

Written Review by the Official Reviewer

on the dissertation of PhD candidate LAURA MUKANOVNA AUKHADIYEVA
on the topic: "Trends in the Development of Modern Regional Architecture in Kazakhstan",
submitted for the degree of Doctor of Philosophy (PhD) in the educational
program/specialty 8D07311 - "Architecture"

No.	Criteria	Compliance with the criteria (underline one of the options)	Justification of the position of the official reviewer (comments are italicized).
1.	The dissertation topic (as of the date of its approval) aligns with the directions of scientific development and/or state programs.	<p>1.1 Compliance with the priority areas of scientific development or state programs:</p> <p>1) The dissertation is carried out within the framework of a project or targeted program funded by the state budget (specify the name and number of the project or program);</p> <p>2) The dissertation is carried out within the framework of another state program (specify the name of the program);</p> <p>3) <u>The dissertation corresponds to a priority area of scientific development approved by the Higher Scientific and Technical Commission under the Government of</u></p>	<p>1.1 The dissertation corresponds to the priority area of scientific development approved by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan, specifically the "State Program for Regional Development until 2020," developed within the framework of the implementation of the "National Development Plan of the Republic of Kazakhstan until 2025" (approved by the Decree of the President of the Republic of Kazakhstan dated February 15, 2018, No. 636), the "Concept of Transition of the Republic of Kazakhstan to Sustainable Development for 2007-2024" (approved by the Decree of the President of the Republic of Kazakhstan dated November 15, 2006, No. 216), and addresses the objectives of relevant international programs ("Sustainable Development Goals" of the UN, "Copenhagen Lessons" of the International Union of Architects).</p>

		<u>the Republic of Kazakhstan (specify the area).</u>	
2.	Scientific importance	The work <u>makes/does not</u> make a significant contribution to science, and its importance is <u>well/not</u> well articulated.	The work <u>makes</u> a significant contribution to science, and its importance is well articulated. The study provides a detailed analysis of the evolution of Kazakhstani architecture, enumerates current issues in regional architecture and urban planning, identifies the role of architecture as a foundational construct in the formation of regional identity, and outlines the development trends of regional architecture in Kazakhstan in the 21st century.
3.	Principle of Independence	Level of independence: 1) <u>high</u> ; 2) medium; 3) low; 4) no independence	Level of independence is <u>high</u> . The PhD candidate independently conducted a substantial volume of research work, as reflected in the textual and graphical parts of the dissertation study.
4.	Principle of Internal Unity	4.1 Justification of the dissertation's relevance: 1) <u>justified</u> ; 2) partially justified; 3) not justified.	For architectural science and practice in the context of local and global contemporary challenges, the research topic is relevant and <u>justified</u> . Comprehensive analysis of the regional architectural heritage and documentation of its results have enabled several important conclusions and the development of a trajectory for the future of architecture in Kazakhstan.
		4.2 The content of the dissertation reflects the dissertation topic: 1) <u>reflects</u> ; 2) partially reflects; 3) does not reflect.	The content of the dissertation fully <u>reflects</u> the dissertation topic.
		4.3. Objectives and tasks correspond to the dissertation topic: 1) <u>correspond</u> ; 2) partially correspond; 3) does not correspond.	The goals and objectives <u>correspond</u> to the dissertation topic and are aimed at developing contemporary architecture in Kazakhstan, considering current trends and priority directions: environmental sustainability; energy efficiency; adaptability; regional identity; digitalization of design, construction, and building operation processes; and participatory design.
		4.4 All sections and provisions of the dissertation are logically Interconnected: 1) <u>fully interconnected</u> ;	All sections and provisions of the dissertation are <u>fully logically interconnected</u> . The theoretical-empirical, comparative, and iconographic analysis conducted in the chapters "Features of the Development of World Architecture in the 20th Century" and "Evolution of Kazakhstan's Architecture in the 20th Century" facilitated the identification of current aspects of forming contemporary regional

		<p>2) partially interconnected; 3) no interconnection.</p>	<p>architecture in Kazakhstan in the third chapter. The final chapter "Trends in the Development of Kazakhstan's Architecture in the 21st Century" forecasts the development strategy for Kazakhstan's architecture.</p>
		<p>4.5 The proposed new solutions (principles, methods) are justified and evaluated compared to known solutions: 1) <u>critical analysis is present</u>; 2) partial analysis; 3) analysis consists of other authors' quotes, not own opinions; 4) no analysis.</p>	<p><u>Based on the conducted critical analysis</u>, the author proposes new principles for forming regional architecture in Kazakhstan under contemporary conditions: environmental safety, permanent scientific and technical modernization, revitalization of architectural structures, socialization of architecture, and a critical approach.</p>
5.	Principle of scientific novelty	<p>5.1 Are the scientific results and propositions new? 1) <u>entirely new</u>; 2) partially new (25-75% are new); 3) not new (less than 25% are new).</p>	<p>The scientific results and propositions of the dissertation research are <u>entirely new</u> and original.</p>
		<p>5.2 Are the conclusions of the dissertation new? 1) <u>entirely new</u>; 2) partially new (25-75% are new); 3) not new (less than 25% are new).</p>	<p>The conclusions of the dissertation are <u>entirely new</u>, well-founded, and convincing.</p>
		<p>5.3 Are the technical, technological, economic, or managerial solutions new and justified: 1) <u>entirely new</u>;</p>	<p>The technical, technological, economic, or managerial solutions are <u>entirely new</u> and justified.</p>

		2) partially new (25-75% are new); 3) not new (less than 25% are new).	
6.	Soundness of main conclusions	All main conclusions of the dissertation <u>are based</u> / are not based on substantial scientific evidence or are well justified (for qualitative research and in fields of arts and humanities).	All main conclusions of the dissertation research <u>are based</u> on substantial scientific evidence.
7.	Main Propositions Submitted for Defense	It is necessary to answer the following questions for each proposition separately: 7.1 Is the proposition proven? 1) <u>proven</u> ; 2) likely proven; 3) likely unproven; 4) unproven; 5) the current formulation makes it impossible to verify the proof.	The main propositions of the dissertation submitted for defense are <u>proven</u> . The dissertation research results have proven the following: - The evolution process of Kazakhstan's architecture in the 20th century has altered the architectural and urban planning landscape of the country: an increase in the number of cities and rural settlements, and the formation of new architectural and urban planning concepts. - There is a transformation of Kazakhstani architecture, which is becoming a part of contemporary global architecture while maintaining its distinct characteristics and development features. Since the late 20th century, the legacy of Soviet architecture, which shapes the appearance of Kazakhstani cities, has been enriched by the implementation of projects by both foreign and Kazakhstani architects. - The issues of Kazakhstan's architecture are presented in the form of a diagram depicting the problems of regional architecture in Kazakhstan. - The role of architecture as a fundamental construct in the formation of Kazakhstan's regional identity. - The primacy of the critical approach principle in using traditions and innovations in contemporary Kazakhstani architecture under the conditions of global integration and regional identification. - The development of regional architecture in Kazakhstan in the 21st century will take into account the following components: environmental friendliness, energy efficiency, adaptability, digitalization of design, construction, and building operation processes, participatory design, and regional identity.

		7.2 Is it trivial? 1) yes; 2) <u>no</u> ; 3) the current formulation makes it impossible to verify triviality.	<u>No</u> . The main propositions of the dissertation submitted for defense are not trivial.
		7.3 Is it new? 1) yes; 2) <u>no</u> ; 3) the current formulation makes it impossible to verify novelty.	<u>Yes</u> . The main propositions of the dissertation submitted for defense are new.
		7.4 Level of application: 1) narrow; 2) medium; 3) <u>wide</u> ; 4) the current formulation makes it impossible to verify the level of application.	The main propositions of the dissertation submitted for defense can have a <u>wide</u> level of application in architectural practice, science, and educational process.
		7.5 Is it proven in the article? 1) <u>yes</u> ; 2) no; 3) the current formulation makes it impossible to verify proof in the article.	<u>Yes</u> . The results of the dissertation research have been proven in twelve published scientific works by the author, reflecting the main findings of the study.
8.	Principle of reliability. reliability of sources and provided information	8.1 Justification of methodology choice - is the methodology justified or described in sufficient detail: 1) <u>yes</u> ; 2) no.	<u>Yes</u> . The choice of methodology is justified. The methodology is described in detail and is based on a general philosophical systemic approach and consistency in research. In the initial stages, the method of analysis and synthesis related to the study of the research problem is used. Subsequently, the method of logical conclusion and confirmation by surveying are employed, which allow for the final conclusions of the dissertation to be drawn.

		8.2 Were the dissertation results obtained using modern methods of scientific research and data processing and interpretation techniques, utilizing computer technologies? 1) <u>yes</u> ; 2) no.	<u>Yes</u> . The results of the dissertation work were obtained using modern methods of scientific research and techniques for data processing and interpretation with the application of computer technologies.
		8.3 Are the theoretical conclusions, models, identified interrelationships, and regularities proven and confirmed by experimental research (for educational sciences, results are proven based on educational experiment)? 1) <u>yes</u> ; 2) no.	<u>Yes</u> , the theoretical conclusions, models, identified interrelationships, and regularities are fully proven and confirmed by experimental research. Conducted has revealed factors shaping the identity of the city, particularly the city of Almaty.
		8.4 The key statements are <u>confirmed</u> /partially confirmed/not confirmed by references to relevant and reliable scientific literature.	Key statements <u>are confirmed</u> by references to relevant and reliable scientific literature, listed in a source list comprising 531 items.
		8.5 The used literature sources are <u>sufficient</u> /insufficient for the literature review.	The literature sources used <u>are sufficient</u> for the literature review and demonstrate the dissertation candidate's extensive knowledge and immersion in the research topic.
9.	Principle of practical value	9.1 The dissertation does have theoretical significance: 1) <u>yes</u> ; no.	<u>Yes</u> . The dissertation has theoretical significance and involves the synthesis of knowledge and theoretical review, which can be used in the further study and preservation of the connections of contemporary architecture with previous stages of its development, and in defining the trends of further formation of

			regional architecture in Kazakhstan. The research results can be used in educational programs for academic disciplines.
		9.2 The dissertation does have practical significance and there is there a high probability that the results will be applied in practice: 1) <u>yes</u> ; 2) no.	<u>Yes</u> . The dissertation has practical significance and there is a high probability that the results will be applied in the real design of new objects, the reconstruction of architectural monuments, the preservation of cultural heritage, and its adaptation to the modern demands of society.
		9.3 The suggestions for practice are new: 1) <u>entirely new</u> ; 2) partially new (25 - 75%); 3) not new (less than 25%).	The suggestions for practice from the dissertation research are <u>entirely new</u> and relevant. The dissertation topic is based on the issue of developing Kazakhstan's architecture in response to regional and global contemporary challenges, considering current global trends.
10.	Quality of writing and presentation	Quality of academic writing: 1) <u>high</u> ; 2) medium; 3) below average; 4) low.	The quality of academic writing is <u>high</u> and meets all the requirements demanded of works of this kind.
11.	Comments on the Dissertation		Unfortunately, the illustrative material related to the reconstruction project of the "Three Bogatyrs" residential complex, mentioned in the implementation act and in the dissertation text (Section 4.4.4 Participatory Design), is not presented in the graphical part of the dissertation (or depicted too small, making it difficult to examine). It would also be interesting to see the works of students from two universities – KazGASA and AlmaU – on the same topic. This comment does not diminish the impression of the graphical part of the work presented in the appendices, which deserves special attention and praise.
12.	Scientific level of the candidate's articles on the research topic (in case of dissertation defense in the form of a series of articles, official reviewers comment on the scientific level of		The results of the dissertation research have been published in 12 (twelve) scientific works by the author, reflecting the main findings of the study. The scientific level of the candidate's articles on the research topic is high and fully reveals the process and results of the conducted research.

	each article by the candidate on the research topic)		
13.	Decision of the official reviewer (according to item 28 of the current regulations)		Advocate to the Committee for awarding the degree of Doctor of Philosophy (PhD) to Laura Mukanovna Aukhadiyeva.

Reviewer

PhD in Architecture, Associate Professor at the Department of «Information Technology in Architecture», Moscow Architectural Institute (State Academy), Moscow, Russia;
Member of the Union of Architects of Russian Federation



Savelieva Larisa Vladimirovna

14.08.2024

107031, Moscow, Rozhdestvenka St., 11/4, building 1, structure 4.
Phone.: +74956236754, +79166004933 e-mail: savelievalarisa@yandex.ru

Подпись Савелиева Лариса Владимировна

 Начальник общего отдела

