Treeform architecture is based on natural forms such as where a tree's foliage serves as the roof. The branches and trunk are the support structure.
ORIGIN

Espiga  Cima  Amento  Capítulo  Racimo

Corimbo  Umbela  Umbela compuesta  Panícula
ORIGIN

Bracteolas

Brácteas

Pedúnculo

Hojas vegetativas

Tallo
PRECEDENTS

BATH ABBEY VAULT - ENGLAND
PRECEDEMENTS

SAGRADA FAMILIA GAUDI - BARCELONA
PRECEDENTS

SAGRADA FAMILIA GAUDI - BARCELONA
PRECEDENTS

SAGRADA FAMILIA GAUDI - BARCELONA
TREE LIKE STRUCTURES name defined by Frei Otto
The German architect and scientist Frei Otto spent his entire life studying the form-finding processes of nature.

Design sketches and model by Frei Otto
Design sketches and model by Frei Otto
PROJECTS

STUTTGART AIRPORT
PROJECTS

STUTTGART AIRPORT

PERI COMPANY
SCAFFOLDING
PROJECTS

AIRPORTS  HEATHROW - LONDON
PROJECTS

AIRPORTS  STANSTED - LONDON
PROJECTS

AIRPORTS

T4 - MADRID SPAIN
PROJECTS

CALATRAVA

EAST STATION – LISBON PORTUGAL
PROJECTS

CHURH IN THE FOREST - JAPAN
PROJECTS

CHURH IN THE FOREST - JAPAN
PROJECTS

THE TOTE BANQUETING HALL - MUMBAI INDIA
PROJECTS

AVIARY - GENEVA SWITZERLAND

Swiss architects group8 with Guscetti & Tournier structural engineering
Swiss architects group8 with Guscetti & Tournier structural engineering are building this aviary in the Bois de la Bâtie public park in Geneva, Switzerland.
PROJECTS

SHANGHAI EXPO 2010: NORWAY PAVILION is a Solar Powered “Forest”

http://inhabitat.com/shanghai-expo-2010-norway-pavilion-is-a-solar-powered-%E2%80%9Cforest%E2%80%9D/
PROJECTS

SHANGHAI EXPO 2010: NORWAY PAVILION is a Solar Powered “Forest”

http://inhabitat.com/shanghai-expo-2010-norway-pavilion-is-a-solar-powered-%E2%80%9Cforest%E2%80%9D/
PROPOSAL TO BE BUILT FOR THE MELILLA VISITORS CENTER FOR THE NATURE INTERPRETATION.
PROJECTS

FELIX ESCRIG

PROPOSAL TO BE BUILT FOR THE MELILLA VISITORS CENTER FOR THE NATURE INTERPRETATION.
Se pueden generar distintas tipologías de cubiertas dependiendo de la estructura en primera instancia teniendo como base la misma idea o concepto, los pliegues de la cubierta, los vacíos que se generan con la intención de darle movimiento en planta.
Left Above: The Y-shaped profile of the column has been cut out of a modified plywood wall form.
Centre Above: A flat sheet of geotextile fabric is smoothed and stretched into the Y-shaped void.
Right Above: The fabric is stapled to the plywood along the edges of the Y-shaped opening.

Left Below: The modified plywood wall formwork ready to receive concrete
Right Below: The formwork after it is filled with concrete.
Multiple branches may also be formed branching off a single trunk using a flat-sheet mold in a “Bulge Wall” type formwork. Though these branches are limited to a single plane, there are other ways (not shown here) to use flat-sheet molds for casting columns with branches in more than one plane. These more complex casts, however, must be done as pre-cast pieces, not as cast-in-place members as illustrated here in these plaster models.

**Left, Top:** This image illustrates how multiple branches can be formed using a flat-sheet form-liner that is allowed to deflect outwards from a profiled opening cut out of a flat plywood sheet.

**Bottom Left and Right:** Small-scale plaster models of multiple branching columns.
RESEARCH

GRASSHOPPER DEFINITION - TREE LIKE STRUCTURE UNIT

06 TREE STRUCTURE

DESCRIPTION
This time it has developed a definition for tree-shaped structures. Mathematically, the proportion of the different branches corresponding to 1:4-16:16, so the central branches will be able to withstand the load of the top. The definition can control the weight of the tubular structure, the partial and total height of each of the four sides, and the inclination. The fine structure is based on an orthogonal grid to generate global architectural structures from unit elements, the tree.
RESEARCH

BAUBOTANIK - STUTTGART GERMANY
RESEARCH

BAUBOTANIK - STUTTGART GERMANY

http://www.youtube.com/watch?v=M7fvufpb5lE


http://www.ferdinandludwig.de/publikationen_medien.html
THANKS FOR YOUR ATTENTION !!!