

November 8, 2023

Press Release

**JMI organizes three-day workshop on Discovering the Mathematics of Art: A Workshop on Geometric Patterns in Islamic Art**

The Department of Educational Studies, Faculty of Education, Jamia Millia Islamia (JMI) under its initiative "*DES Theory-Practice Connect*", organized a 3 day Workshop titled, "Discovering the Mathematics of Art: A Workshop on Geometric Patterns in Islamic Art", in collaboration with the Ohio State University, USA.

"DES Theory-Practice Connect" is an initiative of the Department of Educational Studies, Faculty of Education, JMI, which aims at bridging the theory-practice divide in teaching and creating dialogic spaces within teacher education institutions. In an attempt to break the isolation of teacher education institutions from one another, from the schools and from the larger life of the university, it intends to develop a community of teachers, teacher educators and researchers to learn from their experiences, professional vision and theoretical insights.

The 3 day offline Workshop, held from 3-5 November, 2023 at the FTK-CIT, JMI attracted around 25 participants from In-Service Teachers, PG and PhD courses in Education, Mathematics and Fine Arts. The geometric patterns have been one of the unifying elements in Islamic art and architecture. Simple patterns lend themselves to various experimentations and explorations resulting in newer patterns. The 3 day Workshop was spread over 6 sessions of 60-90 minutes each, during which the participants were given engaging and stimulating discussions and activities to explore Islamic geometric designs and their underlying mathematics.

*Sheikh ul Jamia*, Prof. Najma Akhtar (Padma Shri), was the Chief Patron of the Workshop and *Naib Sheikh ul Jamia*, Prof. Iqbal Hussain was the Patron of the Workshop. Dr. Shane Kazim Naqvi, Hony. Director FTK-CIT was the Guest of Honour. Prof. Sara Begum, *Dean*, Faculty of Education and Prof. Arshad Ikram Ahmad, *Head*, Department of Educational Studies were the *Conveners* of the Workshop. Dr. Md. Jawaid Hussain, Assistant Professor, DES and Founder of "*DES Theory-Practice Connect*", was the *Co-Convenor* of the Workshop.

Dr. Shane Kazim Naqvi and Prof. Sara Begum, who could not attend the inaugural session of the Workshop because of some unforeseen engagements, gave their best wishes for the successful conduction of the Workshop. Prof. Arshad Ikram Ahmad, Head,

DES, welcomed the resource persons—Dr. Amit Chandra Vutha (Ohio State University), Ms. Charu Gupta (JMI), Dr. Md. Jawaid Hussain (JMI)—and all participants and guests. Dr. Harpreet Kaur Jass, Associate Professor, DES, attended the workshop as a participant. Ms. Tripti Upadhyay, Ms. Maryam Bashir (both Ph. D. Scholars from the DES) and Mr. Faiz Equbal (a M. Ed. Scholar of DES) facilitated the Workshop.

In his opening remarks, Prof. Ahmad introduced the “DES Theory-Practice Connect” initiative and gave a brief introduction to the Workshop on Geometric Patterns in Islamic Art. Prof. Ahmad observed that given the policy imperative of bringing in perspectives from Indian Knowledge Systems, as has been envisaged by NEP-2020, a discussion on Islamic Art and Mathematics would add a fresh perspective to the generally lop-sided discussions on IKS. In his signature literary style, Prof. Ahmad presented a brief sketch of the Islamic contributions to knowledge and culture.

During the opening session of the workshop, Dr. Amit Chandra Vutha , the resource person from Ohio State University, USA, introduced Islamic Art, its symmetries, tessellating grid structures, and the underlying mathematics. In the following sessions, Ms. Charu Gupta of JMI provided very engaging hands-on sessions during which the participants constructed some of the Islamic geometric patterns, beginning from foundational elements such as circles and polygonal grids, using a compass and straightedge. In other sessions, Dr. Vutha and Ms. Gupta presented Islamic Art as a stimulating context for exploring mathematical concepts such as symmetry, tessellations and transformations. On the second day of the Workshop, Dr. Md. Jawaid Hussain, discussed the historical and cultural contexts in which Islamic patterns were created. Dr. Hussain also talked at length about the metaphysical and cosmological significance of Islamic Art. Ms. Charu Gupta introduced the works of M. C. Escher and Roger Penrose, and engaged the participants in several hands-on activities during which they tried creating Escher-like patterns and other variations of geometric patterns.

On the third day, Ms. Charu Gupta deliberated upon some of the ways in which connections between Islamic Art and school mathematics could be established. Dr. Amit Chandra Vutha, Ms. Charu Gupta and Dr. Md. Jawaid Hussain, alongwith Dr. Harpreet Kaur Jass and Prof. Arshad Ikram Ahmad, held a panel discussion on some of the tensions inherent in bringing in cultural/indigenous knowledge to school curriculum. The discussant flagged several issues in the common attempts at bringing IKS in the school and university curricula.

In his closing remarks, Prof. Arshad Ikram Ahmad, Head, DES, thanked the resource persons and participants and urged Dr. Md. Jawaid Hussain, to come up with more such workshops in the future. This was followed by the distribution of certificates to the participants by Prof. Arshad Ikram Ahmad, Dr. Harpreet Kaur Jass and Ms. Charu Gupta.

At the end of the Workshop, Dr. Md. Jawaid Hussain, Co-Convener of the Workshop, presented a formal vote of thanks. He thanked Prof. Najma Akhtar, Vice Chancellor, JMI and Prof. Iqbal Hussain, Pro-Vice Chancellor, JMI for giving their kind permission to conduct the Workshop in collaboration with the Ohio State University, USA. He also thanked Prof. Shane Kazim Naqvi for agreeing to become Guest of Honour for the programme and providing a suitable space as well as excellent technical support for the successful conduction of the Workshop. His thanks were also due to the Dean, Faculty of Education, Prof. Sara Begum and Head, Department of Educational Studies, Dr. Arshad Ikram Ahmad for providing their unflinching support since the inception to the successful completion of the workshop. Dr. Hussain also thanked the two Resource Persons, Dr. Amit Chandra Vutha and Ms. Charu Gupta for sparing their valuable time and giving quality inputs to the participants. He also thanked all the facilitators, and participants for making the Workshop a success.

Public Relations Office  
Jamia Millia Islamia

جامیہ ملیہ اسلامیہ  
JAMIA MILLIA ISLAMIA  
NEW DELHI, INDIA



जामिया मिल्लिया इस्लामिया  
**JAMIA MILLIA ISLAMIA**  
NEW DELHI, INDIA







SHOT ON REALMI Y3  
AI DUAL CAMERA







*Handwritten text in cursive script, possibly a name or title, located on the left margin of the page.*

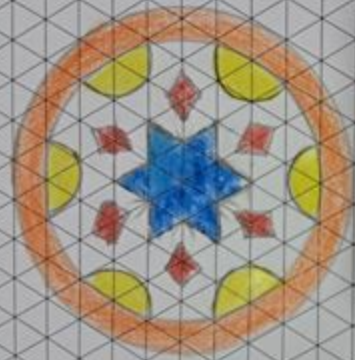
*Small vertical text, possibly a page number or reference, located near the top left corner.*



Metamorphose

11. Trajekt

10.10.2019









SHOT ON REDMI Y3  
AI DUAL CAMERA





एफ.टी.के.-सूचना प्रौद्योगिकी केंद्र  
F.T.K.-Centre for Information Technology

