конюшни отца уводит двух рысаков, их седла одевает золотом, на двух коней запрокидывает двух дорогостоящих ковровых мешков с красным золотом, на одного коня сядет сама, а на другого Хамражан, и отпускает трёхсот шестьдесят девушек на свободу». При этом изображаются внутренние чувства, близкие с сынсыу (прощальный плач девушки перед уходом в дом мужа) - прощания со своим народом и землей:

Полюбила я возлюбленного за сладостный язык.

Держу путь на родину хана Хамра, Ответьте девушки вынуждена я, уехать. Я оставляю ради него родину свою, Я ради любимого испытываю трудности, Я от своей любви страдаю немало, Скажите девушки, вынуждена я уехать с ним...

то, в другом варианте дастана Хамра просит её забрать его на свою родину и говорит о тоске по своей родной земле.

Хамра желает тебя забрать с собой, На родине своей с тобой в любви жить Пойдёмте любовь моя со мной ко мне, Хочу с тобой к себе на родину уехать.

На это в ответ Саятхан задает вопросы в значении того «что есть у вас на родине?», Хамра отвечает ей и состязаются в беседе. В итоге, ответы Хамры удовлетворяют Саятхан, соглашается уехать с ним и «Саятхан пәрий атасына Бану деген кәнийзин жиберип, ат-жарақ, әспабы менен еки ат алдырады. Ат-жарақ аслахаларын көрип Хамраның ўақты хош болып ... Саятхан пәрий он түйеге ғәзийнелерин жүклеп, қымбат бахалы малларға устин толтырып, Саятхан да устине еркек липасын кийип, аттың үстине минип, найза, қылыш, жай урыс аслахаларын белине бәнт етип, түйелерди жетелеп, Хамражанды жанына алып, кешлетип жолға раўана болдылар». «Красавица Саятхан отправляет одну из своих девушек Бану к старому отцу за двумя конями с полным снаряжением. Хамра увидев все это очень сильно обрадуется... Саятхан на десять верблюдов взбирает все свои сокровища и дорогостоящие вещи, сама Саятхан одевает мужскую одежду, сядет на коня и завязывает себе на пояс лук, саблю, военные снаряжения, вместе с Хамражан пускается в путь под вечер, ведя верблюдов». Как видно, в этом варианте наблюдается эпизоды обычаев и традиций, связанных с проводами дочери в дом мужа. Тем не менее, встречается множество «нарушений» национальных традиций, получая другое направление. Обычно, в дастанах лирического духа, девушка и джигит с самого детства обручаются, даже бывает случаи, когда до своего рождения помолвлены друг с другом. Затем их судьбы разъединяются, события развиваются



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поиском друг-друга. А в этом дастане хотя и сохраняется это начало, но направление событий сновидения продолжается мотивом Родители девушки не имеют представления о будущем зяте. Эта тайна открывается из-за их дочери. В таких случаях естественно, появляется злоба родителей по отношению к дочери, они противоречат её действиям. Маматхан тоже попадает в такое положение и превращается в силу, усиливающую конфликт. Он злится на дочь за то, что она убежала с незнакомым ей человеком и чтобы остановить свою дочь, прилагает все возможности для наказания виновника. Разрешение этих событий в каракалпакской версии дастана изложено в погоне за дочерью Маметхана одного самого. А во втором варианте дастана Маметхан за дочерью отправлятся вместе со сорока своими воинами. Тут конечно, события руководствуются личными способами изложения исполнителей дастана - бахсы. Тем не менее, одиночный поход батыров или героев, отправляющихся отомстить врагам в качестве древних мотивов имеет место в содержании многих национальных дастанов. В каракалпакских героических дастанах наличие сорока джигитов с батыром («Коблан») или сорока девушек («Кырык кыз» - «Сорок девушек») – это постоянная традиция. Значит, мы считаем, что каракалпакские бахсы в вопросе выбора сюжета вели работу с использованием традиционных мотивов по своему усмотрению. Мало того, не совсем соответствует жизненной правде отправка группы многочисленных воинов за «беженцами». Для нас самым главным является сохранение мотива «погони за беженцами». И в туркменском варианте дастана сохранился этот сюжет и изображается намного шире. Маметхан, чтобы вернуть дочь оставляет сорок джигитов у Маметсуйин сардара и отправляет пятьсот нукеров (солдат). В узбекской версии дастана за убегавшими Хамра и Саятхан отправляет 4000 лашкеров (воинов). Во что бы то ни было, случай погони за беженцами являет собой особенности, означающие осложнение конфликтных ситуаций в дастане.

Начало событий в дастане, их развитие, осложнение и факторы, обеспечивающие их решение в целом имеет одно композиционное направление, в основном находит спецфические образцы национальной версии. Использованные в них сюжетные, внутренние конфликты между эпизодическими событиями, например, как Хамре приснится Сарбиназ и как ему противоречит отец в поисках невесты, действия матери, особенно Сарбиназ (Салбинияз), отдельные противоречивые столкновения его отца Ашык Ахмета вместе с сыном, трудные испытания в саду Саятхан, ревность друг друга возлюбленных, тоска Хамры по Сарбиназ, эту тайну он постоянно скрывает от Саятхан, вера друг в друга и подозрения друг на

друга главных героев дастана, все это находит свое отражение на этапах постепенного развития событий дастана и станет основой поднятия этих событий на решающий этап.

Резкий поворот событий в дастане начинается с ухода Хамры и Саятхан. Тут действия влюбленных на пути достижения к цели носят с собой немалые конфликтные ситуации. Уход дочери с чужим незнакомым человеком для Маметхан станет большим и неожиданным ударом. Поэтому, он вынужден использовать все меры, чтобы вернуть дочь. Меры, осуществляемые ханом являются главными препятствиями на пути осуществления личной цели Саятхан и Хамры и они испытывают эти трудности, они должны были победить их. В результате влюбленные побеждают эти противостояния и достигают соей цели. Как видно, внутренние конфликты обеспечивают развитие событий, то есть основные конфликты создают основу для разрешения и заключения. В определении источников использования национальных способов создания дастана велико значение этих конфликтных состояний.

Мы исходя из этих мнений приходим к следующим выводам:

- 1. Начало событий дастана как обычно излагается в соответствии с лиро-романтическими и героическими дастанами, включает в себя эпизоды, состоящие из обоюдных согласий бездетных двух друзей. Тут сохраняется тотемистические верования и мотив сватовства-«аклай куда» (обручение или помолвка до рождения), одним из древних видов сватовства, отвечающий требованиям национальной традиции.
- 2. Мотив «влюбляться во сне», имеющий место в каракалпакской версии дастана является одним из видов, часто использующихся кочевых сюжетов в эпических произведениях в мире. Этот мотив играет роль начала событий дастана и сможет доказать результаты возможностей самостоятельного принятия сюжетов, широко распространенных у нашей нации и народа.
- 3. В сюжете дастана герой, который собирается в путь за поиском возлюбленной, прощается с родными и близкими, также находит свое отражение особенности, свойственные ранним эпическим произведениям. Тут тоже сохранены следы патриархально-общинного строя. В дастане изображаются столкновения между этими двумя общественными требованиями и они синтезируются в русле национальных народных понятий. С композиционной стороны эти сюжеты обеспечивают заключительный характер начала событий дастана.
- 4. Дастан важен тем, что поход героя дастана за возлюбленной, также присутствие отца вместе с сыном, происшествия на дороге, события в саду дворца, встреча влюбленных, прогулки в саду, мгновения любви и др., сюжеты и эпизоды наряду с



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освещением этапов формирования и развития событий способствует их обогащению разными способами национального творчества, индивидуальными путями развития и направлением сохранности композиционной целостности.

5. Осложнение событий дастана и его разрешение имеют национальные качества и состоит в изложении противоречивых друг-другу событий, в старом традиционном стиле. Саятхан во всех версиях и вариантах дастана наблюдается в качестве героини, побеждающей трудности. Эти её действия напоминают отклики периода матриархата. Она в каракалпакской версии дастана

изображается как сильная, метко стреляющая и умная девушка. А в других версиях - как храбрая и девушка, принимающая участие в сражениях. В новых лирических дастанах рассказ о массовых сражениях – редко встречающееся Так как, судьба влюбленных с помошью осуществляется положительных человеческих качеств, поступками, красноречием, находчивостью, умом, а не массовыми сражениями. этой точки зрения мы можем оценить заключительную часть каракалпакской версии дастана как результат национального народного мышления и сознания.

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FOLK POETS AND FOLK POETRY

Abstract: Folk poets are one of the creators of folk songs. Folk poets and folk poetry are closely interconnected. Revealing ways to turn into folk songs of works written in the ode genre in the work of folk poets Ayapbergen Musaev and Kaza Maulik Bekmukhammed ula.

Key words: folk poet, folk song, improvisation, national motive, ode genre, Homeland, folk creation, folklore.

Language: Russian

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НАРОДНЫЕ ПОЭТЫ И НАРОДНАЯ ПОЭЗИЯ

Аннотация: Народные поэты - одни из создателей народных песен. Народные поэты и народная поэзия тесно взаимосвязаны между собой. Раскрытие путей превращения в народных песен произведений, написанных в жанре оды в творчестве народных поэтов Аяпбергена Мусаева и Казы Маулик Бекмухаммед улы.

Ключевые слова: народный поэт, народная песня, импровизация, национальный мотив, жанр оды, Родина, народное творение, фольклор.

Введение

Одними из создателей народных песен современного периода являются народные поэты. «Народные поэты» - это поэты, произведения которых признано народом, и которые воспевают надежды и чаяния народа, и поэты, кто взял за основу своего творческого пути образцы народной поэзии. Народ почитает их как народных поэтов. Под «народными поэтами» подразумевается обладатели талантов, которые жемчужину народного наследия, отвечающих духу народной поэзии. Известный каракалпакский ученый Н.Давкараев отмечает, что «поэтами раньше назывались те, которые создавали свои произведения в жанре поэзии устной литературы. Эти поэты отличались тем, что не писали, а передавали произведения устно. Эти исполнители народной поэзии в больших сборищах с участием народа по памяти рассказывали на определенную тему то, что видели или слышали» - так ученый характеризует отличительную особенность

народных поэтов. Эта характеристика ученого Н.Давкараева относительно народных поэтов была дана типу поэтов, которые не были известны на радио и телевидении, в печати. В современный период в нашем обществе научно-технический прогресс ввел некоторые перемены в творчестве народных поэтов. Средства информации, радио, телевидение и другие учреждения печати создали большие возможности для народных поэтов. Наряду с устным созданием стихов, посредством печати и издания они передавали и распространяли свои творения среди народа. И вдобавок к нему были написаны многие мелодии, созданные в духе народных мотивов и имело место распространения их среди населения.

В истории каракалпакской литературы народные поэты были постоянно с народом, отвечали требованиям того периода, общества, самого народа. Несмотря на то, что в каком периоде они жили, но жили и творили вместе с сознанием народа, с его духовностью. Народные



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поэты, жившие в конце XIX и начала XX века Аяпберген Мусаев, Казы Маулик Бекмухаммед улы, Жанабай Каратай улы, в их творчестве наблюдается жанр «тарийп» (воспевание, ода), в том числе наблюдается, как стихотворения, где воспета Родина, превратились в народные песни.

Основными источниками, ставшими образцами для народных поэтов, творивших в жанре «тарийп» являются фольклорные произведения и произведения представителей классической литературы.

устной художественной народной литературе, в классической литературе, в творчестве народных поэтов жанр «тарийп» развит очень сильно. Самым близким и ярким образцом в написании стихов о Родине для народных поэтов было стихотворение поэта Ажинияза «Еллерим барды». В каракалпакской литературе было отмечено о произведении Ажинияза «Еллерим барды», в частности о его создании, о восторженной любви к родной земле поэта, о воспевании высоких нравственных черт своего народа: «Когда поэт Ажинияз был с творческой поездкой у соседнего казахского народа, известный человек по имени Мырза Кожбан спрашивает у него, что за народ каракалпаки. Тогда поэт Ажинияз ответил Кожбану сочинив песню "Еллерим барды" с силой таланта импровизации. Поэт Ажинияз представитель каракалпакской письменной литературы. Одним из источников его творчества были фольклорные произведения. В описании красоты родной земли, быта народа, разума, нравственности и воспитания красоты юношей и девушек, он воспользовался готовыми мотивами, и это видно в следующих стихотворных строках:

Сорасаң елимди Қожбан бизлерден, Аты қарақалпақ еллерим барды, Қәте шықса кешириңлер сөзлерден, Қытай, Қоңырат атлы еллерим барды.

Жайлаўым - Үргениш, арқасы теңиз, Жаўырыны қақпақтай маллары семиз, Рухсатсыз бир-бирине салмас из, Бирликли Қоңыраттай еллерим барды.

Поэт Ажинияз с поэтическим мастерством воспевает природу родной земли, родного края. Посредством этого поэт указывает название местности, рода и племени, напрямую принадлежащие только каракалпакскому народу племенные единицы, изображает быт и жизнь каракалпакского народа, как и других тюркских народов места в истории Средней Азии и это очень важное значение имеет на сегодняшний пень

Атқа шыққан Ашамайлы, Қоңыратта, Қолдаўлы, Мүйтениў - барлық Қоңыратта, Қытай, Қыпшақ, Кенегесиў Маңғытта, Ат көтермес белли беглери барды. Сөйлегенде шекер етер сөзиңди, Көргенде биймахрур етер өзиңди, Бәҳәри тойдырар еки көзиңди, Мәйли - Зулайхадай қызлары барды.

Өтирикти рас етип айтпаған, Туўры жолдан бас кессе де қайтпаған, Нәмәхремди ҳасла жолдас тутпаған,

Аты қарақалпақ еллерим барды - так последовательно одно за другим воспевается отличительные черты народа. Культурные нормы народа является гордостью для него и поэт показывает это другим народам, отличительную особенность. Воспевание своего народа, как сына, который любит безгранично свидетельствует землю свою родную поэта народности Ажинияза. Он безграничную любовь посвящает посредством воспевания природы родной земли, национальных обычаев и традиций, смелости и храбрости молодых джигитов, нравственности, красоты каракалпакских женщин и девушек.

Продолжение произведения барды», посвященной теме Родины, написанного в жанре оды поэта Ажинияза находит свое произведении "ПйидеТ" продолжение В Аяпбергена Мусаева. Об этом высказаны следующее мнение учёного "Тәрийп" Аяпбергена, он созвучен с песней "Еллерим барды" поэта Ажинияза и написано под его влиянием. Но "Тәрийп" это не подражание, а оригинальное произведение. Так как Аяпберген творчески усвоил традиции своего наставника" - отмечает учёный К.Байниязов, который вёл научные исследования по творчеству поэта Аяпбергена Мусаева. В произведении "Тәрийп" поэта Аяпбергена воспевается восхищение поэтом родной земли:

Аржақ-бержақ болып еки сән болған, Бөлим-бөлим еллер қарақалпақта, Ғаңқылдасып үйрек ушып, ғаз қонған, Айдын-айдын көллер қарақалпақта.

Данышпан, хош сөзли фақам-идракли, Урыста бир өзи мыңға дерекли, Гөруғлы ҳайбатлы, Рустем жүрекли, Белли-белли жигит қарақалпақта.

Ғәрийп айтар: өтти неше жаҳангир, Ҳәрким елин жаман демес, жақсы дер, Мир Алишер, Жийреншеге тақаббил, Атақлы шайырлар қарақалпақта.

Народный поэт - это сила, одухотворяющая народ, окрыляющая его патриотические чувства. Стихотворение взято из реальной жизни народа, чувства народа переданы поэтом в поэтических строках: "Урыста бир өзи мыңға дерекли" ("Один



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на поле битвы равен тысячу"), как "Гөруғлы", "Рустем" грозный, храбрый эти поэтонимы является готовыми образами, взятыми из дастанов входит в традицию заимствования фольклорного мотива. Поэт использует образцы восточной классической литературы. В произведении воспевается "Айдын-айдын көллер", природные богатства, смелые, храбрые джигиты, красавицы девушки, которые оставили свой след в истории народа. В произведении ярко бросается в глаза чувство и настроение поэта, особенности мышления и речи. Лирика по своей природе поэтическое творение, воспевающее душевное состояние поэта. Восторженное состояние поэта в произведении продолжается следующим образом:

Қызлары бар қыя-қыя қаслары, Ийнин жабар өрим-өрим шашлары, Шашбаўында гәўҳар ҳасыл таслары, Ҳүр-перийзат қызлар қарақалпақта.

Бир қылдан нәзикдур қыпша беллери, Буўын-буўын тарқаналы әллери, Шекерден мазалы шийрин тиллери, Таза нәўжаўанлар қарақалпақта.

Восторженное состояние народного поэта поднимает настроение слушателя, читателя. Поэтому стихотворение читается с воодушевлением, и музыка в последних его строках и когда поется "карақалпақта", поднимается на верхний такт верхним протяжным голосом. Это в раскрытии содержания целого стихотворения созвучен его музыке.

Произведение народного поэта Казы Маулик Бекмухаммед улы "Шымбай баязы" написано в жанре оды и является одним из творений, превратившихся в народную песню. И этимология слова "баяз" означает "баян етиў" ("излагать"), "тэрийплеў" ("воспевать") поэт воспевает свою родную землю, где он сам родился - город Чимбай.

Әй-яранлар, енди бир сөз айтайын, Еситиңлер тәрийпини Шымбайдың, Бәрше қыз-жаўанның ўақтын хошлайын, Бир-бир баян етип елин Шымбайдың.

Улықлары оқыр ҳақтың санасын, Соңра айтып өткенлерге дуғасын, Нәзелимлер тағып тилла жағасын, Пәрийзаттай қызлары бар Шымбайдың.

Яз болса йигитлер атларын бақар, Ат мойнына лағлы-маржанлар тақар, Ғаним көрсе тәндин башыны қақар, Рустем киби жигитлери Шымбайдың.

Народный поэт Казы Маулик в начале своего произведения отмечает что, воспевание родной земли - это гордость для каждого человека. Если для молодых людей родная земля - надёжная опора, а для пожилых людей сила и мощь, оказывающая благополучие и спокойствие. Мирная и дружная жизнь населения города Чимбая, благополучие родного края является гордостью и счастьем для поэта.

Шекилген имладек қашы қарасы, Йүзине шашылур зулпы зиясы, Шамши қамар киби хусни-зибасы, Соныңдай қызлары бар Шымбайдың.

Он төртте көринген айдек йузлери, Қаш тагида уйнар қара көзлери, Берган шарабидек шийрин сөзлери, Махитабан қызлары бар Шымбайдың.

Барсаң қыдырыспаға анық елине, Бұлбил етип қондырарлар гүлине, Көзиң түссе қызларының жүзине, Перийзатдек қызлары бар Шымбайдың.

В этих стихотворных строках красота девушек сопоставляется с несравненной красотой красавиц из дастанов и сказок. Волосы, спущенные на плечи, красивое лицо девушек, брови, которые красиво начерчены, как буквы, подобнее луне лицо красавицы всё это освещается использованием фольклорного описания и комплексно изображает отдельную страну. Поэт Казы Маулик смог увидеть и воспеть красоту родной земли, благополучную жизнь народа с творческой фантазией, силой таланта и с прекрасными чувствами.

Созданные народными поэтами произведения в жанре оды, воспевающие родную землю - Родину: "Еллерим барды", "Тәрийп", "Шымбай баязы" превратились в народные песни, вобрав в себя символический образ.

Народ всегда в передаче своих внутренних чувств, сыновней любви к Родине, чувств национальной гордости пользуются стихами народных поэтов, поют их как свою оду родной стране.

Эти произведения, формирующие духовную пищу народа, его звонко постукивающего сердца для родной земли превратились в народные песни.



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THE EFFECTIVENESS OF TIMELINE INTERACTIVE WEB SERVICE IN DELIVERING LESSONS ON "HISTORY OF PERSONAL **COMPUTERS**"

Abstract: The article provides information on the role of timeline interactive web service in the educational process, the advantages of visualization of computer science topics using timeline and their application in the educational process.

Key words: Learning process, timeline, visualization, chronological table.

Language: English

Citation: Atamuratov, R. K. (2020). The effectiveness of timeline interactive web service in delivering lessons on "History of personal computers". ISJ Theoretical & Applied Science, 12 (92), 109-111.

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Introduction

World experience in the educational process, the introduction of network resources, modern programs and technologies, the creation of modern methods of acquiring new knowledge, reforming the educational process and the development of new organizational forms and methods of quality education, its implementation is becoming a demand day by day.

At the same time, the current state of the national education system requires the modernization of it on the basis of modern requirements, the implementation of consistent measures to educate young people as highly educated, the formation of modern knowledge and skills. To implementing these requirements, needs modern information education communication technologies to improve the learning

Indeed, the modern trends of society, the development of computer technology, globalization and the process of informatization have affected all including education. Identifying opportunities for the use of computers in the educational process and their implementation is one of the important factors in the effective organization of the educational process [1].

In our country, a number of scientific studies have been conducted to improve the education system, the use of modern methods that increase the

interactivity of the educational process in the organization of teaching. In particular, the scientific and methodological problems of teaching computer science, the introduction of information and communication technologies in the educational process, the essence of the organization of the educational process on the basis of Web technologies, the development of e-learning resources studied by A.Abdukadirov, M.Aripov, U.Begimkulov, I.Boynazarov, F.Zakirova, N.Taylakov, M.Fayziyeva, N.Khaytullayeva and many other scientists on the problems of creation and application and developed scientific and methodological bases.

Today, the rapid development of Internet technology is promising in the field of education. New methods of web-based learning, such as software, information resources, and technology, allow for person-centered learning at any time.

The technology of visualization of educational materials resonates with the pedagogical concept of visual literacy, which emerged in the late 60s of the twentieth century. This concept is based on the need for man to understand and know the world, the leading role of the image in the process of perception and understanding, the need to prepare the human mind for increasingly "visualized" world activities and gradually increase the information load. Modern educational trends require special preparation of



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teaching materials in a visible form, enriching them with basic or necessary information before presenting them to students.

Therefore, the technique of visualization has a strong place in the educational process. Examples include Mind map, Timeline, Infographics, and Scribing.

Not all Internet services are universal. They have a specific topic and the teacher must choose an Internet service that allows them to cover the topic in full.

Like many other disciplines, Computer Science provides information on historical dates, events and chronology.

With the help of such information, it is important to develop students' ability to understand and visualize the interrelationships and interactions of historical events. The TIMELINE interactive internet service can help us to effectively develop these competencies and teach students to work actively and interactively.

Maria Montessori, an Italian educator, was one of the first to introduce the use of time lines in education.

Timeline (English word "time line") is a Web 2.0 service that allows users to view, create, compare, and share interactive spreadsheets.

The interactive Internet service Timeline has its own scale, line, scale and arrows, which are used to create chronological and periodic lines [3].

Timeline is used in pedagogy as a graphic model. Serves to represent large amounts of chronological and chronological information in a graphical form. Such timelines can also include text information, photos, videos, and links to Internet resources.

According to Y.Eelmaa, timeline interactive web service is used in the learning process to form a systematic view of historical processes in students [5].

The generated timelines can be embedded in HTML code for online courses or web pages, or viewed using links.

In this case, students can create a single infographic image of different information:

- chronological and periodic
- information handling skills
- Complete mastery and generalization of the topic
 - Allows you to view the information provided.

Currently, there are several Internet services that create a timeline. However, there is no timeline in Uzbek. Services that allow you to work in other languages include Dipity (http://www.dipity.com), Tiki-Toki (http://www.tiki-toki.com) and others .

As an example, we can see the timeline for the topic 'History of personal computers' in computer science (Figure 1).

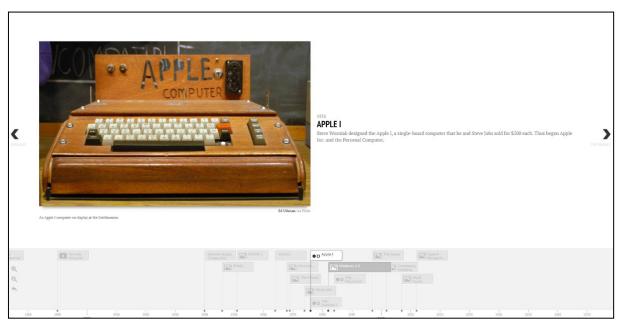


Figure 1. Personal Computer History Timeline

Here are some suggestions on how to look or get an appointment for computer science. These are:

1. By giving assignments for independent performance. Assignments can be made in the form of short descriptions of the most important dates on the topic, creating timelines on an independent topic,

and distinguishing and analyzing the significance of events.

2. In assessing knowledge. The chronological arrangement of events, that is, the correct sequence of events, is evaluated on the basis of their importance and how they reflect the interactions of the studied processes.



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3. When working in groups. Each student is given a separate topic, a timeline is created, and the timelines prepared by all students are summarized and used to fully understand and comprehend historical events. Any visual information helps to capture the reader's attention [6].

Understanding the representation of complex processes is simplified using simple elements, graphs, or combinations of diagrams [7].

This interactive tool can be used not only in computer science classes, but also in any subject.

Because any other optional subject also contains important dates and periodic information. The use of an interactive timeline tool for learning and understanding such information is effective in teaching.

In short, the timeline interactive service is one of the most innovative ways to deliver learning materials to students. These timelines serve as a simple tool that does not require specific knowledge to make learning more creative and productive.

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USING A FUNCTIONAL APPROACH IN THE MANAGEMENT OF INDEPENDENT WORK OF STUDENTS

Abstract: This research paper examines the concept of independent work, analyzes the interpretation and opinions of scientists. The essence and content of the activities of the teacher and student when performing independent work is revealed. Much emphasis in the scientific article is made on the functional approach and its role in the management of self-educational activities of students, as well as a pedagogical experiment was conducted to identify the productivity of the functional approach in the control of independent work.

Key words: independent work, self-education, activity, teacher, competence, competence, approach, functional approach, experiment.

Language: Russian

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ИСПОЛЬЗОВАНИЕ ФУНКЦИОНАЛЬНОГО ПОДХОДА В УПРАВЛЕНИИ САМОСТОЯТЕЛЬНЫХ РАБОТ СТУДЕНТОВ

Аннотация: в данной научно-исследовательской статье рассматривается понятие самостоятельной работы, проводится анализ интерпретации и мнении учёных. Раскрывается сущность и содержание деятельности преподавателя и студента при выполнении самостоятельных работ. Большой акцент в научной статье делается на функциональном подходе и его роли в управлении самообразовательной деятельностью студентов, также был проведен педагогический эксперимент для выявления продуктивности функционального подхода в контроли самостоятельных работ.

Ключевые слова: самостоятельная работа, самообразование, деятельность, преподаватель компетенция, компетентность, подход, функциональный подход, эксперимент.

Введение

Современная система высшего образования призвана формировать не только будущую социальную элиту, но и многочисленные слои работников умственного труда для разных сфер экономики, культуры, управления. Отсюда — неизбежная массовизация высшего образования, в том числе и широко развернувшаяся в нашей стране.

Самостоятельные работы всегда рассматриваются неотъемлемой частью образовательного процесса, но нужно учесть, что

в последнее время аудиторные часы студентов за неделю достигает около 32-36 часов, и у студентов не остается ни желаний, ни сил на самообразование.

Анализ литературы

Анализ научно-педагогической литературы свидетельствует о многоплановом толковании этого понятия. Под самостоятельной работой, как правило, понимают:

- метод обучения (И.Я. Лернер, А.В. Усова и др.);



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- вид учебной деятельности (И.А. Зимняя, Н.А. Никандров);
- разнообразные виды работ, выполняемые без непосредственного участия преподавателя, но регламентированные его заданием, при проявлении обучающимся усилий и активности (Ю.К. Бабанский, И.П. Подласый и др.);
- целостную систему, носящую двусторонний характер: как объект деятельности (учебное задание) и как форму проявления определенного вида деятельности (А.Д. Алханов, П.И. Пидкасистый, В.С. Сенашенко и др.);
- форму учебного занятия (В.А. Сластенин, Н.Ф. Талызина); средство обучения (Т.И. Шамова и др.) [1, с. 423].

Самостоятельная работа — это активные формы и методы обучения, это единство учебновоспитательной и научно-производственной работы, это сотрудничество студента с преподавателем.

Самостоятельная работа студента может быть, как аудиторной, то есть выполняемой в ходе аудиторных занятий по расписанию, так и внеаудиторной и включает:

- подготовку к аудиторным занятиям и выполнение соответствующих заданий;
- выполнение самостоятельных заданий в лабораторных и теоретических практикумах, на семинарах и практических занятиях;
- работу над отдельными темами учебных дисциплин;
 - выполнение контрольных и курсовых работ;
- прохождение практик и выполнение предусмотренных ими заданий;
- подготовку ко всем видам контрольных испытаний;
- подготовку к итоговой аттестации и выполнение квалификационной выпускной работы;
- участие в научной и научно-методической работе, в научных и научно-практических конференциях и семинарах [2, с. 103-104].

Анализируя публикации по данной тематике, можно выделить несколько подходов авторов к управлению самостоятельной работой студентов. Это «поэтапный» [3], «компетентностный» [4, с.280], «индивидуально-типологический» [5, с.14-15] и «интегративный» подходы [6, с.90]. Хотелось бы предложить еще один подход —

функциональный с позиций теории управления, а точнее, педагогического менеджмента.

Это определенной мере позволит В преодолеть разнобой, отсутствие TOT согласованности, правильного соподчинения понятия «управление» и его функций – планирования, организации, координации, мотивации и контроля.

Начало функционального подхода управлению самостоятельной работой студентов можно обнаружить в некоторых публикациях. Например, О. А. Виницкая обращает внимание на то, что «сущность управления самостоятельной заключается его В планировании, организации, координации и контроле» [7, с.74]. Здесь не выделена функция мотивации, хотя автор опирался на результаты диссертационного исследования Афанасьевой, котором рассматриваются содержательные стороны современной теории педагогического менеджмента применительно к управлению самостоятельной работой учащихся лицея [8], а также на диссертационное исследование Г. Н. Юшко об организации самостоятельной работы студентов в условиях рейтинговой системы обучения [9, с.313].

Функции управления самостоятельной работой студентов рассматриваются в публикации А. В. Перевозного: «На всем протяжении самостоятельной работы преподаватель может выполнять следующие основные функции: мотивирующую, консультирующую, координирующую, контролирующую» [10, с.75-76]. К сожалению, и здесь названы не все основные функции управления, а именно функции планирования и организации. В более полном функции УСРС (планирование, организация, контроль, мотивация) представлены в публикации доцента БГУКИ С. А. Павловой [2, c.103].

Основная мысль научной работы

Мы считаем, что неотъемлемой частью в выполнении самостоятельных работ студентами играет преподаватель и его педагогическая деятельность. В нижеприведенной таблице мы привели содержание деятельности преподавателя и студента при выполнении самостоятельных работ.

Таблица №1. Содержание деятельности преподавателя и студента при выполнении самостоятельной работы

Основные характеристики	Деятельност	ь препода	вателя	Деятельность студентов
Цель выполнения	- Объясняет	цель и	смысл	- понимает и принимает цель
самостоятельной работы	выполнения	самосто	ятельных	самостоятельных работ как
	работ;			личностно значимую;
				- знакомится с требованиями.



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Мотивация	- дает развернутый или краткий инструктаж о требованиях, предъявляемых к самостоятельным работам, и способах ее выполнения; - демонстрирует образец самостоятельной работы - Раскрывает теоретическую и практическую значимость выполнения самостоятельных работ, тем самым формирует у студента познавательную потребность и готовность к выполнению самостоятельной работы; - мотивирует студента на	- Формирует собственную познавательную потребность в выполнении самостоятельной работы; - формирует установку и принимает решение о выполнении самостоятельной работы
Управление	достижение успеха - Осуществляет управление путем целенаправленного воздействия на процесс выполнения самостоятельной работы; - дает общие ориентиры выполнения самостоятельных работ	На основе владения обобщенным приемом сам осуществляет управление самостоятельной работы (проектирует, планирует, рационально распределяет время и т.д.).
Контроль и коррекция выполнения самостоятельных работ	-Осуществляет предварительный контроль, предполагающий выявление исходного уровня готовности студента к выполнению самостоятельной работы; - осуществляет итоговый контроль конечного результата выполнения самостоятельной работы	- Осуществляет текущий пооперационный самоконтроль за ходом выполнения самостоятельной работы; - выявляет, анализирует и исправляет допущенные ошибки и вносит коррективы в работу, отслеживает ход выполнения самостоятельной работы; - ведет поиск оптимальных способов выполнения самостоятельной работы; - осуществляет рефлексивное отношение к собственной деятельности; - осуществляет итоговый самоконтроль результата самостоятельной работы
Оценка	- На основе сличения результата с образцом, заранее заданными критериями дает оценку самостоятельной работы; - выявляет типичные ошибки, подчеркивает положительные и отрицательные стороны, дает методические советы по выполнению самостоятельной работы, намечает дальнейшие пути выполнения самостоятельных работ; - устанавливает уровень и определяет качество продвижения студента и тем самым формирует у него мотивацию достижения успеха в учебной деятельности	- На основе соотнесения результата с целью дает самооценку самостоятельной работы, своим познавательным возможностям, способностям и качествам



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impact ractor:	GIF (Australia)	= 0.564	ESJI (KZ) = 8.9	97 IBI (India)	= 4.260
	JIF	= 1.500	SJIF (Morocco) = 5.6	67 OAJI (USA)	= 0.350

Отталкиваясь от вышеприведенной таблицы можно утверждать, что деятельность педагога является неотъемлемой части процесса, он мотивирует своих студентов, этим самым формируя их познавательную потребность в выполнении самостоятельных работ, он управляет

процессом, контролируя и корректируя, и оценивает.

Вкратце изложим рекомендации преподавателю по управлению самостоятельной работой студентов на основе функционального подхода:

Таблица №2. Рекомендации управления самостоятельной работк на основе функционального подхода

N_{2}	Наименование	описание
1	Планирование	преподавателем связано с определением целей, путей и средств их
	самостоятельных	достижения. При этом должен быть хорошо продуман весь процесс
	работ	управления: от его организации до мотивации и контроля учебных
		достижений студентов. В зависимости от наличия и доступности курса
		лекций, учебника или электронного УМК планируются объем и тематика
		самостоятельных работ, а также различной формы и сложности задания для
		студентов (в том числе индивидуальные). Планируемая работа отражается в
		индивидуальном плане преподавателя и учебной программе (на титульном
2	Опротитории	листе, в пояснительной записке, в учебно-методической карте»)
2	Организация	преподавателем направлена на создание оптимальных условий для
	самостоятельных работ	своевременного выполнения всеми студентами запланированных работ с необходимым уровнем качества. Для этого им разрабатываются учебные
	paoor	задания различного уровня продуктивности так, чтобы по своему объему и
		сложности они органично вписывались в разрабатываемые планы-графики
		(особенно в условиях модульного обучения). На первом аудиторном занятии
		эти планы-графики и задания объясняются и доводятся до студентов, включая
		предстоящие формы и сроки отчетности и контроля, а также методические
		указания по рациональному выполнению заданий. Организация предполагает
		практические действия преподавателя по материально-техническому
		оснащению и приобретению или разработке полноценного учебно-
		методического обеспечения самостоятельных работ. Преподаватель не
		должен допустить, чтобы все занятия по дисциплине были поставлены в
		начале или в конце семестра. Они должны распределяться равномерно
3	Коррекция	проводится в целях устранения проблем, затруднений, испытываемых
	самостоятельных	студентами при ее выполнении. Причины этих затруднений могут быть
	работ	выяснены в ходе анализа результатов промежуточного контроля, а также в ходе проводимых коллоквиумов, общих и индивидуальных консультаций,
		бесед со студентами. Отличие коллоквиума от консультации в том, что в
		первом случае вопросы задает преподаватель, а во втором – студенты. При
		беседе вопросы и ответы предполагаются с обеих сторон.
		Функцию коррекции можно назвать также регулированием, когда речь идет о
		ликвидации отклонений от планов, графиков, расписания, от стиля активного
		сотрудничества со студентами и т. д
4	Мотивация	предполагает действия преподавателя, направленные на активизацию
		самостоятельных работ, на раскрытие ее ценностно-смыслового значения для
		студентов, которых нужно на деле убедить, что самостоятельная работа – это
		специфически вузовская форма обучения, в отличие отшкольной или даже
		аудиторной формы обучения в вузе, где обучающимся традиционно
		предлагается педагогически адаптированный (готовый к запоминанию)
		учебный материал. Функция мотивации в подобных случаях сводится к
		формированию потребностей, убеждений, интересов ижеланий студентов. В целях мотивации преподаватель должен в учебных заданиях, на
		целях мотивации преподаватель должен в учебных заданиях, на консультациях и т. д. постоянно подчеркивать значение самостоятельная
		работа для будущей профессиональной деятельности, использовать
		накопительные системы оценок в баллах для самоутверждения студентов, а
		также для облегчения сдачи итоговых зачетов и экзаменов по дисциплине.
	<u> </u>	and



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5	Контроль	позволят преподавателю измерять и оценивать выполнение студентами
	самостоятельных	запланированных заданий, получить информацию для своевременного
	работ	выявления недостатков и выработки корректирующих действий. Например,
		низкие оценки текущего контроля у большинства студентов являются
		основанием для внесения изменений в ее организацию.

Экспериментальные работы

Был проведен педагогический эксперимент в Узбекском государственном университете мировых языков. Были выбраны две группы второго курса факультета русской филологии

Таблица №3. Количество студентов в группах

Группы	Группа №1	Группа №2
Количество	14	14
студентов		
Количество	11	13
девочек		
Количество	3	1
мальчиков		

Были составлены требования оценивания gj сто бальной шкале.

Таблица №3. Критерии оценивания

N₂	Баллы	Оценка
1	100-86	Пять (отлично)
2	85-71	Четыре (хорошо)
3	70-56	Три (удовлетворительно)
4	55-0	Два (неудовлетворительно)

Двум группам были даны идентичные задания самостоятельных работ. Первой группу мы контролировали, используя функциональный

подход, а вторая группа пошла на свободное плавание.

Таблица №4. Итоговая оценка групп

№	1-группа	2-группа
	71	57
	80	60
	80	72
	80	74
	82	74
	83	77
	84	78
	86	80
	86	81
	86	84
	86	86
	87	86
	88	86
	88	88

По вышеприведенной таблице видно, что показатели группы №1 превышают показателей второй группы. Используя простую среднюю

арифметическую формулу можно определить, что показатели центра распределения первой группы составляет **83**



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$\sum_{x=1}^{\infty} x_i$	$=\frac{1167}{1167}$
$x = \frac{1}{n}$	-

Но даже в группе №1 не все студенты получили высокие оценки. Разновидность оценок между максимальным и минимальным баллами составляет 17 баллов

$$R = xmax - xmin = 88 - 71 = 17$$

Опираясь от таблиц с баллами первой группы можно сказать, что каждое значение ряда отличается от среднего значения 83 в среднем на 4.418.

Показатели группы №2 намного меньше показателей группы №1, преподаватель не контролировал их самостоятельную деятельность. Используя простую среднюю арифметическую формулу можно определить, что показатели центра распределения первой группы составляет 77

$$\bar{x} = \frac{\sum x_i}{n} = \frac{1083}{14} = 77$$

Разновидность оценок между максимальным и минимальным баллами составляет 31 балла. В

данной группе очень много студентов держали материал в руках, но не понимали сути своей работы.

$$R = xmax - xmin = 88 - 57 = 31$$

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OAJI (USA)

= 6.630

= 1.940

=4.260

= 0.350

Выводы экспериментальной работы

Опираясь от таблиц с баллами второй группы можно сказать, что каждое значение ряда отличается от среднего значения 77 в среднем на 9.139.

Педагогический эксперимент проверки использования функционального подхода в самостоятельной деятельности студентов дал положительный результат. Группа №1 (экспериментальная группа) из 14 человек получили в среднем 83 балла. Группа №2, которая состоит из 14 человек, получила 77 баллов. Показатели группы №1 на 6 баллов выше показателей группы №2

Заключение

Таким образом, мы пришли к выводу, что управляемая самостоятельная работа — это самостоятельная учебная работа студента по овладению общекультурными и профессиональными компетенциями, планируемая, организуемая, корректируемая, стимулируемая и контролируемая преподавателем.

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GEORGIANS AND THEIR MANNER OF DRESS IN THE RESOURCES OF XV-XVII CENTURY ITALIAN AUTHORS

Abstract: The article contains valuable information about the Georgian people gathered from the works of Italian authors (travelers, ambassadors, missionaries) of the XV-XVII centuries. The aim of the research is to emphasize the significance of cultural realities seen and described through the eyes of foreigners - against the background of the scarcity of this kind of materials in Georgian resources of that time.

The main focus was on the description of life standards, characteristic features, clothes, appearance and illustrative engravings. It is concluded that foreign references of the XV-XVII centuries helps to recognize Georgia's historical importance and cultural identity of the nation.

Key words: Travelers, engraving, Georgian clothing, Italian sources, Georgia, manuscript.

Language: English

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Introduction

Located at the crossroads of Asia and Europe, as the successor of ancient Colchis and a small country, which persistently defended Christianity in the surrounding Muslim world, Georgia has always been an object of interest for foreign travelers. Due to the travelers' records Georgia attracted the attention of the European Community and ongoing events were consecutively reflected in the press and various publications. In the XV-XIX centuries, Georgia drew a great deal of interest from the diplomatic authorities of the Vatican Curia and Venice. Thanks to the very reports and memoirs provided by the missionaries and ambassadors we have access to the most valuable

information that can be scarcely found in Georgian resources. The data concerns various nuances, morals and customs, daily lifestyle of the Georgian people as well as their characteristic features, appearance and manner of dress. It's of great significance to take all those important facts seen from the outside through the eyes of a foreigner, but it's noteworthy that mostly religious, ethnic or political bias and partial attitudes had a tendency to give a wrong and distorted picture. Therefore, some foreign travelers admired the Georgian people (thankfully the majority of them) but others seemed to be critical of them. Nevertheless, daily life images, perceived and described through the



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eyes of foreigners, still remain fascinating for the general public.

The manuscript resource – "Livre des merveilles" by the Venetian traveler and merchant Marco Polo (1254 - 1324) contains some information about the Georgians and illustrative materials [1]. The manuscript is included in an extensive collection dating back to 1410-1412, which combines the stories of the first European travelers to distant China and other Asian countries (works by a total of seven authors).

Marco Polo, who travelled via the ancient trade route, the silk road through Georgia to reach China, along with the description of the mountains regions of Georgia and its capital, the author also writes about the Georgians as follows: "The people are very handsome, capital archers, and most valiant soldiers. They are Christians of the Greek Rite, and have a

fashion of wearing their hair cropped, like Churchmen". Marco Polo also emphasizes the tradition of making valuable gold silk fabric material in Georgia: "Silk is produced in great abundance. They also weave cloths of gold, and all kinds of very fine silk stuffs" [2, p. 31-32].

One of the miniatures of the manuscript depicts King David-Ulu hunting (fol. 8r) [1, p. 19]. There is a hawk or falcon on the King's shoulder which is trained for falconry (figure -1). The miniature is made by the Master of the **Mazarine**. Mazarine couldn't have been an eyewitness and could not have had any instructions from the author about the appearance and clothes of the Georgian king. Therefore, his clothes are of European style and do not look like the hunting clothing, so called "kabarcha" that the Georgian kings and nobles used to wear [3, p. 34].



Figure 1 - A miniature from a book by Marco Polo



Figure 2 - Georgian - Engraving from the book of Cesare Vechelio



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The miniature is valuable as it is the first painting made in Europe. However, it isn't entirely authentic, with the image of a Georgian historical figure – David VII i.e. David Ulu king of Georgia.

Chronologically the following source is by the Venetian merchant, Josaphat Barbaro (1413 -1495), who was a diplomat and a statesman as well. Within 1436-79 he lived and travelled in various countries. He described his long journeys and wrote a book "Travels of Josaphat Barbaro, Ambassador from Venice to Tanna, in 1436" based on his experiences. It contains political-economic and ethnographic information about the morals and ethics of different countries, including Georgia and the Georgians: "The people are very handsome and well made, but they have the most horrid manners, and the worst customs of any people I ever met with. Their heads are shaved, except a few hairs all around, like our rich abbots; and they wear whiskers, six inches long. On their heads they wear a cap of various colours, with a feather on the top. Their bodies are covered by a strait-bodied jacket, having tolerably long skirts, which are cloven behind, quite up to their loins, as otherwise they could not conveniently sit on horseback; but I do not blame them for this fashion, as the French wear the same kind of dress. On their feet and ankles they wear boots, but the soles are so strangely made, that when a man walks, his heels and toes only touch the ground, while the middle of the foot is raised up so high, that one may thrust the fist through below; and thence they walk with great difficulty" [4, p. 45].

Within 1473-1477 Ambrogio Conrarini (1429 - 1499), a Venetian diplomat tralelled twice through Georgia. He was the ambassador of Venice to Persia to Uzun Hassan's court. Contarini wrote about his travels and diplomatic missions in his work "Viaggio al signor Usun Hassan re di Persia", in which he described Georgia as well. The author gives brief information about the cities of Batumi, Poti (Faso), Kutaisi, Gori and Tbilisi. In general, he refers to the lifestyle and customs of the population, for example, he says that the Megrelians "sell thickish canvas fabric and wax." It should be noted that due to the hardships, illness, robbery (both by the kings and the robbers) and the many sufferings that befell him during both travels, the author was not utterly fascinated by his travels in Georgia, therefore, his story is characterized by the tendency.

He refers to Georgians as foolish, capricious, less hard-working people. It is true that he repeatedly acknowledges the outward appearance of charismatic Georgian men, but he also talks about the strangeness of their behavior and even regards Georgian clothes as eccentric [5, p. 50].

In the beginning of 1539, the Venetian ambassador **Michele Membrè** (1509 - 1594) traveled to Georgia, in particular to Samegrelo, Imereti and Kartli, and was sent by the Venetian authorities to

Persia to Shahtamaz's court. He described his travels in his book "Mission to the Lord Sophy of Persia (1539-1542)". In the report, Membre covers the trade relations between the Ottomans and Georgia and describes the way the Megrelian peasants and the nobles dress: "The Mingrelians go very poorly dressed, all with short cotton clothes and unshod, which we value for nothing. But it is quite true that all their feet look as if they were scabby. They wear on their heads a piece of felt like a mitre; they are all very small. To the north are many high mountains. The Mingrelian gentlemen wear very long clothes and a pair of boots of sheepskin leather, not having a leather sole but all of that sheepskin; also coloured felt on the head; and they are unbearded, with long moustaches such as the Iberians [eastern Georgians] have..."

Membre describes the outward appearance and attire of the nobilities in the following way: "And they wear clothes, that is very long stockings of cotton cloth, of very coarse cotton, and cloth breeches, with, over the stockings, boots of sheepskin leather, and a quilted shirt of coarse cotton cloth, and a very long dolman of cotton cloth; and on the head a felt hat with a very long fine top. Which felts are coloured. Their arms are swords, lances, shield, bow and arrows, iron mace, mail coat, cuirassine, half helmet, plate gauntlets, good horses with good silk covers such that an arrow cannot go through them" [6, p. 109; 7, p. 255].

The books by the Italian artist, engraver and publisher **Cesare Vecellio** (1521-1601) with engravings of costumes of the world population mustn't be omitted. The author had been updating, diversifying and re-publishing his works over the years. The 1590 edition "**Habiti antichi et moderni di tutto il mondo**" includes 419 engravings (on wood), of the costumes of the people from different countries all over the world. It also includes a commentary with a more or less complete description of the items of clothing and headwear. 2 pages in the book are dedicated to Georgian costumes [8, p. 453]. One of them describes Georgian clothes and a headscarf, the other presents an engraving with the image of a Georgian man (figure - 2).

The book seems to have aroused public interest, as evidenced by its multiple editions in 1598, 1625, 1859-60, not only in Italian but also in other languages.

General information about Georgian costumes can be found in the Georgian-European diplomatic materials of the XVI-XVII centuries. Especially, a rather extensive document sent by **Marco Antonio Abanio** to Cardinal Santa Severina in Rome contains information about Georgia.

The above mentioned facts were obtained thanks to the ambassador of the King of Kartli- Simon I the great, named Alexander. Apart from the description of geographical location, natural conditions and cities of Georgia, it involves some information concerning



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their way of dressing. "The population is suffering from extreme weather, which is caused by heavy snow that covers the above-mentioned mountains but they enjoy wearing the clothes made of animal skins and bombazine cloth as well. Georgian women wear a variety of fabrics richly decorated with goldthread and silk. They are beautiful and they are brave spirits". The author also emphasizes the abundance of silk in Georgia [9, p. 191].

An engraving with a portrait of King Simon I of Kartli dates back to the same period (figure - 3). The engraving "Simeon prencipe de Giorgiani" has the author's last name - Giovanni Orlandi and the place of its origin - Rome¹ [10]. This makes it possible to give the graving an approximate age. The author of the portrait, Italian engraver and publisher Giovanni Orlando lived in Rome until 1590 and then in Nepal within 1590-1640 .Thus, we can conclude that the graving had been created by 1950 [11].

Italian traveler, historian and diplomat **Pietro Della Valle** provided very interesting information about Georgia and Georgian people. He had never had a chance of visiting Georgia by himself. He just got acquainted with some Georgians while he was staying in Iran and the relationships had a special impression on Pietro. He was so fascinated by their strong character, chivalrous spirit and beauty of Georgian women that he immediately got interested to familiarize himself with the history of Georgia as well as its political situation.

Della Valle wrote about Georgia and Georgian people in regular letters to Naples and in a report to the Pope "Informazione della Giorgia data alla Papa Urbano VIII l'anno 1627"², as well as in his works - "Account of Shah Abbas" (1628) and "The Adventures of Signora Maria Tinatin Ziba, the second wife of Della Valle" (which tells the story of his wife, a Georgian girl - Mariam Tinatin de Ziba (Mariuccia). It describes the history-geography of Georgian kingdoms and principalities, customs, pictures of life and current political and economic situation. The letters tell the story of King Luarsab, the tragedy of the sons of King Teimuraz I. Della Valle expressed her deepest sympathy for Queen Catherine, who had been at the Shah's court for a long time after her martyrdom, he got the Theatine fathers to sent the Queen's sacred parts as relics to Rome which he kept to himself.

The author always found words of praise for Georgians: "I consider Georgians one of the most beautiful nations in the world". They are truly shrewd, sharp-minded, considerate, polite, gentle, decorous, warm-hearted, but proud, arrogant, ruthless and unpardoning at the same time".

Valle precisely perceived the psychological type of a Georgian. He writes the following: Georgians are brave, but less unanimous in an action; they tend to carry out hostile acts and spread hatred among people to kill each other. Generally, they are calm, obedient, kind-hearted, and simple in relationship; "They are not stubborn, liars, two-faced during the negotiations and every good deed can be resolved with them" [12, pp. 29-64].

During the same period, another Italian missionary, Francisco-Maria Maggio, was the first to lay the foundation for the scientific study of the Georgian language. Throughout his eight-year missionary service in Georgia, he thoroughly studied the Georgian language and after returning to his homeland, he published a solid research on "Grammar book" [13, pp.92-95]. This was an important publication by which European Kartvelologists studies) (Kartvelian received information about the Georgian language until the 19th century.

The Georgian public is also aware of the works of the Italian missionary, Theatine father with the holy order Arcangelo Lamberti 1630-1649 and his contributions in Georgia, especially in the principality of Odisha. As he returned to his homeland – Naples in 1653, he published the book "Relatione della Colchide hoggi detta Mengrella, nella quale si tratta dell'origine, costumi, e cose naturali di quei paesi". This edition is, in fact, the first extensive work about Georgia. The book provides a comprehensive overview of the political and socio-economic situation, life and culture, local customs and natural resources of the Odisha county and Georgia in general. The whole chapter is dedicated to Georgian attire. He describes people of different rank and clearly illustrates their clothing, headwear and footwear. His description clearly demonstrates extreme hardship of the poor and privileged condition of superior nobilities towards their inferiors. In addition to everyday attire, the author also describes festive attire- with luxurious fabrics (velvet, brocade) with the lining of zibeline and embellished with gold and pearl buttons. He remarks that they have several these kinds of clothes of different fabrics designed for special occasions. Lamberti's attention is not limited to other types of attire, be it the noble ladies 'equestrian clothing, the warriors' harness, or the robes of the clergy. The author describes these types of clothes in detail and gives high marks [14, pp. 26-45, 74, 1191.

Later, in 1657, Lamberti published a second book – "Colchide sacra", which is little known to Georgian readers. It tells the whole story of the

and traveler Melchisedrk Thevenot (1620-1692) in his work - "Relations de divers voyages curieux qui n'ont point été publiés".



¹ The engraving is currently preserved in the Vatican Museum.

² Pietro della Valle's report is kept in the Vatican Library. The document was published by the famous 17th century French writer

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Theatine mission sent to Georgia by the Pope Curia in 1631-1649.

The work of the Italian missionary, theatine father with the holy order, **Cristoforo de Castelli**, the same as Teramo Castelli (1597-1659), is very important for the study of Georgian lifestyle of the 17th century. The materials (sketches compiled into seven skeletal albums, visual documents, official reports, etc..) collected by this versatile teacher, which are scattered in Italian libraries and archives, are truly invaluable and provides inexhaustible source to describe any aspect of current Georgian realities. Therefore, we will only touch on it here in general. Castel has not neglected peculiarity of any part of

Georgia. In his work he pays equal attention to the portrait images of kings and a completely lower stratum (figure - 4), the characteristic environment of their existence and activities (feasting, baptism, mourning, burial, agricultural activities, sports competitions, hunting, etc.) designs of buildings, descriptions of clothing and jewelry, scenes of missionary activity, fantastic stories - all seen with his own eyes and things that he experienced himself. Interestingly, when creating portrait sketches, the author is able to fully convey the appearance and character of a person, to describe his features and characterize the clothes. Moreover, he clearly depicts his attitude towards the individuals.



Figure 3 - King Simon I, engraving by Giovanni Orlando



Figure 4 - Pictures from Castel's album: a - King Alexander III of Imereti; b - A peasant woman with a child



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According to what has already been mentioned above, we can conclude that Christopher Castelli, an erudite chronicler, - with his knowledge-education and practical work has contributed greatly to the Georgian historical science [15, p. 458; 16, pp. 29-72; 17, pp. 49-60].

Interesting information about Georgians is contained in a report on a mission in Georgia (Dionigio Carli da Piacenza II Moro, 1687, Bassano) by the Italian Catholic Missioner Dionigi Carli da Piacenza. It is valuable source concerning the living standards of Kartli-Kakheti in the 1980s and different aspects of public life. He meticulously described their manner to dress, wedding, mourning, horse riding, "Kabakhi" (old Georgian equestrian game), tennis, etc. The missionary describes in detail the ceremony of putting on a robe presented by the khan. The way to dress had its own rite and the king had to disrobe in front of people gathered on the square to witness how he put on new item of clothing gifted by the Shah. These and other similar

descriptions are indicative of the author's in-depth observation skills [18, pp.160-176].

Conclusion

Undoubtedly, in the XV-XVII centuries the Italians showed little interest in Georgia. Particularly active are the periods when the Venetian government forged to establish diplomatic relations with the countries of the East, while the Pope's Curia intensively sent missionaries of various orders to Georgia to propagate Catholicism. Their interest today, even after so long, really gains high topicality. Not only because it livens real pictures of the lifestyle, character and appearance of Georgians of the XV-XVII centuries seen through the eyes of Europeans, but also it allows to regard Georgia as a Christian country that retains the cultural identity of the nation.

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IMPROVING MECHANISMS OF PREPARING CHILDREN FOR SOCIAL LIFE IN DISABLED FAMILIES

Abstract: The article describes the pedagogical mechanism of preparing children from disadvantaged families for social life creates.

Key words: flawed family, gerantopedagogy, competency approach, social life, man-made factors, activity, method, hermeneutic, psychotherapeutic, adaptive.

Language: English

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Introduction

In our country, special attention is paid to improving the system of preparation of orphans and children from orphans for social life, the introduction of innovative educational technologies based on national and international experience. At the same time, the program requires the gradual development of a preventive system for the prevention of social orphanhood, the improvement of pedagogical conditions for the preparation of children raised in single-parent families for independent living.

The Decree of the President of the Republic of Uzbekistan dated February 7, 2017 "On the Strategy of further development of the Republic of Uzbekistan" PF-4947 sets important tasks such as "Protection of the rights of children from orphans and low-income families, increasing social activity, improving living conditions." . This shows that the development of a system of social support for children from disadvantaged families is a topical issue.

The family is the creator, preserver, modernizer and enricher of the national values of its family tree in the process of its socio-cultural development. The perfect fulfillment of such human duties by each family determines its importance as a social institution that embodies our national spirituality.

Our nation considers the family as a "hearth of education" and emphasizes that the upbringing of children's spiritual and moral qualities in the family is an important factor in ensuring the effectiveness of national education. In particular, "National feeling is natural for a person because it is inherited from the parents and is expressed from the first word that the child says to his parents, to the whole world. Without cultivating love and respect for one's own people, its traditions, language and culture, it is impossible to cultivate a real person, a devotee of his homeland, who perceives the nation of his people as one of the equal in the world community. These ideas are also reflected in other sources that reflect the spiritual and enlightenment reforms.

In particular, in the booklet "The idea of national independence: basic concepts and principles" "The family is one of the most important social factors of ideological education. Because the family is the foundation of society and has centuries-old strong spiritual foundations. The first concepts inherent in our national ideology are first and foremost absorbed in the family environment. This process is carried out through the fertilization of the ancestors, the example of the father, the love of the mother. A healthy family environment is the most important source of forming a healthy ideology. Ensuring the stability, well-being, mutual respect and harmony of every family is the basis for the realization of the goals of the national ideology.

In recent years, special attention has been paid to the study of human socialization (here it is not the



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person, but the person, and therefore the person is formed in the process of social relations, that is, only the socialized person is manifested as a person) and the elimination of negative social influences.

The socialization of a person is a long-term, continuous, multifaceted and complex process that covers his entire life, and in the process he develops certain knowledge, skills to adhere to social ethics, respect for national and universal values. According to MA Galaguzova, LV Kolomiychenko, MA Kovalchuk, although the socialization of a person

occurs throughout his life, the most favorable period in this process is the years of childhood and adolescence. After all, it is during these periods that a person acquires social norms, acquires the skills to follow them, enters into social relations and acquires the experience of their successful organization.

To clarify these pedagogical conditions, the following pedagogical mechanism for preparing children for social life in single-parent families has been proposed.

Table 1. Pedagogical mechanisms of preparing children for social life in single-parent families

Objective and regults to improve the nedegogical m	schonisms of propering shildren from disadventered families	
Objective and result: to improve the pedagogical mechanisms of preparing children from disadvantaged families for social life and to form a positive attitude to social life		
Principles of preparing children for social life in single-parent families		
the humanity of upbringing;	the principle of community of social education;	
the principle of cultural compatibility of education;	the principle of joint action of social education;	
the principle of variability of education;	the principle of continuity of education.	
	hildren for social life in single-parent families	
- communication with the wrong family;		
to establish a relationship with a child brown	ight up in a single-parent family;	
study the family's lifestyle, aspirations, into	• • • •	
1	een family, community and educational institutions, as well	
as the media and other social structures	cen rainity, community and educational institutions, as wen	
	n for social life in single-parent families	
	ad aesthetic direction Sports and fitness direction	
Socio-domestic difection Culturar ai	Sports and fitness direction	
	ation of pupils for social life	
By field of application: global; regional	According to the field of methods: socio-	
technologies.	psychological; socio-pedagogical;	
By objects: group, individual technologies. Depending on the nature of the tasks to be solved:	socio-pedagogical support; technologies of socio-pedagogical correction of social	
organizational; information; innovative; social	situations.	
modeling technologies.	In the areas of social work: social protection of	
modeling technologies.	childhood:	
	socio-pedagogical rehabilitation of children;	
	social adaptation; social counseling.	
Evaluat	or-result block	
	al life in single-parent families (observation, questionnaires,	
development of registration tables), diagnosing the m		
Components and indicators of preparing	children for social life in single-parent families	
Component	Indicators	
Introduction to social relationships is a cognitive component focused on building skills and competencies.		
A component of activities focused on striving for success, self-confidence, analyzing the situation, and making optimal decisions.		



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Participation in group activities is a component focused on the formation of communicative skills, emotional values.

- the emergence of social motivations for cooperation with adults and peers;
- -formation of age-appropriate personal qualities required in the process of socialization;
- -Enrichment of the experience of spiritual and moral relations with peers.

Based on the results obtained on the pedagogical mechanisms of preparing children for social life in single-parent families, the following was achieved.

Defining the structure of the process of preparing children for social life in disadvantaged families, optimizing the educational impact of close adults, ensuring the compatibility of person-centered, hermeneutic and psychotherapeutic approaches to the educational process, pedagogical and prophylactic features of preparing children for social life on the basis of secondary school and community cooperation. Improving the practical component of the gerontopedagogical model of preparing children for social life in single-parent families, intergenerational cooperation, transformation of spiritual and moral characteristics, ensuring the sustainability of the impact of national educational methods on everyday life.

On the basis of a competent approach, scientific and methodological recommendations have been developed for the systematic organization of cooperation between the class teacher, school psychologist, social worker and specialists of the regional departments of the Center for Spirituality and Enlightenment in preparing children for social life in single-parent families.

The mechanism developed in the course of the research allows to ensure the interconnectedness of several types of knowledge, their integration into a single form or system, enriching the studied information with valuable content, and thus preparing children for social life in disadvantaged families. Through the development of educational resources of gerontopedagogy, attention was paid to the issues of practical application of the life experience of the elderly, the role and status in society. In this regard, the importance of the principles of mutual kindness, high level of culture, humanity in the development of relations with the elderly, parents and children, generations in the spirit of our national values has been scientifically substantiated.

The role and importance of gerontopedagogy in preparing children for social life in single-parent families is very high. It analyzed the example of gerontopedagogy in the preparation of children for social life in single-parent families, ways to effectively use the experience, folk pedagogy, its criteria, technologies, pedagogical capabilities.

It is known that the family is the main criterion in the formation of moral values, and the family, school, community and community organizations. It is expedient to carry out their activities in unison.

The upbringing of children on the basis of national values is a pedagogical process carried out through traditions and practices that meet both national and modern requirements. The pedagogical process in the family is an important factor in fostering a sense of humanity, national identity, commitment to national values in the younger generation, the appropriate use of the basics of education based on national values, gerontopedagogical (pedagogy of the elderly), parental reliance on the lifestyle and characteristics of the older generation.

The solution of such pressing problems shows, first of all, the need to update the content of the education system in the context of national independence and its further development in the new social environment. Its development is based on two principles. The first is to use the spiritual heritage and national values accumulated during historical development in the implementation of socioeconomic reforms, taking into account the psyche of our people, its historical and national characteristics, traditions and customs, and the second in thinking

and social practice. is to make effective use of the rich experience gained. It is natural that these principles will be the socio-spiritual basis for the new development of our society.

A person is formed in a social environment and under its influence. Depending on its content and essence, the social environment can have both positive and negative effects on the formation of an individual. The positive and negative effects are the mutual solidarity, support, as well as psychological closeness and unity of life goals and beliefs in the relationship between the subjects, or vice versa, misunderstanding, inability to accept each other, denial of each other, intolerance of each other (lack of a sense of tolerance) is due to the contradiction between personal views, life goals, and beliefs.

Based on the views expressed, it can be said that the socialization of a person is the result of his acquisition of certain scientific knowledge and criteria of social morality, the ability to apply them and certain social experience, ie social pedagogical activity aimed at socialization.

In the process of socialization of a person, it is expedient to form immunity against external and internal influences of a negative psychological, medical, legal and material nature, to bring up children to be resistant to them. Today, the following factors have a significant negative impact on human



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physical and mental development, including socialization, worldwide.

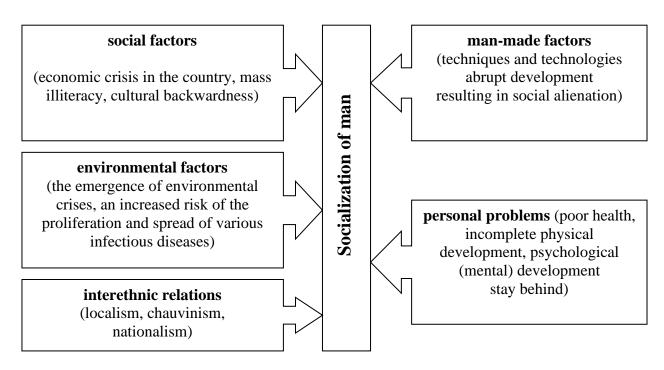


Figure 1. Influence on human socialization negative factors

Ensuring that a person is resistant to negative influences and immune to them, in short, the effective use of play, labor and educational activities in his socialization, as well as biological factors (heredity), social factors (micro (Latin "micros" "small"), It is important to take into account the meso (Latin "mesos" "medium") and macro (Latin "macros" "large") factors [46].

The environment plays a special role in the socialization of a person, and it is expedient to pay attention to the organization of socially healthy relations. At the same time, achieving the priority of mutual understanding, pedagogical and psychological cooperation and assistance in the relations of social institutions - family, educational institutions and the community (neighborhood, human groups) guarantees the success of pedagogical activities aimed at socialization.

At all times, there were young people (children, adolescents, adolescents) in the community who were left without parents or lost contact with them. Social attention to them varied in different societies and states. In Islamic teachings, however, treating such individuals based on humanistic ideas is considered to

be the highest quality. In the history of the Uzbek people, these ideas have been adhered to. This was especially evident in situations where hostilities were taking place. The admission of thousands of orphaned or bereaved children to Uzbek families during the Second World War and the care provided to them with food, clothing and shelter in extreme conditions is a shining example of high humanity. In single-parent families, it is advisable to prepare children for social life effectively, to create the necessary family conditions for their spiritual development to the extent that they can withstand fierce competition, and to identify measures for the rational use of available opportunities. After all, only then will they be able to be active subjects of social relations in independent life and achieve a meaningful life.

This means that the socialization of a person is a complex, multifaceted and long-lasting process, in the process of which he acquires scientific knowledge, moral standards and social experience, acquires the skills to apply them. The strong influence of biological and social factors on the process of human socialization must be taken into account.



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KHILVATI LITERARY HERITAGE AND ITS HISTORY OF STUDY

Abstract: This article provides information about the literary heritage of the enlightened poet from Namangan Khilvati, who lived and worked in the early twentieth century, and the history of its study, the study of the published sources of his works.

Key words: bayoz, devon, manuscript, college, religious-enlightenment, moral-educational, socio-political, humorous, form and content, genre, education and culture, perfect man, enlightener.

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Introduction

Mulla Yuldash Turaboy oglu Khilvati is an enlightened poet who lived and worked in the early twentieth century. Thanks to independence, the work of the poet, who wrote on religious-enlightenment, moral-educational, socio-political, humorous themes, began to be studied.

Khilvati's poetry is concentrated in two manuscript sources. The first of them is a digital manuscript of 1870 items in the fund of Hamid Suleymanov of the Academy of Sciences of the Republic of Uzbekistan. This source has a special value in that it is an autograph copy. The second manuscript of the poet's office is currently kept in the personal library of his grandson Akmalov Marufjon. This manuscript was also written in 1878-1910 on the basis of the poet's own signature.

His friend, who is a fan of Khilvati poetry, is also in the bayaz compiled by Qazi Muhammad Arifkhan Makhdum. The dates mentioned in the Bayaz indicate that this manuscript was written from 1896 to 1935 by Qazi Muhammad Arifkhan, Khilvati's son Akmalkhan Tora, Khilvati's grandsons Fazliddin and Fayzullah Nasriddin. These sources are of special importance in the study of Khilvati's biography and the literary movement of Namangan in the early twentieth century, as well as in the works of poets whose names were first mentioned in the science of literature.

Literature review

I.Abdullaev writes: "Publishing sources of Khilvati's works are also available in some tazkira and bayoz published during his lifetime. For example, on pages 89-91 of "Bayozi Haziniy", published by Gulom Hasan Arifkhanov in Tashkent in 1328 AH (1910), Khilvati's comedy Khotun is given. Two muhammads of Khilvati were published on pages 122-124 of the collection "Bayozi Yangi" published by GA Yakoblev in Tashkent in 1329 AH (1911 AD).

On pages 135-136 of the collection "Bayozi Muhallo" published by Gulom Hasan Arifkhanov (year not specified - IA) the radical ghazal "Kilding"



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was published. The Bayazi Murtaza collection, published in 1329 AH (1911 AD), contains a ghazal and a muhammad by Khilvati [14, 22].

Publishing sources on Khilvati's work, in particular, the poet's works "Qasidai ilm", "Charogi maktab", "Sayrul jibol" and "Mavludi sharif" were published in Tashkent in the early twentieth century. His persian work "Qasidai ilm", written in 1903, was published in 1910 along with a lithograph of Sayrul Iibal

In the introductory part of this 96-byte poem dedicated to the virtues of science and scholarship, the poet writes in Persian: states that [12, 54]. A manuscript of "Qasidai ilm" is also available in the Khilvati office. Sayfiddin Sayfulloh translated the work from persian into uzbek in a prose style. This source means that the poet Khilvati, who wrote in uzbek and persian, was one of the successors of the dynasty.

Khilvati's "Mavludi sharif" was popularly known as "Mavludi sharifi turkiy" and was republished in 1899, 1908, 1911, 1913 and 1916 at the request of many. One of the reasons for the high demand for the publication of this work is that our people find it difficult to understand the content of Arabic books read at Christmas.

Works with the same content were read only by scholars and scholars who were fluent in Arabic. This work of Khilvati is the first work of poetry written in Turkish about the birthdays of our Prophet Muhammad (peace be upon him). A lithograph copy of the work, copied by the calligrapher Abduqadir Shoshi in 1331 AH (1913 AD), is kept in our personal library. Thanks to independence, there was an opportunity to publish religious works.

For example, Khilvati's "Mavludi sharif" was published in 1991 by Khairulla Qasim Elturk and in 2000 by Abdulhamid Kurbanov. At a time when the religious faith of our people is strengthening, the demand for reading the work is growing day by day. New editions of Mavludi Sharif are based on copies of Khilvati's lithographic work published in the early 20th century. In particular, this work was published in 2003, 2004, 2013, 2015, 2017 in Cyrillic.

Khilvati's work "Charogi Maktab" was published in 1325 AH (1907 AD) in Tashkent by OA Portsev. In the circle on the first page of the book, entitled "The Light of the School," he wrote: "This pamphlet is a manzum. Teachers need to teach children to memorize "[19, 1]. A lithograph copy of this pamphlet copied by the calligrapher Mullo Yusufjan binni Mullo Zakirjon is kept in our personal library.

Charogi Maktab was translated from old Uzbek into Cyrillic and published in 2014 by Ozodakhon Boltaboeva and Muhammadsodiq Sayfullayev.

In the summer of 1910, Nodim and his son Musallamkhan and well-known poets of Namangan Khilvati, Fuzayluddin, Abdulmusavvarkhan, Sayfuddin Mahdum from Turakurgan, Mirzo Olim recited a trip to the mountains to visit the tomb of "Pochcha ota".

Khilvati described these impressions of the trip in Sayrul Jibal (Mountain Tour). This travelogue was published in 1328 AH (1910 AD) by Gulom Hasan Arifkhanov in Tashkent. One of the tasks of our literature was to translate the work from the old Uzbek script to the Cyrillic script, to compare it with the manuscripts, to publish and analyze it. As a result of scientific research, this work was published by Sayfiddin Rafiddinov and Ozodakhon Boltaboeva in 2009 in Cyrillic and in 2012 in Latin.

The preparation of two collections of Khilvati's manuscripts and other Uzbek poems from old Uzbek to Cyrillic began for publication at the initiative of the poet's son Akmalkhan and nephew A. Yuldashev. This good deed was completed in 2001 with the help of Ismatullah Abdullah and Hashimhoja Yuldashkhoja's s.

This publishing house of Khilvati has a special value as a source of research. On the basis of the information in this collection and conversations with the relatives of the poet, L. Mahmud published a book entitled "Mulla Yuldosh Khilvati". In it, the author describes his views on the socio-political situation in the early twentieth century and the way of life of Khilvati, the peculiarities of his work. The book contains some examples of ghazals, muhammas and muwashahs from the poet's 2001 edition. Lithographs of Khilvati's legacy were loved and read in many homes in the early twentieth century. After the poet's death, two manuscripts of his poems were hidden by his son Akmalkhan due to the repressive policy of the 1930s. In 1967, folklorists Malik Murodov, Muzayyana Alaviya and Namangan scholar Mahmudjon Mamurov visited the village of Jiydakapa in the Uychi district of Namangan region to visit the tomb of Khilvati. They got acquainted with the descendants of Khilvati and brought two manuscripts of the poet to Tashkent. Due to the predominance of religious ideas in Khilvati's work, his poetry was not scientifically studied during the Soviet era. Nevertheless, M. Murodov was one of the first to introduce the life and work of the poet to our people in such articles as "Mullo Yuldosh Turaboy ogli "Mugimiy zamondoshi", Mugimiv zamondoshi". The scientist M.Murodov. who studied Khilvati's work for the first time, gives a brief account of the poet's life and work in his book "In Search of the Masterpieces of Creativity". poet "[7, 48-55]. However, in this source M.Murodov gives false information that Khilvati was born in 1838 and died in 1916 [7, 48]. According to "Tazkirai Qayyumi", Khilvati studied at a madrasa in Namangan, became an imam, was fluent in Arabic, and was a teacher of Mullah Obid, as well as writing works about the birthdays of Muhammad (peace be upon him). The book contains the text of the poet's



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ghazal, which begins "I do not know from which country this barno nozanin is from," and it is noted that this ghazal was associated with Zori of Kokand and Zululi of Namangan [20, 84]. Some of the confusion surrounding Khilwati's life and work is also found in Tazkirai Qayyumi. In it, P. Kayyumov mistakenly states that the date of Khilvati's death was 1922 [20, 83]. In this source, P. Kayyumov informs that the poet's work "Mavludi Sharif" is a translation of Barzanji's work of the same content. However, it is not a translated work, because "Mavludi sharif" is an independent poem written in Turkish about the birthdays of Muhammad. The work of the Arab poet Sayyid Ja'far Barzanji (died in 1763) on the birth of the Prophet Muhammad (peace be upon him) "Iqduljavhar fi mawlid an-nabi al-azhar" (Pearl of the Prophet's radiant birth) was read only by scholars who knew Arabic well. There was a great need for this work of Khilvati, written in Turkish poetry. This work of Khilvati also differs from Barzanji's prose work in terms of compositional structure and method of narration of narrations. Khilvati's work was not studied until 1987 for obvious reasons. In 1987, in Tashkent, the poet's nephew A. Yuldashev met with Professor I. Abdullayev and asked M. Murodov to bring two manuscripts of Khilvati. I.Abdullaev met with M.Murodov and returned to Namangan with a photocopy of the first manuscript and the original of the second manuscript, which is kept in the Manuscripts Fund of the Academy of Sciences of the Republic of Uzbekistan under item number 1870. A photocopy of the poet's first manuscript is still kept in the house of the poet's nephew A. Yuldashev. He was the son of the poet's sister Gulbu and was a mature specialist in language and literature. I.Abdullaev, A. Yuldashev and Akmalkhan, the son of Khilvati, fluent in Arabic and Persian, read the ghazals in the manuscript and prepared them for publication in Cyrillic. During these processes, articles about Khilvati were regularly published in the press. In particular, articles such as "Qadri deserves the highest", "Khilvati: call God a dhikr before death", "Mulla Yuldash Khilvati", "Always the goal is lonely ...", "About Khilvati's comedy" introduced the poet's life and work to the general public. In the course of a comparative study of the sources of Khilvati's literary heritage, it became clear that the poet's manuscript "Devon I" was wrapped in plain cardboard in 1972 by the authors of the Academy of Sciences of the Republic of Uzbekistan. Although the tradition of composing a devon was not followed in the manuscript, that is, the poems were not arranged in alphabetical order by genres, I.Abdullaev and A.Yuldashev, who prepared the Khilvati devon for publication, called this manuscript "Devon I". According to their calculations, this manuscript includes 6886 bytes (13772 lines) in Uzbek and 770 bytes (1540 lines) in Persian poems [14, 9]. It contains the poet's poems in the genres of ghazal, muhammas,

qasida and travelogue, as well as history and muvashshahs. Most of it is the poet's adventure poem "Chiqib" and travelogue "Sayrul jibol" (Mountain tour). Khilvati's Persian work "Qasidai ilm" is also included in this manuscript. Some poems have no beginning and no end because some pages of the manuscript are missing. It also contains examples from the works of several contemporary poets who lived before Khilvati. For example, Nadim's Ghazali (122b), Nadim's Muhammadi (180b), Abdujavod Judy Kashani's Ghazali (136b), Muhyi's "Olsun" ghazal (137b) and Namangan's "ekan" radifi (122b) and two poems to Mirzo Rahim Korboshi. (157b-158b), as well as Muqimi's "heard" radiative ghazal (154b). The manuscript contains information about various historical events and historical figures in uzbek and persian. Careful study of this manuscript and the complete publication of the poems in it is one of the important tasks of literary criticism. Because these sources are important in the study of Khilvati's biography, the literary-historical environment of that period. For example, the following historical event recorded in this source was the basis for determining the date of Khilvati's birth: "... the month of Muharram 12, 1328, Sunday (January 12, 1910). A century ago, in the middle of the winter chill, a grandson was born in the city of Kohsoridin. The father of the newborn. Mullo Nasriddin, is the son of the late Mullo Urinboy Akhund. Sabihahon, the mother of the first of my children, is 17 years old. The grandson of this godly slave was his first child. This happened in the year of the dog. This winter passed with such kindness and goodness that from its beginning to its end the weather was mild day and night. The spring air and spring wind were also examples and targets of it. The reason for this can be assumed by the winner that such a winter has never come on earth before, and it is doubtful whether it will come again. On the lips of the streams, the vegetables were beautiful, captivating, and soul-pleasing, just like the young men's newlygrown mustaches All the streets and roads were clean of mud and dust, and if you walked a few miles, neither your shoes would be muddy and dust would touch somewhere. And this year, this poor Khilvati was 52 years old." According to this information, Kh. Although Khilvati's poems in the second manuscript, preserved in the possession of M. Akmalov, were not placed in accordance with the tradition of composing a devon, I.Abdullaev and A.Yuldashev called it "Devon II". It includes poems written by Khilvati in 4540 bytes (9080 lines) in Uzbek and Persian. These include ghazals, muhammas, muwashshahs, marsiyas, adventure poems, comics, and continents. The manuscript contains 32 ghazals, muhammas, muvashshahs written in Persian. The poems are arranged in 6, 8, 10, 20, 30 and occasionally 60 bytes per page. In only three places are the poems framed (39b, 40a, 102b). Although these poems are not given by genre, they are much better written than the first



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manuscript. At the end of the manuscript is a footnote in some places. Poems of Uzbek and Persian poets are also found in this source For example, Ghazi Ghazal (24a), Dilresh Ghazal (25a), Mashrab Ghazal (26a), Hafiz Ghazal (32b), Mu'in Ghazal (36a-36b, 37a-37b, three), Munshi Muhammad (38b), Loma'i Ghazal (64b)), the unknown poet has three bytes (243b), Nodim (246b-247a), Majzub (253a-254a), Mute (264b), as well as two ghazals of Navoi (266b-267a). In it, the poems of other poets total 221 b If we separate these from the 4540 bytes of poetry in the manuscript, the Khilvati poems themselves remain 4319 bytes. This source contains prose sentences written in Uzbek and Persian, the dates of the deaths of various people or an event. On page 110a of the manuscript, the Khilwati poet writes Kholmuhammad, the son of Huwayda, was the grandson of eshan:

"Muhri Kholmuhammad eshan ibn eshan Huvaydo is my grandfather

Hodiyi din Xolmuhammad avra'i sohib adab, Volidash Xojanazar budu Huvaydoash laqab. Tarixi vafoti Huvaydo bobom:

Xirad munshiysi tarixi vafoti Bitibdur: "G'oyib o'ldi qutbi yodi" -1195

(1781)".

Khilvati's phrase "avra'i sahib adab" in the above verse, that is, "the face of a man of etiquette," was mistakenly spelled "avrai adab" in the poet's 2001 book. The second line is incorrectly written on page 3 of the text as "Volidim Khoja Nazar, budu Huvaydosi nickname" or the sentence "history of death" in the next verse as "history of death" on page 3 of the text. From the textual study of this byte, it can be seen that some of the words in the manuscript were misspelled during the printing process, resulting in distortion of the meaning of the word and weight loss. In literature, the year of Huvaydo's birth was unknown. However, the number 1195 AH and 1780-1781 AD were recorded in alphabetical order from the "Memory of the Missing Pole" in this Martian history, and the date of Huwayda's death was determined. So Huvaydo died in 1781. These verses confirm that Khilwati is a descendant of the poet Huwayda. Indeed, Khilwati was a heir to Huvaydo by his mother. This manuscript also sheds light on Khilvati's biography, his lyrical heritage, and some historical figures.

The "Bayoz-collection" kept in our personal library contains samples of ghazals, muhammas, muvashshahs, qasida and rubais of Namangan and Kokand poets who lived in the late XIX and early XX centuries, a total of 3145 bytes of poetry. On pages 137b-146a, 149a-150b, 157a, 159a, 165a-182a of Bayaz, 36 ghazals of Nodim are given. The history of Tajalli's death to Hazrat Miyan Fazl (2b-3a), 10-byte poems by Majruh and Saloh (17b-18a), Fuzuli (13b-14a), Zalili (15a-16a-16b) are also found in Bayaz. In this statement, Partay wrote a 68-verse muhammasmarsi (21b-30b) in Uzbek, dedicated to the death of

Muhammad Arif's son Muhammad Abdulbari, but not yet recorded in any source, and a 13-verse Persian lament (31a-33a), each consisting of 9 verses. occurs. Mirza Anwar and Rano's narration from Abdullah Qadiri's novel The Scorpion from the Altar, a fivebyte poem (35b) is also included in the bayaz. Qari's Ghazali (59a), Furgat's Ghazali to Azamkhan (84b-85a), Hazini's Six Ghazals (107a-1088), Jami's Ghazali (114a), Muqimi's Ghazali (136a), Judy Kashani's Persian Ghazal (157b) and two rubai This bayaz, which includes the Ravshan ghazal (194a) and its two rubais (194b-201a), Judoi's two ghazals (197b-199a) and muhammas (199b-201a), contains 10 Persian-language ghazals, muhammas, marsiyas and rubais by Khilvati and other poets. available. The poems of Khilwati (80b, 81a, 131b-132b, 136b, 151a, 155a, 184a, 205b) are given on the pages. The titles of his poems include "Ghazali Khilvati alayhirrahma", "Eshon Khilvati domla", "Janobi mullo Khilvati domla". Bayoz begins with the following byte:

Shud du sad hashri malolu dardu anduhho balo, Az vafoti soliki quddus guharro dar zamon.

It ends with the following verse of Bayaz Khilvati:

Ne ajab sham'i jamoli yor birla Xilvatiy, Ravshan o'lsa bir kecha bu xonai torim mani.

There is a 37-page introduction by I.Abdullaev in the poet's 2001 edition. It covers the life of Khilvati through the memoirs presented by the poet's son Akmalkhan Tora, as well as the existing histories in "Devon I", "Devon II" and "Bayoz-collection". Important information about the life and literary heritage of the poet is given. In particular, Khilvati was repeatedly recommended as a judge in the village of Jiydakapa because he was a scholar of Sharia. But the poet disagrees. However, a state seal was issued in his name. This seal was used instead of the judge's seal on some documents and fatwas. A copy of the seal with the name of Khilvatiy printed on documents and papers is kept On page 205a of the Khilwati manuscript there is a seal with the following title: "Mulla Yuldash Akhund alam Khilvati ibn Turaboy."

On pages 38-51 of the publishing house there is an article by B.Abdullaeva on Khilvati's poetry. The article analyzes the poet's comic poems "Khasis", "Nonak shoir" and "Kafshim". The poet's comedies are analyzed on the basis of examples that call people to live life correctly and honestly, to intelligence. On pages 472-482 of this publishing house there are comments made by I.Abdullaev, and on pages 483-486 there are legends about Khilvati. Pages 487-522 contain a dictionary of Arabic and Persian words found in the poet's work.

This publishing house is one of the most important sources in covering the genre features of Khilvati's life and work, as well as his poetry. The Persian legacy of Khilwati, who used persian and



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arabic phrases, verses from the Qur'an and quotations from hadiths in his poems, has not yet been fully published. At present, Khilvati is trying to publish about 3,000 lines of Persian lyrical heritage in both manuscripts.

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INFLUENCE OF THE NON-IDEALITY COEFFICIENT ON THE EFFECTIVE POWER OF SOLAR CELLS

Abstract: The article theoretically investigates the dependence of the effective power on the imperfection coefficient of the photovoltage-ampere characteristics of solar cells, based on the formula obtained for the temperature dependence of the saturation current density, open circuit voltage, short-circuit current density, effective voltage, effective current density.

Key words: solar element, current density short circuit, coefficient photovoltaic non-ideality, semi empirical method, temperature, open circuit voltage, height of the potential barrier, saturation current, photovoltaic.

Language: English

Citation: Ikramov, R. G., Ismanova, O. T., Alinazarova, M. A., Abdujabbarova, M. S., & Turdaliev, U. V. (2020). Influence of the non-ideality coefficient on the effective power of solar cells. ISJ Theoretical & Applied Science, 12 (92), 135-139.

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Introduction

It is shown from the calculations that the dependence of the effective power on the nonideality factor of the current-voltage characteristic set at the point where the short-circuit current is determined is exponential, and at the point where the effective power is determined is linear.

In recent years, all over the world, one of the main and urgent problems of the physics of semiconductor devices is the search for ways to improve the efficiency of semiconductor solar cells (SC). To increase the efficiency of the SC, it is first of all necessary to study the quality of the pn junction, which is the basis of the structure, and the relationship photovoltage-ampere characteristic (photovoltage characteristic) of physical indicators of quality assessment under the indicated conditions with the coefficient of imperfection of the photovacc



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As you know, the coefficient of imperfection of SCs made on the basis of semiconductors is determined by the type of current passing through them [1-10], namely the coefficient of the curvature angle of the photoVAC curve, which shows the quality of the pn junction that is the basis of the pn junction. Therefore, the coefficient of non-ideality of the solar cell, depending on the type of current, can be equivalent at different points of the photoVAC. The current generated in the solar cell can be divided into two types: generated as a result of the generation of current carriers, then the nonideality coefficient will change in the interval n = 1-1.5; the main current is formed as a result of the recombination of current carriers, then the coefficient of imperfection of the photoVAC will change in the interval n = 2-2.5; if the type of current is formed as a result of both generation and recombination of current carriers simultaneously, then the coefficient of imperfection of the photoVAC will change in the interval n = 2.5-5 [1-10].

Based on the research we made in our early works [1-10], we obtained expressions for the

determining effect of temperature on the effective voltage and current density of the solar cell:

$$U_{\vartheta\phi} = \frac{kT}{q} \ln \frac{j_{\kappa 3}}{j_0} \frac{kT}{qU_{xx}} \tag{1}$$

$$j_{9\phi} = j_{\kappa 3} \left(\frac{n'_2 kT}{qU_{xx}} - 1 - \frac{j_0}{j_{\kappa 3}} \right)$$
 (2)

where U_{xx} - open-circuit voltage, j_{sc} - short-circuit current density, j_0 - saturation current density, k-Boltzmann constant, q-electron charge, n_2 - nonideality coefficient of photoVAC where effective power is determined.

In work [1-10] for the temperature dependence of open circuit voltage, saturation current density, short-circuit current density, the following expressions were obtained:

$$U_{xx} = (U_{xx0} - \varphi) \frac{T}{T_0} + \varphi$$
 (3)

$$j_0 = j_{00} \exp\left(\frac{q\varphi}{k} \left(\frac{1}{T_0} - \frac{1}{T}\right)\right) \quad (4)$$

$$j_{\kappa 3} = j_{00} \exp \left[\frac{q(\varphi_0 - \gamma T)}{k} \left(\frac{1}{T_0} - \frac{1}{T} \right) \right] \left[\exp \left[\frac{q(\varphi_0 - \gamma T)}{n'_1 k T_0} \left(\frac{U_{xx0}}{(\varphi_0 - \gamma T)} - 1 + \frac{T_0}{T} \right) \right] - 1 \right]$$
 (5)

where U_{xx0} is the open-circuit voltage, j_{00} is the saturation current at T_0 – room temperature, ϕ is the height of the potential barrier, ϕ_0 is the height of the potential barrier at absolute zero, γ is the temperature coefficient of the potential barrier, n'_1 is the coefficient of imperfection of the photoPC at the point where short-circuit current density.

As you know, the effective power density of the solar cell, that is, the maximum possible reproducible

power by them is determined by the product of the effective voltage and the effective value of the current density emanating from the solar cell.

$$P_{\ni d} = j_{\ni d} U_{\ni d}. \tag{6}$$

Now it can be seen that to bring the formula that determines the effective power density of the solar cell. Therefore, in expression (6) supplying expressions (1) and (2), we get the following equation

$$P_{\theta\phi} = j_{\theta\phi} U_{\theta\phi} = j_{\kappa\theta} \left(\frac{n'_2 kT}{qU_{xx}} - 1 - \frac{j_0}{j_{\kappa\theta}} \right) \frac{kT}{q} \ln \frac{j_{\kappa\theta}}{j_0} \frac{kT}{qU_{xx}}$$
(7)

If we take into account that the values of the short-circuit current density (j_{sc}) and saturation

current density (j_0) are negative, then formula (7) will look like this:

$$P_{9\phi} = \frac{kTj_{\kappa_3}}{q} \left(1 + \frac{j_0}{j_{\kappa_3}} - \frac{n'_2 kT}{qU_{xx}} \right) \ln \frac{j_{\kappa_3}}{j_0} \frac{kT}{qU_{xx}} \ . \tag{8}$$



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Using this expression, one can determine the effective power density of the solar cell. It can be seen that formula (8) is clearly independent of n_1 , but this expression contains a short-circuit current density, so the effective power will also depend on this coefficient.

Figure 1 shows the results of calculating the dependence of the effective power on the coefficient of non-ideality of the ESS at the point where, the short-circuit current density is determined, according to the formula (8). Calculations were made for the values: $T_0 = 273 K, \, T = 300 \; K, \, j_0 = 3.5 * 10 - 10 A / \, cm^2, \, U_{si} = 0.63 \; V, \, \phi_0 = 1.23 \; V \; and \, \gamma = 2 * 10 - 4 \; V / \; K \; and \, n_2 \; '= 2.5.$ It can be seen that as the nonideality coefficient increases, the effective power decreases exponentially. With changes in the value of the nonideality coefficient from 1 and 3.8, the effective power changes in the range from 75.9 mW / cm² to $2.94 * 10 - 8 \; mW / cm^2$

Figure 2 shows the calculation of the dependence of the effective power on the coefficient of non-ideality of the ESS at the point where the effective power is determined by formula (8). Calculations are performed for the values: $T_0 = 273$ K, T = 300 K, $j_0 = 3.5 * 10-10$ A / cm², $U_{si} = 0.63$ V, $\phi_0 = 1.23$ V and $\gamma = 1.23$ V and

2*10-4~V/K and n_1 '= 1.0028. As can be seen from the figure, this dependence is linear; with an increase in the nonideality coefficient from 1 to 3.8, the effective power of the solar cell decreases in the interval $P_{eff} = (74.5 - 66.4)~mW/cm^2$.

This study presents a formula for determining the effective power of the solar cell. This formula theoretically investigated the dependence of the effective power on the coefficient of nonideality of the solar cell. From these calculations it can be seen that the growth of the nonideality coefficient, at the point where, the short-circuit current density is determined, lead to a very strong decrease in the effective power of the solar cell. And this leads to a general decrease in the efficiency of the solar cell.

It has been determined that the dependence of the effective power on the non-ideality factor, which is set at the point where the effective power is determined, is linear and does not so strongly affect the efficiency of the solar cell. The following conclusions can be drawn from the results obtained. With any increase in the coefficient of non-ideality of the solar cell, this will lead to a decrease in the values of the effective power, which will contribute to a decrease in the efficiency of the solar cell.

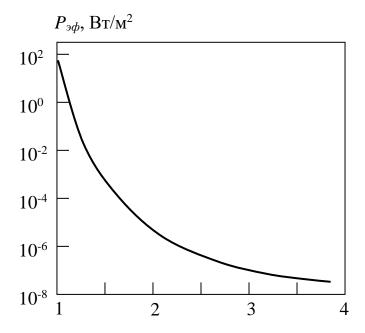


Fig. 1. The calculation results obtained by the formula (8), for the dependence of the effective power on the coefficient of nonideality of the ESS at the point where, the short-circuit current density is determined. Calculations were made for the values:: $T_0=273K$, T=300~K, $j_0=3,5*10^{-10}A/cm^2$, $U_{cu}=0,63~B$, $\varphi_0=1,23V$ and $\gamma=2*10^{-4}V/K$ and $n_2^2=2,5$.



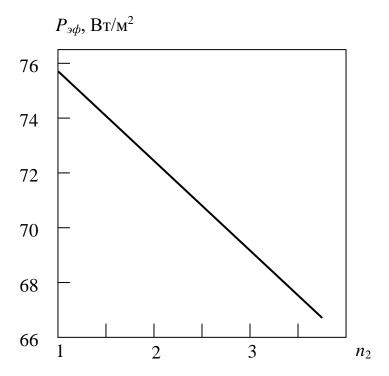


Fig. 2. The results of calculating the dependence of the effective power of the solar cell on the coefficient of nonideality of the solar cell at the point where the effective power is determined, obtained by the formula (8). Calculations are performed for the values: T_0 =273K, T=300 K, j_0 =3,5*10⁻¹⁰ A/cm^2 , U_{cu} =0,63 B, φ_0 =1,23 Vand γ =2*10⁻⁴V/Kand n_1 '=1,0028.

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ON NEW DISCOVERIES OF KAUNCHI CULTURE FOUND IN YANGIYUL DISTRICT

Abstract: The article is dedicated to the newly discovered tombs and pottery from Yangiyul district of Tashkent region. The tomb has been identified as belonging to the Kaunchi culture.

Key words: Catacomb tombs, zomorphic dishes, Kaunchi culture, dromos corridor, ethnogenesis.

Language: English

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Introduction

Although many archeological monuments have been identified in the territory of Uzbekistan, some of them have disappeared as a result of the expansion of modern urban, rural and arable lands. The fact that such monuments are found not only in identified places, but also in random places, indicates the existence of unexplored objects. One of such finds was found on September 16, 2020 during the digging of a well in the north of the house 1, Na'muna Street, Kengkechik mahalla, Ubay Musaev rural citizens' counsel, Yangiyul district, Tashkent region (Google Earth coordinate: 41 ° 11'24.38 "S; 69; ° 7'25.49 "V). During the excavation of the site, 10 pieces of pottery were excavated around the bones (Figures 1.1-1.9, 1.11).

Methodology.

Sides 1.7×1.7, 6m deep pit, which the things excavated, is explored. As a result, traces of bone clumps belonging to 3 deceased were found, which had turned into rotten dust as a result of mixing with

moist soil at a depth of 3 meters above the ground level. Studies have shown that the corpses were buried lying on their backs with the head facing east and the feet facing west. In the process of studying the surface of this urn where human bone clots and pottery were laid, another pottery was found on the south side of the urn (Figure 1.10). Thus, according to the materials found during the excavation of the uranium, it was found that this place was the site of a collectively buried grave. But it was not possible to study them because of the decay of human bones. All 11 pottery found in the tomb were made by hand (without the help of a wheel). The dishes are available in cream (Figures 1.1-1.7; 1.9; 1.11) and dark red (Figures 1.8; 1.10). Looking at the places where the angobi had moved and broken, the pottery was brown after baking. These pottery consists of jugs, cups, and bowls, which are described as follows:

Jugs. Their number is 3 (Figures 1.1–1.3), apparently consisting of short-stemmed and nonstemmed (Figure 1.3) jars. Among these jugs are 2 stemmed jugs (Figures 1.1-1.2), which are located on



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the opposite side of the semicircular handle, one end of which is connected to the mouth and the other end to the shoulder. One of them is 40.5 cm long, the diameter of the mouth is 12 cm, the diameter of the bottom is 22.5 cm, the diameter of the tap is 5 cm, and the wall thickness is 0.7-0.8 cm (Figure 1.1). The height of the latter is 24.5 cm, the diameter of the mouth is 12 cm, the diameter of the bottom is 14 cm, the wall thickness is 0.5 cm, and the diameter of the fracture site of the broken snout is 3 cm (Figure 1.2).

In the second view, a half-ring-shaped handle with one end attached to the neck and the other end to the shoulder is 25.5 cm long, the diameter of the mouth is 10.5 cm, the diameter of the tag is 11 cm, and the wall thickness is 0.5-0.6. cm (Figure 1.3).

Fat-glasses. Most of the findings are fat-glasses, which consist of seven pieces. The thickness of the walls of these fat-glasses is 5-7 mm. They have a semicircular handle, one end of which is attached to the shoulder and the other end to a wide part of the body. The appearance of the handle is of two types: in the first type the upper part of the handle in the form of a semicircle is made in the form of an animal (Figures 1.4-1.5, 1.10), in the second type a simple semicircle is made.

There are a total of three animal-shaped fatglasses on the handle, one of which depicts a ram's head with twisted horns by gluing a piece of clay to it (Figure 1.4). The angob of this fat-glass is reddish in color, its height is 13.5 cm, the diameter of the mouth is 8.5 cm, and the diameter of the bottom is 7 cm.

The upper part of the second fat-glass handle, which was shaped like an animal, was blown away (Figure 1.5). It is therefore difficult to determine what animal image is reflected in it. The height of this fat-glass is 13.5 cm, the diameter of the mouth is 9.5 cm, and the diameter of the tag is 8 cm.

The third of the fat-glasses, the handle of which is shaped like an animal, is the smallest among the vessels, and on the handle of which the image of a wolf with upright ears is depicted (Figure 1.10). This dwarf fat-shield is 4.5 cm tall, 4 cm in mouth diameter, and 4 cm in bottom diameter.

The second type has a simple semicircular handle with three fat-glasses, the first of which is 13.5 cm long, the diameter of the mouth is 8.5 cm, and the diameter of the bottom is 7.7 cm (Figure 1.6); the height of the second is 10.5 cm, the diameter of the mouth is 7.5 cm, the diameter of the bottom is 4.5 cm (Figure 1.7); the height of the third is 9 cm, the

diameter of the mouth is 8 cm, and the diameter of the base is 5 cm (Figure 1.8).

The part of the oil-glass cup with which the handle was attached was broken. Its height is 7 cm, the diameter of the mouth and bottom is 6 cm, and the wall thickness is 5 mm (Figure 1.9).

Bowl. The bowl is much more brittle than the other findings and is half-baked. Its height is 9 cm, the diameter of the mouth is 17 cm, the diameter of the tag is 9 cm, the wall thickness is 0.7-0.8 cm, the thickness of the tag wall is 2 cm.

Results.

In general, red and cream-colored pots with the shape of an animal's head on the handle or a simple half-ring on the handle, jugs with short - stemmed and non-stemmed are especially rare.

Discussion.

According to the artifacts found at the site, the custom of collective burial by placing such objects around the dead has been studied by archaeologists since the late 19th century [5, p. 90-91]. As a result of archeological research, such burial practices are found and studied in the Tashkent oasis and a number of regions of South Kazakhstan [5, p. 253]. According to research, such tombs are in the form of a domeshaped tomb (catacomb) with a diameter of 60x80 cm. is entered by a long corridor of size - descending through the dromos [1, p. 223-235; 2, b. 52-58; 3, b. 542-543; 4, b. 52-57; 5, b. 253; 6, b. 83-84]. Pottery has been proven to be placed mainly on the head and feet of the deceased. The artifacts found in such tombs belong to the archeological culture of the Kaunchi, which is widespread in the Tashkent oasis, dating from the II century BC to the VI century AD [4, p. 70]. The remains of tombs and pottery found in Yangiyul are also typical of the Kaunchi culture. The custom of making the handle of the vessel in the form of a ram with twisted horns was widespread from the 2nd century AD to the 4th century AD [4, p. 75-77]. Based on this, the newly discovered tomb and the materials obtained from it can be dated to the above period.

Conclusion.

So, these random findings expand the area of distribution of the Kaunchi culture, indicating that a number of such archeological monuments are still preserved in the ground.



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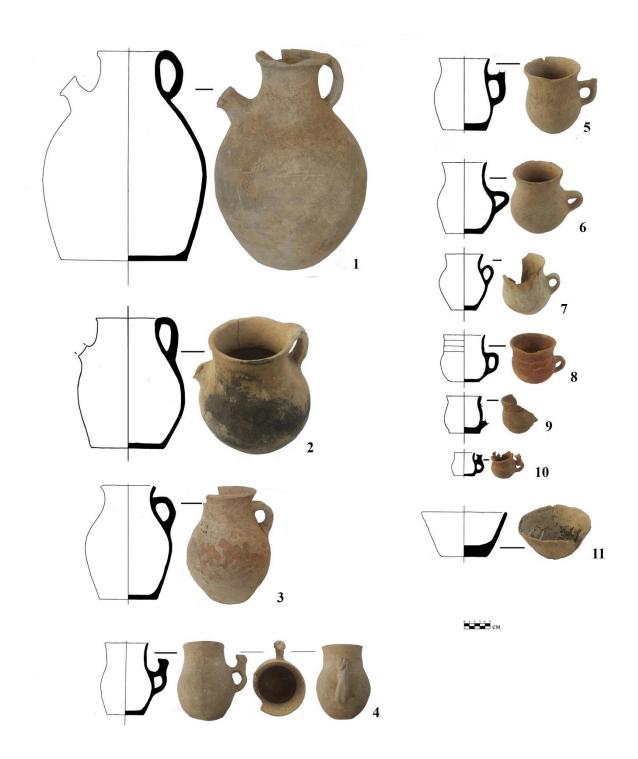


Figure 1. Uzbekistan. Tashkent region. Yangiyul district. Kengkechik mahalla. 2-4 centuries AD. 1-3-Jugs, 4-10 fat-glasses, 11-bowl

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EXPERIMENTAL STUDY OF FRACTURE OF THE CAST IRON SPECIMEN DURING COMPRESSION

Abstract: The results of experimental compression testing of the cast iron round specimens were presented in the article. The compression diagram of brittle material was obtained based on the applied load and the compression value of the specimen. The analysis of the deformation degree of the cast iron specimen after realization of compression testing was made.

Key words: the specimen, compression, fracture, deformation, the load, material.

Language: English

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Introduction

Compression testing is widely used for determining mechanical characteristics of low-plastic materials (cast irons, tool steels, ceramics, etc.). Sequence of realization of compression testing is provided in the relevant official document [1].

During compression testing, the specimen of the standard shape is placed in the special device installed on the testing machine and subjected to continuous smooth deformation to the specified strain value or to fracture. In this case, the dependence between the

compressive force and shortening the calculated height of the specimen is recorded in the form of the compression diagram. The compression diagram allows to evaluate behavior of the specimen in the elastic and elastic-plastic stages of deformation and determine characteristics of the mechanical properties of material.

The short specimens with the height to diameter ratio of 1:3 are used for compression testing. The round specimen for compression testing is presented in the Fig. 1.

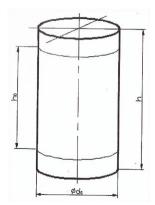


Figure 1 – The round specimen for compression. d_{θ} – the outer diameter of the specimen, mm; h – the specimen height, mm; h_{θ} – the calculated height of the specimen, mm.

Studies in this direction has been carried out by various scientists in the works [2-9]. These works present the results of the laboratory and computer experiments on compression of cast irons of various grades in the cold and heated to the certain temperature states. The compression diagrams were obtained for various metallic and non-metallic brittle materials. The special device was proposed for compression testing of the long flat specimens with the thickness of less than 1 mm.

The purpose of this work is the analysis of deformation intensity and subsequent fracture of the

cast iron round specimens in the cold state based on the obtained compression diagram.

Materials and methods

Compression testing of the metallic round specimens was performed three times for obtaining the average values of the studied parameters. The metallic specimens with the outer diameter of 4 mm and the length of 4.5 mm were subjected to compression. The round specimens were made of gray cast iron. The cast iron specimens for realization of compression testing are presented in the Fig. 2.



Figure 2 – The cast iron specimens for realization of compression testing.

Compression testing was carried out on the "TM-20" special testing machine [10]. The machine is equipped with the displacement sensor for determining the load applied to the specimen. In the process of loading the specimen with the compressive forces, its height decreases and its diameter increases unevenly along the specimen height. This leads to significant changing the shape – the specimen

becomes barrel-shaped. The barrel shape during compression occurs due to friction between the contact surfaces of the compressible specimen and the device. Friction prevents transverse deformation of the specimen. The scheme of deformation of the cast iron round specimen during compression is presented in the Fig. 3.



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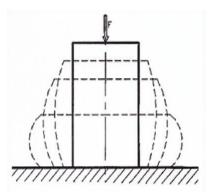


Figure 3 – Deformation of the round specimen during compression.

The specimen was subjected to compression to partial fracture.

Results and discussion

The stages of compression testing of the specimens are presented in the Fig. 4. After eliminating the backlash in the machine mechanism, the upper movable punch moved vertically down. The

specimen was mounted on the lower fixed device. The specimen was subjected to elastic deformation (preloading), residual deformation (changing the shape and the dimensions), and subsequent partial or complete fracture during compression testing. The load on the end surface of the round specimen was removed at cracks formation in material.





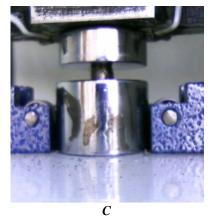


Figure 4 – Performing compression testing: A – pre-loading the specimen; B – residual deformation of the specimen; C – fracture of the specimen (cracks formation).

Deformations in material of the round specimen subject to compression can be described in detail using the compression diagram. The specimen was compressed by 1.61 mm relative to the initial height. In the diagram, the dependence calculated at the distance from 3.16 mm to 3.7 mm and at the load of 3000 N corresponds to elastic deformations in the specimen material. The dependence calculated at the distance from 3.7 mm to 4.2 mm and at the maximum load of 4446 N corresponds to residual deformations in the specimen material. The dependence calculated at the distance from 4.2 mm to 4.77 mm at the decreasing load corresponds to partial fracture of the specimen material. The compression diagram of the cast iron round specimen is presented in the Fig. 5.

Two specimens were completely fractured during compression testing. The third specimen was partially fractured. This specimen was used to analyze the deformation degree of material during compression. The photos of the fractured round specimen after compression are presented in the Fig. 6

Cracks along the diameter of the cast iron specimen are formed at the angle of approximately 50 degrees on both sides. The fracture area of material is larger (the Fig. 6-*B*) on one side of the deformed round specimen. This means that the short specimens are fractured unevenly on both sides during compression. This conclusion is also confirmed by deformation of the surface layer of material along the diameter on only one side of the specimen.



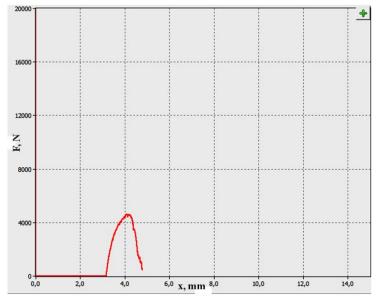


Figure 5 – The compression diagram of the cast iron round specimen.



Figure 6 – The fractured round specimen after compression: A – fracture of material (the view from the end surface); B and C – cracks along the diameter.

Conclusion

The cast iron specimen with the length of 4.5 mm is partially fractured at 28-30% of compression deformation of material. Cracks formation along the diameter of the round specimen occurs symmetrically,

but deformation intensity of material on each side will be different. The end surface of the specimen does not deform during compression. Cracks along the diameter are shallow and form at the angle of 50 degrees relative to the axial line of the specimen.

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TO STUDY THE GROWTH AND DEVELOPMENT OF THE SUMBUL KOVRAK (FERULA SUMBUL)

Abstract: The subject is mainly the growth of the sumbul kovrak, its beneficial properties. Types of development and methods of use of sumbul kovrak plant are shown. In addition, the chemical composition and drugs, positive and negative effects on the human body are given.

Key words: Sumbul kovrak, vitamin, organism, nature, resin, emulsion.

Language: English

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Introduction

During one of his visits to Surkhandarya region, President Shavkat Mirziyoyev proposed to establish an association of fragile breeders. In fact, given the natural prevalence of brittle medicinal plants in our country and the possibility of additional artificial propagation, they envisioned far-reaching plans. According to the order, a lot of work has been done to expand the area of fragile medicinal plants, to establish plantations and to develop their processing.

At first glance, the rugged plant looks like a useless, wild plant. We all met him on the road, in the desert. But not all of us know its healing properties. The beneficial properties of kovrak have been known to us for a long time, and the literature of our scholars, such as Abu Ali ibn Sina and Beruni, recommended the use of medicines and dietary preparations made from it in the treatment of various diseases. The Ferula family is a plant belonging to the genus Ferula, which has more than 170 species on Earth. There are more than 110 species in Central Asia and 50 in our country. There are basically 10 types used to make resin-glue. These are the ugly rugs, the mountain rugs, and so on.

These species are very similar in appearance and morphology, but in nature, foul fractures (Ferula assafoetida) are common, and the resin is mainly derived from this species.

Kovrak species grow in the sandy deserts, hills, mountains and foothills of the republic, on clean soils. species, which grow in Surkhandarya, Kashkadarya, Samarkand, Jizzakh, Navoi, Bukhara regions and the Republic of Karakalpakstan, are highly medicinal. Fragile is also common in Kazakhstan, Tajikistan, Iran, Afghanistan, Pakistan and India. In our region, this plant blooms in March-April, and the fruits ripen in April-May. The plant is perennial, the aboveground parts live for 1.5-2 months, depending on the growing environment and weather conditions. The stems are 1.5-2 meters long, the roots are 15-20 cm thick, and the beets are deep. In the spring, the locals prepare green soms and healthy food from the immature roots. This, in turn, is a great benefit to the human body.

It is usually used in the form of juice, powder, tincture, emulsion and tablets made from the roots, leaves, bark, flowers, fruits and other parts. The resin-



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juice, which is mainly obtained from the glue-root, is widely used in medicine It is widely used in medicine for its medicinal properties. In addition to cleansing the gastrointestinal tract of toxins and vomit, it is very useful in the treatment of other diseases. Examples include angina, bronchitis, and other respiratory illnesses. The solution has antiseptic and analgesic properties for rinsing the mouth, cleanses the respiratory tract of germs and eliminates bad breath, and in small amounts can be used to treat hoarseness. It can be used to effectively treat the early stages of cataracts in eye diseases, and to reduce the toxic effects of venomous insect bites. Kidney stones, psoriasis, eczema, skin cleansing, liver cleansing and treatment of diseases are mentioned in the literature of Ibn Sina.

It is known to be very effective in the treatment of disorders of the nervous system and epilepsy, has excellent results in toothache, muscle aches, arthritis, osteochondrosis. In Eastern medicine it is used in the treatment of mastopathy, infertility, impotence. In modern medicine, a number of oncological diseases, uterine fibroids, prostate adenoma are reported to have positive results. Kovrak plant is a medicinal plant that treats other diseases such as varicose veins, pulmonary tuberculosis, plague, ulcers, whooping cough, as well as a means of strengthening the person, restoring energy balance and tone. Another important aspect is that in the spring, when the meat is cut, it replaces various useful vitamins and microelements, cleanses the body of accumulated harmful slags and toxins, and gives mental freshness. That is why experienced doctors considered kovrak to be superior to life-giving ginseng. In addition, from the countries of the East in Iran, Pakistan, India and Afghanistan, brittle glue and its root are used as a spice in cooking, in the manufacture of perfumes in the cosmetics industry.

As mentioned above, 10 types are mainly used to obtain resin-glue, which are filthy flakes, rova, kuhiston flakes and other names. In nature, foulsmelling flakes (Ferula assa-foetida) are widespread, and the resin-glue produced in our country and delivered to consumers is mainly of this type and is used as a remedy for various diseases. The stem grows and flowers once every 8-9 years - monocarp. Stems erect, thick, hollow, branched at the top. The rhizome leaves are banded, separated three times. The leaves are oblong or lanceolate. The leaves on the stem are small, covered with a lot of hairs on the outside, and the stems are arranged in rows. The flowers are arranged in a complex umbrella. The flower is pale yellow, without a cup, petals 5, paternal 5, maternal node two-chambered, located below. The fruit is a two-piece piece. The composition of the glue-resin used in medicine consists of essential oils, organic sulfides, pinene, coumarins and other compounds that give it the smell of garlic.

Kovrak glue is used in folk medicine for the treatment of varicose veins, pulmonary tuberculosis, plague, ulcers, whooping cough, toothache, nervous and other diseases, as well as as a stimulant, expectorant. used as a decongestant and worm-driving drug.

Dangerous swellings and wounds are treated by crushing the very young branches of the bark and squeezing them into yogurt. Alcohol tincture (tincture), emulsion and pill are used in asthma, stroke and nervous diseases. In scientific medicine, brittle gum is used as a powder, emulsion and tincture under the name "assa foyetida" as a painkiller and sedative, and is included in the pharmacopoeia of many countries. From the East, in Iran, Pakistan, India and Afghanistan, brittle glue and its root are used as a spice in cooking and in the manufacture of perfumes in the cosmetics industry. The production of tar from the root of kovrak lasts from early spring to autumn, so the period of resin extraction is divided into spring and summer. The spring stage is the preparation period, during which the area for the resin is determined, the total stock of the resin is determined, and the plants for the resin are determined. Kovrak, as mentioned above, is a monocarp plant, so it does not have a stem in all the bushes, so it is necessary to clean the roots of the plant from the stems and surface leaves and prepare them for resin. To do this, dig around the root of the fracture to a depth of 5-10 cm and a width of 20–25 cm, and the upper part of the root is opened. After opening the upper part of the rhizome root, it is cut to get the glue-resin, after 5-6 days the quality glue-resin "Donak" juice is collected, and the collected glue-resin is collected. pruned, then again cut from a new place, during the season, depending on the size of the plant root can be cut 15–20 times. At the end of the resin harvesting season, each bush should be covered with soil to prevent the plant from drying out in the future. It flowers in March-April and ripens in April-May. The above-ground parts of the plant live for 1.5-2 months, depending on the growing environment and weather conditions.

In our country, the production of brittle glue officially began in 2006. In addition to the state forestry, there are farms and some private entrepreneurs. It should be noted that in order to obtain resin glue from the fracture, it is first necessary to identify the natural biological and operational reserves of the fracture, create a large-scale map and allow the plant to regenerate naturally without damaging the environment. In, it is necessary to carry out the preparation of glue-resin in turn. The following rules should be followed when preparing the glue:

- It is recommended to take the glue from a mature adult plant;
- It is forbidden to take glue from biologically immature 2-3-year-old plants;
- Three out of 5 mature plants per 10 m² can be glued;



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- Do not allow the preparation of glue-resin from flowering plants during the preparation period;

-In order to get seeds for the propagation of chestnut plants in the coming years, it is advisable to leave 2-3 flowering and seed-bearing plants in each area of $400-500 \text{ m}^2$.

One of the best ways to prevent the depletion of fragile natural resources is to plant and reproduce them under natural conditions. To do this, it is recommended to prepare the seeds ripened in the summer, dig the cleaned seeds in the autumn in the area of natural growths, dig 5-10 cm holes, plant 3-5 seeds in each hole and cover with soil. This recommendation is recommended for forestry workers, farmers, and private entrepreneurs based on the biological properties of the fragile plant, as fragile, multiplies from seeds grown naturally and grows over a wide area.

In the future, one of the main tasks of our science is to study the bio-ecological properties of kovrak in the natural environment and to solve the problem of their cultural reproduction.

It is widely used in cooking in China, India and other Asian countries. The powder from the crumbly resin glue is added to the dish as a spice and as a substitute for onions and garlic. There is a popular saying in India that if you add crumbs, the stomach will digest the nails as well, because it enhances digestion. It is a must-have when cooking difficult-todigest foods. Resting your appetite can help you relax and lose your appetite. Due to the healing properties of the plant, it is in great demand in the pharmaceutical industry, and its demand for it in the world market remains high. Therefore, due to the favorable climatic conditions for the cultivation of kovrak in our region, due to low-cost crops, it is especially important to establish plantations and further expand the existing ones. It is also important to preserve the brittleness that grows in natural areas and to prevent any actions that could lead to its extinction. Most importantly, brittle cultivation and processing is profitable, and its development and creation of new jobs will have a positive impact on our economy.

Chemical composition of the product.

In medicine, the root and root glue-resin are used. Glue-resin from the roots (dried milk juice) -

"Assa-foyetida" contains resins, glue, essential oil and other compounds (umbelliferon coumarin, ferula acid and its esters formed with resin alcohols). Glue-resin essential oil contains organic sulfides, pinene, coumarins and other compounds that give the plant the smell of garlic. The composition of the glue-resin is 65.15% of resins, 12-48% of glue and 5.8-20% of essential oil. Ferular acid, asarezen, asarezenatanol, asarezinol and their esters with ferulic acid, as well as farnisiferol and umbelliferone compounds were isolated from resins. The essential oil is composed mainly of organic sulfides (up to 65%) and also contains pinene and oxycoumarin.

The root contains up to 9% resin. The resin contains up to 0.4% essential oil. Kovrak glue is used in folk medicine for the treatment of varicose veins, pulmonary tuberculosis, plague, ulcers, whooping cough, toothache, nervous and other diseases, as well as as a stimulant, expectorant. It is used as a decongestant and worm-driving medicine. Dangerous tumors and wounds are treated by crushing the very young branches of the bark and squeezing them into yogurt. It is used in asthma, vascular and neurological diseases in the form of tincture, emulsion and extract. In scientific medicine, brittle gum-resin is used as a powder, emulsion and tincture under the name "assa fetida" as a painkiller, expectorant, diuretic, stimulant and sedative, and is used in pharmacopoeia in many countries. included. In Eastern countries, Iran, Pakistan, Afghanistan and India are used in the manufacture of perfumed juice and the root as a spice in the food industry, in the manufacture of perfumes in the cosmetics industry.

Conclusion:

Based on the above, it is necessary to widely inform our people about the medicinal properties of fenugreek. In addition, it is important that our doctors, who work in hospitals, as well as specialists in the field of folk medicine, widely use it in medical practice. We need to increase the amount of such plants so that they do not disappear in the future.

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LANGUAGE, SPEECH CULTURE AND EDUCATION

Abstract: The use of language tools in speech activities requires adherence to certain social, more precisely, enlightenment and cultural norms established by society. Withdrawals from them have not always been approved by language owners. Where there is a norm, there has always been culture. Normality in language and speech is referred to in linguistic theory and practice as linguistic culture, or rather, language and speech culture. These are relevant and unexplored areas not only in linguistics but also in linguodidactics.

Key words: language, culture, phenomenon, system, education, speech culture, ethnoculture, linguodidactics.

Language: English

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Introduction

Language is interrelated with the relationships of people in society and the processes of spiritual and material production, and at the same time is relatively independent. One of the peculiarities of language is the division of language units into certain parts: sentences, phrases, words, morphemes, and etc.

According to experts, in order to separate the social thing from the personal thing, the historically evolving system from the separate activity of man, the following definition was created: "The next history of language is the history of the liberation of speech from practice, the history of speech as an independent activity ...".

Language, which forms a unified dialectical unit and serves mainly communicative purposes in society, and its dynamic state, speech, is one of the most complex and multifaceted linguistic and philosophical categories. As unique social phenomena, each of them is also a unique and unique product of the cultural sphere, which forms the basis of the development of society.

The pursuit of the correct and appropriate use of language and speech units, which are the most universal linguistic (verbal) means of communication, has led to the formation of notions of civilized language and speech, scientific views.

The study of the question of the interdependence of language and cultural phenomena has been

complicated by the lack of a clear definition of the concept of culture, which in many cases is a complex, multifaceted, multifaceted social phenomenon. There are now hundreds of definitions of culture, including contradictory definitions of culture as a norm and a change in standards, adaptation and overcoming social inertia, accumulated experience, and selfimprovement.

"Language cannot exist outside of culture. It is a collection of practical views and ideas that define our socially inherited way of life." It has been repeatedly emphasized by F.V. Humboldt.

Vocabulary (also from a culturological point of view) is important within the levels of the language system. It expresses, describes, and describes the being around man and his inner world, and can motivate him by defining the behavior of the owner of the language. The lexical structure of the national language preserves the peculiarities of ethnosociocultural norms and transmits them from generation to generation, thus ensuring the stability and coherence of the ethnic mentality. By studying the peculiarities of the use of words, we can obtain information about the spiritual health of a nation: by accurately assessing the facts, recording them in a consistent manner, determining the direction of dynamics, to some extent, we can predict the stages of development of this nation.



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Certain phenomena are perceived by people on the basis of linguistic skills and norms formed in their society. Each language has its own view of the world. The difference between worldviews is also as much different as the languages are. But it is also doubtful to say that different languages show us worldviews. It deprives you of the opportunity to know what the world really looks like. Language simultaneously embodies the external features of being and the inner essence of thinking.

The emergence of a literary language as a result of the regulation of the national language on the basis of a number of linguistic and extralinguistic norms is also not a coincidence but a law. Many intralinguistic and extralinguistic factors (e.g., the division of labor, man's perception of the world, and the creation of different worldviews based on different perspectives, etc.) played an important role in this.

It is true that valuing the language like any other cultural heritage, passing on its unique and beautiful examples to future generations, enriching it with new life content and meaning, constantly preserving and striving for the language of the people as a literary language is both convenient, useful and spiritual. This allows not only the language of the people, but also the original social image of the speakers, the preservation of the status quo, not only in the solidification of the literary language itself, but also in a comprehensive dialogue, in a dynamic form literary speech. The aspiration of the people to express their national identity through their mother tongue and its supreme example, the literary form, and to perfection inherent in human nature and never to perish, is manifested in the form of a culture of speech in the scope of its linguistic activity.

Raising the level of speech culture has attracted the attention of intellectuals at all stages of language development. Its solution depends on the right attitude to the literary language, the solution of a number of issues, such as its preservation, enrichment, the struggle for purity.

In many studies, literary language has a number of distinctive features, it is recognized by all language owners, it is the highest form of the national language they know, and it is subject to certain linguistic norms, grammatical rules, manifested in written and oral forms, and therefore mandatory for all. such considerations have been acknowledged.

The fact that the literary language is divided into methodological branches determines another important feature of it - its polyvalence, polyfunctionality. This indicates that its scope and fields of service are much wider than those of dialect, slang, slang, and other common types. Literary language serves as a convenient, necessary, useful, important and powerful means of communication in all aspects of speech activity. The regular use of literary language has led to the development of special rules, certain norms, which ensure the effectiveness of

this activity. This, in turn, plays an important role in the creation of the doctrine of modern speech culture.

The current information age requires its educated, enlightened representatives to be extremely responsible in their speech when speaking in public. Such linguistic responsibility requires the acquisition of simple, essential skills and competencies that form the basis of a demanding speech culture.

Speech culture means, first and foremost, speaking without error in any communicative situation. Right thinking, right speech is recognized as a sign of culture. Being able to write without mistakes means "spelling, this is literacy. Literacy is a sign of culture."

Each type of speech culture has its own characteristics, which are determined by the ability of speech owners to speak. In particular, the culture of elite speech is an example of literate speech. Speakers of such speech should not violate the rules of communication: they should avoid rude, forbidden words and phrases, and, if necessary, use euphemisms and slang. But their open speech is like speech, made up of simple, lively sentences. It is not typical for the owners of an elite speech culture to respond rudely to any question or objection of the interlocutor. They show their respect for the listener with their speech." They will always have a good attitude towards their speech. To do this, he skillfully uses various means of artistic representation. However, such intellectuals are declining year by year. Even high school and media workers are not able to rise above the ranks of the carriers of the average literary speech culture.

The term elite type of speech culture should be distinguished from the concept of "good speech". Good speech can be observed not only in elite speech culture, but also at lower levels, such as average literary speech or simple speech, in the levels of speech in a literary language.

The characteristics of the average literary speech culture are as follows:

- The general cultural level of the owner of this type of language is much lower than the owner of the culture of elite speech:
- owners of such speech use two or three functional styles, do not know the rest well;
- in relation to the text, entertainment literature and other media texts are an example for them;
- this type of communicators can violate the norms of speech-ethics, (ie, moral) in relation to their addressee (use rude expressions instead of swearing), confuse the norms of oral and written speech, deviate from orthoepic, orthographic, grammatical norms, sometimes use foreign words in large quantities (sometimes). even without realizing it).

The high frequency of errors in this type of culture-specific communication practice, according to researchers, is the result of the formation of language on the basis of new norms. The prevalence of an average literary speech culture among educated



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people is of concern to experts. Because this is one of the signs that the level of general speech culture in the society is declining.

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DEVELOPMENT OF INFRASTRUCTURE FOR AGRICULTURAL SERVICES

Abstract: the article deals with the formation of the infrastructure of agricultural services, classification of agricultural infrastructure, discussion of problems in the field of agricultural services, infrastructure for the provision of services, growth rates of agricultural production, service parks for servicing farms.

Key words: infrastructure, topography, consulting, engineering, and social infrastructure.

Language: Russian

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ФОРМИРОВАНИЕ ИНФРАСТРУКТУРЫ СЕЛЬСКОХОЗЯЙСТВЕННЫХ УСЛУГ

Аннотация: В статье рассматриваются вопросы формирования инфраструктуры сельскохозяйственных услуг, классификации сельскохозяйственной инфраструктуры, обсуждения проблем в сфере сельскохозяйственных услуг, инфраструктуры для оказания услуг, темпов роста сельскохозяйственного производства, сервисных парков для обслуживания фермерских хозяйств.

Ключевые слова: инфраструктура, рельеф, консалтинг, инженеринг, социальная инфраструктура.

Введение

В аграрном секторе экономики страны проводится ряд экономических реформ. Основная цель этих реформ - сформировать собственников недвижимого имущества В селе, производство c осознанным пониманием рыночных отношений и обеспечивать эффективное функционирование. Разработан Указ Президента Шавката Мирзиёева УП-5853 от 23.10.2019 об утверждении Стратегии развития сельского хозяйства Республики Узбекистан на 2020-2030 дальнейшему годы по совершенствованию сельского хозяйства. Указ устанавливает ряд приоритетов.

Необходимо учитывать особенности отрасли, отделяющей сельское хозяйство от промышленности, при формировании

материально-технической базы, в организации и управлении производством, при определении экономической эффективности использования производственных ресурсов.

мировой практике инфраструктуры было впервые введено в начале XX века как совокупность объектов и сооружений, необходимых для полноценного функционирования вооруженных сил. К 1940-м годам западные страны понимали инфраструктуру как неотъемлемую часть отраслей и институтов, которые создавали необходимые условия для деятельности отраслей материального производства. [1]. Возникновение термина инфраструктуры, этапы становления напрямую связаны с совершенствованием этих объектов и развитием экономической теории. [2].



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Осуществление и углубление экономических реформ в сельском хозяйстве, в свою очередь, реформирования функционирования обслуживающей инфраструктуры, организации сельскохозяйственных предприятий с учетом потребностей И требований. Важнейшей объективной необходимостью развития, реорганизации И улучшения сервисной инфраструктуры в сельском хозяйстве является:

Возникновение различных имущественных и хозяйственных обществ, превращение их в мелких производителей, увеличение их общего количества, уменьшение количества закрепленных за каждым земельным участком;

- Государство выделяет средства инфраструктуру, обслуживающую экономику. В настоящее покупка субъектов время хозяйствования за счет собственных средств, в результате чего недостаточно средств и мощностей создания сервисной для инфраструктуры;
- Повышенный спрос на качественную, доступную и гарантированную инфраструктуру обслуживания;
- Большинство существующих сервисных предприятий специализируются на обслуживании крупных фермерских хозяйств без учета потребностей мелких производителей;
- Раньше материально-техническая поддержка всех сельскохозяйственных предприятий осуществлялась непосредственно государством через фонд, а при переходе к рыночным отношениям приобретение материальных ресурсов за счет собственных средств хозяйствующих субъектов;
- Отсутствие денежных потоков и финансовая уязвимость мелких производителей, каждое из которых не может организовать свои собственные услуги.

Осуществление глубоких экономических реформ в стране привело к радикальным изменениям во всех секторах экономики, включая сельское хозяйство и систему инфраструктуры, которая его обслуживает. Появились новые услуги (консалтинг, инжиниринг, лизинг и др.). Кардинально изменилась деятельность большинства сервисных компаний, расширился спектр услуг.

Ниже приведены различные определения инфраструктуры.

- 1. **Инфраструкту́ра** (лат. infra «ниже», «под» и лат. structura «строение», «расположение») комплекс взаимосвязанных обслуживающих структур или объектов, составляющих и обеспечивающих основу функционирования системы [3].
- 2. **Инфраструктура** это, как правило, дополнительный вид деятельности, ориентированный на обслуживание основного объекта[4].

В общем, инфраструктура - это латинское означающее инфра-суб, фундамент, строение, взаимное расположение. Сущность инфраструктуры представляет совокупность производств, которые служат для обеспечения общего состояния производственных секторов национальной экономики и социальной сферы. Инфраструктура - это совокупность условий, которые обеспечивают благоприятное частного предпринимательства в ключевых отраслях экономики и удовлетворяют потребности всего населения. Инфраструктура это сложная сеть и отрасли, нацеленные на обеспечение нормативных условий экономического и социального воспроизводства. позволяет эффективно работать агропромышленному комплексу счет реализации технологических, производственных, экономических и организационных возникающих в производственном процессе. Инфраструктура неотъемлемая производительных сил общества.

Инфраструктура как сфера агропромышленного комплекса имеет особенности. Во-первых, она, в отличие от других звеньев АПК, представлена в качестве собирательного блока; во-вторых, связь с другими составными частями комплекса осуществляется на основе функционального разделения труда. Также особенностью инфраструктуры является возникновение ее отраслей как следствие углубления разделения труда и тенденция интеграции отраслей инфраструктуры с основным производством.

Таблица 1. Схема классификации инфраструктуры[5]

Классификационные знаки				Типы инфраструктуры
По	степени	влияния	на	Производственная
произ	водственный п	роцесс		Социальная
				Институциональная
				Экологическая
				Информационная
По оп	раслевой прина	длежности		Межсетевая
				Отраслевая



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	Внутриотраслевая
По территориальному размещению	Народнохозяйственная
	Региональная
	Корпоративная или локальная
По функциональному назначению	Транспортная
	Снабженческая
	Водоэнергетическая
	Здравоохранительная
	Образовательная
	Торговая
	Духовно-культурный
	И другие
По отношению к рынкам	Потребительского рынка
	Финансово-кредитного рынка
	Рынка труда
	Инновационная

Один из ключевых вопросов при обсуждении проблем в агросервисе - подрядчик (Рисунок-1).



Рисунок 1. Инфраструктура внедрения услуги

На структуру и уровень развития сервисной инфраструктуры в сельском хозяйстве влияют: внешние (объективные) факторы - природноклиматические условия, рельеф[6], водоснабжение, развитость транспортной сети, расположение предприятия, удаленность от транспортных узлов и выходов; внутренние факторы - способность организации создать необходимую инфраструктуру для обеспечения бесперебойного производства за собственные и

заемные средства: внутрихозяйственные дороги, склады зерна, картофеля и овощей, мастерские по ремонту машин и оборудования, гаражи, склады оборудования и площадки, ГСМ складских помещений, мелиоративных сооружений, навозохранилищ, а также электрификация производственных помещений. Динамика ввода основных мощностей сельскохозяйственных предприятий представлена в таблице (Рисунок-2).





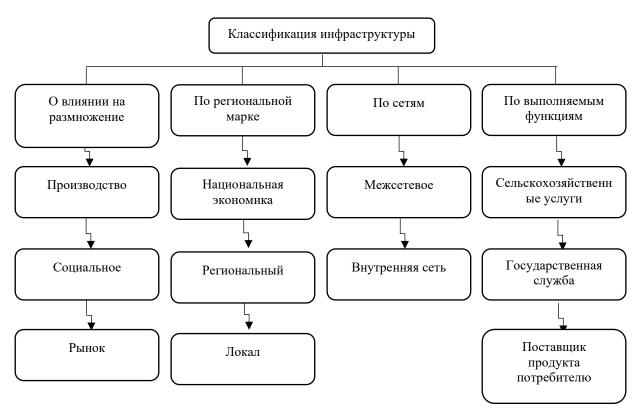


Рисунок 2. Классификация сельскохозяйственной инфраструктуры.

Эффективность сельскохозяйственной инфраструктуры отражается в снижении потерь продукции, своевременной ee сдаче переработку, поддержании и улучшении качества повышении продукции, производительности труда, снижении материальных и денежных затрат единицу продукции. Срок окупаемости капитальных вложений в сельскохозяйственную инфраструктуру 3-5 лет. Капитальные вложения включают в себя экономию заработной платы, материальных и финансовых ресурсов за счет эксплуатации объекта инфраструктуры, экономию на дополнительной продукции за счет снижения потерь, увеличение выручки от продажи более качественной продукции, экономию на ремонте оборудования и т. Д. Состояние инфраструктуры промышленного локальной предприятия зависит от инфраструктурного обеспечения агропромышленного комплекса региона, области, сел, а ее развитие находится в компетенции местных властей.

К производственному агросервису (производственному обслуживанию сельских товаропроизводителей, сервисному обслуживанию сельского хозяйства) относят отрасли и предприятия, которые выполняют для сельскохозяйственных предприятий, фермерских и личных подсобных хозяйств широкий круг услуг. Они осуществляют работы в полеводстве и

животноводстве, проводят агрохимические, землеустроительные, мелиоративные мероприятия, занимаются переработкой производят сельскохозяйственной продукции; завоз производственных ресурсов, стройматериалов продукции, вывоз осуществляют внутрихозяйственные транспортные работы; диагностику, ремонт, обслуживание техническое тракторов, автомобилей, сельхозмашин и оборудования; сдают в аренду и прокат технику, оборудование, производственные и складские помещения; проводят ремонт и техническое обслуживание внутрихозяйственных энерго-, тепло- и водосетей, также соответствующего оборудования; ремонтируют прокладывают внутрихозяйственные дороги, подъездные пути, производственные и складские помещения[7].

Комплекс социальной инфраструктуры одна из важнейших и развитых подсистем единого народнохозяйственного комплекса, обеспечивающая благоприятные условия для работы и отдыха работников. Это создает благоприятные условия эффективной ДЛЯ производственной деятельности и обеспечивает нормальные социальные условия для сельского населения, TOM числе работников сельскохозяйственных предприятий и их семей.



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Таблица 2. Темпы роста сельскохозяйственного производства[8]

	Все категории хозяйств	В том числе:				Шу жумладан:		
Годы		Фермерски е хозяйства	Дехканские (личные подсобные) хозяй-ства	Организации, осуществ-ляющие сельскохозяйствен ную деятельность	Все категории хозяйств	Фермерски е хозяйства	Дехканские (личные подсобные) хозяй-ства	Организации, осуществ- ляющие сельскохозяйстве нную деятельность
	Растениеводство		Животноводство					
2015	105,5	103,3	108,2	103,6	106,9	105,7	106,9	107,1
2016	105,7	102,3	110,2	90,8	107,0	106,2	107,0	108,5
2017	98,2	92,2	104,6	110,2	104,1	96,7	104,5	101,7
2018	95,8	90,5	99,8	135,5	105,7	137,5	104,0	118,9
2019	104,8	110,2	97,6	159,6	101,6	113,8	100,2	123,5
январь- сентябр ь 2020 года 1)	104,0	105,8	100,1	205,8	101,6	95,3	101,9	105,0

1) Данные за 2020 год предварительные

В сельском хозяйстве процесс разгосударствления и приватизации государственной и общественной собственности направлен на развитие фермерских хозяйств и обслуживающей их инфраструктуры. Созданы ремонтно-технические парки для технического обслуживания хозяйств.

К основным направлениям деятельности таких парков относятся:

- капитальный и текущий ремонт существующих тракторов, а также деталей к нему и сельхозтехники;
- Текущий ремонт и обслуживание сельхозтехники;
 - содержание животноводческих ферм;
 - транспортные услуги;
- выработка и продажа тепловой энергии в виде пара и горячей воды;
- производство бульдозерных прицепов и нестандартного оборудования;

- Вывоз отходов электроснабжения, водоснабжения и канализации;
- Обеспечение потребности сельхозпроизводителей в материальнотехнических ресурсах.

Чтобы обозначить начало применения термина «инфраструктура» в экономической науке, необходимо определить автора его первоначальной трактовки. Общеизвестно, что основоположниками экономических учений, косвенно или прямо связанных с познанием инфраструктуры, были зарубежные ученые-экономисты[9].

Словом, взаимная договоренность и компромиссное решение экономических и правовых отношений между инфраструктурой агросервиса и фермерскими хозяйствами поможет организовать деятельность обоих хозяйствующих субъектов на основе сотрудничества.

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INVESTIGATION OF THE THERMOELASTIC STATE OF ANISOTROPIC BODIES OF ROTATION

Abstract: The paper presents a method for determining the stress-strain state of transversely isotropic bodies of revolution located in a stationary axisymmetric field of steady temperatures. The border of the body is free from effort and pinching. The problem is solved by the reverse method. The concept of the space of internal states is formulated and the scalar product is introduced in this space. Its orthonormalization is carried out and the desired state is a Fourier series in the elements of the orthonormal basis. The problem is reduced to determining the coefficients of these series. A rigorous solution of the test problem of thermoelasticity for a circular cylinder and an approximate solution of the problem for a body in the form of a stepped cylinder are presented. The resulting fields of characteristics of the stress-strain state are shown graphically. Analysis of the results is done.

Key words: stress-strain state, reverse method, analysis.

Language: English

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Introduction

Modern materials used in mechanical engineering, aircraft construction, polycrystalline metals, ceramics, and composite materials with significant anisotropy in terms of elastic properties, are often exposed to strong thermal effects. Determination of the stress-strain state of heated bodies due to the complex physical nature of materials is an urgent scientific problem.

The work [1] is devoted to the study of thermomechanical processes of the final deformation of anisotropic media. For a transversely isotropic cylinder, the boundary value problems of the theory of elasticity were solved with the participation of mass forces [2-5]. The peculiarity of the solution lies in the fact that the wake of the elastic field simultaneously satisfies the specified conditions on the boundary and inside the region. In the case of small deformations of

an elastic anisotropic body, stresses, deformations, and temperature are most often related using the Duhamel-Neumann equations, the derivation of which from the point of view of thermomechanics is given in Novatsky's monograph [6]. The problems of thermoelasticity for anisotropic bodies considered in the books: B.E. Pobedri, A.S. Kravchuk, V. Novatsky.

In [7] an axisymmetric problem of static thermoelasticity for a transversely isotropic circular cylinder of finite length is considered. Using a special voltage function, the basic equation of the problem is derived. It is proved that the operator is symmetric and positive definite, and thus the solution of the original equation is reduced to the problem of the minimal

The problems of determining the temperature field from the values of temperatures and heat fluxes



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set at the boundary for isotropic homogeneous and inhomogeneous bodies were investigated by the method of boundary states in [8].

The work [9] is devoted to the study of stress fields in the problems of gradient thermoelasticity arising in the framework of gradient models of thermal conductivity that describe the thermal barrier properties of boundaries due to a more complete consideration of the conjugation conditions at the interfaces of composite layers. In [10], the stationary problem of the gradient theory of thermoelasticity for layered composite structures was considered. A solution is given to the problem of inhomogeneous temperature heating of a single-layer and two-layer structure.

In [11] using the generalized Fourier method, an axisymmetric thermoelastic boundary value problem for a transversely isotropic half-space with a spheroidal cavity was solved.

In [12] an inverse method was developed for determining the stress-strain state of an elastic isotropic body from continuous volumetric forces.

In [13] unrelated boundary value problems of thermoelasticity were solved for shallow shells of double curvature and constant torsion under conditions of convective heat transfer through the main surfaces with the external environment. The solutions are obtained by methods of single and double trigonometric series with variable coefficients.

Recently, three-dimensional asymmetric problems of thermoelasticity for isotropic bodies have been widely studied [14], [15]. In [16], an exact solution of an asymmetric boundary value problem of the theory of elasticity is constructed for a cylindrical reservoir with a liquid in a temperature field (an unconnected thermoelastic problem).

The aim of the work is to develop a mathematical model for solving thermoelasticity problems for transversely isotropic bodies of revolution located in a stationary axisymmetric field of steady temperatures. The model is based on the fundamentals of the integral overlay method, the method of boundary states and the inverse method.

1. Formulation of the problem

In the stationary problem of thermoelasticity, thermal boundary conditions reflect the effect of the environment on the surface *S* of the body and are written in the form of one of the following conditions:

1) the temperature T is set on the surface as a function of the coordinates

$$T = k(P)$$
, $P \in S$;

2) the normal component of the temperature gradient is set on the surface as a function of the coordinates

$$\partial T/\partial n = k(P), P \in S$$

corresponding to the heat flux passing through the surface S;

3) a function describing free heat transfer is given on the surface:

$$(\partial/\partial n + \alpha)T = f(P), P \in S,$$

where α is some constant

4) mixed boundary thermal conditions are set on the surface, i.e. different boundary conditions are set on different sections *S*.

Let in an undeformed and unstressed state a transversely isotropic body bounded by one or several coaxial surfaces of revolution has a temperature of T_1 as a function of coordinates r, z. As a result of the influence of any factors (external loads, internal heat sources, surface heating), the body temperature changed and became T_2 , then the temperature increment will be $T = \Delta T = T_2 - T_1$. The surface of the body is free from pinching and external stress. We will assume that a change in temperature does not lead to a change in the elastic and thermal constants of the material. The limiting values of the temperature function at the points of the boundary are used as the boundary temperature conditions.

A change in temperature is accompanied by the occurrence of displacements, deformations and stresses, which must be determined.

Due to axial symmetry, the displacement vector component v=0, the stress tensor components $\sigma_{r\theta}=\sigma_{z\theta}=0$ and the strain tensor $\gamma_{r\theta}=\gamma_{z\theta}=0$.

In cylindrical coordinates, the sought axisymmetric (ie, depending only on the coordinates z and r) temperature displacements, deformations, and stresses must satisfy the following resolving equations [17].

1. Differential equilibrium equations:

$$\sigma_{r\theta} = \sigma_{z\theta} = 0. \tag{1}$$

2. Generalized Hooke's Law:

$$\varepsilon_{z} = \frac{1}{E_{z}} \left[\sigma_{z} - v_{z} (\sigma_{r} + \sigma_{\theta}) \right] + \alpha_{z} T ;$$

$$\varepsilon_{r} = \frac{1}{E_{r}} (\sigma_{r} - v_{r} \sigma_{\theta}) - \frac{v_{z}}{E_{z}} \sigma_{z} + \alpha_{r} T ;$$

$$\varepsilon_{\theta} = \frac{1}{E_{r}} (\sigma_{\theta} - v_{r} \sigma_{r}) - \frac{v_{z}}{E_{z}} \sigma_{z} + \alpha_{r} T ;$$

$$\gamma_{zr} = \frac{1}{G_{z}} \tau_{zr} .$$
(2)

3. The Cauchy relations:

$$\varepsilon_{z} = \frac{\partial w}{\partial z}; \varepsilon_{r} = \frac{\partial u}{\partial r};$$

$$\varepsilon_{\theta} = \frac{u}{r}; \gamma_{zr} = \frac{\partial w}{\partial r} + \frac{\partial u}{\partial z}.$$
(3)

Here the designations are introduced: σ_{ij} – stress tensor components; ε_{ij} – strain tensor components; u, w – components of the displacement vector in the direction of the r and z axes; α_z , α_r – coefficients of thermal expansion in the direction of



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the z and r axes; T is the temperature; E_r , E_z modules of elasticity in the direction of the plane of isotropy and normal to it; v_r - Poisson's ratio, characterizing compression in the plane of isotropy, when stretched in this plane, v_z – the same, but when stretched in the direction normal to the plane of isotropy; G_r and G_z - shear modules for the plane of isotropy and any perpendicular to it.

2. Solution method

Method of boundary states [18] and the inverse method [12] are similar in structure; both use the concept of space of internal states of the environment $\Xi = \{\xi_1, \xi_1, ..., \xi_k, ...\},\$

whose basis is orthogonalized. The desired state is expanded into a Fourier series in terms of the elements of the orthonormal basis, and the task is to find the coefficients of this linear combination. The difference lies in the choice of the orthogonalizer and in the expression for dot products.

Sets are accepted as internal state ξ_k :

The main difficulty is the construction of the basis of internal states, which is based on a general, fundamental or particular solution for the environment. The procedure for constructing the basis of internal states in the case of thermal deformations is described below.

Orthonormalization of the basis is carried out according to the developed recursive-matrix Gram-Schmidt algorithm [19], where as cross scalar products are taken (for example, for the first and second states):

$$(\xi_1, \xi_2) = \int_V T_0^{(1)} T_0^{(2)} dV$$
.

The sought thermoelastic state is the Fourier series:

$$\xi = \sum_{k=1}^{\infty} c_k \xi_k \; ;$$

or in expanded form:

$$\mathbf{u} = \sum_{k=1}^{\infty} c_k \mathbf{u}^{(k)} \; ; \; \varepsilon_{ij} = \sum_{k=1}^{\infty} c_k \; \varepsilon_{ij}^{(k)} \; ;$$

$$\sigma_{ij} = \sum_{k=1}^{\infty} c_k \; \sigma_{ij}^{(k)} \; ; \; \grave{O} = \sum_{k=1}^{\infty} c_k \grave{O}_0^{(k)} \; . \tag{5}$$

where ξ_k are the elements of the orthonormal basis of the internal state Ξ , c_k are the Fourier coefficients, which are calculated as follows:

$$c_k = \int_V T T_0^{(k)} \, dV \,, \tag{6}$$

where $T_0^{(k)}$ is the temperature in the basic element ξ_k , T is a given temperature field.

3. Building a basis of internal states

The temperature field giving the temperature value at any point of the body will be considered known.

The steady-state temperature field $T_0^{pl}(z, y)$ of a flat state with no heat sources inside satisfies the heat equation [17]:

$$\left(k_z \frac{\partial^2}{\partial z^2} + k_r \frac{\partial^2}{\partial y^2}\right) T_0^{pl}(z, y) = 0,$$

where k_z and k_r are the coefficients of thermal conductivity in the direction of the z and r axes;

$$T_0^{pl} = \frac{g_0}{E_z} \operatorname{Re}[\varphi_0(\zeta_0)], \ \zeta_0 = z/\gamma_0 + iy,$$

Displacements and stresses of plane states corresponding to the temperature field [17]:

$$u_{z}^{pl} = \operatorname{Re}[p_{0}\varphi_{0}(\varsigma_{0})]; u_{y}^{pl} = \operatorname{Re}[iq_{0}\varphi_{0}(\varsigma_{0})];$$

$$u_{\eta}^{pl} = 0;$$

$$\sigma_{z}^{pl} = -\operatorname{Re}[\gamma_{0}^{2}\varphi_{0}(\varsigma_{0})]; \sigma_{y}^{pl} = \operatorname{Re}[\varphi_{0}(\varsigma_{0})]; (8)$$

$$\sigma_{\eta}^{pl} = \operatorname{Re}[(1 - \varepsilon_{0})\varphi_{0}(\varsigma_{0})]; \sigma_{zy}^{pl} = -\operatorname{Re}[\gamma_{0}\varphi_{0}(\varsigma_{0})]$$

where g_0 , p_0 , q_0 , ε_0 are constants depending on elastic and thermomechanical constants; $\varphi_0(\zeta_0)$ – some analytical function of the variable ζ_0 .

In [17], based on the method of integral superposition, a relationship was established between the spatial stressed and deformed states of an elastic transversely isotropic body and certain auxiliary twodimensional states, the components of which depend on two coordinates z and y (variables). Plane deformation arising in infinite cylinders with axis η , having at each point a plane of elastic symmetry parallel to the zy plane, is used as plane auxiliary states.

The transition to an axisymmetric spatial state in cylindrical coordinates is carried out according to the dependencies [20]:

$$\begin{split} \sigma_z &= \frac{1}{\pi} \int_{-r}^r \frac{\sigma_z^{pl}}{\sqrt{r^2 - y^2}} dy \; ; \\ \sigma_{zr} &= \frac{1}{\pi} \int_{-r}^r \frac{\sigma_{zy}^{pl}}{\sqrt{r^2 - y^2}} dy \; ; \\ \sigma_{z\theta} &= \sigma_{r\theta} = 0 \; ; \end{split}$$



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$$\sigma_{r} - \sigma_{\theta} = \frac{1}{\pi} \int_{-r}^{r} \frac{(\sigma_{y}^{pl} - \sigma_{\eta}^{pl})(2y^{2} - r^{2})}{r^{2} \sqrt{r^{2} - y^{2}}} dy;$$

$$\sigma_{r} + \sigma_{\theta} = \frac{1}{\pi} \int_{-r}^{r} \frac{(\sigma_{y}^{pl} + \sigma_{\eta}^{pl})}{\sqrt{r^{2} - y^{2}}} dy; \qquad (9)$$

$$u = \frac{1}{\pi} \int_{-r}^{r} \frac{u_{y}^{pl}}{r \sqrt{r^{2} - y^{2}}} dy; \quad w = \frac{1}{\pi} \int_{-r}^{r} \frac{u_{z}^{pl}}{r \sqrt{r^{2} - y^{2}}} dy;$$

$$v = 0.$$

The basis of space (4) can be constructed by assigning the following values to the function φ_0 in (7), (8) sequentially: $\varphi_0 = \zeta_0^n$, n = 1, 2, 3... and, according to (9), to carry out the transition to a spatial axisymmetric temperature state, forming a finite-dimensional basis.

4. Test problem

We will test the method by studying the thermoelastic state of a transtropic cylinder made of coarse dark gray siltstone [21]. After the dimensionless procedure, the analogy of which is given in [22], the elastic characteristics of the material: $E_z = 6.21$; $E_r = 5.68$; $G_z = 2.55$; $v_z = 0.22$; $v_r = 0.24$. The body occupies an area: $D_2 = \{(z,r) | 0 \le r \le 1, -2 \le z \le 2\}$. Let us set the following dimensionless thermomechanical characteristics of a hypothetical transversely isotropic material: $k_z = 1.6$, $k_r = 6.5$, $\alpha_z = 6.7$, $\alpha_r = 8.6$. Preset temperature field $\dot{O} = z + 2$.

The orthonormalized basis of the temperature functions T^0 in (5) is presented in Table 1

Table 1. Orthonormal basis set of temperature functions

	T_0
ξ_1	-0.70711
ξ_2	-0.61237 z
ξ ₃	$0.75375 + 0.07294 r^2 - 0.59266 z^2$
ξ_4	$1.28853z + 0.21475r^2z - 0.58163z^3$
ξ ₅	$-0.6645 - 0.21216 r^2 - 0.01278 r^4 + 1.7238 z^2 + 0.41552 r^2 z^2 - 0.56268 z^4$

Fourier coefficients (6) $c_k \in \{-2.82843, -1.633, 0, 0, 0, ...\}.$

The decision is strict. Reconstructed components of the temperature elastic field (5):

$$u = -4.01471r - 2.00736rz;$$

$$w = -0.95057r^2 + 30.8935z + 7.72338z^2;$$

$$\sigma_r = -143.267 - 71.6334z;$$

$$\sigma_\theta = -143.267 - 71.6334z;$$

$$\sigma_z = 39.8667 + 19.9333z; \ \tau_{rz} = -9.96667r;$$

$$\tau_{z\theta} = \tau_{r\theta} = 0; \ T = z + 2.$$

5. Design problem

Let us investigate the thermoelastic equilibrium of a transversely isotropic stepped cylinder with the same elastic and thermomechanical characteristics. Set temperature field $T=z^2$. The body occupies an area:

$$\begin{split} D &= D_1 + D_2; D_1 = \{(z,r) \big| \ 0 \le r \le 2, \ 0 \le z \le 2\}; \\ D_2 &= \{(z,r) \big| \ 0 \le r \le 1, \ -1 \le z \le 0\} \; . \end{split}$$

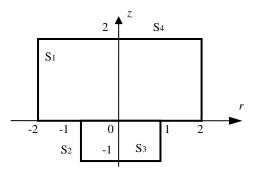


Fig. 1. Meridian section of a body of revolution



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When determining the elastic field from temperature, an orthonormal basis of 20 elements was used. The solution representing series (6) satisfies all equations (1) - (4).

In Figure 2 shows a graph illustrating the "saturation" of the Bessel sum (the left side of the Bessel inequality). This is an indirect sign of the convergence of the solution.

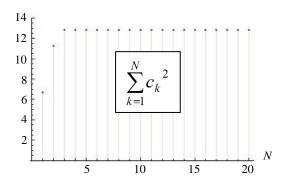


Fig. 2. Bessel sum

Figure 3 illustrates the comparison of the reconstructed temperature field with a given field.

This comparison is key to assess the accuracy of the solution across the entire area.

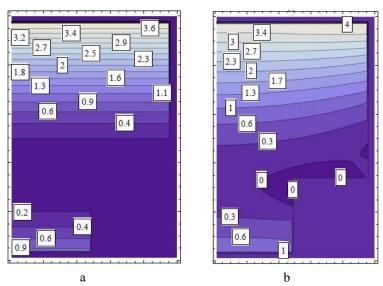


Fig. 3. Temperature field: a - preset; b - restored

Let us compare the temperature at the S₁ boundary (Fig. 4). The dashed line on the graph is the specified values; solid - recovered values.

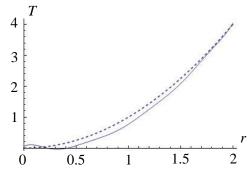


Fig. 4. Verification of temperature at the border S₁



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As seen from Fig. 3 and 4, the reconstructed temperature field coincides with the preset ones within the range of a certain accuracy ($\pm 10\%$ of the preset value at any point in the region).

The contours of the obtained components of the stress-strain state are shown in Fig. 5 a – d. Due to axial symmetry, region $\{(z,r)|\ 0 \le r \le 2,\ -1 \le z \le 2\}$ is depicted.

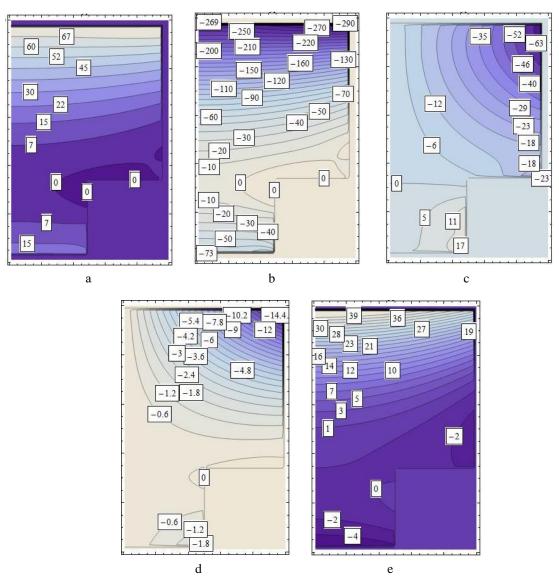


Fig. 5. Isolines: a – stress σ_{zz} ; b – stress σ_{rr} ;; c – stress σ_{zr} ; d – displacement u; e – displacements w

The question of the convergence of the solution when the basis increases was investigated. With an increase in the number of used elements of the basis of internal states, an oscillation was observed in the vicinity of the singular boundary, which continued to grow and "creep" into the depth of the region with an increase in the number of used basis elements, while the Fourier coefficients constantly decrease. For

example, the found temperature values on the surface S₁ with 43 retained basis elements are shown in Fig. 6. Naturally, the solution becomes unusable in this case. Overcoming these difficulties requires further research, but here, however, as an approximate result, the obtained state was chosen, the reconstructed temperature of which corresponded to the given.



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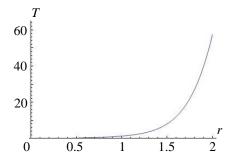


Fig. 6. Temperature at the S₁ boundary at 43 Fourier coefficients

Finally, we can say that the convergence of the solution mainly depends on the boundary of the body and the temperature distribution function.

The proposed approach, which is, in fact, a development of the inverse method, has shown its effectiveness in terms of solving thermoelastic axisymmetric problems for transversely isotropic bodies of revolution. The advantage of the presented approach is that the most laborious calculations, namely the construction of an orthonormal basis, are performed once for a body of a certain configuration.

Then this basis can be used to solve various thermoelastic problems for this body. The main advantage over numerical methods is that in its structure the method operates with quadratures, which are taken by means of computer algebra with absolute precision. This eliminates another reason for the formation of the resulting calculation error associated with the intermediate nature of the numerical calculation. Also, the proposed approach allows you to get an analytical solution to problems.

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The research was sponsored by RFFR and the administration of the Lipetsk region as part of research project No.19-41-480003 "r_a".

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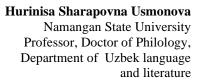
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FUNCTIONAL-SEMANTIC PROPERTIES OF PARTS OF SENTENCE

Abstract: This research discusses the status of the secondary degree (subordinate) clause of a sentence by analyzing the previous research and giving examples. In this research, the role of the secondary degree (subordinate) clause was explained and propositional nomenclature was suggested as the means of identifying the status of the secondary degree parts of the sentence.

Key words: Predicate, subject, attribute, modifier, propositional nomenclature, parts of a sentence.

Language: English

Citation: Usmonova, H. S., & Sheralieva, M. A. (2020). Functional-semantic properties of parts of sentence. ISJ Theoretical & Applied Science, 12 (92), 170-172.

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Scopus ASCC: 1203.

Introduction

In both Uzbek and Russian linguistics, any subordinate clause of a sentence that is the answer to a specific question in a subordinate clause is simultaneously separated from the sentence structure. This separation has become normal to many. For example: "A smart person will be friends with noble, wise, honest people". ("Оқил киши доно, олийжаноб, ростгуй кишиларга дуст булади") the given sentence has two principal parts of a sentence- "person" ("киши") (subject) and "will be friends" (дўст бўлади) (predicate) the sentence is divided into these parts and it is also divided into subordinate parts such as "with "кишиларга" (indirect object) smart, wise, noble, honest (attributes). At first, the main clauses are identified in the sentence and then the subordinate clauses are highlighted. When identifying the subordinate clauses, it is not considered whether they are part of the sentences or smaller particles.

Main part

Some Uzbek linguists have also been critical of traditional views about the status of the subordinate

particles in the sentence. Particularly, professor Sh. Rahmatullaev in 1970 was critical of the parts of a sentence, including, the views about the separation of the subordinate parts. Therefore, he wrote the following: «...It must be said that we give the questioning to the attributed from attribute's point. Thus, attributes questioning is internal questioning. However, as part of the sentence, the adjective conjunction will be given. The questioning to the adjective is related to the internal structure of the given part of the sentence that serves as the clause.

The internal characteristics mentioned above (the lack of order and serving as the answer to internal questioning) highlights the syntactic meaning of the adjective clause. The part inside the adjective clause will come as the particle of this part.

Due to the adjective clause's unique features, it was named as the **sub-subordinate** part but the idea and terminology were later dismissed. This terminology doesn't uncover the meaning of this dismissal. We think that it is more accurate to name adjective clauses (if we take it generally, all types of



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attributes) as part of the sentence but as part of the conjunction. [4.19].

Professor N. Mahmudov shows that it is necessary to distinguish the roles of the object and modifier, as attributes are not considered to be the constructive part of a sentence. [3.46]. He points out that when two or more predicates are present, one of them is in the primary state and the others are in a secondary degree. However, every predicate, whether it is the main or secondary degree, will be connected with the object's relation. This situation is observed in the simple sentence which is shaped with structures that include participles and adverbial layers (turnovers), action nouns and conditional verb devices, as well as predictive words (words like-to have (δop) , to lack (don't have) $(\check{u}\check{v}\kappa)$). For example, "The human offspring has not yet been able to create a word that is relieving to his sorrow" ("Унинг дардини енгиллатадиган сўзни инсон боласи хали ярата олгани йўқ") (S.Ahmad) in this sentence second-degree predicate "that is relieving to his sorrow" ("унинг дардини енгиллатадиган") has taken part as participle turnaround. The sentence has two predicates, one of them is the main form of the verb (as a predicate)- "has not been able to create" "ярата олгани йўк" the second one is "relieving" ("енгиллатадиган") is the second degree which is described in adjective form. If the main predicate ("word") is connected with the object via word form, second-degree predicate "his ("дардини") is connected with the indirect object's relation that is described with the word form. But even if these two objects are the same in terms of their relation to predicates, it is not logically correct to equate them with each other. Because these predicates themselves are not exactly equal in position, that is, one is primary and the other is secondary. Therefore, the idea that there are two indirect objects in the syntactic structure of this sentence that have the same status has no scientific basis.

As the author rightly points out, such objects also differ from each other in terms of functionality. Secondary predicates occupy the situation. Accordingly, such devices in a particular syntactic situation are evaluated as extended, compound, extended parts of speech. [1,2,3].

The fact that participle, adjective clause, conditional verbs have a syntactic status as a whole, as a part of a sentence, the internal divisions of such verbs are non-functional for the whole sentence, only the internal division of the verb, was also shown by A.Nurmonov.

We preferred the usage of the terminology of propositional nomenclature for the syntactic clause that contains a non-functional part of the whole sentence.

Propositional nomenclature can appear in different syntactic positions:

- 1. In the position of subject:
- "The trains that fly faster than wind Will be exhausted till they reach North" ("Шамолдан тез учган поездлар хам то Шимолга етгунча кетади холдан".) (H.Olimion).
- 2. In the position of the object: He ordered to bring my brother from the kinder garden" ("Укамни богчадан олиб келишни буюрди.").
 - 3. In the position of the modifier:

"Will be exhausted till they reach North" ("Шимолга етгунча кетади холдан.")

If the syntactic clauses mentioned above appear in a certain syntactic position in the sentence, the connections inside them are considered nonfunctional. Their functionality is related to the support that makes the propositional nomenclature. The main goal of our work is to identify the members of the propositional nomenclature, their semantic and grammatical analysis, and classification.

Determining the structural scheme of a sentence in terms of the cut and its 'gaps' requires a completely different approach to the determiner and the interpreter. Because these parts cannot come as an independent part that fills in the gaps of the cut, they fill a "gap" in the cut and occupy a certain syntactic position relative to it. For example: "The soft smell of red flowers spread with the wind" ("Кип-кизил гулларнинг майин хидлари сабо билан тарқалади") there are two parts of a sentence that are interacting and filling the "gaps" of the verb "spread" ("тарқалади") and appearing in two syntactic positions: the first one -is in the position of the subject, the second one is in the position of the direct object. The first syntactic clauses that appear in the subject's position are expanded with the usage of attributes and made a proposition. The attribute in its composition belongs to the internal division of this whole and is irrelevant to the whole sentence structure.

Besides, it is possible that the sentence's predicate can come expanded with attributes. For example, "You are Said's beloved sister" ("Сен Саиднинг севган синглиси".).

Conclusion

Therefore, attributes are functionalized in the content of propositional nomenclature, and they are integral particles of the parts that appear in syntactic positions of the predicate, subject, object, and modifier. They are separated only when the proposition is divided into internal parts.

Therefore, in modern linguistics not all of the subordinate clauses have the same status in sentence structure.



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QR - Issue



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EDITOR'S SKILLS IN THE EDITING PROCESS

Abstract: This article discusses the importance of editorial skills in the editing process, what to look for when reading text, and editing techniques. The editor is the leading figure in the publishing house, responsible for the quality of the content of future work, and in many ways determines the fate of the publisher. Working with authors is one of the important tasks of an editor. The fact that the editor should be impartial in his work with the author and should not approach the work on the basis of his personal relationship with the author has been studied on the basis of facts.

Key words: publishing, editor, manuscript, text, reader, critic, publisher, literary language, language norms, word, author, book, opinion, fact, evidence, truthfulness, attitude, subject, publication, title, column, speech, objectivity, style, edit.

Language: English

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Scopus ASCC: 1200.

Introduction

The profession of editor is a leader in publishing. He is the first assistant to the author of any manuscript. The first reader of the text is his critic, writes Zoir Tokhirov in his book "The main stages of the publishing process". 1

An editor is a guide from the beginning to the end of any publication that needs to be published, and it is also the one that decides its fate in many ways. In the course of his activity he must adhere strictly to the norms and methods of literary language, from the point of view of society. The editor is a key employee of the publishing house. His participation in all processes related to the publication of a book, that is, the worldview of a particular work, is absolutely necessary. ²

Indeed, the editor is the leading figure in the publishing house, responsible for the quality of the content of the future work, and in many respects the publisher who determines its fate.

An editor is, first and foremost, an expert in word processing. Therefore, he must know the value of the word and have the skill to use it carefully. Well-known Uzbek editor Makhmud Sa'di says: "Word is the ointment of the soul, the word is beauty, the word is honor, the word is power... When a human being was born, the value of the word was high. That is why everyone who knew and respected himself used the word with respect and dignity".

In addition to the word, the editor also works with the author who submitted the work to the publisher. Working with authors is one of the important tasks of an editor. The editor should be impartial in his work with the author and should not approach the work on the basis of his personal relationship with the author. Corrections to the manuscript must be made with the consent of the editor and the author.

In the process of editing, the editor must respect the work of the author, the opinion he intends to express in his work, and not try to convey his opinion

 $^3\mathrm{Sa'di}$ M. The burden of responsibility // "Ma'rifat" newspaper, August 6, 2014



¹ Tokhirov Z.T. The main stages of the publishing process. - T.: Tafakkur Bustoni, 2016. 11-p.

² That source. 11-p.

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to him. Journalist Akhmadjon Meliboev writes in "The Forty-Fifth Station" about the editor's role in working with the author:

There is a category of authors who know exactly what topic to write about when and how, how to get into a debate. Given the opportunity of the newspaper, they express the idea clearly and succinctly. Such articles do not stay long in the editorial office, there is no need to shorten, edit, re-copy, carefully compare the facts and figures presented in the article.

The second category of authors is a bit humble. They rarely write independently. But if a serious problem is read in the newspapers, or if a controversial show is shown on TV, they are motivated and immediately start writing. There is a subtle aspect to working with such authors. The fact is that in an article dedicated to a position that supports someone's opinion, proposal or opinion on an issue, there is no new original idea. "The article published in some issue of the newspaper was very accurate, and the author then boldly raised this issue. There is no point in reexplaining the contents of this article. Instead, it would be better if the responding author clarified the successes and failures of a particular article published in the newspaper, expressed his independent opinion on the matter, and provided new facts and evidence.

There is another category of authors who, given their talent, are ordered from time to time to "write us an article on a certain topic, and who will write this topic if you don't write it". That being said, their mood rises and they start working with inspiration. Someone had said that the heart of the creator is thinner than the eyelashes of a nightingale. That's right. The newspaper's editorial staff should work with the authors in the same way. Saying, "You can do this, write beautifully," inspires a few people.

There is another subtle aspect to this way of working with authors. The size of the future product is also discussed when ordering.

The next category is the most difficult authors. It's not easy for editors to work with them. Extremely capricious and stubborn people. They get very upset when part of their article is cut and the headline, word or phrase is edited. When the department fails to reach compromises, the editorial office continues to struggle. However, as an editor I have a lot of respect for them. Because a true creator values his word and protects it.

There are also contradictions among such capricious authors. They come up with something unusual, non-standard. You can easily shorten, edit and add some of these articles yourself.⁴

In working with the author, the editor should take into account his character, strengths and weaknesses, and therefore set tasks for him. As noted above, when the editor reads the manuscript for the first time, he returns it to the author first to make corrections. In this process, the author can work alone or edit the work together with the editor. The editor should assist the author in the editing process carried out in collaboration with the author and the editor. However, this assistance does not have to consist of a complete rewrite of the author's work. Otherwise, it could turn into a completely different work. In the play, the author's own "I", that is, his own thoughts, his own style must be preserved.

Below we look at how much help an editor can give to an author.

Understanding of the author. The editor should become a partner of the author, not a competitor or boss who speaks for him. Therefore, he must understand the text he is working on and the author's goal. If the editor does not understand the content of the text, editing is done superficially.

Does the editor need to determine the level of his participation in the text: the language of the work, literary editing, stylistic editing, or should they all work hard on the text as a whole? In the latter case, the author's text may change completely.

To truly understand the author, a qualified editor must conduct a deep logical analysis of his text, his methods of conveying information, composition, style, peculiarities of the author's language and other aspects reflecting the author's self. At the same time, the editor must be able to correct flaws in the text without prejudice to the general condition.

Make the text easy and clear. Writer Konstantin Paustovsky recalls an interesting story from his work: One day the narrator Sobol brought his story to the editors. The text was hard to read. The manuscript is taken by the authentic Blagov, and the next day Paustovsky marvels at the corrected text: it was a true story. Not a trace of the previous chaotic words remained.

- "How did you do that?" asks Paustovsky in astonishment.

"I didn't do anything, I didn't change a word," he said. - I just placed the dots and commas in the text correctly. After all, punctuation is like notes in music⁵.

Of course, this does not mean that the text will change completely if you correctly put punctuation marks in the text. In this case, the experience and qualifications of the editor are of paramount importance.

When editing text, the editor should ensure that it is as easy and understandable as possible. Another easy achievement of the work is that it is easy to read in one breath.

Therefore, replacing difficult words in a text (unless they are scientific terms and without

⁵Paustovsky K.G. An incident in the Alshwang shop. Prose, 1955.https://www.rulit.me/books/sluchaj-v-magazine-alshvanga-read-22513-2.html



⁴ Meliboev A. Forty-fifth station.— T .: Alisher Navoi National Library of Uzbekistan Publishing House, 2008. 38-39 p.

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compromising the content of the text) with comprehensible words, and dividing compound sentences into a few simple sentences, can also give it a new splendor. It is also important to avoid abbreviations and neologisms in the text that are familiar only to a narrow circle of readers, or at least to explain them.

Remove unnecessary parts of text. When the French sculptor Roden was asked, "How do you easily create even the most difficult compositions?" Roden replied, "There's no hard part: I just take a piece of marble and remove all the extra pieces from it." The editor, who has the author's text in his hand instead of a piece of marble, also removes the excess, parts of the text that are of no use to him. No matter how masterful the author is, he takes a subjective approach to his text, and all the words in it seem necessary. The editor, on the other hand, looks at it differently and can see the extra details well. Especially common patterns in the text, such as "it is possible to say", "it is obvious to everyone", "it is possible to say from the above" and so on, do him more harm than good, make him heavy and boring.

According to the Russian writer Leo Tolstoy, when a writer begins to realize his idea, he must "get into the village" from the very first lines, that is, he must start working all of a sudden without going too far into the essence. Anton Chekhov also advised young authors to remove the introductory part of their stories, which contained many and clever words. Of course, if the author did not follow this advice, it is the editor's responsibility to correct the error and clean the rice from the builds.

Increase energy. In Roy Peter Clarke's book, "Writing Tools: 50 Essential Strategies for Every Writer", the author advises using the strongest possible verbs and active action when creating text. Rather than the phrase "The test on method was passed by students", the sentence "Students passed the test on the method" is closer to the reader, more specific to the style of speech, rather than dry book language.

Reduce high-pitched text. In Turgenev's "Fathers and Children", the protagonist Bazarov repeats to his friend Arkady, "Oh, my friend Arkady, I ask you something, don't speak nicely". 8

"Beautiful words" are found in both literary and scientific works. In some cases the author uses them deliberately to enrich his work, sometimes he uses them as usual without thinking about it. They may also fit the composition of the work, but in many cases, especially in scientific works, high-sounding sentences are used only superficially. It is impossible to engage a reader with his own opinion in such a way

that he quickly realizes that the essence of empty words is futile. Therefore, the editor must relentlessly renounce such unnecessary sentences.

Data verification. The above was a discussion of the factual errors that may occur in the play during the editing process. The fact that the author did not check certain information and the editor did not clarify it during the editing process means double unprofessionalism. At the same time, it can cause a gross error in the play, and in some cases even cause the information in the book to turn out to be false. Therefore, it is one of the important tasks of the editor to check the accuracy and authenticity of every piece of information in the book, in particular, dates, quotations, names.

It has already been mentioned above how an editor can help an author in working with text. But the author's personal need for an editor is no less.

According to Arkady Milchin's book 'Methods of editing the text", first of all, the author, who finished his work, is full of hesitation, insecurity, and sometimes he does not like anything. Then, from the outside, evaluation is a vital necessity for him.

Secondly, the author sometimes gets tired of work, goes astray and needs outside help.

Third, the conscientious author always wants to know that he did not make a mistake that needed to be corrected before the book was published.

Fourth, reading the manuscript by a friendly editor reassures the author.

Fifth, the author needs an editor as a person who inspires his spiritual growth.

Sixth, the author needs an editor to support him at all stages of the creative process. 9

This means that the editor can help the author, not only as a publishing expert, but also as an impartial consultant. Moreover, as Maksim Gorky notes in his letters to young writers, the editor bears the same responsibility for publication as the author.

In short, today's editor must meet the following requirements:

- the editor must thoroughly understand the topic of the manuscript;
- the editor must be well acquainted with the publishing work, i.e the process of transformation of the manuscript into a real work, be familiar with new techniques and technologies related to the publishing process, technical decoration, advertising and promotion;
- the editor must be a highly cultured, literate specialist, well versed in the norms of literature, literary language and methodology, able to correctly use the linguistic and methodological tools;

⁹ Milchin A.E. Text editing technique. 3rd ed., Rev. and additional M.: Logos, 2005. -24-p



⁶Editing articles. http://123mi.ru/articles/Redaktirovanie-stati.php
Clark R.P.Writing Tools: 50 Essential strategies for every writer. Little, Brown and Company, 2006. P-3

⁸ Turgenev. I. Fathers and children.–M.: State publishing house of fiction, 1933.

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- as mentioned above, the editor must be able to work with the author or group of authors, respect the work of the author, keep in mind that the manuscript should be corrected as little as possible.

The skill of the editor is assessed by how well he or she meets these requirements. As a result of his

work on the manuscript, a new, perfect work sees the face of the world. Of course, the author plays the greatest role in the emergence of the work, but the hard work and skill of the editor also play a high role in ensuring that it is error-free and reaches the general public.

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MEASURES FOR THE FORMATION AND USE OF FIBROUS WASTE

Abstract: The article describes the amount of waste generated in the treatment plants produced by different companies, the possibility of using the fibre in it. According to the results of experiments conducted under production conditions, conclusions are drawn on the extent to which the amount of waste has reached the lowest value relative to the total mass.

Key words: aggregate, loosening, cleaning, carding, waste, crawling, combing, peeling, down.

Language: English

Citation: Mirzaboev, J., Jumaniyazov, Q., Mirzabaev, B., & Sadikov, M. (2020). Measures for the formation and use of fibrous waste. ISJ Theoretical & Applied Science, 12 (92), 177-179.

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Scopus ASCC: 1105.

Introduction

All research and development work on the development of the textile industry is aimed at improving the quality of finished products. The decrees and instructions of the President adopted in this regard are a vivid example of this. In particular, a program of measures was adopted for the further development of the textile and clothing industry in the country for 2017-2019. Further structural reforms in the economy, modernization, diversification and rapid development of the textile and clothing industry, deep processing of cotton fibre and silk raw materials, the development of competitive finished export-oriented products in demand in foreign markets by attracting

foreign investment A corresponding decision was made to expand volumes and types of production. To ensure its implementation, the responsible persons are assigned the appropriate duties [1].

MATERIALS AND METHODS

The textile industry is one of the most important sectors of the national economy. Over the years of independence, the textile industry has developed in Uzbekistan, new production enterprises have been created. The existing enterprises have been reequipped with new technological equipment. Products manufactured in the textile industry must have certain quality indicators. Quality indicators must meet



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certain requirements. Compliance, in turn, requires compliance with a standard or other regulatory document. The consumption of raw materials in the manufacture of textiles is the main factor that determines the cost of the case, and its share is about 85-90%. Therefore, it is important and relevant to find all the possibilities for the full and effective use of raw materials in the industry, their scientific justification and correct use [2].

Most of the raw material supplied for yarn production in cotton mills is separated into fibre waste. In particular, the amount of waste in the spinning system averages about 20% of the mixture, 12-18% in the snow spinning system and up to 32% in the recycling system [3]. The technological processes of spinning, refining and spinning fibres in the spinning system are very diverse, it is important to choose the right equipment, preserve the properties of the fibre in the technological process and ensure the desired properties of the yarn. Spinning factories Truetzschler (Germany), Rieter (Switzerland), Marzoli (Italy) and Howa (Japan) are used in spinning factories of developed countries of the textile industry and the Republic of Uzbekistan.

It is known that a large amount of research is being carried out to improve and modernize grinding and cleaning machines. A prime example of this is the fact that the performance of grinding and cleaning machines from the world's leading companies is recommended, especially the performance of a sweeping machine from 200 to 270 kg/h. The demand for the quality of finished products, yarn and semi-finished products, labour productivity and machines is constantly growing [4].

The aim of the study is to develop recommendations for equipping spinning and cleaning machines of the world's leading companies in newly built and refurbished spinning mills. To achieve this goal, research studies and

recommendations of firms were studied. Among the waste of the textile industry, a large share of waste from the cotton industry, in particular from spinning factories. Many types of waste suitable for spinning are used to make nonwovens and some are used in spinning mills. This is due to the lack of special machinery and equipment and the lack of technology for the full implementation of spinning from waste [5]. Efficient use of fibres and their waste plays an important role in increasing the economic potential of the enterprise. Similar questions were explored in this study. Leading scientists and researchers have carried out scientific and theoretical research, practical experiments at leading enterprises. Based on the generalization of the results of scientific and applied research, several research institutes (TsNIKSBI, IvNITI, Barnaul NIITP, Len NIITP) have developed classifications and recommendations on the source, composition and use of cotton waste [6]. For the experiment, NAM TEX, MEGA TEXTIL, operating in the Namangan region, and ANTEX, operating in the Andijan region, were selected. These factories are equipped with machine tools from various leading companies (Swiss Rieter, German Truetzschler and Italian Marzoli).

Determining the quality of fibre waste from spinning enterprises is a complex process, and the AFIS PRO-2 equipment from Uster is used in enterprises to detect garbage, small impurities and other waste [7]. At production facilities that are not equipped with such equipment, the waste content is determined using a fibre analyzer-Shirley Analyser MK-2.

RESULTS

The resulting fibre waste samples were taken from the Shirley Analyser MK-2 at NAM TEKS and separated into fibres and impurities. The results are summarized in Table 1 below.

Table 1.	Fibre :	separation	from	fibre	waste san	nples.
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Enterprise	waste group	fibrous mass	fibre	peculiar sticks	dust and invisible waste
MEGA TEXTILE	СТ3	100	71,8	25,7	2,5
	CT7	100	65,5	33,5	1
ANTEX	CT3	100	27	69,5	3,5
	CT7	100	76	23	1
NAM TEX	CT3	100	53,34	44	2,66
	CT7	100	62	36,9	1,1



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The analysis of the results shows that 71.8% of the fibre is used in the use of Rieter machines of Mega Textile, 27% of the fibre in the use of Truetzschler machines of ANTEX. When using Marzoli machines at Nam Tex, 53.3% of fibre was found. Experiments have also shown that 65.5%, 76% and 62% of the fibre, respectively, is extracted from the comb. According to a study conducted by NAM TEKS, 53.3% of the waste is fibre, of which 26.8% is spinning fibre. It has been found that yarn can be spun from these fibres.

At present, the company uses up to 15% of the sorting composition for spinning and pneumomechanical spinning of waste from cleaning and scraping machines (oreshik, tarandi). It was found that the spinning of textile yarns with an average linear density of 29-34 can be used efficiently without reducing the quality of the yarn. From the practical research and the results obtained, it became clear that in a simple combing system, when spinning with a linear density of 29 - textile yarn, it is advisable not to

exceed 10 - 12 per cent of the amount of combing and twisting in the mixture. This is due to the fact that the quality of the spinning yarn deteriorated with the increase of the total amount of combing yarn and yarn in the mixture by 10-12%.

CONCLUSION

In conclusion, it should be noted that when spinning yarns with a linear density of 29 - tex and higher, it is recommended to add to the composition of the mixture from 10 to 12% of the fibre obtained from fibrous waste. As a result of scientific research conducted at MEGA TEXTILE, it was found that 71.8% of the mass of waste is fibre, of which 27.4% is spinning fibre. At ANTEX, the share of waste in the mass is 27% fibre, which has almost no fibre suitable for spinning. From the above conclusions, it was found that the cleaning and scraping machines manufactured by Truetzschler are more efficient than the machines recommended by other companies.

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CLASSIFYING THE EDUCATIONAL SYSTEM AS AN INNOVATIVE APPROACH

Abstract: The integration between the types of education, developing its kinds and meaning according to innovations and the ways of disseminating the innovative approaches to the educational system will be highlighted in this article. The purpose is to substantiate the educational cluster scientifically and pedagogically, to quote its effective activity mechanisms and to highlight the practical experiments in this sphere. Suggestions and deductions are given by the author, taking the scientific-theorotical and practical evidences into consideration.

Key words: Globalization, integration, cluster, quality of education, regional cluster structures, competitiveness, pedagogical innovative education cluster, cluster models.

Language: English

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Introduction

During the past few years, introducing innovations into the educational field in order to effectively provide the activity of the integration between the types of education and its contents and to implement tested methods to this discipline with a creative approach has become one of the vital and current tasks in many countries. In order to achieve these goals, the introduction of the cluster approach in the field of education has become one of the most important conditions for increasing the speed and efficiency of the integration of science and industry in many countries around the world. In clustering education, first of all, it is important to take into consideration the comprehensive interrelationships between the elements integrated into one whole. The education cluster is currently a scientific, social, pedagogical problem that arises due to vital necessity. The most advantageous aspect of the clustering model is that the competitiveness of enterprises that have made beneficial development will increase several times, quality efficiency will increase, and this in turn

will serve to ensure the sustainability manufacturing enterprises[1]. It is known from the experience of countries with high intellectual potential that if the connection between science, education and industry is established, it will be possible to maintain the quality and employment of the personnel in this area, and structural changes will be convenient to make for the country's economy too[2].

The main purpose of the introduction of the education cluster, which is emerging as a new innovative project aimed at improving the efficiency of education quality, is as follows:

promoting the effectiveness of education in secondary schools and preschools through the establishment of targeted partnerships of institutions directly and indirectly engaged in pedagogical education on the basis of the cluster approach in education;

organization of systematic work to qualitatively meet the needs of the region in teaching staff;

shortening the period of acquisition of professional skills by young specialists;



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conducting research on integration, innovation, membership, coherence, effective succession in the field of pedagogical education, organizing experimental processes of science-based innovative projects;

improving the mechanisms that ensure the integration of education and upbringing;

creating opportunities for rapid interaction with preschool, secondary and higher education institutions and other applicants in the training of teachers;

integration of intellectual resources around topical issues of pedagogical education development;

searching for different forms and types of education, science and pedagogical activity and their application in teaching;

preparation of secondary schools in the region for the PISA program, etc.

Based on the analysis of the scientific literature, it became clear that the cluster approach to the development of education is explained by different views:

- as a separate sector, a mechanism for strengthening the organizational forms of merging industries interested in achieving competitive efficiency.
- combining the needs of production and training programs.
- a tool for structuring support for innovation in education, science, and the manufacturing system.
- integrated system of organization of educational resources.
- is seen as an innovative, effective way of organizing the formation of human resources for the future economy of the organization.

In the context of Uzbekistan, clustering of such sectors as economy, agriculture and pharmaceuticals has developed. The application of the clustering model to education has been on the rise in recent years. The research of local researchers such as G.I.Muhammedov [3], Sh.K.Mardonov B.E.Khusanov, U.N.Khodjamkulov [5], B.Eshchanov [6], S.A.Toshtemirova [7] has provided insights into the creation of a scientific-theoretical basis for innovative education clustering and its practical application. Based on the views expressed above, scientific literature on the concept of cluster, the researcher Khodjamkulov said that the innovative cluster of pedagogical education created in our country is a mechanism for strengthening the integration of equal subjects, technology and human

resources in order to meet the needs of a particular geographical area [8]. The territorial structure of the education cluster includes the governing bodies of the education system, higher education institutions, the center special, general school and preschool education processes, postgraduate education, research institutes, researchers, cultural organizations and objects, professors, students, pupils, children, social environment and local self-government, management, activities of united entities in the pursuit of specific goals in cooperation with the parent community to go[9].

It is expedient to provide a number of clarifications of the theory of education development, taking into account that the improvement of the above-mentioned cluster mechanisms addresses the quality and characteristics of education in modern society at the regional level, addressing public needs, interests of specific regions and educational needs:

- Establish cooperation between educational institutions, taking advantage of the competitive advantages of the region
- Identify leaders who define long-term innovations and other strategies for the entire system
- Identification of scientific organizations that will allow to improve the skills of the staff of the educational institution, ensuring internal and organizational competitiveness
- Existence of private interest of educational institutions in a region arising from a common goal

Based on the above scientific and theoretical considerations and recommendations, the following conclusions can be drawn, taking into account the importance of attracting intellectual and material resources for the consistent and sustainable development of cluster activities:

Management of the quality of general education in the region, which is in the context of the management of all educational processes, is necessary to ensure the coherence of the structure of activities and conditions, cluster environment management systems and general education monitoring work through process management grouping, new approaches to education, introduction of a general education quality management model in the region and improvement of its working mechanisms.

Clustering of education as an innovative approach serves to increase its quality efficiency as a powerful mechanism that integrates human resources, organizations and technologies in the region.



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Khumoyun Alisherovich Nazarov

National University of Uzbekistan named after Mirzo Ulugbek PhD researcher

HISTORY AND MAIN PROBLEMS OF ARCHAEOLOGICAL INVESTIGATIONS OF NORTHERN BACTARIA OF THE KUSHAN PERIOD

Abstract: The article covers the first stages of archaeological study of the south of Central Asia of the Kushan era. The issues of adding up periodization systems are considered, the history of the discovery and study of monuments of Northern Bactria an example of the south of modern Uzbekistan is shown in detail, information is given about such works in neighboring territories. And also characterized by the study of archaeological sites of southern Uzbekistan in the post-Soviet period.

Key words: Uzbekistan, Central Asia, Northwestern Bactria, monument, expedition, Kushan culture, fortification, town, shahristan, Surkhan oasis, Termez Archaeological Complex Expedition (TACE).

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Introduction

The culture of Northern Bactria occupies a place in world history and has had an impact the formation of world culture. Ancient Bactria was a large historical and geographical region located in the upper basin of the Amu Darya, in the south-east of Central Asia (now in the territories of Uzbekistan and Tajikistan). In ancient Greek sources, its northern boundary is the Amu Darya (Strabo, Ptolemy), later researchers, based on archeological data, define its northern boundary with the Gissar Mountains, and its southern boundary with the Hindu Kush ridges.

Ancient Bactria includes the southern regions of present-day Uzbekistan and Tajikistan, the southeastern part of Turkmenistan, and the northern regions of Afghanistan; it is bounded on the north by ancient Sogdiana, on the south; and was bordered on the southeast by the provinces of Arachosia and Panhara, and on the west by the provinces of Margiana. In the scientific literature, the term "Northern Bactria" is used for the part of Bactria that enters the territory of the Central Asian republics, and "Southern Bactria" for the part that belongs to Afghanistan [6, B.3].

Archaeological excavations in ancient Bactria over the years have yielded a wealth of valuable information. The first archeological excavations in the territory of Bactria if conducted by Fushe, in later years M. E. Masson, G. A. Pugachenkova, L. I. Albaum, B. A. Litvinskiy, E. V. Rtveladze, A. A. Asqarov, A. S. Sagdullaev, Sh. Pidaev, B. Turgunov, B. Stavisskiy, I. T. Kruglikova, V. I. Sarianidi, T. Shirinov, U. Rahmonov, Sh. Shaydullaev and other archaeologists conducted research.

It is known that archeological excavations in the ruins of the ancient city play an important role in creating a material resource base for the study of ancient culture. For almost a century, significant progress has been made in the study of the ruins of the ancient city, which reflects the culture of the Kushan period of the Surkhandarya oasis, which was part of a large empire of antiquity. During their study, a large amount of material on the culture of the Kushan period was collected, and on the basis of their generalization and analysis, the creation of a history of Kushan culture in Northwest Bactria became one of the current issues of historiography.



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2. METHODS AND LEVEL OF STUDY

The scientific article was covered on the basis of general historical methods such as tradition, consistency, comparative analysis, objectivity. From the second half of the 1920s, the Kushan period of the Surkhandarya oasis, which formed northwestern Bactria, began to study the ruins of ancient cities stratigraphically and topographically. As a result of archeological excavations carried out in recent periods, the number of urban-type settlements belonging to the Kushan period of the oasis has increased. The excavations of the archeological expedition carried out by the Institute of Art Studies of the Academy of Sciences of Uzbekistan in the Dalvarzintepa, Kholchayon and later Kampirtepa monuments in the 1960s play an important role in the study of Kushan culture. Also of special importance is the research work carried out in the 70-80s of the XX century by the Institute of Archeology of the Academy of Sciences of the former USSR, the Leningrad branch of this institute, the archeological expeditions of MSU at the Zartepa monument. In the late 80s of the last century, the interest of foreign countries in the study of monuments of Kushan culture also increased, as a result of which foreign expeditions were organized by the University of Soka in Japan. In the early twentieth century, the State Museum of Oriental Culture of the Russian Federation conducted a Central Asian archeological expedition. At present, the Institute of Archeology of the Academy of Sciences of the Russian Federation - an archeological expedition to study Central Asia, continues its archaeological research.

The results of the above-mentioned archeological excavations are reflected in the scientific articles of researchers published in local and periodical publications, as well as in monographs published individually and collectively.

3. RESEARCH RESULTS

Archaeological excavations of the city-type monuments of the Surkhandarya oasis, which formed the territory of northwestern Bactria, began in the 1920s. In the autumn of 1926, for the first time in an expedition organized by the Museum of Oriental Culture in Moscow, prof. Under the leadership of B. P. Denike, research work was carried out in the Old Termez region. During the research, the Buddhist stupa in Zurmala was examined and the period was incorrectly counted as IV-VII centuries [16, p.45].

In 1932, border guards found a stone slab depicting Kushan musicians at the bottom of the Amudarya near the Ayritom monument. Interpreted as the palace of the ruler [10]. Shortly afterwards, in 1936, a special Termez Archaeological Complex Expedition (TACE) was organized under the leadership of M. E. Masson to study the archeological monuments of the Surkhandarya oasis, which lasted until 1938. The purpose of the TACE was to identify

the stages of development of the ancient city, in particular, to study the cultural strata of the Kushan period, which left a deep mark on the history of Central Asia. Archaeological excavations carried out by the Termez expedition studied the historical topography of the ancient city and concluded that the development of the city reached its peak at the heyday of the Kushan Empire. During this period, two large Buddhist temples were built around the city, surrounded by a strong defensive period [11, p.113; 17, p.126-158; 7, p.82-97].

Archaeological excavations, which had stalled during World War II, began to revive in 1946. New monuments of antiquity are being discovered and studied in both Uzbekistan and Tajikistan in northern Bactria. Initially, archeological research consisted of reconnaissance and, in part, small-scale excavations. In 1949, a group of Surkhandarya archaeologists led by L. I. Albaum of the Uzbek Archaeological twelve Expedition spent days conducting archeological excavations in the area from Termez to Sariosiya. As a result, monuments of Zartepa, Hayrabodtepa, Dalvarzintepa, Kholchayon and other urban types, reflecting the Kushan period or the cultural layer of this period, were identified and scientific conclusions were made on the basis of their plans and materials collected from the surface [1. p.11-12]. In 1952-1953, under the leadership of L. I. Albaum of the Institute of History and Archeology of the Academy of Sciences of the Republic of Uzbekistan, an inspection was carried out at the Zartepa monument in the Angor district. As a result, an approximate sketch of the monument was obtained and general conclusions about the monument were given [1, p.14-41]. In May 1953, archeological excavations began in the arc and shahristan sections of the Hayrabodtepa monument. Preserved traces of a trench around the settlement, which has a straight rectangular shape (150x100 m.) And a well-protected arch in the south-eastern part of the ancient city. The city was formed during the Achaemenid period and was one of the major economic and cultural centers of the oasis during the Kushan period. In the autumn of 1959, an archeological expedition led by G. A. Pugachenkova of the Institute of Art Studies of the Academy of Sciences of the Republic of Uzbekistan began to study the monuments located in the upper reaches of the Surkhandarya. Dalvarzintepa. Halchayon, Budrach and other monuments belonging to the Kushan period or having a cultural stratum located in this area have been studied. This expedition carried out large-scale archeological excavations at the Dalvarzintepa monument, with certain stops, until the early 1960s and 1970s. G. A. Pugachenkova, B. A. Turgunov, E. V. Rtveladze, T. Belyaeva carried out archeological excavations in different parts of the Dalvarzintepa settlement [4, p.3-232].

In the ancient city of Dalvarzintepa in 1989-1994, the staff of Soka University in Tokyo, Japan in



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collaboration with the Research Institute of Art History of the Academy of Arts of the Republic of Uzbekistan (B. A. Turgunov, J. Ilyasov, K. Tanabe, A. Khori, K. Kato). Japanese experts have focused on the study of Buddhist religious structures [5, pp. 3-224].

The Dalvarzintepa arch was replaced by the first site protected by a defensive wall dating back to the Greco-Bactrian period. The rulers of the Kushan state in the I-III centuries paid more attention to the defense of the city arch and ensured its strength, surrounded by two rows of walls. During the reign of the Kushans, when all the lands of the Shahristan part were conquered, a separate defensive wall was built and turned into one of the major centers of the oasis [2, p.36].

Old city. Probably, it was the center of the Dayuezhi (large Yuechchi) tribe, consisting of five houses that entered the oasis in the second half of the 2nd century BC. Experts in the field compare the location of Dalvarzintepa with the city of Hozzo, which is mentioned in the Chinese (Tsyanxanshu) source as the first capital of the Kushan state [3, p.184; 2, p.36].

As a result of extensive archeological research in Dalvarzintepa, the historical topography, stages of formation and development of the ancient city, defense system, housing, religious and industrial facilities were studied, and very unique and valuable information about the culture and art of the Kushan period was obtained. In particular, 115 gold treasures weighing 36 kilograms, consisting of earrings, bracelets, belts, rings, gold rings and gold ingots of the II-III centuries, found in excavations in 1972, are considered to be the masterpieces of Kushan culture [4, p.41].

In 1959-1963, this scientific expedition carried out archeological excavations at the Kholchiyon monument in the Denau district. The Kholchayon monument consists of two parts, the first part is 350x260 m., The second one is 300x300 m. In the reception hall of the palace, murals depicting the reception ceremony of the Kushan period play an important role. Archaeologists Sh. Tashkhodjaev, D. N. Sidorova, B. Turgunov, D. G. Zilper and others conducted excavations at the monument together with G. A. Pugachenkova in different seasons [12, P.5].

In the middle reaches of the Surkhandarya River, 6 km from the city of Denau. Archaeological excavations were carried out by E. V. Rtveladze at the Budrach (Dunyotepa-ark and Akmozortepa shahristan) monument in the south-east. The defensive wall of the city arch, which formed the center of Chaghaniyon in the early Middle Ages, is It was built in the st century BC.

During the Kushan period, a part of Shahristan was formed and became one of the urban centers of the country [13, p.173-187]. In 1972, the Bactrian Archaeological Expedition of the Leningrad (now St. Petersburg) branch of the Institute of Archeology of

the former Soviet Union AS began excavations at the Zartepa monument, one of the largest urban centers of the Kushan state, located in another area of the Surkhandarya oasis, Angor district. Later, the Institute of Archeology of the Academy of Sciences of the former USSR and the Archaeological Expedition of Moscow State University (1976-1978) and the Institute of Archeology of the Academy of Sciences of the Republic of Uzbekistan (1981-1982) organized archeological research at the Zartepa monument. In addition to V. A. Zavyalov, A. Ya. Shchetenko, T. Sabirov, V. N. Pilipko, Sh. R. Pidaev, T. J. Annaev, K. Abdullaev also excavated at Zartepa in different years [8, p.17-21].

Zartepa consists of arches and parts of shahristan, 16.9 ha. occupied the area. As a result of archeological excavations along the central street, a residential building, a building and a Buddhist temple, which were built according to a well-thoughtout project, differed from others in terms of area and size [15, p.49-52].

In 1972, under the leadership of E.V. Rtveladze, Art Research Institute, 30 km from Termez. to the west, at the Kampirtepa (Kofirqala) monument on the right bank of the Amudarya, he conducted a survey and formed a visual plan [14, p.86-93]. In 1977 The archeological expedition of the Institute of Archeology of the Academy of Sciences of the Republic of Uzbekistan under the leadership of Sh. R. Pidaev dug a cultural layer 10 m thick on the arch of the monument to the mainland and identified the stages of development. Archaeological research, which began in 1982-1991 under the leadership of E. V. Rtveladze of the Art Research Institute of the Academy of Sciences of the Republic of Uzbekistan, is now being continued by young specialists. Also, in 2001-2011, the State Museum of Oriental Culture collaborated with the Central Asian Archaeological Expedition (T.K. Mkrtychev) and since 2006 the Central Asian Archaeological Expedition of the Institute of Archeology of the Russian Academy of Sciences (N.D. Dvurechenskaya) [9, p.3]. The total area of Kampirtepa is 20 ha. Consists of three parts. Life at: began in the 4th century BC. and lasted until the middle of the 3rd century.

Its location at the crossroads of the river is a strategically important trade, economic and military base of the state border. During the study of the monument, information on the fortifications, architecture, material culture and fine arts of the Kushan period was collected.

Archaeological excavations were reorganized in Old Termez in the 1990s, and excavations revealed valuable information from the cultural strata of the Kushan period. In particular, excavations at the Qoratepa and Fayoztepa temples have yielded unique data on Kushan culture, particularly fine arts [12, p.3-12].



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4. CONCLUSIONS

The study of monuments in the Surkhandarya oasis began in the 1920s, and archeological excavations over a period of less than a century have uncovered about three hundred ancient monuments in the country. Among them, the ruins of the ancient city, which is the site of the ancient city center, occupy a special place. Cities form the core of ancient society and reflect the processes of socioeconomic and cultural development. Expeditions organized by local and foreign scientific research institutions, the results of archeological research, the culture of urban planning and their stages of development were summarized in the city-type monuments of the Kushan period in the Surkhandarya oasis. On the basis of accurate archeological data collected as a result of

excavations in the ruins of major city centers such as Old Termez, Dalvarzintepa, Zartepa, Hayrabodtepa, Budrach, the issues of their structure, fortification, construction and architecture were studied. On the basis of material sources collected during the excavations, sculpture, painting, jewelry, music and applied arts, which formed the spheres of culture of the Kushan period of the country, were also partially studied. In the study of Kushan culture, which has left a deep mark on the development of world civilization in general, the importance of archeological monuments in Southern Uzbekistan, in particular, archeological excavations in urban areas and the material resources collected as a result is very important for the younger generation.

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QR - Issue



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POETICS OF LABOR IN THE NOVEL "QUDRATLI TO'LQIN"

Abstract: The article reveals that glorifying honest and honorable work is the main theme of Sharof Rashidov's work. The author's novel "Qudratli to'lqin" also shows the choice of labor as the main theme, the artistic interpretation of human dignity, the inner world, the spiritual and moral world against the background of general labor. The noble power of hardwork is interestingly analyzed in well-founded examples, where the protagonist of the work, the character of Po'lat, gradually became the impetus for his height and perfection.

Key words: spirituality – aesthetic event, the main theme, artistic interpretation, philosophical definition, character dynamics, the romance of work, conflict resolution, the protagonist, spirit.

Language: English

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Introduction

While labor is a means of subsistence, that is, the satisfaction of the physiological needs of people, it is both an economic factor and a spiritual aesthetic phenomenon. In folklore, labor songs, which have been moving from mouth to mouth for centuries, are a clear example of the poeticization of labor, a source of pleasure and aesthetic impact. No matter how hard and arduous the physical labor was, the great creative people found elements of beauty and spirituality in this process, singing them, covering them with pleasure, and finally turning hard labor into a noble and beautiful event. Honest work and glorification of the person who wrote it is one of the main themes in the works of such representatives of Uzbek classical literature as Furkat, Zavkiy, new Uzbek literature P. Kadirov.

The writer Sharof Rashidov also chose labor, which is a source of human pride, joy and happiness, as the main theme in his works, and artistically interpreted human dignity, inner world, spiritual and moral world against the background of universal labor. "To be a writer, you have to have a biography that is unique to a writer", it is said, "as a writer, it requires a creative biography, in other words, active participation in life, observation, and more understanding. The more he knows life with all its

details, contradictions, and inner integrity, the more meaningful his personality will be, and the more weighty his thoughts will be to the reader. To feel human life, to understand their experience from beginning to end, is a characteristic feature of a creative person" [2:29].

These requirements to the writer constitute the creative and social duty, the meaning and essence of the life of Sharof Rashidov, a selfless man who led the republic for a quarter of a century and continued his literary career with a pen in his hand. There is no one like Sharof Rashidov who has read and studied the medicine of feeling people's lives, understanding their experiences from beginning to end, understanding all the details, contradictions and inner integrity of the people's life. In recognition of the writer's same virtue, the literary critic Ghaybulla Salom should recall: Whether in prose, poetry, or film or ballet, he hid his pain in a line, glorifying honesty, hard work, and courage. In the pages of his best works, which live like hot coals, there is an image of his bright dreams, the black labor and destiny of the people [5: 4].

As a statesman, the father of the country, Sharof Rashidov was at the forefront of the great fronts of labor in the republic, and entered into those hotspots. The writer also found and discovered the heroes of his works in such a life. The author's novel "Stronger than



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the Storm" depicts the noble and wonderful representatives of the people, such as Oyqiz, Umrzoq ota, Murodali, Karim, Bekbota, Suvonqul, Mehriniso, who set out on such a noble cause as the development of protected and gray lands, turning them into cotton fields and gardens. They are the image of human beings who live on the principle that human life is sustainable with high hopes for the future, high goals and honest, continuous work in this direction. The writer created each of these heroes with such love that it is as if the whole of Uzbekistan, the motherland, is standing behind them.

This is probably why the Russian literary scholar Y. Brainina said: "Have you ever been to Uzbekistan, seen Uzbek villages, blossoming apricots, cotton fields, endless deserts? Have you seen Uzbek farmers, their unique way of life, their heroic work?" Even if you haven't seen it, when you read Sharof Rashidov's book "Stronger Than a Storm", you can imagine Uzbekistan very clearly, you can love its people and natural landscapes" [1:49].

Indeed, overcoming all the vagaries of the desert nature, which is not easy to control, the Altinsoys, who are stronger than the storm, stronger than the warm wind, are the heroes who deserve to be the symbol of the whole Uzbekistan, the Uzbek people.

The Dictionary of Philosophy defines labor as follows: "Labor is, first and foremost, the exercise, regulation, and control of the metabolism between man and nature. In the process of influencing the external nature, man changes both it and himself" [7:640]. In the last sentence of the philosophical description of labor, its exalting power is even more clearly revealed, and we see the same force in Sharof Rashidov's novel "Qudratli to'lqin" ("The Mighty Wave"), in the fate of the heroes of the work.

Po'lat and Bahor are High School graduates. They care about each other, they have a world of dreams in their hearts. But the country is in the throes of World War II. Po'lat wants to go to war after finishing school. He is infinitely proud of his father in the war. As soon as he gets his maturity certificate, he wants to go to the front, fight with his father and give the fascist a shout.

According to Po'lat, every conscientious man should be on the battlefield during a war. When he saw men who had not gone to war for some reason, Po'lat hated them, accusing them of cowardice. On the contrary, they can't take him because he has a cold in his lungs. He, along with his neighbors, will go to the construction of the Victory HPP.

The selfless work of our people at the Victory HPP, built during the Second World War, is widely described in the novel "Qudratli to'lqin". The reader is especially fascinated by the fate of Po'lat, the most attractive image in the book.

The dynamics of Po'lat's character, which is refined, hardened, rising both physically and mentally on the labor front, not on the battlefield, is revealed in

the writer's well-thought-out realistic images. Nikitin, the head of the concrete workers' brigade, was the first to change the outlook on life of this young man, who, despite his pure heart and soul, was full of jealousy, enmity and suspicion towards people before he came to the construction site. Nikitin's thoughts teach Po'lat to look ahead, and even as he looks, to see the bright, luminous points of the future.

- "No, my friend, our construction is not only for war, but also for peace, for the future! Yes, yes, believe me, there is a war on the front, and we see the future". If you look far, my friend, you will see a lot, and when you see it you will see deep and clear... Do you know the geography of the republic? "He took a card from a very old folder, opened it in front of Po'lat, and went on! "You see, there are so many fertile lands... Here are Central Fergana, Karshi, Mirzachul... Countless lands. So much land is wasted... That's right, what do you have to say to the concrete worker? After all, we all need to think about the future, my friend! When the war is over, we will open the deserts... We will build pools, seas, build canals, factories, power plants, and light all the houses. Thus, happiness knocks on the door of every home... We are building this HPP with our hearts full of such dreams" [4: 196].

With such well-founded ideas, Nikitin assures Po'lat that not only soldiers who shed blood on the battlefield with hand-held weapons during the whole war, but also those who work with shovels and spadess to lay the groundwork for future peaceful times are working hard for the Motherland.

If Nikitin encourages Polat to the future, to a happy life in peacetime, the concrete master of the brigade Rustam aka inspires confidence in himself, in his strength, in his intelligence!

Disappointed by Holmat's words "you're sick", "you're weak", "you're useless", Holmat, a former frontman in the concrete crew, invites Rustam to go fishing to cheer himself up.

"It's hanging". Stop, don't pull, pull!.. Pull!..

The Po'lat had lifted the hook with force, something felt heavy, and then slammed into the water.

Oh, it's out of the hook, 'said Rustam sadly, and shook his hand when he felt Po'lat's face turn red. "Don't worry, brother, it's the same with all hunters".

Po'lat ignored his words, angrily gritted his teeth, hooked the bread dough on the hook, and threw it back into the water.

That's what I like, 'said Rustam Polat, approving of what he had done.

Po'lat opened his eyes wide and looked into the water:

- "Holmat right!" I am weak and useless.

Don't listen to him anymore, 'said Rustam angrily. "Who do you believe in? You believe in yourself!" Don't pay attention to Holmat's words... Don't be lazy either, give me the answer... Why does



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Holmat pluck? He was also at the front. He works better than you. That's why he shows up himself, brother. But you? You work hard again, go beyond it, you learn more than anyone else, if you have less experience. Just don't bow your head, what is tuberculosis, it will heal. Here, for example, I am not disappointed" [4: 205].

Prior to this conversation, Po'lat, who had been thinking about why this man had not gone to war with his such body, was ashamed of his unjust thoughts. In fact, Rustam was one of the first to leave the war and was severely wounded, the enemy bullet entering his left chest and piercing his lungs. Rustam himself was hospitalized for six months with great endurance and patience, and the doctors themselves were amazed at his confidence in his recovery.

After this conversation, the author describes Po'lat's thoughts: "Po'lat looked at him with obvious pleasure. Every time he thought of Rustam, he hid a small wound, though small, and still suffered from that wound. Nevertheless, Rustam was the strongest, most cheerful and amazing in the brigade. What about caring for people? He even talked to Po'lat's doctor and inquired about his health. What about Po'lat, Po'lat? He was ashamed of his experiences. That's right, it's tuberculosis! But all tuberculosis can be cured, Po'lat does not still go to the front. Now in his heart he has dreams, goals, a noble profession - a job. After all, this is joy and happiness.... It is necessary not to kneel before the pain, but to overcome it with laughter and work... To live the life of the patient by thinking about work and life" [4: 207].

In addition, Bahor, a girl who was interested in steel, was also working on the construction of the hydroelectric power station. His heart was full of love and he felt his responsibility and dignity towards Bahor. As we can see, the thoughts that passed through Po'lat's psyche, the self-confidence born in his heart, the love and faith in his work, led him to realize his worth, to define his place in life. Po'lat deeply understands that when intelligence is combined with deep knowledge, profession, work, faith, love, experience and skills, a person shows the power of creativity, which gives more meaning to the work done. The writer reveals this process in very interesting scenes in the play.

Po'lat's brigade was working on a dam being built over a large river. There was a lack of equipment for laying concrete and plastering. Having worked in Kotlovan and built the foundation, now if the work is not going fast, there is a risk that the brigade will go off schedule due to lack of technical force. It is necessary to look for an opportunity to accelerate the pace of work, said Nikitin, whose words sharply affected Po'lat.

" - Suppose we are surrounded now". Now it is necessary to get out of this siege. Yes, my dear Rustam! .. My son Po'lat... My friends, it is necessary

to get out of the siege, - said Nikitin, putting his hand under his throat" [4: 249].

The word "necessary" was deeply ingrained in Po'lat's mind. From that moment on, Po'lat and Rustam began to think about the task set by Nikitin. The whole brigade came to their aid. Where intelligence, knowledge, and many years of experience come together, the key to a complex task has also been found. The guys think that if they don't lay concrete on the body of the dam and make it look like the building is made of bricks, there will be productivity and quality at work. These bricks are poured from a large volume of concrete and assembled with concrete. After careful calculations, it turns out that this is a really profitable method. Thus, a team of concrete workers became known as the creators of a new building material called block concrete. The contribution of Po'lat and Rustam to this invention was great.

Satisfaction with the results of one's own work, a sense of self-satisfaction in the environment, in the need for people, gradually became the impetus for the character of Po'lat, pushing him to greatness and perfection.

As we have witnessed in the novel, the noble power of labor awakened in the heart of Po'lat the most beautiful, noble human qualities. This situation is manifested when the spiritual strength of the protagonist grows towards goodness, heights in various complex situations. This process is evident in the course of events. When Po'lat joined Nikitin, he was in Turakhanov's bridge, Turakhanov's pressure made him to join another group, and Holmat accused him of unjust cowardice, fugitiveness, and slander, the following conversation took place between the two: This conversation testifies to Po'lat's sincerity, love and devotion to the world and people:

- "Are they still calling a refugee?"
- "Whom?"
- "Me, of course"
- "Who would you be if you weren't a fugitive?... You came to the construction site as a hero you wrote your peacock feathers, healed, and then you ran away..."
- "Well, thank you for telling me the truth, Holmat aka." The two of us can't see each other, right? But I don't keep evil in my heart. I only wish you success and happiness!...
- "Don't wish everyone happiness." Happiness does not reach everyone anyway. Happiness means a bed for two, if one closed and the other still open!

Po'lat stared into Holmat's eyes and replied seriously:

- "But when a person is close to each other, it is warm to both" [4: 212-213].

As we can see, in Po'lat's eloquent response, his own human principle is evident in the fact that when the time comes, Holmat, who has made up his own philosophy of happiness, recognizes Po'lat's



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rightness. The thrilling scene in the play proves this point: An inexperienced, young man who has just come to a new job, and on top of that, Holmat, who has always humiliated Steel, who is sick, and tries to hit him on the ground, survives the flood because of Po'lat.

In front of Po'lat, who risked his life and health to save his comrade from the raging flood, Holmat bravely confessed his guilt: "Look at the strength of your hand!" I used to call you weak. You took me out of the flood! .. - Boy, I fell from you in the fight, I confess" [4: 325].

In fact, the writer shows the victory of good over evil, the victory of spirituality over ignorance through the resolution of the conflict between these two images.

In the novel, in the eyes of the reader, Po'lat transforms from an inexperienced, cave, curious teenager into a working man, a social activist who believes in the power of his own mind and wrist. The author does not neglect Po'lat's personal life, the sufferings of love, nor his relationship with Bahor. At the same time, the world of Po'lat's unique soul opens up even deeper. As a result, the vitality of the image of Po'lat is ensured, which is preserved in the memory of the reader as a person with all the emotions inherent in living people. The ideological and artistic originality of the work "Qudratli to'lqin", in

particular, the aesthetic appeal of the image of Po'lat, is that the result of good work not only creates material wealth in the public interest, but also gives a person inner peace, human dignity, moral purity. The noble essence that serves as a source of happiness, is ignited in him.

As mentioned above, labor must acquire an aesthetic essence when it is portrayed in art, especially fiction. Also, in this image, the person must be the main focus, that is, the means of labor, the tools of labor, and the object of labor must not drag the person, or in other words, the subject of labor, into his trap. The novel "Qudratli to'lqin" is also valuable in that it reveals the courageous work of the Uzbek people during the Second World War behind the front lines, the power of creativity. The work depicted in the novel is not just a background. It is a spiritual-moral category, a spiritual-aesthetic base, which leads the heroes of the work, in particular, the protagonist Po'lat, to find his identity, to realize his human dignity.

In short, the work of the writer Sharof Rashidov "Qudratli to'lqin", which depicts the attractive real romance of honest, free, conscious labor in the formation of a person, honored by the man of labor and hard work it is an artistic creation that can be programmed for the spiritual growth of the reader, for the enrichment of the soul.

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