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## Polygonal examples in art education from point to line

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### Abstract

In art education, the reciprocal relationship between lines and colours in art space is efficient elements for awakening art consciousness. Lines and colours complete themselves and build works of art in art space. In this context, our problem is how elements of point, line and colour complete themselves and how they build references, in Department of Elementary Education, Atatürk Faculty of Education, Marmara University.

Meaning and consistency of artistic concepts have great importance in education of individuals. Their ways of conception of these concepts affect their art consciousness in their lives. What they see where they look is related with their depth of thought. Their intellectual development reflects on esthetic realm as well. Our main aim is dealing with point, line and colour, and polygons in universe of design as means of education.

Results of researches made among students, related with art works based on polygons will be shown through a power-point presentation. Works made by students in field of line and colour will be exemplified, and dealt with in an analytical and descriptive way.

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### 1. Introduction

Point, the most essential element of art, is located in depths of human spirit. Point is a beginning, a trace with a possibility of movement, and an end. Point has no width, length, height, area or volume. Coming into action, it builds lines and derivatives. Coming successively, they build lines and forms. Line is a border enclosing form and environment of things. Three forms of lines are straight line, broken line, and curved line. Definite-indefinite lines, levelled-unlevelled lines, curling-uncurling lines, meaningful-meaningless lines, thin-thick lines, coloured-black lines, valid-invalid lines, finite-infinite lines, bow line, concave line, turning line, horizontal line, tandem line, side line, concurrent line, discrete line, fluctuating line, consecutive line etc. Proportions and relationship of dependency of lines show infinity of world of lines.

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Line has various meanings for different professions. In spelling rules, ellipsis, colon, and hyphen have certain meanings for example. In literary works, ellipsis is related with time dimension of point. Space with ellipsis shows time interval at the same time. Lines in comics are lines which make laugh, cry, smile, anger etc. In art of calligraphy, point is unit of measurement. Without point, letters can not be positioned on a line. Point is the trace of a pen. Copying a work without changing anything is meant by the idiom "point by point". In calligraphic manuscripts, small stars or flowers used at the end of sentences are called "point". These calligraphic points have different kinds such as geometric "diamond point" (*mücevher nokta*), "hexagonal point" (*şeshane nokta*) with six corners, "*penç berk*" with five leaves, "fitting point" (*geçme nokta*), "leaf point" (*yaprak nokta*), "spiral point", "*zerender-zer nokta*" etc. Red lines show prohibition. There are also lines expressing human characteristics such as lines of destiny, character or life in foreheads, hands, faces and fingers. Who lives in the "valley of lines", moving from the "nodal point", can draw a strange, mysterious line for her or himself after certain discoveries and openings. And the end of life is symbolized by a disappearing line.

Every line with its cultural accumulation reflects itself by turning into different works in various areas. Lines form an awareness of reality for the sake of beauty and esthetics. In a magnificent art work, lines find their place in a noble way. Lines show meanings and thoughts as intellectual signs. They take place in works of art in a silent way. They show also the endless richness of powers of form, depth, colour etc. Mystery formed by the voice of heart gets infinite by being designed with the help of lines. Lines in a design improve themselves and gain various forms. Fluency and continuity get achieved. Similarities, homogeneities, differences, and antagonisms crystallize, again with the help of lines. So, the unique drawing style of an artist appears.

Art of drawing is not only placed in the heart of our geography. It has produced many different forms in various societies, reflecting sometimes primitive cultures or sometimes civilizational development. As a signifier of the cultural structure, it has also distinctive derivatives. It can become the dominant element in the art of a society by internalizing the past, and by receiving inspiration from today's culture. Some lines produced by abilities of reason, heart, and hand achieve magnificent receptions in ages. They are perceived mostly as abstract and figurative forms. The border lines between cultures manifest themselves through art. Spaces, fractures and breaks between lines gain various connotations in different cultures. For example, circular geometric forms are dominant in Islamic culture, whereas right angles are dominant in Western culture. It can be related to the fact that geometry has been the model science until the 17th century in the Western culture.

After the improvement of visual taste, esthetic drawings of high quality were achieved. The rich heritage of lines are hidden in designs of various richnesses. Lines are not something ordinary or trivial. The existence of drawing produced forms, forms produced cultures, and cultures made civilizations. Beginning from the first traces in cave walls, lines take their place in today's world of informatics. As a result of technological developments, lines became virtual lines in virtual environment.

Lines which doesn't make any sense sometimes gain a kind of holiness after taking their place on paper. The place of holiness or unholy in graphic designs is again within the world of drawing. Drawing also glorifies paper, and saves it from being something ordinary, "a piece of paper". Lines are everywhere where life is, and interacts with other disciplines. It becomes sometimes a letter, sometimes a number, or sometimes a window. In short, lines can transform themselves easily to all kinds of things or symbols -active, passive or calm.

Colours contribute also to drawings in order to improve the emphasis of forms. With the help of colours, drawings gain a totally different aspect. The synthesis of colours and lines forms the visual realm.

Line is a group of points coming together in a sequence. Lines have at least a dimension, the length dimension. It can also form two-dimensional surfaces (with length and width dimensions) or three-dimensional spaces (with length, width, and height dimensions). Jalaladdin Rumi says "Beauty is One. If you increase the numbers of mirrors, it will also increase." Here, he emphasizes also the importance of artists. These artists have an ability of sight and intuition, and with the help of symmetry, they make eternal the esthetic phenomenon consisting of geometric cycles and transformations. Through unfolding of points, the world of beauty arises.

Geometrical elements are expressed as point, line, surface and space. "Geometry is related not only to the measurement of surfaces but also to all branches of art. This measurement is also an essential art which is needed by workers, secretaries, tax officials, and land owners." (Süveysi, 1998) Point and line are two of most essential design elements. It shows a rich diversity in the light of tradition, and geometric elements are used in areas such as architecture, geometry, and decorative arts again and again, resulting in new designs.

Geometrical forms can not be restrained within the borders of paper surface. They intersect themselves, they curl up, and so, they result in continuous and endless visions. Each geometrical form discovers new visions and forms, in relationship with other geometrical forms. A remarkable form standing in the forefront can give its place to another

form and so, it can gain a different meaning. The order and harmony of forms come together in space. Symmetry and geometrical elements give new visions to designs, and evokes continuously a sense of rebirth. These visions and forms show a kind of continuous rebirth, and give birth to unity of cycle, order, harmony, rhythm and vitality. Regarding to the cultural niveau of the audience, the work of art address her/his ability of sight and intuition. So, gaining meaning is an expression of a higher thought. The transition from concrete values to abstract ones is again a reflection of a higher thought. “Mathematics an inductive science, and this inductive science is valid for endless groups. We grasp these infinitive entities in an inductive manner and when grasped, we feel and intuit this infinity.” (Arf, 2009) In infinity, there is no end point. And brings a sense of immortality to mind. The continuous cycle address the upper consciousness of mankind by gaining an abstract character in the infinity of geometrical elements. Contradiction and contrast between lines, even if they can have negative connotations, evoke mainly the affecting aspect of the art in the eyes of audience. Especially this affective and moving aspect of the art gains importance in the art education.

In future, when conscious, productive, creative, and original points and lines reflecting richness of experience are going to be used, the significance of art education is undeniable. Forms discovered by geometrical designs and their formations will determine the future conditions. Therefore, educational content in the formation of geometrical designs has to be symbolized and to be made concrete. And these formations in the world of geometrical forms have to be enriched with the help of appreciating educational applications.

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