Liquid Geometric Shape Learning Perspective of all Projections of Important Laws of Learning

Sultanova D.N. SamDAKU professors v.v.arx. sciences of. doctors

Ishkuvatov H. A. SamDU graduate student

ABSTRACT

This article provides information about the perspective of geometric shapes in liquid and the study of important laws in projection.

Keywords: Drawing geometry and engineering graphics, perspective, projections, sunlight on the underwater plane, physical properties, ocean, sea, rivers and lakes.

We know that from the science of drawing geometry and engineering graphics, we know how to make a perspective of a body or geometric objects on a natural plane with perspective based on the rules of perspectival (sight or observation S-point) from one point. These methods mean seeing the celestial space (under the sky, looking into the distance) completely through the glass. In the science of drawing geometry, the plane of projections is the projection of a geometric body, objects, points, lines in the N-horizontal, V-frontal, W-profile plane and its clear image in the spatial plane with sunlight or artificial lighting devices. Based on the laws of physics, the speed of light, the physical properties of light, the law of refraction of light, experiments and practices were carried out in the underworld. But in science there are a lot of unknown analysis, experiments, new ideas.

For example, the underwater world is sharply different from the laws of open nature when we project the reflection of objects or objects in a transparent liquid or sunlight on an underwater plane with artificial lighting devices. In our experiment, we made a transparent container made of glass with a rectangular width of 30 cm and a height of 20 cm, and its cubic volume is V = 30 cm x 20 cm x 20 cm = 0.02 m 3. We voluntarily put the object of the following geometric shape into the water. The water level is 12 cm, the geometric shape of the body is rectangular with conical bases and the volume of water is V = 0.3 x 0.2 x 0.12 = 0.0072 m3. At this observation point, when we observe the vertical view of the object in the underwater plane, which is shown in perspective observation from the outside, we observe that the horizontal plane of the geometric object in the container appears as two. We see that one more plane has appeared under the first plane, that is, the mirror quality plane. In this case, we can see half of the clear image of the object, and we see that its reflection falls on the mirror-like plane upside down. If we replace the container with a mirror plane parallel to the profile plane, we can see its third reflection in the profile plane.

The horizontal plane also appears double, if we change the point of observation S- to a certain distance, the visible object of the underwater object will change, and its horizontal plane will be the same as the eye, and a clear image of the object will be formed. The

upper surface of the water is also transparent and the reflection of the three parts of the body is visible. At the place of the experiment, we drop the ruler (ruler) into the water in the tank at a certain degree. We observe the breaking of the ruler with the part sticking out of the water level under 90 degrees, and the other end breaking in clear water. Observation When we look at the point S– from the opposite side of the container, we can see that the lens has not changed its appearance. If we fix the tube inside the container with water on the internal transverse edge of the container in the horizontal plane, we can see its reflection, which is connected at 90 degrees in the horizontal and profile planes. In this process, we observe that the plane made of laminate under the vessel appears to be raised above the water level, and three parts of the underwater geometric body are visible in certain dimensions, and the lens dipped in the water at an angle is refracted at a certain obtuse angle. As it is known, with the change of distance and degrees of observation point, reflection of objects begins to change. In this case, only a change in volume is observed without changing the configuration of geometric shapes. When we observe a sturgeon underwater, the reflections from previous observations are seen in three dimensions (3D).

These three views are triplicate, and their reflection in the horizontal plane does not change. The perspective of the projection image on the profile plane changes and the size decreases. The mirror of the horizontal plane in the frontal plane changes and increases in size. It causes a sudden change of the object of observation. In the next picture, if we observe the stern lying on the horizontal plane, the appearance of the object on the first transparent plane will be seen in an unchanged state, opposite to the horizontal plane. The reflection in the profile plane appears slightly resized. A plane made of laminate below the horizontal plane is reflected 2 cm above the water level, and the reflection in the mirror-like horizontal plane is seen with a change in size. If we look at it from above at an acute angle, the image of the object of geometric size rises from the plane of the laminate, and its reflection on the transparent plane falls in a secondary form. We can see the clear reflection and shadow created by the laminate plane as if it were floating in water. Taking into account the law of refraction of light in optics, it is observed that the reflection of objects or objects in a liquid decreases or decreases in size. the light under the water changes partly because the density of the water differs with the air atmosphere. Water absorbs light more than air. The reason is that the importance of the water film (water surface) plays a big role.

The importance of the azone layer in the air atmosphere is great. Under the conditions of the earth, the perspective and light-shadow projection planes can be determined by the three views and the clear axonometric view. We have so far conducted a limited amount of experimentation, observation and research. But naturally, we do not have enough opportunities to conduct experiments in seas, oceans, rivers and lakes. We believe that great innovations and changes can be made in the development of science based on such experiments and researches. We can use it in the construction of underwater museums, underwater and surface landscape designs and urban planning architecture, beautification of streets and promenades.

List of applicable destinations.

1) In the field of cinematography,
2) Creating an underwater landscape design,
3) Designed outdoor and indoor advertising rollers,
4) Drawing is a new topic in geometry and engineering graphics
create a tutorial.
5) Creating innovations in the field of physics and optics.
6) It can also be used in the study of the universe and galaxies.

The science of drawing geometry and engineering graphics, changes in the universe and galaxies, light shadows, perspective theories, projection planes, form their own shadow in the image of an object and geometric shapes, the shadow cast by artificial lighting, or the shadows created by natural light. Presently, artists and designers draw various pictures and landscapes by going down to the bottom of the

water with special devices to reflect the underwater world.

References

1. Jdanov L.S. Fizika: Toshkent -1960.
2. Ilichev. A.S., Kokin A.D., Rebortovich I.S. Binokorlikasoslari Toshkent 1966.
3. Londsberg P.S. Optika. Toshkent 1981.
4. Xorunov R. Chizma geometriya. 1961.
5. Sultonova D.N. «Xorezmiyskoye ozero» v tvorchestve samarkandskogo jivopissa Namoza Sultanova. Xorazm Ma'mun Ak ademiyasi axborotnomasi. 4 (41) son. Xi va, 2016. Guvohnoma №13-040. ISSN 2091 57X. -B. 40-43.
6. Sultonova D.N. Aral Oasis as Potential Ba se for Development of the Tourism. Indo nesian Journal of Law and Economics Re view/ Published February 29, 2020. V.4 9. ISSN 2598 9928 (online) P.1-6./https://doi.org/10.21070/ijler.2020. V6.49/1.
7. Uralovich T. F. Conducting classes on fine arts based on information and communication technologies //International Engineering Journal For Research & Development. – 2021. – T. 6. – C. 3-3.
8. Toshpulatov F. U., Norqochqorov R. E. O., Maxmudova X. N. Q. Xalq amaliy san'atining chizmachilik fani bilan bog'liqligi //Academic research in educational sciences. – 2021. – T. 2. – №. 2. – C. 138-142.
9. Toshpulatov F. USE OF GEOMETRIC PATTERNS AND THEIR TYPES FROM ELIMINATIONS OF DRAWING AND APPLIED ART IN ARCHITECTURAL FACILITIES //Физико-технологического образование. – 2022. – T. 1. – №. 1.
10. Toshpo'Latov F. U. et al. Bolalarni o 'yin texnologiyalari asosida kasb-hunarga qiziqishlarini shakllantirishda rivojlantiruvchi o 'yinlar //Science and Education. – 2021. – T. 2. – №. 4. – C. 487-491.
11. Toshpulatov F. U., Turopova R. B. Games that develop children's interest in the profession based on game technology //Science and Education. – 2021. – T. 2. – №. 4. – C. 487-491.
12. Urolovich T. F. CHIZMACHILIK DARSLARIDA AMALIY SAN'AT ELEMENTLARIDAN FOYDALANIB TARKIBIDA TUTASHMA ELEMENTLAR QATNASHGAN NAQSH NAMUNALARINI CHIZISH //Eurasian Journal of Law, Finance and Applied Sciences. – 2022. – T. 2. – №. 2. – C. 158-162.
13. Toshpulatov F. U. et al. Issues of Developing the Culture of Measurement in Drawing Lessons (In the Case of General Secondary Schools) //Vital Annex: International Journal of Novel Research in Advanced Sciences. – 2022. – T. 1. – №. 5. – C. 111-119.
14. Toshpulatov F. U., Mominov B. K., Mamatkulov I. C. Determination of Sections of General Surfaces of the Second Order on Predetermined Circles //The American Journal of Interdisciplinary Innovations and Research. – 2020. – T. 2. – №. 11. – C. 21-26.
15. Urolovich T. F. et al. CHIZMA GEOMETRIYA TA'LIMI JARAYONIDA TALABALARNING MUSTAQIL TA'LIM FAOLIYATINI RIVOJLANTIRISH //Eurasian Journal of Law, Finance and Applied Sciences. – 2022. – T. 2. – №. 2. – C. 279-283.
16. Baratovna T. R. Developing Dialogic Speech of Pre-School Children on the Basis of a Variative Approach //American Journal of Social and Humanitarian Research. – 2022. – T. 3. – №. 10. – C. 272-275.
17. Qizi Maktabgacha T. R. B. yoshdagi bolalarning badiiy estetik madaniyatini o'yinlar orqali shakllantirish EURASIAN JOURNAL OF LAW //FINANCE AND APPLIED SCIENCES https://doi.org/10.5281/zenodo. – T. 6341593.
18. Turapova, R. (2022). MAKTABGACHA YOSHDAGI BOLALARNING BADIIY-ESTETIK MADANIYATNI O'YINLAR ORQALI SHAKLLANTIRISH MUAMMOLARI. Физико-технологического образование, 4(4).

извлечено от https://ppmedu.jdpu.uz/index.php/phys-tech/article/view/6524 2022/8/25