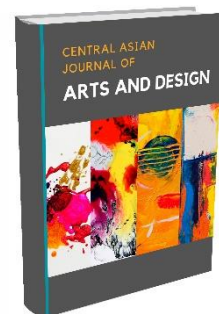


Available online at www.cajad.centralasianstudies.org

CENTRAL ASIAN JOURNAL OF ARTS AND DESIGN

Journal homepage: <http://cajad.centralasianstudies.org/index.php/CAJAD>

The Basic Principles of the use of Building Materials in the Repair of Decorations of Architectural Monuments of Uzbekistan

Muminova Nigoraxon Zohidovna

Assistant, Department of Architecture, Fergana Polytechnic Institute, Fergana, Uzbekistan

Annotation

This article discusses the types of building materials used in the repair of historical architectural monuments and how to repair them.

ARTICLE INFO

Article history:

Received 01 Nov 2021

Received in revised form 27 Nov

Accepted 28 Nov 2021

Available online 30 Dec 2021

Keywords: rocks, cotton ribbons, engineering communications, tile art, material pieces.

Introduction

The concept of monuments also has two aspects in modern renovation: historical and artistic values. In turn, they have structural components. Historical value includes not only the value of information about the past but also the emotional value. Artistic value includes aesthetic aspects. The architectural monument reflects the period of its construction, its level of production, engineering knowledge. The typology of monuments reflects important aspects of the past. In particular, it provides valuable information on cultural ties. It is known that the history of ancient cities in Central Asia, such as Samarkand, Bukhara, Khiva, Shakhrisabz, Termez, is around 2500-2700 years [1-7]. The foundations of the buildings and structures of these cities, utilities, water and defence structures are mostly made of rock, which is the material at hand. Archaeological excavations have shown that these rocks are intact and strong.

Materials and methods

The ensemble of architectural monuments of Shahrisabz (ancient Kesh) deserves special attention. The most important architectural monument in this city museum is the Amir Temur Oqsaroy. Archaeological excavations at the Oqsaroy revealed that the complex was built of local building materials, including gravel. The fact that the rocks have a grade of 2000-3000 kg/cm², water absorption, resistance to cold, saline solutions, guarantees that they will not deteriorate for 700 years. It is known that clay has been the main building material in Central Asian architecture since ancient times. It was usually used as cotton or raw brick. Paxas were used as a ribbon or block raw bricks [8-19]. Due to this, the tape or block types of cotton are known. It should be noted that the technology of

E-mail address: editor@centralasianstudies.org

(ISSN: 2660-6844). Hosting by Central Asian Studies. All rights reserved..

making baked bricks, although known to the peoples of Central Asia since ancient times, was not widely used until the ninth century.

From that time on, it was used in architecture as a kind of protective shell. For example, if we look at the construction of public buildings in the IX-XI centuries, we see that the walls of the building were built on the basis of cotton and raw bricks, and then both sides were lined with baked bricks [20-37]. Thus, the robustness of your device is increased. Later, the custom of painting the surface of these bricks became widespread. From the 11th to the 12th centuries, special bricks-tiles or baked clay rivets were used. Thus, the art of riveting (majolica), tile and tile began to be widely used in Central Asian architecture [38-47]. However, this does not mean that glazed ceramics appeared in architecture in the IX-XII centuries. This is evidenced by the fact that such fragments of material were found in the Soil Fortress (VI century) and other ancient monuments [45-49]. There are three main types of glazed ceramics used in architecture. The first is a rivet, in other words - majolica. There are two types: carved and smooth. The carved majolica is made of clay. It is then baked in a kiln and glazed. It's cooked again. Sometimes the decoration is glazed 2-3 times and re-glazed after each glazing. The result is a deep carved glazed ornament. The second type of rivet has a smooth surface. To make it, a piece of clay was made and a pattern was painted with mineral paints. Then the clay is baked. Then a piece of glazed clay of different colours was baked again. Rivets were widely used, especially in the XII-XIV centuries. The second type of glazed pottery is tile. They are simple in appearance and are made of baked bricks with glaze on one side. There are also types of tiles with a glaze on the surface of the plaster, which was used in the XVI-XVIII centuries. They range in size from ordinary baked bricks to small custom bricks. The third type of glazed ceramics used in architecture is tile. Koshinburush is a piece of glazed pottery used to make any Islamic or calligraphic pattern and the method of its use. These pieces of pottery are made of tiled bricks cut with a tesha (broken) or sharpened on a wheel. That is why it is called koshinburush. Tiles can be made not only from prefabricated tiles but also in small moulds from clay or special plaster in the required size.

Conclusion

All types of rivets and tiles can be glued directly to the wall and assembled by means of a mixture, this method is called 'chaspak'. Koshinburushs are made in special patterns, laid upside down.

Then they are poured with liquid plaster and special boards are made. These boards are then glued to the wall. Once installed, the gap between the wall and the tile is filled with the mixture, which is also called the adhesive method. However, medieval architects left special air ducts to prevent various salts from escaping the walls and walls. This method is called "khataba".

References

1. Пугаченкова Г.А. Зодчество центральной Азии XV века. Т., 1976.
2. Abdusatorovna, N. S., Raxmonovich, E. D., & Odilbekovich, M. N. (2021). Architectural and planning solutions for microdistricts. *Oriental renaissance: Innovative, educational, natural and social sciences*, 1(4), 31-36.
3. Rustam, A., & Nasimbek, M. (2021). A New Method Of Soil Compaction By The Method Of Soil Loosening Wave. *The American Journal of Engineering and Technology*, 3(02), 6-16.
4. Karimova, M. I. Q., & Mahmudov, N. O. (2021). The importance of elements of residential buildings based on uzbek traditions. *Scientific progress*, 1(6), 865-870.
5. Ахунбаев, Р., Махмудов, Н., & Хожиматова, Г. (2021). Новый способ уплотнение грунта методом волна разрыхления грунта. *Scientific progress*, 1(4).

6. Norimova, S. A., & Ehsonov, D. R. (2021). Analysis of the architectural image of the ancient city of tashkent. *Scientific progress*, 2(1), 851-856.
7. Zakirova, G. M. Q., & Axmedov, J. D. (2021). Architectural appearance of khudoyorkhan palace: requirements for preservation and restoration. *Scientific progress*, 1(6), 717-719.
8. Каримжонов, М. (2017). Опыт зарубежных стран в отношении регулирования пенсий по инвалидности. *Review of law sciences*, 1(1).
9. Karimjonov, M. (2017). Experience of foreign countries with regard to the regulation of disability pensions. *Review of law sciences*, 1(1), 13.
10. Mukhammadaliyevich, K. M. Systematic violation by a worker of his labour duties.
11. Raxmonov, D., & Toshpo'Latova, B. (2021). Preservation of historical monuments of ferghana region. *Scientific progress*, 1(6), 458-462.
12. Holmurzaev, A. A., Madaminov, J. Z., Rahmonov, D. M., & Rasulzhonov, I. R. (2019). Metodika razvitija professional'noj kompetentnosti informacionno-tehnicheskikh sredstv budushhih uchitelej cherchenija. *Aktual'naja nauka*, 4, 112-115.
13. Юнусалиев, Э. М., Абдуллаев, И. Н., Ахмедов, Ж. Д., & Рахманов, Б. К. (2020). Инновации в строительной технологии: производство и применение в узбекистане строп из текстильных лент и комбинированных канатов. In *Энерго-ресурсосберегающие технологии и оборудование в дорожной и строительной отраслях* (pp. 421-431).
14. Abdullaev, I. N., Akhmedov, Z. D., Rakhmanov, B. K., & Zhurabaeva, R. T. (2020). State and prospects of production and operation of synthetic woven belts (table) for load-handling devices (hd) in the republic of Uzbekistan. *Journal of Tashkent Institute of Railway Engineers*, 16(4), 106-109.
15. Қосимов, С. Р. (2020). Ўзбекистон республикасида замонавий интерьерларнинг мавжуд ҳолати ва фаолияти. *Science and Education*, 1(2), 213-217.
16. Зикиров, М. С., Қосимов, С. Р., & Турсунов, Қ. Қ. (2020). Дизайнда инновация истикболлари. *Science and Education*, 1(7).
17. Мамажонов, А., & Косимов, Л. (2021). Особенности свойств цементных систем в присутствии минеральных наполнителей и добавки ацетоноформальдегидной смолы. *Грааль Науки*, (5), 102-108.
18. Косимов, С., Урмонов, Б., & Рахмонов, Д. (2021). Туристское районирование территорий основной фактор развития туризма. *Scientific progress*, 2(3), 125-128.
19. Saidjon, K., & Bakhrom, U. (2021). Energy-Saving Materials In Residential Architecture. *The American Journal of Engineering and Technology*, 3(01), 44-47.
20. Saidjon, Q., & Bakhrom, U. (2021). The Influence Of Interior Psychology On Uzbek Architecture. *The American Journal of Interdisciplinary Innovations and Research*, 3(06), 31-35.
21. Rahmonov, D. M., & Rahmonova, G. A. (2020). Scientific-proposal projects on designing agro industrialized small cities in the territory of Uzbekistan. *ACADEMICIA: An International Multidisciplinary Research Journal*, 10(5), 778-785.
22. Rahmonova, G. A., Goncharova, N. I., & Rahmonov, D. M. (2020). Tourism-The future of economy. *ACADEMICIA: An International Multidisciplinary Research Journal*, 10(6), 1319-1324.

23. Салимов, О. М., & Журабоев, А. Т. (2018). Роль рекреационных зон в городской структуре (на примере города Ферганы). *Проблемы современной науки и образования*, (12 (132)).
24. Zikirov, M. C., Qosimova, S. F., & Qosimov, L. M. (2021). Direction of modern design activities. *Asian Journal of Multidimensional Research (AJMR)*, 10(2), 11-18.
25. Zikirov, M. (2012). Development of Small business in transition economies of Tajikistan. *Bulletin of Tajik National University of Republic of Tajikistan*, 2/5 (92), 48-51.
26. Sultonmurodovich, A. B. The Regulation of Fixed-term Employment Contracts in Uzbekistan. *JournalNX*, 573-579.
27. Зикиров, М. (2013). Формирование системы инфраструктурного обеспечения предпринимательской деятельности. *Вестник Педагогического университета*, (1), 169-172.
28. Khusanjonov, A., Makhammadjon, Q., & Gholibjon, J. (2020). Opportunities to improve efficiency and other engine performance at low loads.
29. Razzakov, S. J., Rakhmanov, B. K., & Akhmedov, J. D. (2021). Study Of The Influence Of Light Weather On The Mechanical Properties Of Para-Aramid Filaments. *The American Journal of Engineering and Technology*, 3(04), 35-41.
30. Axmedov, J. (2021). The preservation of ancient architectural monuments and improvement of historical sites-factor of our progress. *Збірник наукових праць ЛОГОС*.
31. Axmedov, J. (2021). The development of landscape architecture in Uzbekistan. *Збірник наукових праць SCIENTIA*.
32. Nurmatov, D. O., Botirova, A. R., & Omonova, Z. (2021). Landscape solutions around the roads.
33. Qosimov, L. M., Qosimova, S. F., & Tursunov, Q. Q. (2020). Specific aspects of using Ferghana region's pilgrims for touristic purposes. *Academic research in educational sciences*, (3).
34. Abdatov, U., & Tursunov, Q. Q. (2021). Tabiiy landshaft hududlarining o'ziga xos antropogen xususiyatlari. *Science and Education*, 2(5), 41-44.
35. Нодирбек Юсупов (2021). Рабочее время как элемент индивидуального трудового правоотношения и как институт трудового права. *Общество и инновации*, 2 (2/S), 339-348. doi: 10.47689/2181-1415-vol2-iss2/S-pp339-348
36. Abdatov, U., & Tursunov, Q. Q. (2021). An'anaviy choyxona hovli uylarini me'moriy loyihalari. *Science and Education*, 2(5), 305-309.
37. Набиев, М., Турсунов, Қ. Қ., & Турсунов, Ў. Қ. (2020). Фарғонанинг тарихий шаҳарларида турар жойларни шаклланиши. *Science and Education*, 1(2), 152-157.
38. Набиев, М., Турсунов, Қ. Қ., & Турсунов, Ў. Қ. (2020). Асфальт бетон ва цемент бетон копламали йўлларнинг ўзига хос афзалликлари. *Science and Education*, 1(2), 265-269.
39. Набиев, М., & Турсунов, К. (2020). Из истории архитектуры. *Science and Education*, 1(1).
40. Kosimova, S. H., & Kosimov, L. M. (2020). Principles of forming a garden-park landscape design around historical monuments of the fergana valley. *ACADEMICIA: An International Multidisciplinary Research Journal*, 10(6), 1582-1589.
41. Salimov, A. M., Qosimova, S. F., & Tursunov, Q. Q. (2021). Features of the use of pilgrims for tourism in the Fergana region. *Scientific-technical journal*, 3(4), 42-47.

42. Kosimov, L., & Kosimova, S. (2021). Optimization of the composition of dry slag-alkaline mixtures. *Збірник наукових праць ЛОГОС*.
43. Muminova, N. Z., Toshmatov, U. T., & Norimova, S. A. (2020). In Uzbekistan roof landscaping- the need for environmental health, convenience, beauty. *ACADEMICIA: An International Multidisciplinary Research Journal*, 10(6), 213-215.
44. Abdusalilovich, Y. N. Impact of International Standards in the Legal Regulation of Working Hour S in the Republic of Uzbekistan. *JournalNX*, 623-630.
45. Tursunova, D. (2021, August). Architectural history of margilan city: <https://doi.org/10.47100/conferences.v1i1.1231>. In *Research Support Center Conferences* (No. 18.05).
46. Ахмедов, Ж. Д. (2010). Оптимизация преднапряженных перекрестных ферменных систем. *Промислове будівництво та інженерні споруди*. К.: БАТ "Укрдніпроектстальконструкція ім. ВМ Шимановського, 4.
47. Solievich, I. S., & Ravshanovna, T. L. B. (2021). Fundamentals of the modern concepts of "architectural monument" and "restoration". *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(3), 2573-2578.
48. Файзиев, П. Р., Исмадиёров, А., Жалолдинов, Г., & Ганиев, Л. (2021). Солнечный инновационный бытовой водонагреватель. *Science and Education*, 2(6), 320-324.
49. Babaev, B., Ziyaev, A., Ziyavitdinov, J., Rakhmonova, G., Bozorov, S., & Jaloliddinov, F. Synthesis, structure and toxicity of 2, 5-bis-(izopropyl-oxycarbonylmethylenthio)-1, 3, 4-Thiadiazole. In *XIII International Symposium on the Chemistry of Natural Compounds (ISCNC 2019)* (p. 69).