Debashis Sinha, *Kailash* (computer-generated image). Courtesy of Debashis Sinha.

Educator Resource

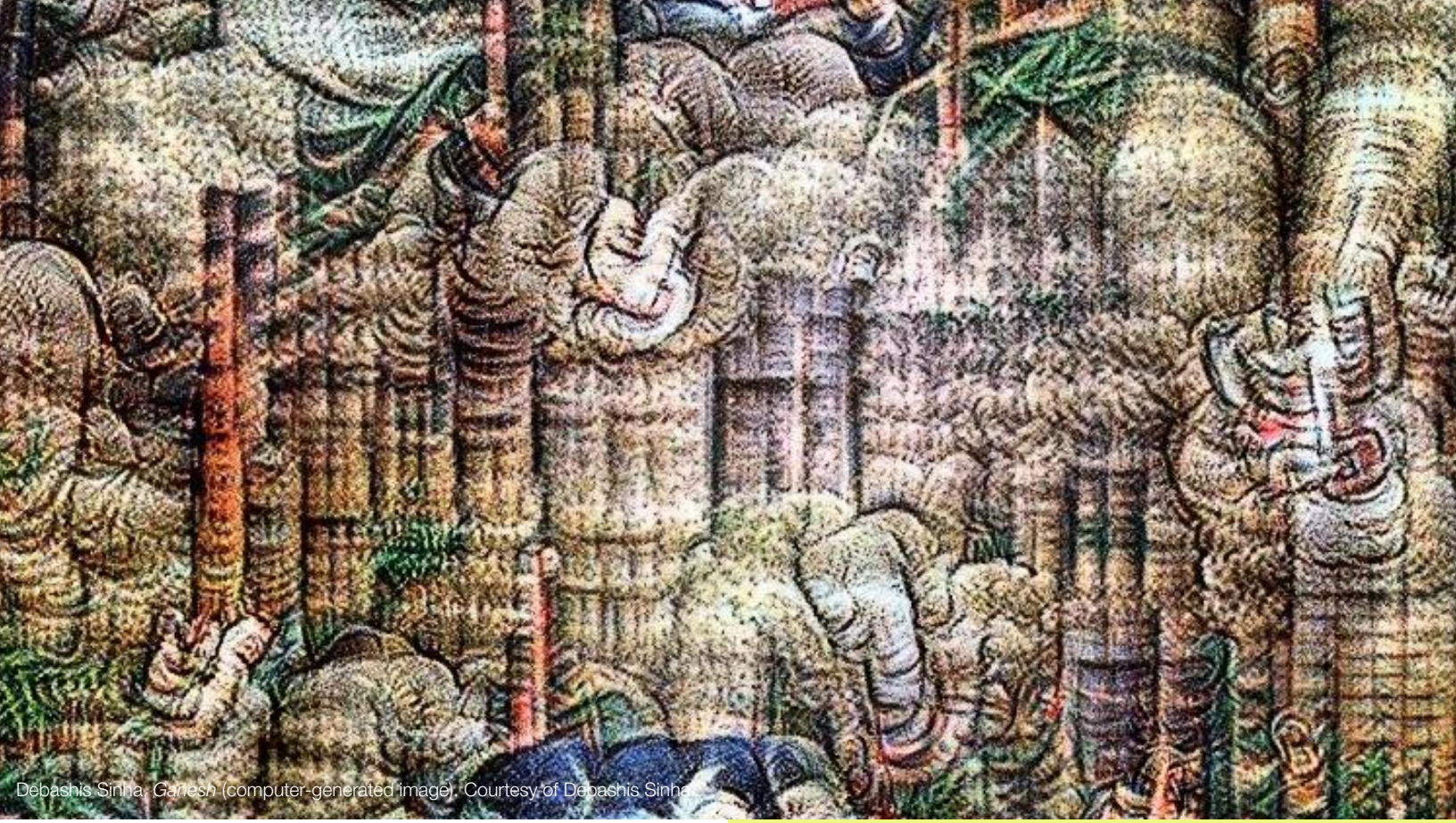
Recommended Age: Grade 9 and up

Debashis Sinha

in the house's endeepened wide gracious flow

March 10, 2021—July 31, 2022

Museum
Of
Contemporary
Art
Toronto Canada



Debashis Sinha, *Ganesh* (computer-generated image). Courtesy of Debashis Sinha.

Overview

Debashis Sinha is a multimedia artist whose creative output spans a broad range of genres and media, from solo audiovisual performance projects on the concert stage to the interior spaces between two headphones. Sinha has developed his creative voice by weaving together his own experience as a second-generation South Asian Canadian, his training with master drummers from various world music traditions, a love of electronic and electroacoustic music and technology, and a desire to transcend the traditional expectations of how these streams might intersect and interact.

For MOCA's fourth sound composition in the south stairwell, Sinha has been commissioned to create *in the house's endeepened wide gracious flow*. For this piece, Sinha trained and then directed machine learning models to reproduce various devotional field recordings he collected in Kolkata, India and then transposed into the Canadian diaspora through sound. The result is an aural environment created by generated Artificial Intelligence (AI) outputs, which hint at hidden meaning in the data, only revealed individually, in the moment, through our experience listening to the work within this particular setting. Ultimately, Sinha's sound installation redefines the already repurposed Tower Automotive Building as a place of contemplation and spiritual imagining, presenting possibilities of introspection revealed to the listener.

Ontario Curriculum Connections

Computer Science
Grade 11
D2. Exploring Computer Science

Grade 12
D3. Emerging Technologies and Society
D4. Exploring Computer Science

Integrated Arts, *Grade 9/10*
A. Creating and Presenting
B. Reflecting, Responding, and Analysing
C. Foundations

Media Arts, *Grade 10 – 12*
A. Creating and Presenting
B. Reflecting, Responding, and Analysing
C. Foundations

Debashis Sinha, *Sankhya II* (computer-generated image). Courtesy of Debashis Sinha.

GUIDING QUESTIONS

How do you feel when listening to the sound piece in the staircase? How does the physical environment affect your listening experience? How might you feel if you heard this piece in an open field?

Debashis Sinha created this sound piece through machine learning. **How do you think technology can impact art or the process of art-making in negative and/or positive ways?**

How does your physical environment affect the way you live, feel, and think? Use specific examples to explain your answer.

Key Ideas

Identity, Place, Composition, Site-Specificity, Repurposing, Multimedia

Glossary

Algorithm: a set of instructions that a machine or a human can use to solve problems or complete tasks

Electroacoustic: genre of music that uses technology to manipulate acoustic sounds

Machine Learning: part of the bigger field of artificial intelligence, machine learning uses algorithms to teach computers how to learn without continuous explicit instructions

Watch

Saṅkhyā Stories: Machine Learning Fables

Debashis Sinha, *Ganesh* (computer-generated image). Courtesy of Debashis Sinha.

Activity | Grade 9 – 12

Debashis Sinha used principles of machine learning for this artwork. Machine learning is increasingly becoming part of our everyday world and influencing the arts and artists. In this activity, students will use Paint with Music, a machine learning program, to experience both visual art and music. This activity will prompt students to think about the role of technology—especially advanced digital technology—in their production and understanding of art. Students will also contemplate the connections between the sciences and the arts.

Materials: Computer/tablet, headphones, digital stylus

Instructions

Go to Paint with Music, select the option you want to "draw on". Start creating a drawing/music based on your physical environment. Draw based on how your physical environment makes you feel and think. E.g. **if you are in a classroom, you might feel bored, anxious—how might you "draw" these emotions?** Drawing does not have to be representational.

Generate a title of your work here to input a passage from a culturally important text (can be from your cultural, or cultures you're familiar with; i.e. literary texts, legal texts, plays, etc.).

Present your work to your group. Give feedback on how others' drawing/music makes you feel. **Does your interpretation match their initial intent?**

Extension: Read the blog post on the technology behind this experiment. Discuss how this technology helps with art making–expand to other tech processes: i.e. the ethics of AI, the ramifications of it, etc.