SOLVING SOME ISSUES RELATED TO PLATO POLYGRAPHY DESIGN IN COMPUTER GRAPHICS

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Abstract: ***In a scientific article called "Solving some problems on the design of Platonic solids on a computer graph", the processes of solving some problems on the design of regular polyhedral on a computer graph are described.***

Key words: ***regular polyhedral, tetrahedron, hexahedron, octahedron, dodecahedron, icosahedron, computer graphics.***

Introduction

A large group of issues related to the design of various geometrical images constitute the issues of graphic representation of these images in drawings consisting of rational projections and the formation of their obvious (spatial) images on the basis of rational images. Clear images can also be called irrational images. Because although such images have a high degree of visibility, the dimensions associated with the distances and angles to the parts of the object are described in them, doomed to sharp changes.

The creation of drawings made from highly rational proxies, the execution of clear images based on drawings made from rational pro-Axies is very interesting on the example of regular multiples (Plato multiples) [2], [3]. If the process of such work is carried out on a computer graph, the process will receive a more interesting tone.

The first written information about the regular plural is the ancient Gresia thinker Plato (m. avv. 4248 3) recorded in the works. Therefore, they are referred to as Plato (Plato) multiplicity in science. The following is the polygon Polygon: tetr regular polygon consisting of 4 identical triangles ;eks regular polygon consisting of Hexa 6 (one square of the cubes); qav regular polygon consisting of 8 same regular polygons; qav regular polygon consisting of 8 same regular polygons; qav regular polygon consisting of 12 regular polygons ;od regular polygon consisting of 12 regular polygons; d regular polygon consisting of; ikosaedruvki is a closed convex Polygon consisting of 20 identical regular triangles.

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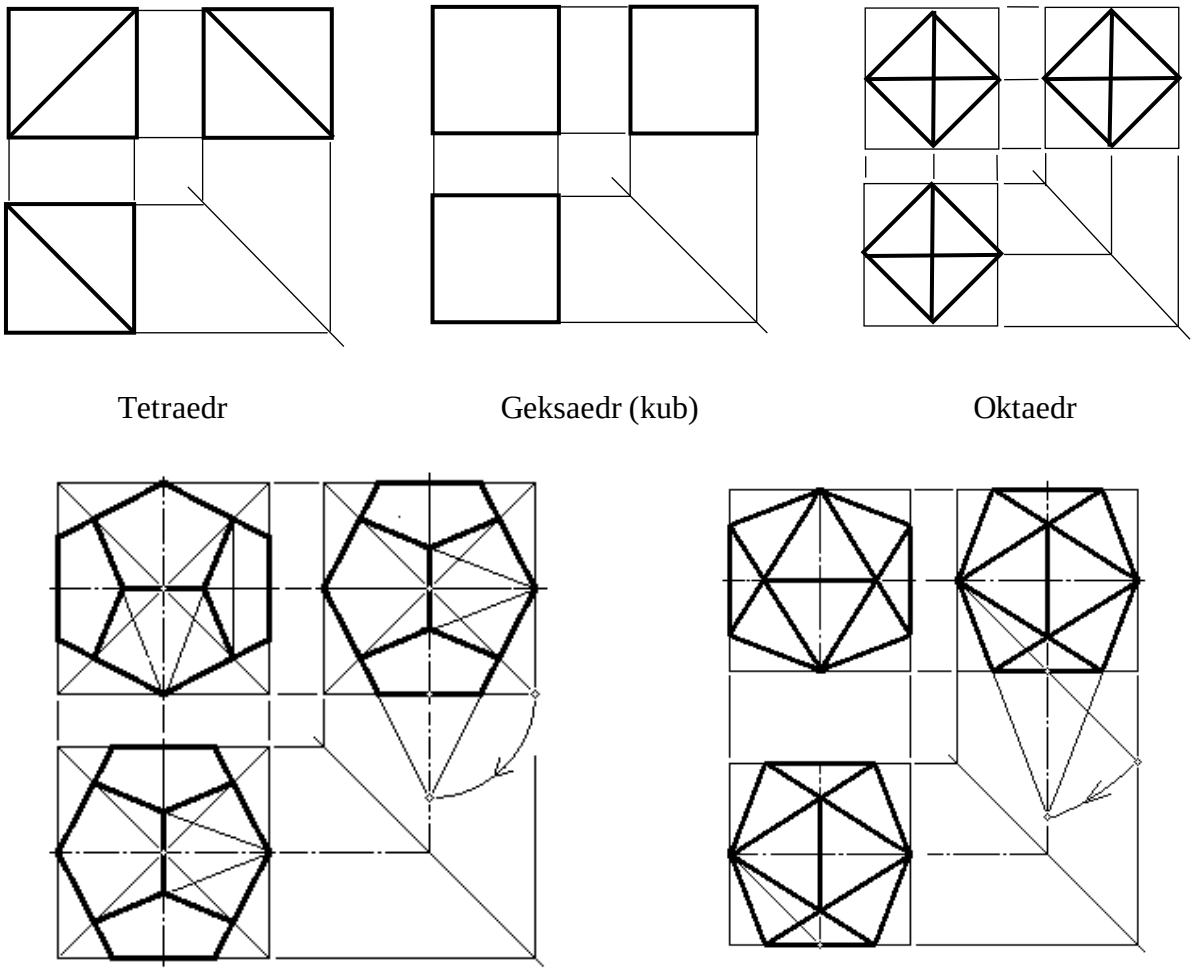

Picture 1

The goal is quickly achieved if the creation of a drawing consisting of extremely rational projections of regular polygons is made out of the imagination in the style of “each of them is conveniently placed in a cube” [1]. On the basis of such a picture, the Figure 1 shows the five regular polygons formed by the rasi-onal horizontal, rational frontal and rational profile projections. When creating these drawings, the following procedures and conditions are used::

– in frontal, horizontal and profile projection areas, draw one square of one of the same size by means of 0,5 pt creamy lines, and the introduction of a proexion compatibility between them is

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achieved. Bunda will represent a cube of square-shaped projections in each drawing.

– in square-shaped proxies, shapes are placed as in Figure 1 by means of lines with a thickness of 1,5 pt. As a result, the Aflo-tun polygons are divided into having drawings that meet the requirements of the science of engineering geometry.

Another remarkable feature of these drawings is the appearance in them of exactly the same shape as the three proxies belonging to each plural.

In proxies, the edges are dotted, and the plane is a straight line, and cases such as symmetrical collars having the same shape being superimposed on the proxies make it difficult to imagine regular polygons through their Rasi-onal proxies drawings. Axonometric proxies are of great importance when it comes to visualizing regular polygons through their images.

In the literature on engineering geometry, there are many schemes for constructing axonometry of an object on the basis of rational projections gu-ruhi [4]. Which of the existing schemes to use is in the compact of the designer, and his choice is expressed in the definition of the exact name of the optimal axonometry.

As you know, axonometries are initially divided into rectangular and oblique angular-li axonometries. Axonometry in both categories depends on what ratio the coefficients of change in the arrows are relative to each other: trimetry, dimetry and isometry. In order to ensure the wider application of axonometrics in practice, all types and types of axonometrics are listed and standard types are also available.

On the basis of the three rational projections available in our example, the Monte-zam is a relatively acceptable concomitant construction of a profile isometry with a bevel corner of a polygon. In this type of isometry, the lengths of lines parallel to the X, u and z coordinate axes of space are described in their actual magnitude. In Figure 2, the processes of formation of profile isometries with bevel angle of theedraedr using rational frontal and rasi-onal profile projections, in Figure 3, the processes of formation of profile isometries with bevel angle of the octahedr using rational frontal and rational profile projections.

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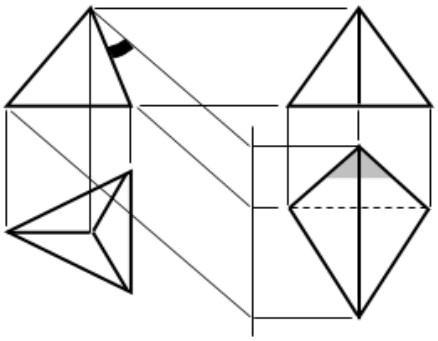
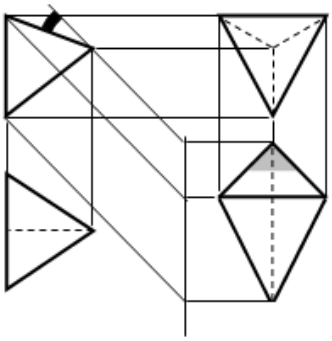


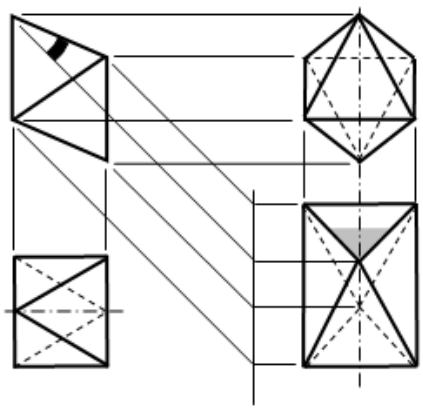
a)



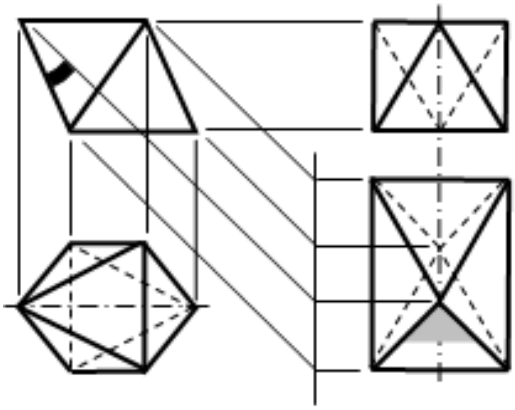
b)

Picture 2

Isometry of the profile of the curvature angle-li



a)



b)

Picture 3. Profile isometries of the octahedron with oblique angles.

In these isometries, several remarkable properties are observed. The angles between the regular triangular-shaped octets of Sesame, tetraed 45° and 105° octets are depicted as equal angles in some places they are equal angles in some places they are equal angles in some places they are equal angles in some places they are equal angles in some places they are equal angles in some places they are equal angles in some places they are equal angles

A profile with a bevel angle is equal to 60° in the isometry, in fact, the angle is equal to 90 in the isometry, in the case of the isometry, the angle is equal to 32° in the isometry, which is formed between the isometry and the isometry with the isometry, which remains the same as the angle of 90° in the isometry. In the Figure 2-32 and 3-25° with a thick black arc equal to 90°, the corners of which

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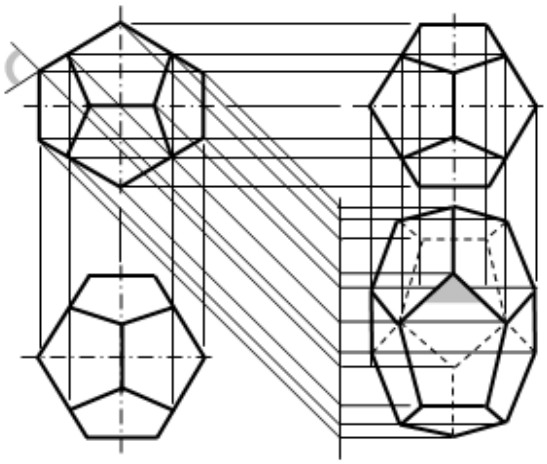
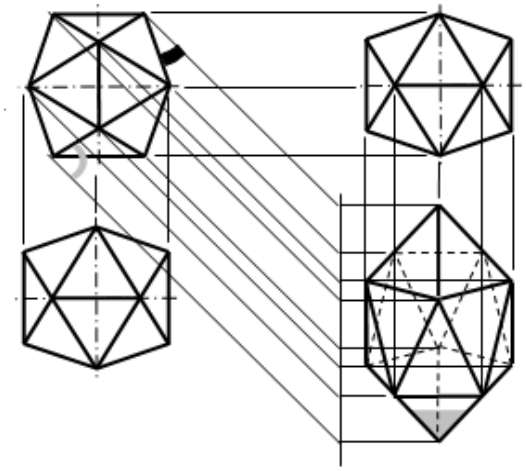
are painted with gray are marked with the help of a triangle.

In Figure 4, the processes of forming a profile isometry with a bevel angle of the doedecahedron with the help of rational frontal and rational profile projections, in Figure 5, the processes of forming a profile isometry with a bevel angle of the ikosaedron with the help of rational frontal and rational profile projections are described.

In the process of forming profile isometries with a bevel angle of Dodekaedr and ikosaedr, several remarkable features can also be observed. In particular, there are also actually 108° poles, and some of these are equal to 60° poles, and some are equal to 90° poles, which are called pro angles. The fact that they have such a size ensures that the angle between the collars holding the same angles with the direction of inclination is equal to the angle of inclination of the auxiliary 76° pro. In pictures 4 - and 5-This Corner is marked with a creamy arc painted in gray.



Picture 4. Isometry of the profile of the dodekaedr with a bevel angle.



Picture 5. Profile isometry of ikosaedr with bevel angle.

Conclusion

The conclusion is that the completion of the work on the design of geeometric objects in computer graphics ensures that the drawings turn out to be accurate and qualitative. Such quality level drawings contribute to the il-hating of the unique laws and regulations observed in the processes of image formation.

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https://www.gejournal.net/index.php/IJSSIR

References:

1. Ismoilova, G. A. (2021). Technology for Organizing Trips to Historical Sites Outside the Audience.
2. Исмоилова, Г. А. (2020). ЎЗБЕКИСТОН ТАРИХИ ТАЪЛИМИ ЖАРАЁНИДА ТАЛАБАЛАРДА ЭКОЛОГИК МАДАНИЯТНИ РИВОЖЛАНТИРИШ. Современное образование (Узбекистан), (11 (96)), 45-51.
3. Исмоилова, Г. А. (2020). РАЗВИТИЕ ЭКОЛОГИЧЕСКОЙ КУЛЬТУРЫ У СТУДЕНТОВ КАК ОБЩЕСТВЕННО-ПЕДАГОГИЧЕСКАЯ НЕОБХОДИМОСТЬ. In ИННОВАЦИОННЫЕ ПОДХОДЫ В СОВРЕМЕННОЙ НАУКЕ (pp. 16-19).
4. Ismoilova, G. A. (2019). THE PEDAGOGICAL IMPORTANCE OF DEVELOPING ECO-CULTURE FOR STUDENTS. Scientific Bulletin of Namangan State University, 1(3), 352-355.
5. Исмоилова, Г., Шарипова, О., & Исаков, С. (2016). ФОРМИРОВАНИЕ ЭК+ОЛОГИЧЕСКОЙ КУЛЬТУРЫ МОЛОДЕЖИ КАК ВАЖНАЯ ЧАСТЬ НАУЧНОГО НАСЛЕДИЯ ВОСТОЧНЫХ МЫСЛИТЕЛЕЙ. Ученый XXI века, 28.
6. Erkinovna, I. M. (2022). PSYCHOLOGICAL AND PEDAGOGICAL CHARACTERISTICS OF STUDENTS IN THE PROCESS OF DEVELOPING INDEPENDENCE. INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH ISSN: 2277-3630 Impact factor: 7.429, 11(03), 137-141.
7. Qo'chqorov, O. A., Otajonov, S. E., & Ma'murov, X. A. (2019). GEOGRAFIYA TA'LIMIDA GEOGRAFIK AXBOROT TIZIMLARIDAN FOYDALANISH. Интернаука, (21-3), 66-68.
8. Alisherovich, A. G. (2021). ECOLOGICAL CONDITION AND DEVELOPMENT PROBLEMS OF RECREATION ZONES OF FERGANA REGION.
9. Ma'murov, X. A. (2019). FARG'ONA VILOYATIDA DEMOGRAFIK JARAYONLARNING QISHLOQLARDAGI XOLATI. Интернаука, (21-3), 85-86.
10. Aliyevich, S. E., Hasanboyevich, B. G., & Alisherovich, A. G. (2022). STATISTICAL AND COMPARATIVE ANALYSIS OF TEMPERATURE AND OIL IN FERGANA. Web of Scientist: International Scientific Research Journal, 3(3), 71-80.
11. Urinboyev, D. (2019). THOUGHTS ABOUT STRATAGEMA OF WESTERN AND EASTERN THINKERS. Scientific Bulletin of Namangan State University, 1(4), 147-151.
12. Бойтемирова, З., & Орипов, Э. (2016). РОЛЬ ДЕМОКРАТИЧЕСКИХ ИНСТИТУТОВ В ОБЕСПЕЧЕНИИ НАСЛЕДОВАНИЯ ТРАДИЦИОННЫХ ЦЕННОСТЕЙ. In СОВРЕМЕННЫЕ ПОДХОДЫ К ТРАНСФОРМАЦИИ КОНЦЕПЦИЙ ГОСУДАРСТВЕННОГО РЕГУЛИРОВАНИЯ И УПРАВЛЕНИЯ В СОЦИАЛЬНО-ЭКОНОМИЧЕСКИХ СИСТЕМАХ (pp. 30-32).
13. Boytemirova, Z. Youth and Spiritual Security. International Journal on Integrated Education, 3(12), 181-183.

ISSN 2277-3630 (online), Published by International journal of Social Sciences & Interdisciplinary Research., under Volume: 11 Issue: 04 in April-2022
https://www.gejournal.net/index.php/IJSSIR

14. Aminova, M. M. (2021). The value of "5 initiatives" in the spiritual and moral education of students of secondary school. ACADEMICIA: An International Multidisciplinary Research Journal, 11(6), 38-42.
15. Mutalibovna, A. M. The Impact of Globalization on National Culture and Its Protection Problems. International Journal on Integrated Education, 3(12), 210-212.
16. Mutalibovna, A. M. The Modern Importance of Studying the Scientific Heritage of Ibn Khaldun. International Journal on Integrated Education, 3(12), 229-232.
17. Орипов, Э. Ш., & Худойберганов, Ш. Ш. (2020). ВИРТУАЛЬНЫЙ МИР: СОДЕРЖАНИЕ И СУЩНОСТЬ. In ВОПРОСЫ НАУКИ 2020: ПОТЕНЦИАЛ НАУКИ И СОВРЕМЕННЫЕ АСПЕКТЫ (pp. 53-60).
18. Худойберганов, Ш. Ш., & Орипов, Э. Ш. (2020). ШОТЛАНД ОЛИМИ УИЛЬЯМ ЭРСКИН НИГОҲИДА БОБУР ТИМСОЛИ. In ИННОВАЦИОННЫЕ ПОДХОДЫ В СОВРЕМЕННОЙ НАУКЕ (pp. 187-190).

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