

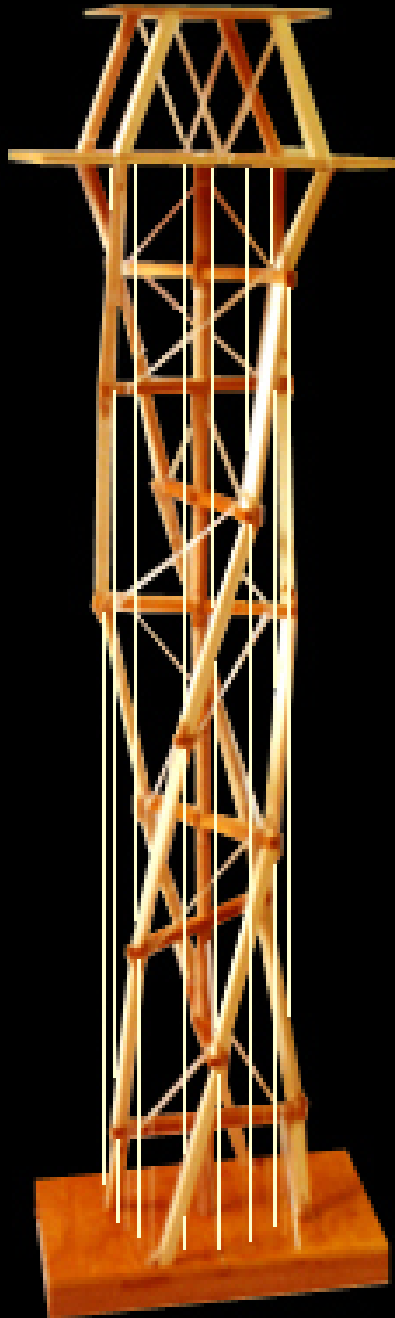
Spiral Tower

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Academic

Course:
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Instructor:
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Black



When assigned to design a tower to withstand tremendous lateral loads, I, as a sailor, looked to the masts of sailing vessels and examined their basic design to begin my search for a solution.

I rotated a structural assembly about the vertical axis and found that I had a stable form against 360 degrees of lateral loading.

The last factor to be accounted for was that of torque, rotation about the mast in plan.

My search led me to a proposal for a structure as an unsymmetrical solution, as opposed to a traditional design.

The guywires and compression members always appear to be moving in the same direction. When one set of guywires fall vertically while the others move in the same direction. The vertical elements are neutralized and the summation of what is seen are two sets of parallel spirals.

The solution, when clad with a skin, could suggest an interesting solution for a highrise.

