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Triangulation

An audience (participant) realized performance event.

[09/18 realization. Friends School of Baltimore, Intro to Programming (Heather Romney, Teacher), 9th grade class of 11 students. Produced over the course of four 70min class sessions.]

Texts:

- Instructions for the method and process of stretching the yarn and the assemblage produced.

- Definitions and usage of the word "triangulation".

Instructions for realization

Materials:

- (x) skeins of yarn (or string/thread/twine/monofilament/etc)

- (x) points around the space on which to affix yarn - walls/ceiling/floor/furniture/fixture/etc. Ideally points will be "found", i.e., drywall screw/other fasteners already in place, any hook/post/pipe on which to wrap and stretch yarn to/from other points. The use of chairs/step stools/ladders in order to reach ceiling-height is recommended so as to expand the piece to as many locations as possible. Points may be added at will throughout the process.

Method:

- The people starting affix the end (beginning) of the yarn to a location (point) of their choosing.

The same people then stretch the yarn to another point and affix it, forming a straight line. They continue this process for 2-3 minutes. [It will require stretching to at least 3 points in order to start triangulating: bisecting prior lines in order to produce triangles.]

- The next participant(s) continue as the first - affixing the yarn to locations of their choosing - either another point or to an existing line.

Participants not stretching yarn will observe- either in silence or in discussion of "triangulation".

A three dimensional structure will begin to emerge. Perhaps consider, as this is to be three dimensional, a balance between them - the dimensions.

An important and **at times challenging** requirement is to maintain tension in the yarn so that the lines remain as straight as possible.

Consider Beforehand:

The structure will become dense and therefore navigation amongst the lines increasingly impossible - consider where to begin so as not to "paint your selves into a corner".

[Note - at completion of performance with The Friends School students: students produced the piece using 3 people at a time, for 3 minutes. Then another 3 students would take over for another 3 minutes. They continued for about 1 hour each class period. There were 7 classes in total. This produced a very complex structure.]

From Wikipedia

Triangulation (disambiguation)

Triangulation refers to measurement by using triangles, or angle measurements in surveying.

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Mathematics and computer science

- Subdivisions of spaces into triangles or higher-dimensional simplices:
  - Triangulation (geometry), division of the Euclidean plane into triangles and of Euclidean spaces into simplices
  - Surface triangulation, division of a surface into triangles
  - Polygon triangulation, division of a polygon into triangles
  - Point set triangulation, division of the convex hull of a point set into triangles using only that set as triangle vertices
  - Triangulation (topology), generalizations to topological spaces other than $\mathbf{R}^d$

- In graph theory:
  - Maximal planar graphs are sometimes called *triangulations*, and a maximal planar supergraph of a graph *G* may be called a *triangulation of G*
  - Chordal graphs are sometimes called *triangulated graphs*, and a chordal completion of a graph *G* may be called a *triangulation of G*
  - These two concepts come together in strangulated graphs, which include both maximal planar graphs and chordal graphs
- A triangulated category is a category defined by a set of axioms involving triangles of arrows
- Triangulation (computer vision) is the computation of a 3D point given its projection onto two, or more, images
- In linear algebra, triangulation is a process of finding an upper triangular matrix similar to a given matrix; see Schur triangulation
- Mobile phone tracking uses triangulation (actually, trilateration) to calculate the location of the handset

Navigation

- Triangulation (surveying) is a process used in surveying to determine unknown distances, angles and positions from those that are known.

- [Triangulation station](), a fixed surveying station.
- [Stellar triangulation]() is a method of [geodesy]() which uses cosmic instead of terrestrial targets.

Psychology and social sciences

- [Triangulation (psychology)](), situation in which one person interacts with another person via an intermediary third person
- [Karpman drama triangle](), a psychological and social model of human interaction – typically between the roles of Persecutor, Victim and Rescuer.
- [Triangulation (social science)](), the use of multiple cross-checked sources and methodology

Other fields

- [Triangulation (chess)](), a maneuver in which one player moves a piece (often a king) in a triangular pattern in order to force the opponent to make a weakening move
- [Triangulation (finance)](), a financial strategy whereby the relationship between three currencies is exploited
- [Triangulation (politics)](), the act of a candidate presenting his or her ideology as "above and between" the left and right side of the political spectrum