

REVIEW
of the official reviewer for dissertation work
of Duisebayeva Aibubi Imanalievná on the theme «The animal face of imperial power: Kazakh animal husbandry and tsarist veterinary services, 1868-1917» presented for the degree of Doctor of Philosophy (PhD) in the Educational Program «8D02206 – History».

№	Criteria	Eligibility (one of the options must be checked)	Justification of the position of the official reviewer
1.	The topic of the thesis (as of the date of its approval) corresponds to the directions of development of science and/or state programs	<p>1.1 Compliance with priority areas of science development or government programs:</p> <p>1) The thesis was completed within the framework of a project or target program financed from the state budget (indicate the name and number of the project or program)</p> <p>2) The thesis was completed within the framework of another state program (indicate the name of the program)</p> <p>3) The dissertation corresponds to the priority</p>	<p>The scientific results of the dissertation of A.I. Duisebayeva are presented by the results of a comprehensive analysis of numerous and diverse sources, including archival documents, which, in turn, can meet the requirements of the state program "Archive - 2025", which aims to supplement the documents on the history and culture of Kazakhstan stored in domestic and foreign archives, museums, libraries, and scientific centers and bring them into scientific circulation. Within the framework of the implementation of the "Rukhani Zhangyru" program, the scientific results of the dissertation could also contribute to preserving the national identity, popularizing the cult of knowledge, and opening the citizens' consciousness.</p> <p>Archival materials allowed the author of dissertation to study the history of the formation and development of the veterinary service of the Russian Empire in the Kazakh steppe during the second half of the XIXth and the early 20th centuries through the prism of analyzing the development of the historical relationship between man and the natural world.</p> <p>Fundamental theoretical research and a combination of foreign historical science in social, political, economic and environmental history helped the author of dissertation to evaluate specific historical examples in the study of animal history and imperialism, as well as the degree of influence of these theoretical statements on the interpretation of sources through the prism of measurement.</p> <p>The dissertation corresponds to the following areas of the development of science, approved by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan for 2021-2023:</p> <p>7) "Research in the field of science and education";</p> <p>8) "Research in the field of humanitarian and social sciences."</p>

		direction of the development of science, approved by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan (indicate the direction)	
2.	Importance for science	The work makes /does not make a significant contribution to science, and its importance is well disclosed /not disclosed	<p>The dissertation research is devoted to the problem of the introduction of imperial veterinary practices in the Kazakh steppe at the end of the colonial period. She studied the introduction of the imperial veterinary service in the Kazakh steppe as coloniality and qualitative changes in internal regimes. As the Russian Empire sought to legitimize its power, change the environment, change the territory of the steppe, and demonstrate its skills in working with nature. She researched a growing number of Western scholarly literature on the example of French or English colonies, displaying other aspects of imperial rule, in particular, the transformation of the landscape, and deep internal structures of the colonized peoples, and found out that the colonial context of the environmental history in Kazakhstan remains understudied. Thus, the relevance of the study is the application of the latest strategies and approaches of the social sciences and the humanities to the colonial period in the history of Kazakhstan. In this regard, Kazakhstani historical science should develop in line with new trends, and contribute to the development of Kazakhstani science in the direction of the latest methodological tools.</p> <p>At the same time, it should be noted that there is a general requirement for the identity of dissertation titles in three languages, which we do not observe in this case. On the website of al-Farabi Kazakh National University in the notice of A. Duisebayeva's defense in Russian, the first part of the dissertation title is missing - "The animal face of imperial power". In addition, in our opinion, the use of the phrase "the animal breeding"/"cattle breeding" instead of "the animal face" would soften the emotional component of the title of the topic when translated into Russian. It seems that the title of the dissertation is already a conclusion to which the author has yet to come in the course of the study, but here the conclusion is presented immediately and quite categorically.</p>
3.	The principle of independence	Self-reliance level: 1) High; 2) Medium; 3) Low;	As part of the work on this topic, A. Duisebayeva showed a high level of independence, she obtained a number of important and new results. The dissertation candidate independently substantiated and proved the scientific provisions submitted for defense, justifying the relevance of the research

		4) No independence	<p>topic.</p> <p>The autonomy of the author is also traced through the interdisciplinarity of the research, which is visible, first of all, through attempts to anthropologize and animate it. The latter is very original and is being undertaken for the first time in the national historiography. In this dissertation research, the history of Kazakhstan is significantly enriched by related disciplines - ecological history, animal history, social history, everyday life history, social / cultural anthropology, etc.</p>
4.	The principle of inner unity	<p>4.1 Justification of the relevance of the thesis:</p> <p>1) Justified; 2) Partially justified; 3) Not justified.</p>	<p>The relevance of the dissertation research determined by the contemporary approach to the study of this issue in the framework of the concept of the new imperial history. The involvement of a significant number of archival documents, their active introduction into the scientific space of Kazakhstan also updates this study.</p> <p>In accordance with the increasing requirements of the modern Kazakhstani system of science and education, the increasingly objectively deepening interdisciplinary nature of modern historical science, A. Duisebayeva in her work turned to the experience of Western, modern Anglo-speaking authors who develop new approaches to understanding the colonial practices of the great powers of the past in aspects of environmental histories.</p> <p>A. Duisebayeva seeks to show what the latest scientific trends in world historiography, approaches, theories, and concepts could give a fundamentally new character to the study of the colonial period in the history of Kazakhstan, in particular, the topic of veterinary science and the problems of traditional Kazakh animal husbandry.</p> <p>She takes a new look at the period of colonial rule. She sees the introduction of veterinary practices into Kazakh studies not as a civilizing message from Russia - technocratic methods to ensure the safety of livestock and people - but as a desire to intervene deeply and change the structures of Kazakh life.</p> <p>The latter raises some questions and certain doubts. Perhaps this situation arose due to some enthusiasm by the author of Western scientific literature on the history of the French and English colonies, while the Russian Empire with its colonies has a number of features and the presence of the Kazakh steppe within the Russian Empire has long been waiting for its own theoretical and methodological concept, and not repeating existing</p>

		methodological approaches in relation to other empires - British, French, German, etc., many of which do not correspond and even contradict a number of aspects of the analysis of specific circumstances or events in the history of relations between the Russian Empire and its colonies. The scientific potential of Duisebayeva A., judging by the presented dissertation work, inspires hope that such a concept can be created in the future.
	4.2 The content of the thesis reflects the topic of the thesis: 1) Reflects; 2) Partially reflects; 3) Does not reflect	The content of the dissertation reflects the topic of the dissertation. The dissertation is presented with an introduction, a review of the literature, materials, and methods, results and discussion of sources and relevant secondary sources, a conclusion, and a list of used sources. Relevant reasoned conclusions are provided after each section.
	4.3. The purpose and objectives correspond to the topic of the thesis: 1) correspond; 2) partially correspond; 3) do not correspond	All sections and provisions of the dissertation are logically interconnected and fit into the chronological period and region, which is highlighted in a separate paragraph of the dissertation research. The purpose and objectives are fully consistent with the theme of the dissertation, in the study of coloniality.
	4.4 All sections and provisions of the thesis are logically interconnected: 1) completely interconnected; 2) the interconnection is partial; 3) there is no interconnection	All sections and statements of the dissertation are logically interconnected, fit into the chronological period and territorial boundaries identified in the study. The purpose and objectives are fully consistent with the topic of the dissertation. The dissertation is a holistic research in which all sections and provisions of the thesis are logically interconnected. A literature review revealed and clearly substantiated the goals and objectives of the dissertation. The solution of the assigned tasks is logical and interrelated. The information required for presentation in each section is disclosed in detail. This presentation of the dissertation material allows more clearly perceiving the essence of the work. The results obtained logically serve as the basis for the conclusions and provisions submitted to the defense.
	4.5 The new solutions (principles, methods) proposed by the author are reasoned and evaluated in comparison with the known solutions: 1) there is a critical analysis; 2) partial analysis;	On the basis of a critical analysis of previously known studies to the research problem, the candidate proposes new statements that she logically assessed and successfully used to obtain new original results. In this work, a new and important conclusion was also obtained. The main conclusions of the study in its long-term strategies, having solved the problem of fixing the

			<p>of livelihood has undergone significant negative changes.</p> <p>The seventh scientific result is partly new. It is noteworthy that the changed composition of the herd caused different ways of using pastureland, and introduced a new element for the Kazakh steppes – hay mowing lands, which in turn created "diverse forms of land use" and economic governance. Differences between types of livestock were given completely different importance, where one type could be less tied to social and cultural capital, the other to economic necessity.</p>
		<p>5.2 Are the dissertation findings new? 1) completely new; 2) partially new (75% are new); 3) not new (less than 25% are new)</p>	<p>The validity and reliability of the first scientific result are high and proven. The methodology of M. Foucault allows seeing that the empire set the task of modernizing, establishing control over the nomads, and using veterinary practices as a tool. What that means is that this study deepens our understanding of the nature of the imperial state, imperial modernization, and the consequences in the subsequent transformation of the Kazakh's life.</p> <p>The validity and reliability of the second scientific result are high and proven. The fact that the territory under consideration covers a very large area, and the number of veterinarians in this regard is very small, indicates the insufficient attention of the authorities to the veterinary services.</p> <p>The validity and reliability of the third scientific result are high and proven. This indicates that the tsarist authorities formed the veterinary service in the Kazakh steppe late and paid attention to it only in connection with the large spread of livestock epidemics.</p> <p>The validity and reliability of the fourth scientific result are high and proven. The use of veterinarians in tsarist Russia as an instrument of colonization policy is evidenced by the orders of the authorities and the reports of A. Dobrosmyslov. This is evidenced by the fact that veterinarians, in addition to primarily preventing infectious diseases or providing assistance in the fight against them, regularly and without fail report on the state of animal husbandry and its condition.</p> <p>The validity and reliability of the fifth scientific result are high and proven. Medical science shows that the mandatory solution for the treatment of infected animals is mandatory vaccination. It is said that the tsarist authorities tried to control Kazakh cattle breeding by planting plantations.</p> <p>Based on archival data, it could be concluded that the organization of various measures by the kingdom against the spread of infectious diseases,</p>

			<p>including mandatory vaccination, keeping sick animals in isolation, or burying them in special places, had a negative impact on migration and the life of the Kazakhs.</p> <p>The validity and reliability of the sixth scientific result are moderate and proven. The reduction of livestock pastures and the narrowing of the territory of migration affected the weakening of Kazakh sheep breeding. Thus, this allows us to conclude that the main source of livelihood for the Kazakhs has undergone significant adverse changes.</p> <p>The validity and reliability of the seventh scientific result are high and proven. The dissertation student clearly shows that the change in the breed of livestock and the type of economy from a qualitative point of view, impact on the traditional way of life of nomadic Kazakhs requires analysis of folklore materials. This is a sign of a change not only in the traditional system of animal husbandry but also in the Kazakh worldview.</p>
		<p>5.3 Technical, technological, economic or management decisions are new and reasonable:</p> <p>1) completely new; 2) partially new (25-75% are new); 3) not new (less than 25% are new)</p>	<p>Such decisions in the dissertation on humanitarian science were not identified.</p>
6.	The validity of the main findings	<p>All main conclusions are/are not based on scientifically significant evidence or well-grounded (for qualitative research and areas of training in the arts and humanities)</p>	<p>The main conclusions are well-grounded, based on the factual material and scientifically valid evidences. The paper also presents working hypotheses that reflect the current progress of research on this issue. The debatable nature of some conclusions is not hidden by the author, which is the advantage of this study.</p> <p>The relationship between the independent variables - climate, landscape, vegetation, rainfall, the presence of pastures along the river banks and the elements of veterinary service as dependent variables: veterinary and sanitary examination, animal disease control and vaccination allow us to consider the relationship between the cattle population, the increase in the competitiveness of sheep, the spread of hay, that is, with the trends of transition to a sedentary lifestyle. Thus, the conclusion of a causal relationship between the two variables makes the results of the studies reliable and trustworthy.</p>
7.	The main provisions for the	<p>It is necessary to answer the following questions for each provision separately:</p>	<p>1. The foundation and development of the veterinary service in the Kazakh steppe were facilitated by epizootic outbreaks, which increasingly</p>

defense	<p>7.1 Is the provision proven?</p> <p><u>1) proven;</u> 2) rather proven; 3) rather not proven; 4) not proven</p>	<p>began to disturb both the nomadic and sedentary population of the steppe – proven.</p> <p>2. The isolation of the veterinary service on livestock-driving routes and its concentration at certain points was reflected in the limitation of the work of the veterinary service in relation to the local nomadic livestock – proven.</p> <p>3. The belated formation of a civil veterinary network, concentration on rinderpest, and activities aimed at protecting the interests of the commercial and industrial sector established the colonial structure of the veterinary service in the Kazakh steppe – proven.</p> <p>4. The fight against infectious diseases limited the movement and lifestyle of the local nomadic people. The Kazakhs began to face more and more often the state administration, veterinarians, paramedics, new laws, regulations, and prohibitions – proven.</p> <p>5. The activities of veterinarians are seen as part of the "correct" colonization project, as a "tool of the empire" – proven.</p> <p>6. Animal vaccinations became a practice of continuous control and interference in the public and private spaces of the Kazakh people – proven.</p> <p>7. Imperial rule viewed the Kazakh steppe as a potentially limitless source of horses for their military, agricultural and industrial sectors – proven.</p> <p>8. Loss of habitat and reduction of migration routes for Kazakhs, together with an increase in demand for livestock and livestock products, threatened the degradation of Kazakh sheep-keeping and the loss of a key element of culture – proven.</p> <p>9. Cattle has become the main subject of rapid and radical change in Kazakh animal husbandry, an important element in the qualitative change in herd composition, and a symbol of the decline of the pastoral economy and its well-being – proven.</p> <p>10. The process of qualitative change in the herd composition changed the traditional way of life of Kazakh livestock herders. Keeping livestock in stables, and new practices of land use, contributed to the development haymaking. The latter had a large influence not only on the deviation from the usual forms of the "pastoral" economy of the Kazakh people but also on the natural environment of the steppe, as well as on a decrease in the fertility of the soil cover. This different way of life had a different impact on the environment, changing the environment and itself in different ways, introducing changes into the stable triad of nature-man-animal in the space of</p>
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		7.2 Is it trivial? 1) yes; 2) no	The provisions for the defense are not trivial. There are no elements of triviality in this dissertation work.
		7.3 Is it new? 1) yes ; 2) no	The provisions for the defense are new. Previously, no one has described similar provisions and research results on the dissertation's topic in the literature.
		7.4 Application level: 1) narrow; 2) medium; 3) wide	The theoretical and methodological approaches used in this research can be applied in the study of other regions, not only with a predominantly nomadic people since the history of the environment has several areas of interest, one of them with a focus on the material world, another on cultural and intellectual matters, and a third focused on political aspects, which can expand and manifest these relationships in all spheres of life.
		7.5 Is it proven in the article? 1) yes ; 2) no	The proof of all provisions is confirmed by the publication of research results in 8 articles in domestic and foreign publications: including in publications recommended by the Committee for Quality Assurance in Education and Science - 4; in the collections of domestic and international scientific conferences - 3; in a journal with a non-zero impact factor indexed in the Web of Science database - 1.
8.	The principle of reliability Reliability of sources and information provided	8.1 Choice of methodology - is justified or the methodology is described in sufficient detail 1) yes ; 2) no	The choice of research methodology is carefully justified: the research methods used are described in detail in the corresponding I Chapter of the thesis. On the basis of new methodological approaches, this research presents the concept of "rational governance" – governmentality, as colonial state rhetoric, which is based on governmental interest. The imperial colonial administration sought to minimize risks and increase the well-being of the people for the sake of its own interests and intervened in all spheres of life of the people, both public and private. The author operates with such concepts as "environmental friendliness", "environmental imperialism", "eco-management", "biopower", etc. We are very impressed by author's theoretical flexibility, based on M. Foucault's provisions "concerning possible objects of study, classically non-political

		<p>phenomena, such as water, animals, plants, and the environment, as all these objects are influenced by one structure of power" (p. 18).</p> <p>The concept of "ecological imperialism" allowed the author to consider the relationship between the imperial center and the colonial outskirts as a complex interaction of social and environmental factors. The result was a change and the creation of new forms of life and landscapes in the Kazakh steppes. The second concept was the "animal turn", which allows us to view colonial policy through the prism of livestock as the "agent" of the colony. M. Foucault's concept of "reasonable government, which was based on the state interest" became the third key methodological consideration for the author.</p>
	<p>8.2 The results of the thesis were obtained using modern methods of scientific research and methods of processing and interpreting data using computer technologies: <u>1) yes;</u> 2) no</p>	<p>The results of the thesis were obtained using modern methods of scientific research. A comparative analysis of folk prevention practices, the comparison between metropolitan and colonial veterinary service systems, discourse analyses of folklore materials, and ethnographic data are the main research methods.</p> <p>The research methods declared by the author testify to her awareness of the classical and modern historical methodology, which is implemented in the dissertation and allows solving the tasks.</p>
	<p>8.3 Theoretical conclusions, models, identified relationships and patterns have been proven and confirmed by experimental research (for areas of training in pedagogical sciences, the results have been proven on the basis of a pedagogical experiment): <u>1) yes;</u> 2) no</p>	<p>The theoretical conclusions obtained in the dissertation research are proved and based on original sources, which are based on the theoretical and methodological basis of the study, post-structuralism - the identification of different meanings and understandings of the essence of phenomena. Thus, the source base of the study is a set of administrative documents, the research materials of statistical and research expeditions of the second half of the 19th century, a number of scientific and journalistic works, and scientific works of representatives colonial government representatives that were created and used for official purposes, as well as folkloric and ethnographic sources, which are conditionally classified and divided into several groups. The systematization and classification of these types were supplemented by an analysis of semantic meanings, and of the genre specifics of sources, studying causes, patterns, and changes.</p>
	<p>8.4 Important statements are confirmed / partially confirmed / not confirmed by references to current</p>	<p>The main important statements of the dissertation work are confirmed in this dissertation work by appropriate references to the extensive scientific literature.</p>

		and reliable scientific literature	
		8.5 Used literature sources are sufficient/not sufficient for a literature review	The author of the thesis has done a great deal of work in writing a review of the scientific literature on the research topic. The author used 413 publications devoted to the research topic. These sources of information are quite sufficient to substantiate the purpose and objectives of the study and show the relevance of the chosen topic.
9	Practical value principle	9.1 The thesis has theoretical value: 1) <u>yes</u> ; 2) no	<p>The significance of the scientific results of the dissertation is quite high, since within its framework not only a fundamentally new amount of archival materials has been introduced into scientific circulation, but most importantly, they have been analyzed based on the latest theoretical and methodological approaches presented in the works of such authors as M. Foucault, J McNeil, D. Davies, A. Crosby, D. Kumar, I. Campbell, J. Mackenzie, A. Agrawal etc.</p> <p>The thesis has great theoretical value - the impact of colonialism on the relationship between man and the environment, which considers the important aspect of colonialism changes in the nature of the environment.</p>
		9.2 The thesis is of practical importance and there is a high probability of applying the results obtained in practice: 1) <u>yes</u> ; 2) no	<p>In our opinion, the practical value and scientific significance of the results of the dissertation is very high. The topic of the dissertation itself is of great interest and speaks of significant changes in the perspective of studying the historical past. The author demonstrates a desire to "anthropologize" scientific research and uses the so-called "animal turn" in a particularly original way. In the center of the study are man, nature, and the animal world.</p> <p>The practical significance of the study lies in the fact that it offers new conceptual approaches that can be used in research, the preparation of academic courses and programs, and in writing textbooks and teaching aids.</p>
		9.3 Are the practice suggestions new? 1) completely new ; 2) partially new (25-75% are new); 3) not new (less than 25% are new)	The scientific novelty of the research lies in the novelty of the formulation of a scientific problem in Kazakhstani historiography, where topics related to veterinary medicine, veterinary practices, and animals have remained outside the objectives of colonial research. In this research, for the first time, at the

			junction of three paradigms – environmental history, the animal turn, and the poststructuralist methodology of M. Foucault, a work methodology has been formulated to determine the degree of intrusion of new forms of colonial governance.
10.	The quality of writing and design	Academic writing quality: 1) high; 2) average; 3) below average; 4) low.	<p>The results of the thesis are an original, scientific novelty and practical significance, demonstrating the author's contribution to national and world-historical science. The conducted research presents the ability of a doctoral student to analyze information and draw appropriate conclusions. The work is completely framed in accordance with the academic research format and requirements. The dissertation writing is of high quality.</p> <p>It characterizes the applicant as a well-established researcher who knows how to set and solve the complex tasks of historical science independently. With its attention to detail, nuanced argumentation, and exhaustive source base, this dissertation more than fulfills Duisebayeva's stated objective of advancing the study of Kazakh history.</p> <p>Summing up the general result, it is necessary to conclude that the new scientific results obtained by the dissertation are essential for Kazakhstan's historical science and practice in the field of history, and the dissertation itself is a completed scientific and qualification work; that meets the passport 8D02206 – «History».</p>

I consider that the dissertation of Aibubi Duisebayeva on the topic «The animal face of imperial power: Kazakh animal husbandry and tsarist veterinary services, 1868-1917» meets the requirements for a PhD thesis, in the Educational Program "8D02206 – History", and the candidate deserves a PhD degree.

Official Reviewer:
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 (signature)

S.I. Kovalskaya

