



## Reperception of Abstract Shapes with Histograms on Color Space.

---

Frank Appiah

EasyChair preprints are intended for rapid dissemination of research results and are integrated with the rest of EasyChair.

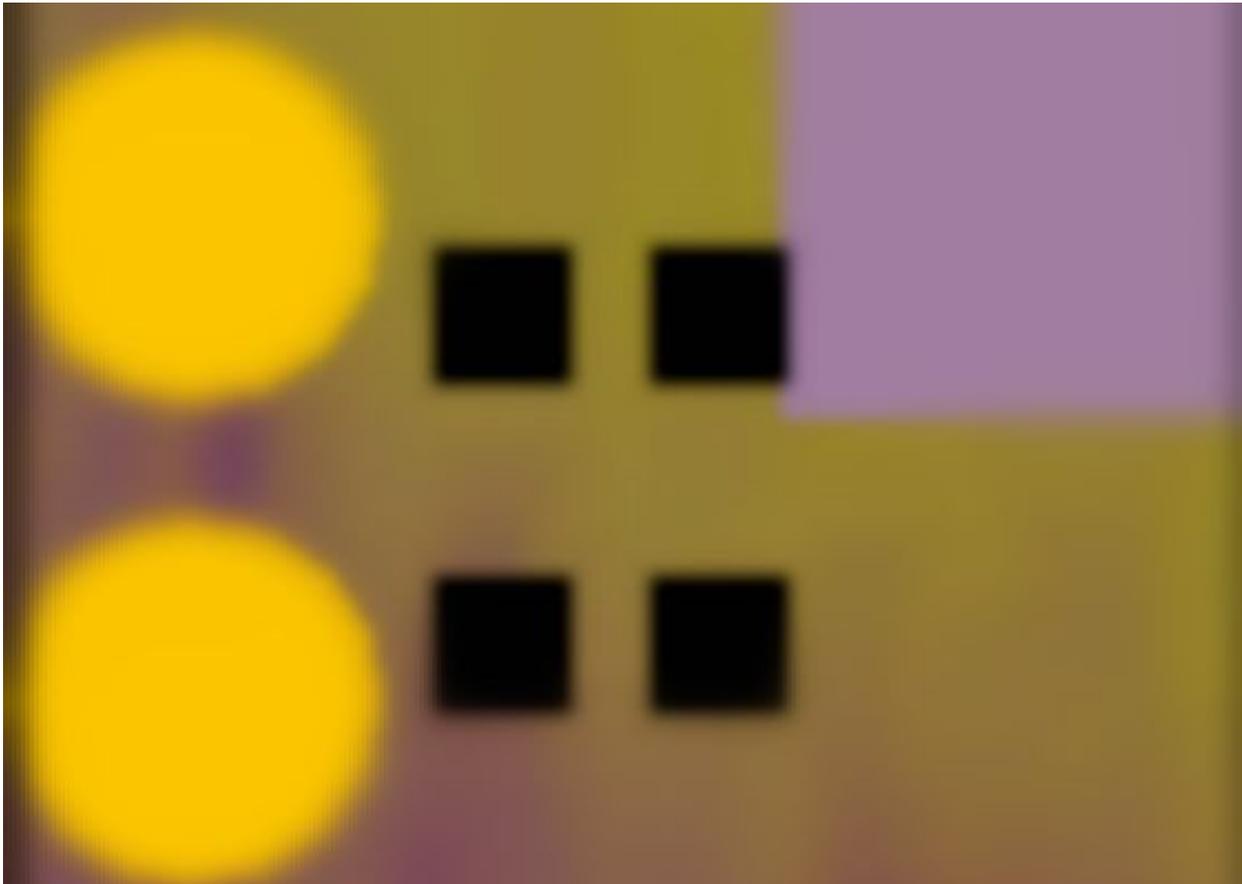
February 24, 2021

2D GRAPHICS : Version 2

# REPERCEPTION OF ABSTRACT SHAPES WITH HISTOGRAMS ON COLOR SPACE.

FRANK APPIAH

---



## Introduction

PERCEPTOR[1] is a graphics tool developed from Java[4] 2D graphics toolkit[2, 5] by the author. It is solely designed for perceiving shapes of geometry from 2d perspective. SGT Photo Perceptor is an image application for managing, editing and perceiving images[6, 7] or photo images. This is like drawing on images with geometry (oval, ellipse, rectangle,

---

This person is on fellowship at King's College London. Department of Informatics

---

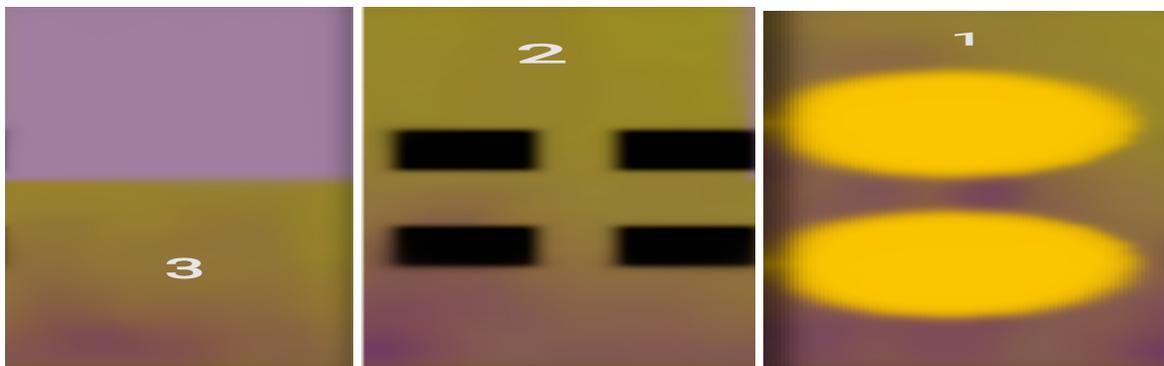
polygon, shapes), drawing lines or patterns of some kind on images. This has already a stock of perceptions and allows one to create their own.

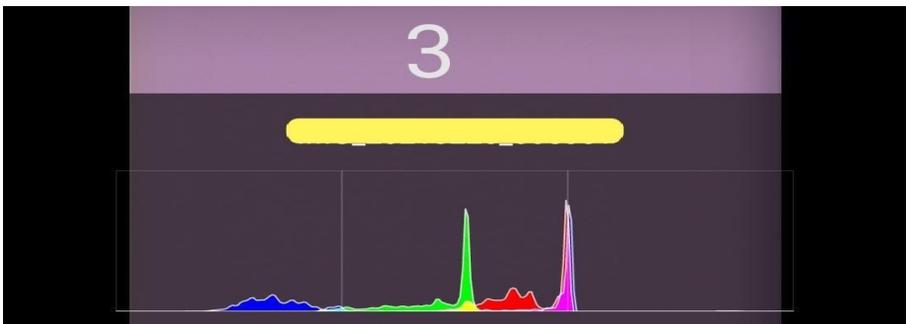
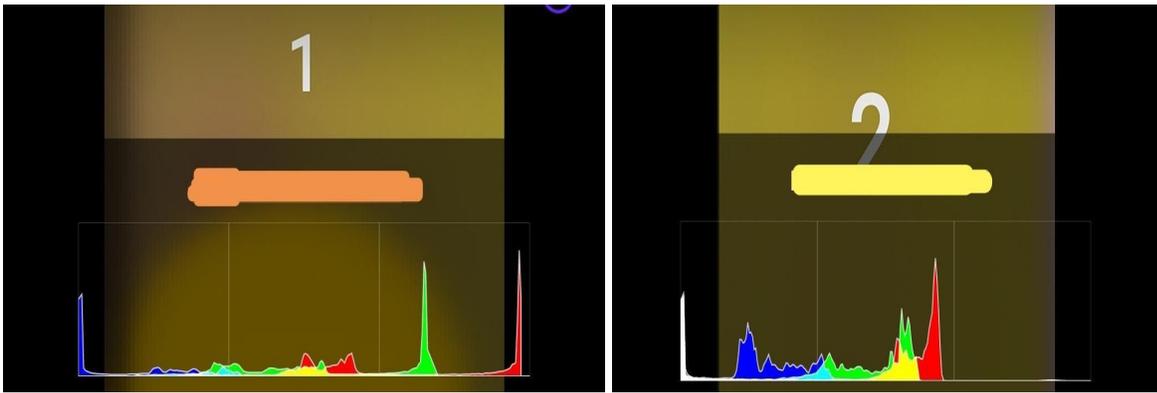
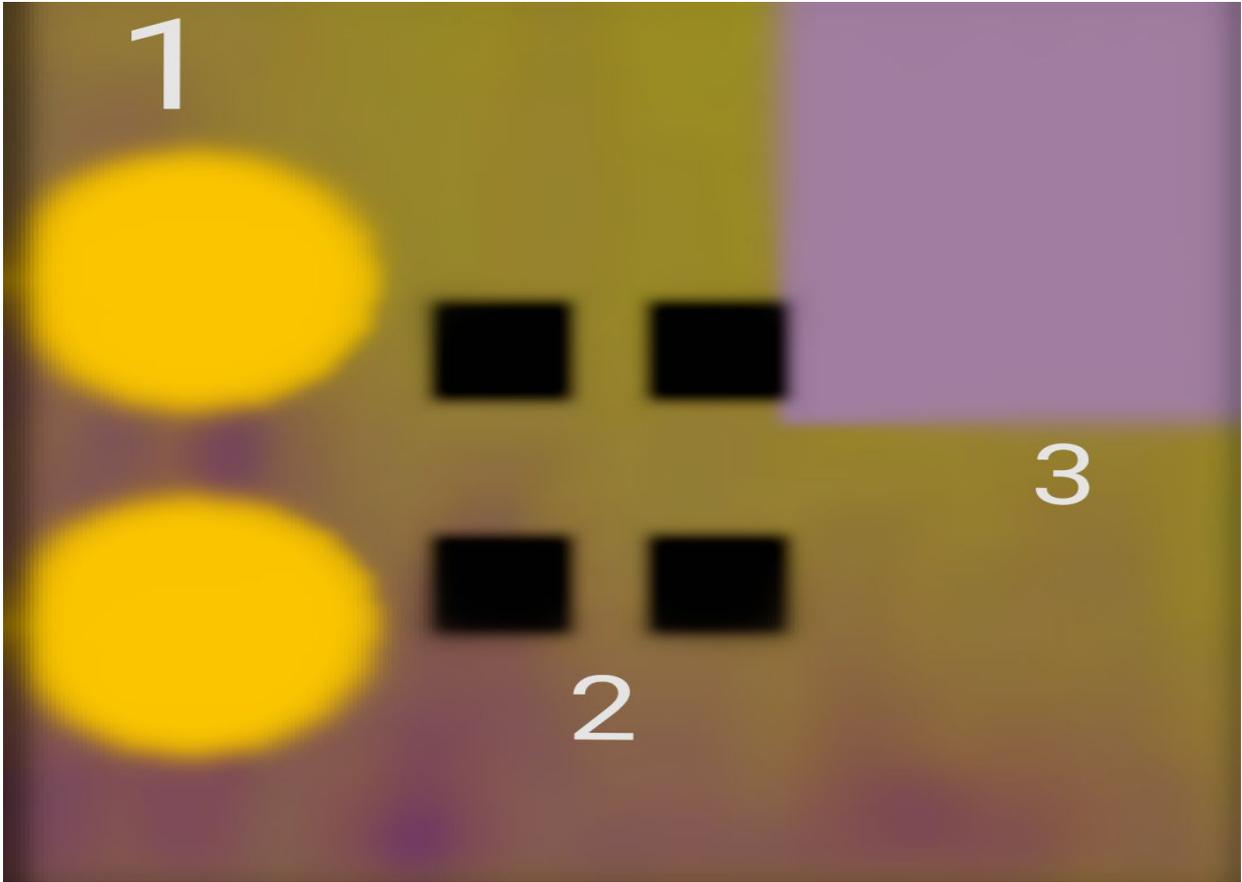
## Descriptions

Perception[8, 12] is a visual response[9] to shapes that form[13] from shapes as we perceive it. Image Formation is perceived from shaping geometry to specific color to increase the quality of sight perception. What we perceive can be auditory also but our response to visual perception[11] is of importance. Squares, circles, oval and more can shape our perception of art from users and artists perspective. This report is to describe the exact design of the above art of graphics in much detail. Here, bringing out a simple art of work from the world of shapes is re-perceived. Perceiving is a continuous process of organising shapes in the aim of making art of graphics in essence. You have to find a mind blowing thought of art before one can conclude on a self assessment, specific choice of shapes to compose one's work. Our environment helps us to develop a consistent and strong perception of all our experiences in much regards to regular shapes mostly built with triangle and its triangulation.

## Abstract

This work of art can be abstracted from image background, square and circles.





Histograms

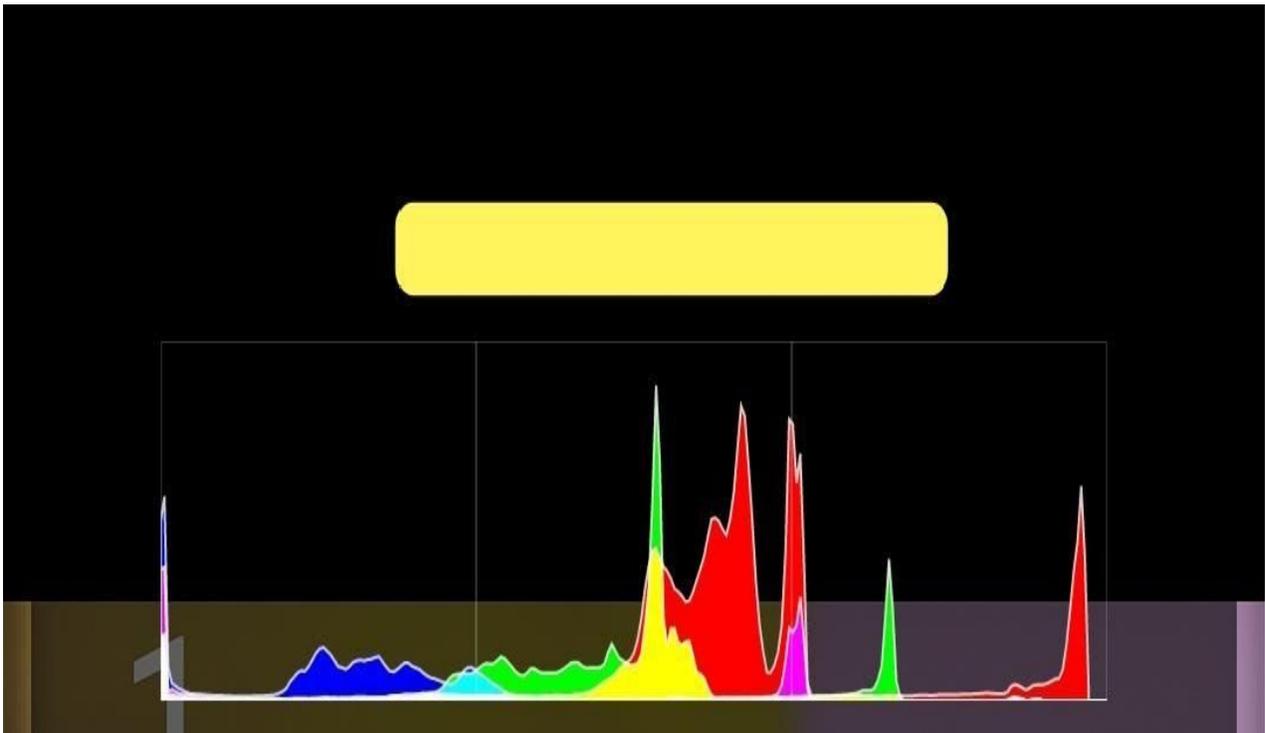
---

There are 3 main types of art abstraction.

**Abstract 1:** This abstract is made up of two filled circles of yellow color. These circles are drawn on an image background. It is placed at left side of the image. The histogram shows 5 color space on graph that includes 1.blue 2.green 3. yellow 4.red 5.pink

**Abstract 2:** This abstract is made up of four small filled squares of black color. These squares are drawn on an image background. It is placed at the middle or center of image. The histogram shows 5 color spaces that includes 1.blue 2.cyan 3.green 4.yellow 5.red

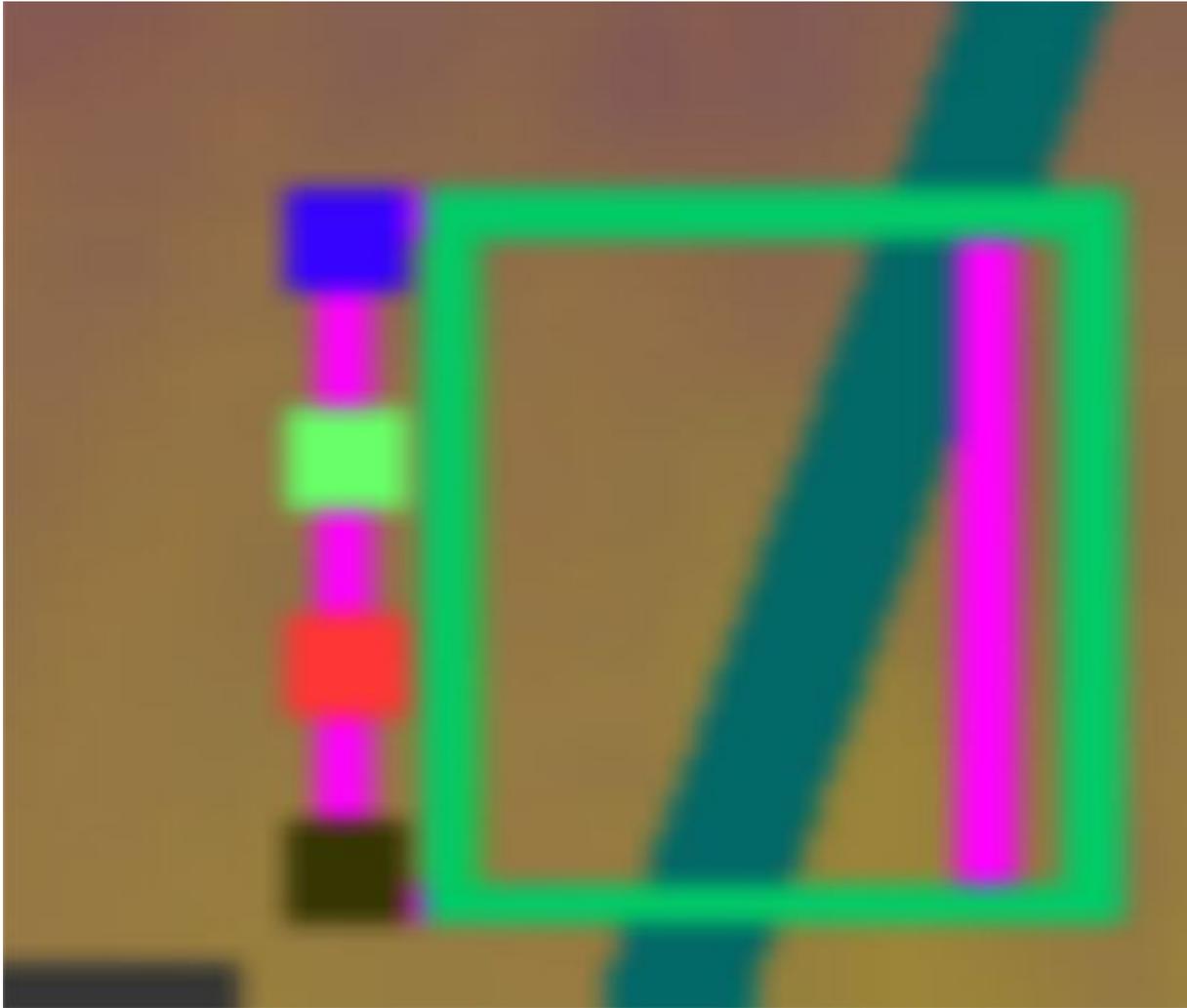
**Abstract 3:** This abstract is made up of big square of color. This square is drawn on an image background at the top right side of the image. The histogram shows 5 color spaces that includes 1.blue 2.green 3.yellow 4.red 5.pink



Main art has 6 color spaces in its histogram that includes 1.blue 2.cyan 3.green 4.yellow 5.red 6.violet.

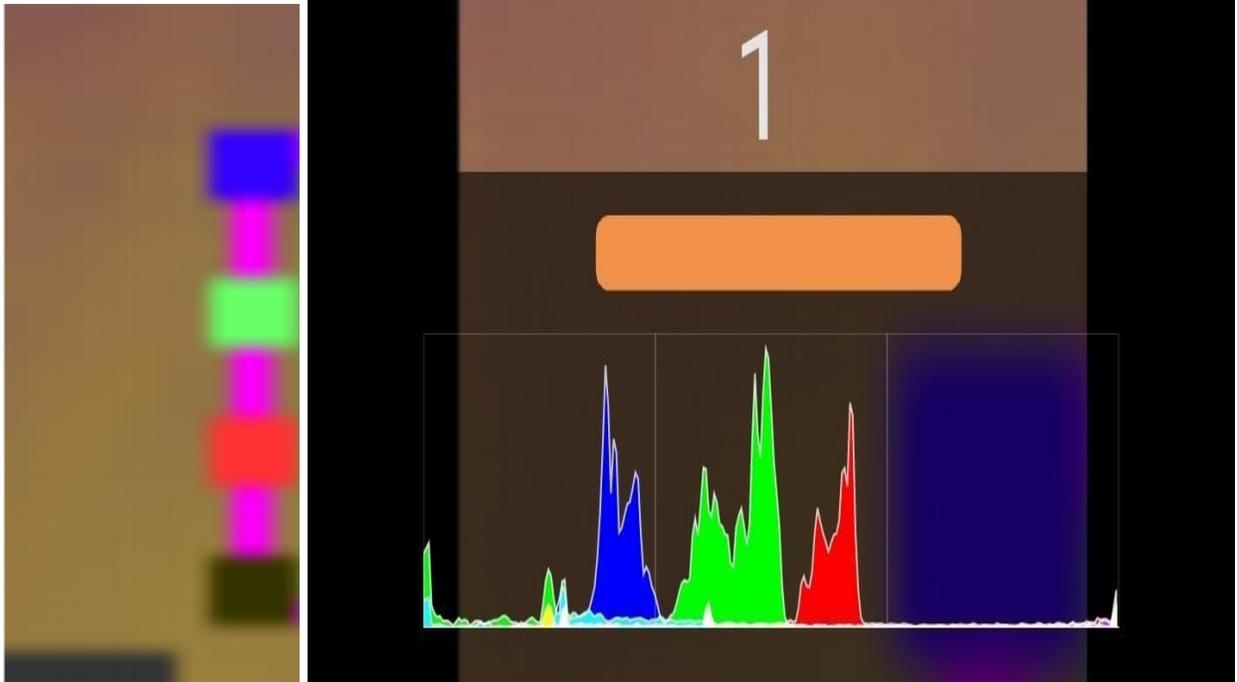
---

## Art 2

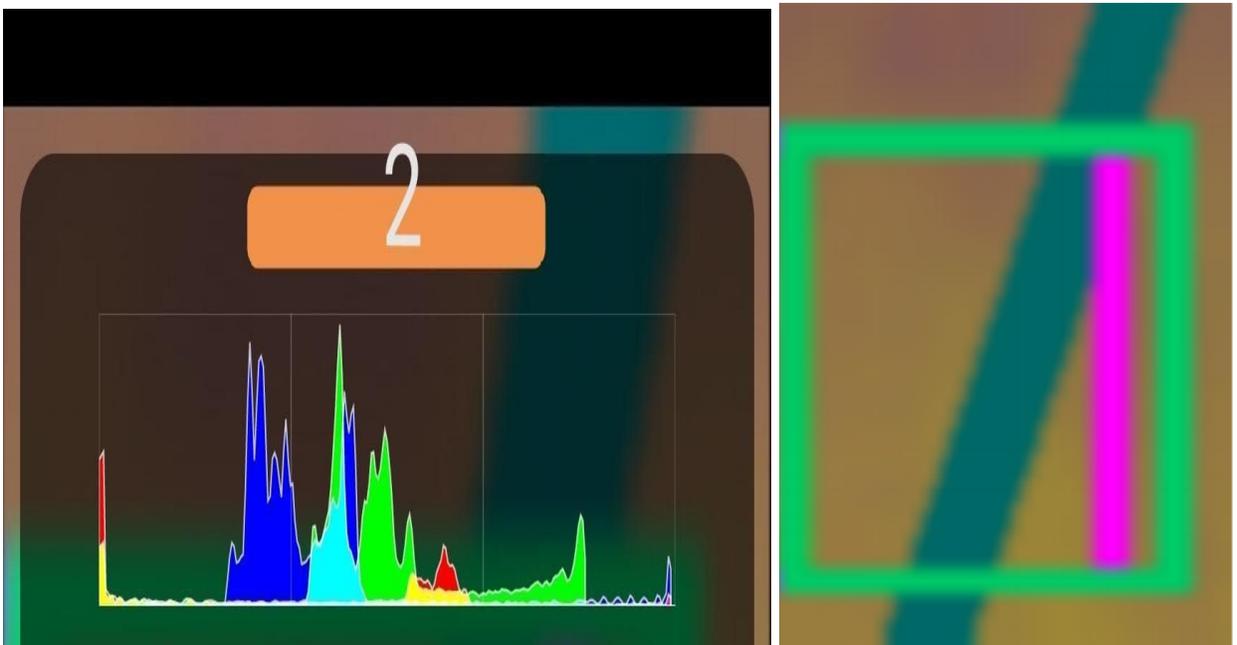


This art is composed of filled square, line and unfilled square shapes on a brown background. There are four filled squares having red, blue, green and black colors. These squares are joined together by a thick line segment of violet color. An unfilled green square is attached to the joiner. Right from the bottom edge is a distant slant line up to the top of the background image. A distance away from the right side of green square is a line drawn from the bottom to the top.

**Abstract 1:** This is a joiner of 4 square shapes with a line segment with each square having a different color. Sided is the histogram of art abstraction 1.



**Abstract 2:** This is a square of unfilled shape having a slant line across it and other within it. Sided is the histogram of art abstraction 2 as shown below



---

## Further Reading

- [1] Perceptor (2019). SGT Image Software. Softgene Technologies Gh. Business Accra, Ghana.
- [2] Java 2D (2019). Oracle Corporation. USA. <http://oracle.com>
- [3] Knudsen, J. (1999). Java 2D graphics. " O'Reilly Media, Inc."
- [4] Kramer, D. (1996). The java platform. White Paper, Sun Microsystems, Mountain View, CA.
- [5] Klawonn, F. (2012). Introduction to computer graphics: using Java 2D and 3D. Springer Science & Business Media.
- [6] Gartner, W. C. (1994). Image formation process. Journal of travel & tourism marketing, 2(2-3), 191-216.
- [7] Sontag, S. (1977). The image-world. Thousand Oaks, CA: Sage.
- [8] Merleau-Ponty, M. (2004). The world of perception. Routledge.
- [9] Hende, W. R., & Wells, P. N. (1997). The perception of visual information. Springer Science & Business Media.
- [10] Sloan, P. P. J., Rose III, C. F., & Cohen, M. F. (2001, March). Shape by example. In Proceedings of the 2001 symposium on Interactive 3D graphics (pp. 135-143).
- [11] Emmer, M. (2005). Mathematics and culture II: visual perfection: mathematics and creativity. Springer.
- [12] Dror, I. E. (2005). Perception is far from perfection: the role of the brain and mind in constructing realities. Behavioral and Brain Sciences, 28(6), 763-763.
- [13] Hui, C. A. O. (2006). The Construction of Visual Form and the Perfection of Person's Psychology. Journal of Henan Institute of Education (Philosophy and Social Sciences), 04.