

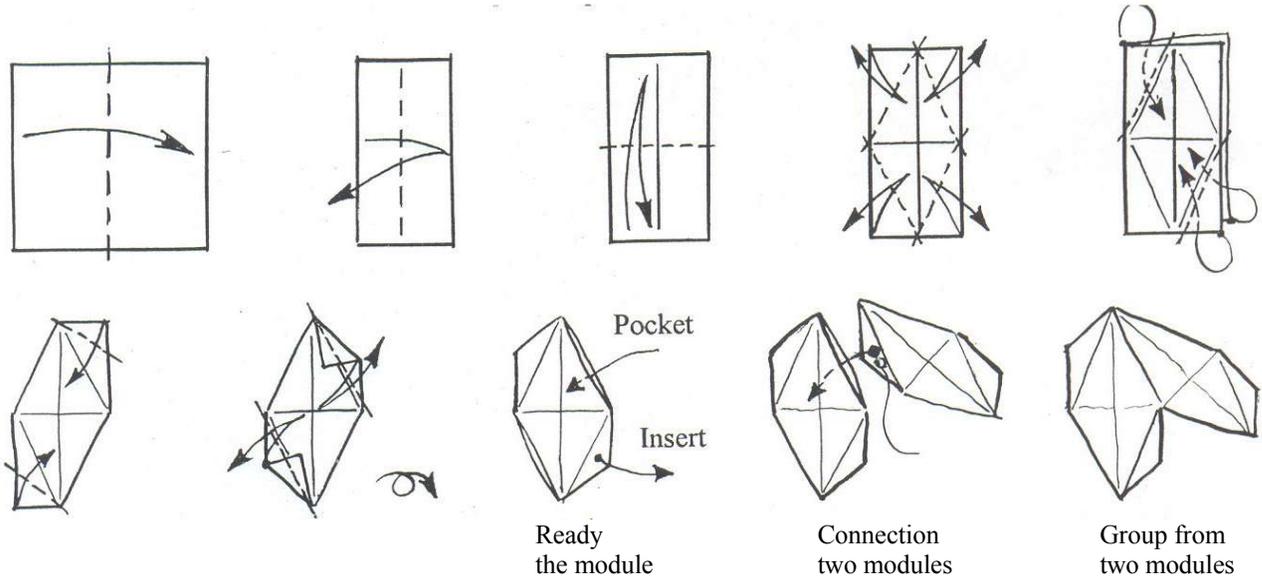
Revealed flower

Valentina V. Gonchar, architect, Moscow

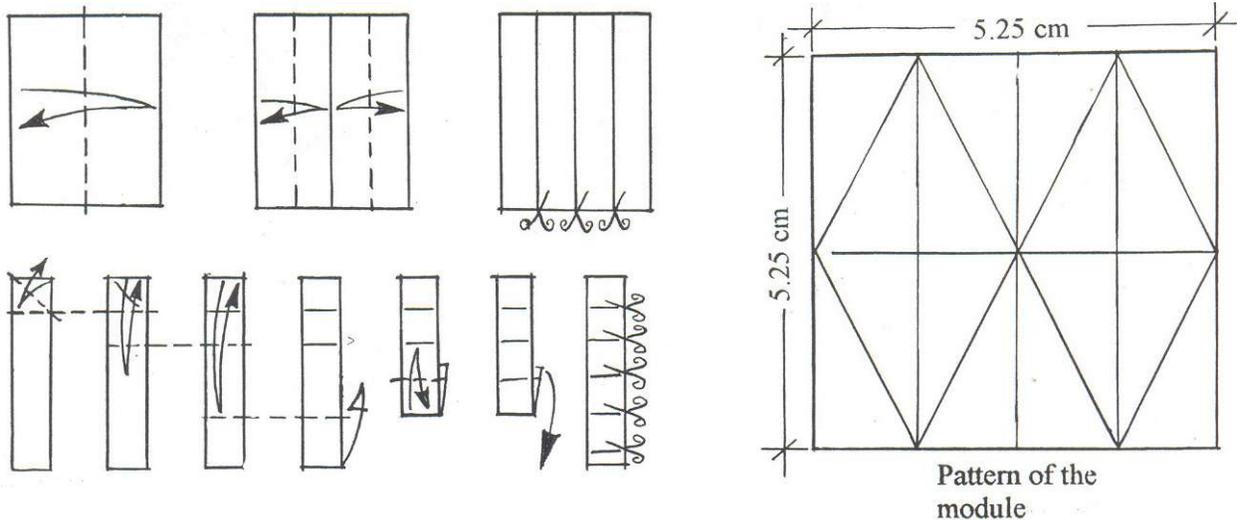
© First published in Russian Origami journal № 13 (3-1998) with p.p. 45-49.

We represent you dynamic model "Revealed flower", carried out in engineering modular origami from 90 universal modules origami (design Valentina V. Gonchar). At formation of models glue is applied, drop which is put on an insert.

All modules of this model develop of a square sheet under the circuit:



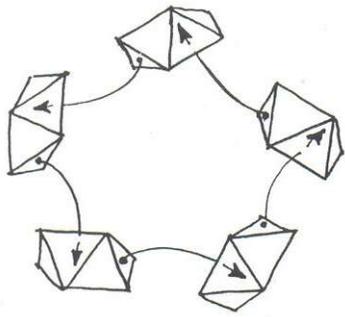
Most convenient for work are squares the size 5.25 cm x 5.25 cm, which easily turn out from a standard sheet of a paper (A4) as follows:



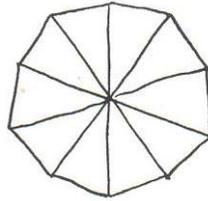
The model is formed on a basis dodecahedron - Plato body, consisting from 12 correct pentagons. However each flat pentagon is replaced by group of 5 modules, connected among themselves by tops to blunt corners. This group represents 5 open triangular pyramid, similar on wreath flower. For model it is necessary 12 such wreaths. Wreaths can be white or color.



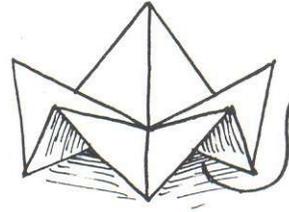
dodecahedron



The top view

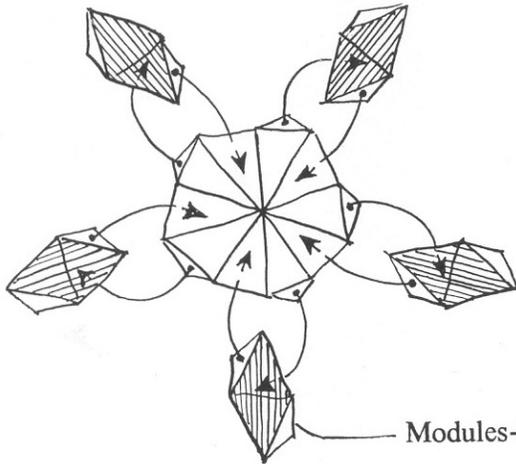


First five-modular wreath open

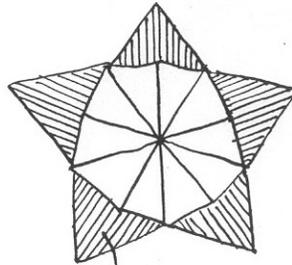


Open Triangle Pyramid

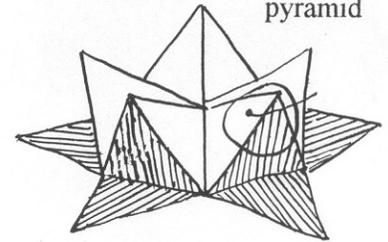
Wreath incorporate with each other 30 by connecting modules - leafs of green color.
 5 open triangular of pyramids first wreath we close modules-leafs. We've got triangular of pyramids with 5 free half's modules-leafs. Or closed five-modular wreath.



The top view

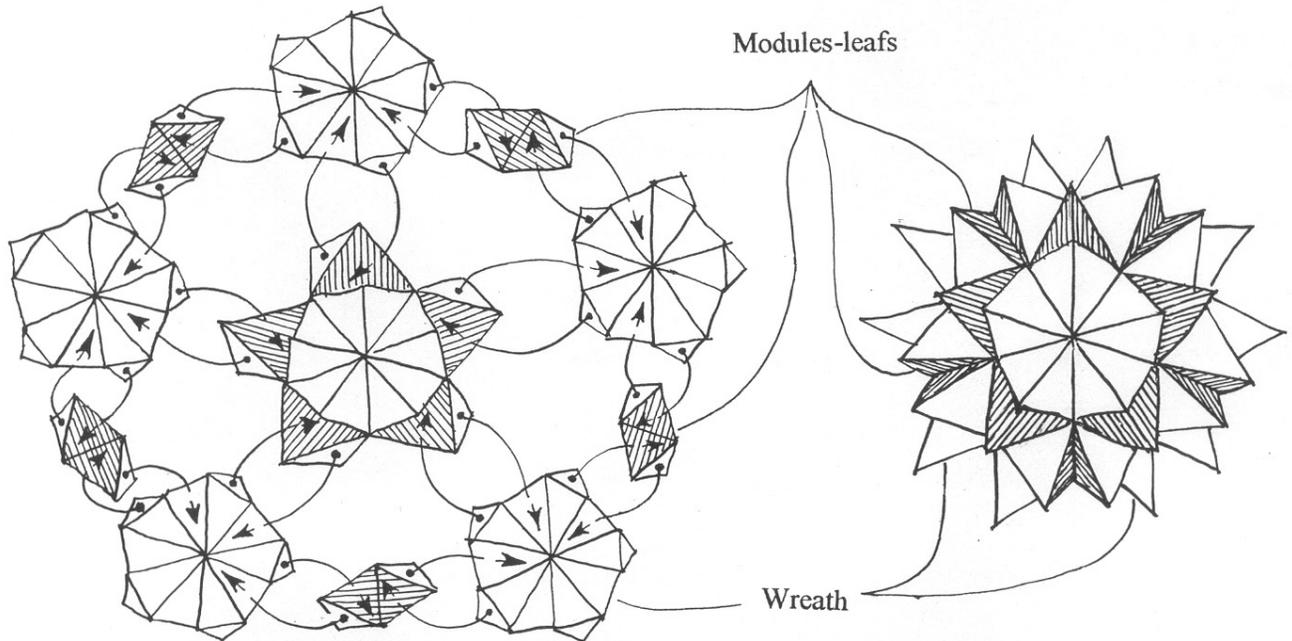


First five-modular wreath closed



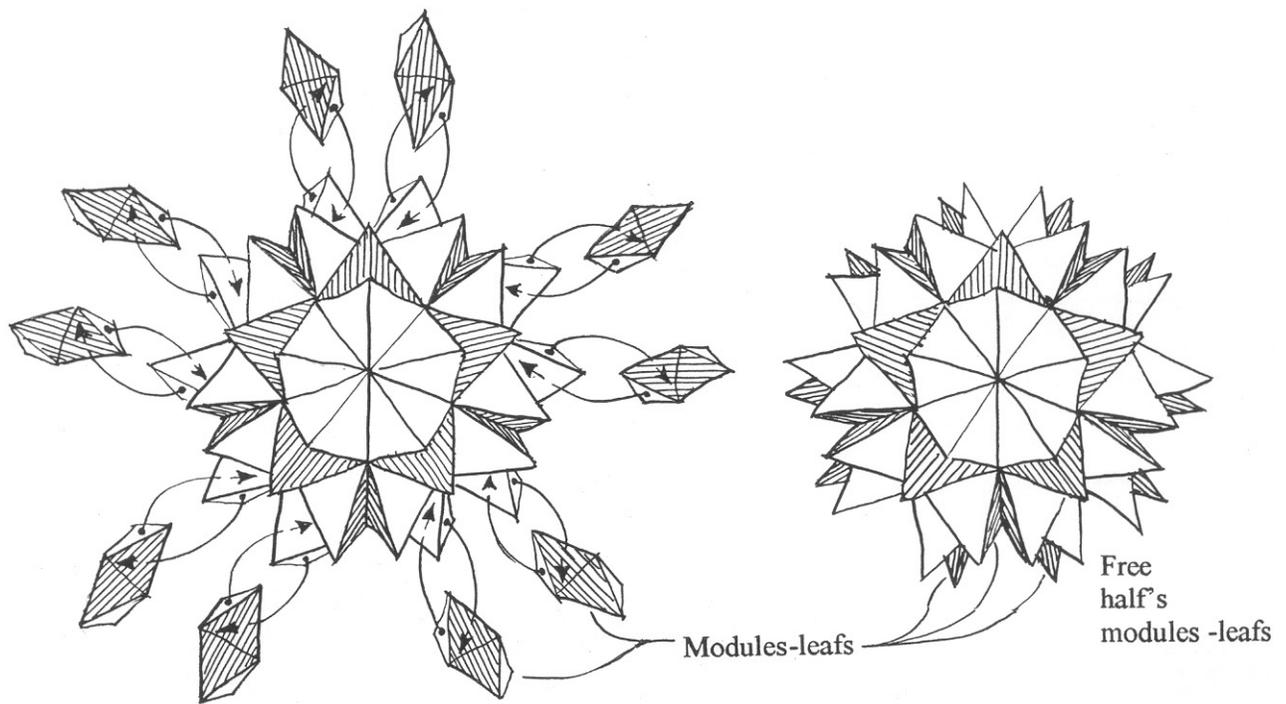
Closed Triangle pyramid

We shall prepare yet 5 wreaths and 5 connecting modules and we shall spread out them on a table around of first wreath, as shown in a drawing:

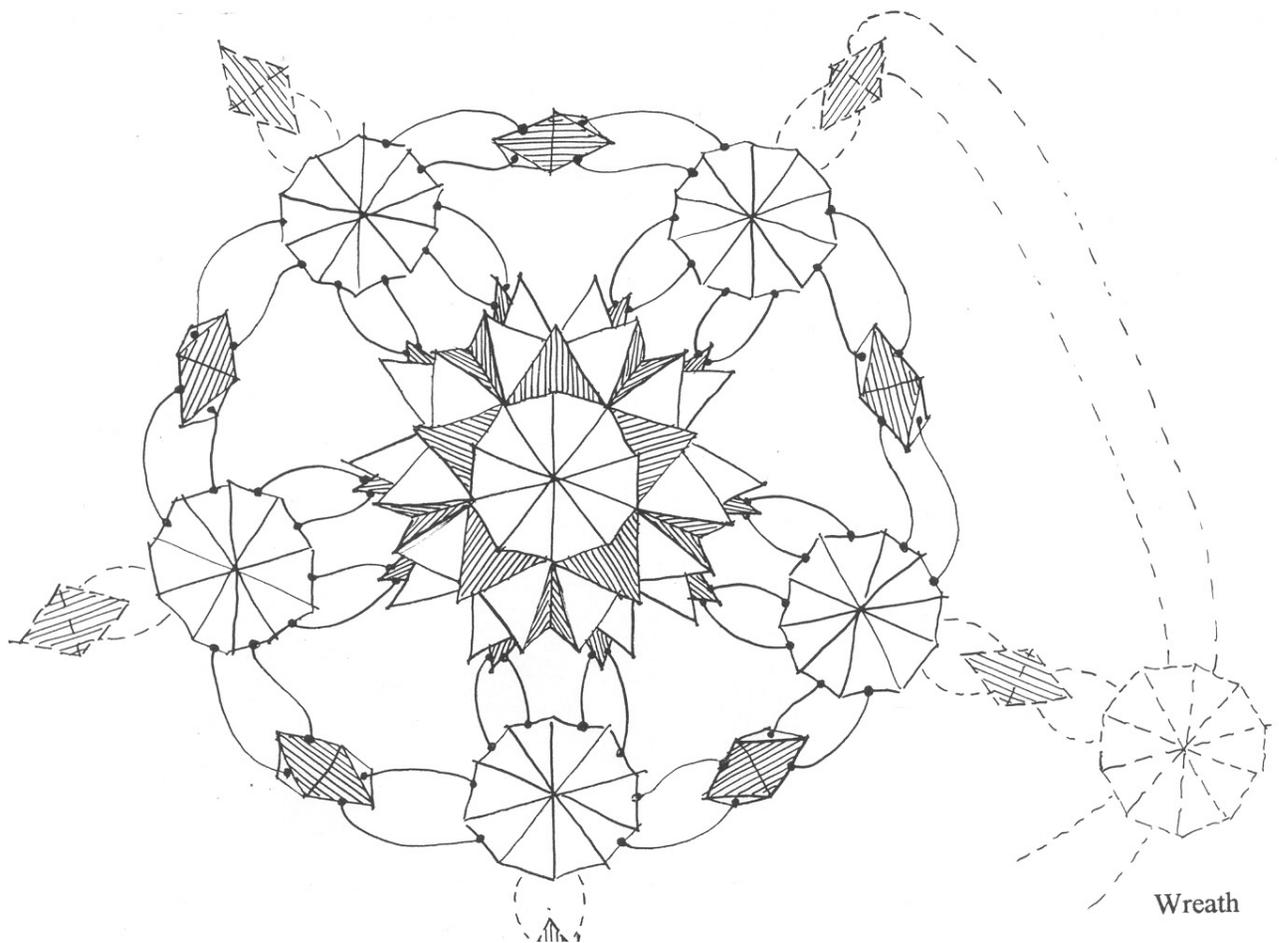


At first to each free half we shall attach wreath. Five half's-leafs - 5 wreaths. Then next between each two wreaths we shall insert module-leaf.
 In each again attached wreath have remained on two non-closed triangular of a pyramid. We shall

prepare yet 10 modules leafs and we shall close all 10 open triangular of pyramids wreaths.

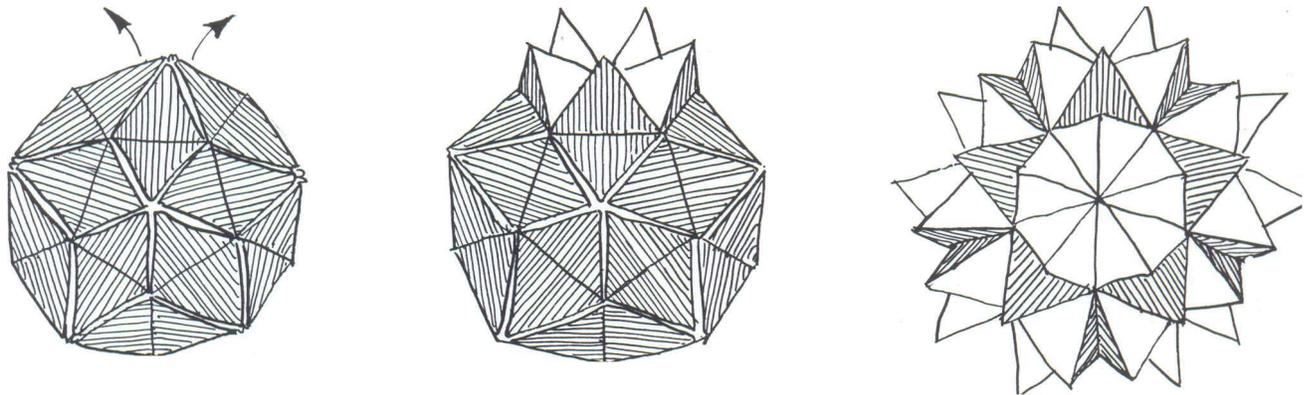


So, in our bouquet (it half of model) already 6 flowers and it terminates 10 free half's modules-leafs. Put it on a table, prepare yet 5 new wreaths and 5 connecting modules and spread out them on a table around of bouquet, as shown in a drawing



Now in each again connected wreath we've got will be on one non-closed triangle to a pyramid. We shall close them by 5 modules-leaves and between them we shall paste last wreath. Bouquet is ready.

Day is coming to an evening. And you know, what flowers close in the evening wreaths for a night? Embrace hand (palm) one wreath flower and lightly compress petals to center and... Easy slam - and wreath was closed. Lightly compress to center other flower and it has too slammed. And so all 12 flowers. Before you a green ball - from one green leaves, in chinks between leaves thin strips overlook color future flower - pink, light-blue. When come the morning, with sun flower will reveal again - lightly separate leaves in center bud and... Again easy bang and wreath has revealed. And so all 12 buds - and again at you instead of green buds bouquet of colors.



The universal module refers to as so because it can be combined not only from a square, but also from a rectangular of any format and below than square - from wide and short up to narrow and long is higher and. All patterns irrespective of the form develop equally. The modules can be sectarian, i.e. with given sizes of a corner at top of the module.

The most useful modules from a square, from a rectangular in two squares and from a sheet of a rectangular are, in which is entered equally-sided triangle, and from sectarian of modules - modules with a corner at top 120° , 72° , 45° and 36° .

All modules can be both simple and combined, i.e. at one basis one triangle of the module can be rectangular, other equally-sided, or with a given corner and etc. It is necessary in some models for greater plastic.

We result photos of some models. All patterns - development, circuits of assembly and description of a sequence of actions are available at formation of models.