

WHAT IS IT ? IT'S SYNERGY.

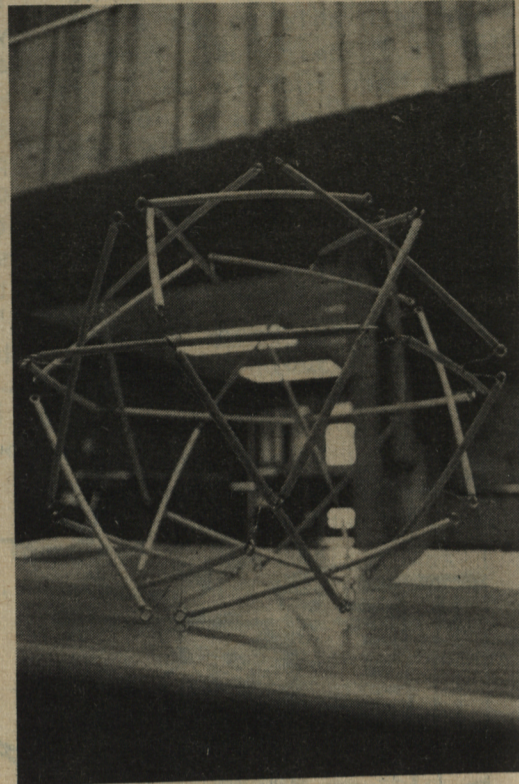
The Engineering Dept. are now displaying several models in the exhibition area in the Robertson Library. The models seen there are examples of Synergy. Synergy is defined by Buckminster Fuller as "The behavior of whole systems, unpredicted by knowledge of the component parts or of any subassembly of components".

No other word has that meaning and the

fact that most people do not know the word means that most people do not know you can get more out of a system than you put into it. Take for example a chain. The links might be of iron, which has a tensile strength of 60,000 lbs. or chrome at 70,000 lbs, or nickel at 80,000. (Manganese and carbon, etc. at 50,000 lbs.)

If we make a chain it will be no stronger

than its weakest link which is 50,000 lbs. If we melt them together to form a rod, common sense expects that the strongest ingredient, nickel, will be weakened by admixture of the others. However, common sense is wrong. It is far stronger than the sum and even stronger still than the average. For "stainless" chrome-nickel steel castings can be made with a tensile strength of

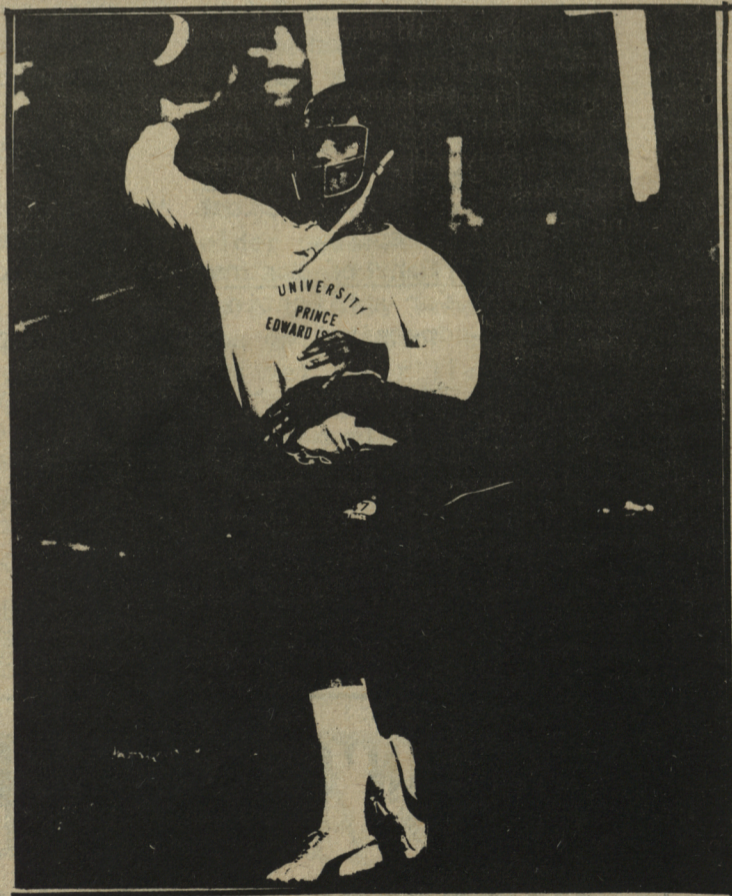


What every university needs is a quarterback

and UPEI can get one

at

McDonald's



Order at McDonald's

and get a quarterback

from your dollar



350,000 lbs. per square inch.

Why can a 300-lb man ride a bicycle whose wheels are spoked with wires a child can bend? The strength is in the system. The wires' tensile strength supports the load while putting no force at all on their susceptibility to crumpling.

Does an inflammable metal, sodium, and a poisonous gas, chlorine, predict common salt? This is an example of molecules combining synergetically.

The model of the Tensegrity Sphere in the library is about as dramatic an example of synergy as we are likely to find. Pick it up. Squeeze it. It yields like a rubber ball, and pops out again. An energetic squeezer would perhaps break something, a wire...a stick. But the system remains the same. Stronger sticks of steel tubing or box steel, and alloy wires would prevent that. The U.S. Patent #3,063,521. remarks that a fine tensegrity mesh-work could cover whole cities.

When examining the models, try to see the system, not the wooden sticks. It is the system which is strong. The lone stick is useless, but the incorporation of the synergetic system is what will support the bridges--the buildings--the structures of the future.