NAME:

BE THE EDITOR

Skills

Creativity, communication, research, analysis, extrapolation

This excerpt is from the chapter on Buckminster Fuller in the book Edison's Concrete Piano. It is presented here in the same form that the publisher first saw it – before three editors worked on it. If you were the one responsible for publishing this text, what would you change? Look for grammar mistakes as well as ways to improve readability. The actual changes made by the professional editors are shown on the answer page. [Note: I found a tiny error that was missed at the time of publication…can you spot it?]

Fuller's ideas for shelters continued to evolve, and there were several designs, all echoing the same principles of minimal materials and cost while maximizing space and utility. The geodesic dome, United States patent 2,682,235, granted in 1954, brought prestige, official accolades, and income. It came about because of Fuller's explorations in geometry. He did not believe in pi — his argument being that nature does not use an irrational constant in the construction of spheres, such as bubbles. He's got a point. Fuller set out to systematically understand and model the true nature behind nature's structures, and thus understand the fundamental laws of materials. He made significant progress, in uncanny ways that cutting-edge research continues to prove correct. It is out of this "energetic-synergetic geometry" that Fuller developed the geodesic dome.

Geodesic is the term given to any arc of a circle. A geodesic dome is a partial sphere consisting of networks of spherical triangles (i.e. triangles with curved, not straight, sides) formed by geodesics. The domes common in children's playgrounds are of Fuller's design. Triangles are structurally strong, and Fuller's geodesic domes have amazing structural properties, including tremendous stability, excellent volume to surface area ratio (they are comparatively large inside in relation to the area of ground they occupy), and low weight. In fact, the larger the dome, the lighter they are, relative to their volume. Fuller estimated that a mile-wide dome would weigh about the same as the air inside it. He thought that heating the air inside by even one degree would make the sphere airborne. Fuller's imagination had no bounds; he envisioned airborne cities enclosed in such spheres, as well as gigantic domes to cover entire Earth-bound cities. In addition to these structural features, geodesic domes are made of repeated units, are inexpensive, and quick and easy to assemble. In 1954 a 55-foot diameter and 40-foot high dome made of fiberglass was erected in 14 hours; in testing it remained stable at wind velocities of 220 miles an hour.

Geodesic domes found a market, and many special buildings around the world are evidence of that. The first was a dome to sit atop the Ford Motor Company rotunda, built in 1953. The Montreal Biosphere, the Epcot Center at Disney World, Shaw's Garden in St. Louis, Missouri, and military stations around the world also bear witness to the appeal of the design. There are an estimated 300,000 domes scattered about the globe. Ironically, the geodesic dome these days is more likely to be considered in the light of a 1960s fashion fad than the ultimate in human shelter.

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The changes made by the editor are underlined, with explanations for the changes in the footnotes.

Fuller's ideas for shelters continued to evolve[1], and there were several designs, all echoing the same principles of minimal materials and cost while maximizing space and utility. The geodesic dome, United States patent 2,682,235, granted in 1954, brought Fuller[2] prestige, official accolades, and income. It came about because of Fuller's explorations in geometry. He did not believe in pi — his argument being that nature does not use an irrational constant in the construction of spheres, such as bubbles. He had[3] a point. Fuller set out to systematically understand and model the true nature behind nature's structures[4] and thus understand the fundamental laws of materials. He made significant progress[5] in uncanny ways that cutting-edge research continues to prove correct. It is out of this "energetic-synergetic geometry" that Fuller developed the geodesic dome.

Geodesic is the term given to any arc of a circle. A geodesic dome is a partial sphere consisting of networks of spherical triangles (i.e.[6] triangles with curved, not straight[8], sides) formed by geodesics. Triangles are structurally strong, and Fuller's geodesic domes have amazing structural properties, including tremendous stability, excellent volume-to-surface-area[7] ratio (they are comparatively large inside in relation to the area of ground they occupy), and low weight. In fact, the larger the dome, the lighter it is[9], relative to its[9] volume. Fuller estimated that a mile-wide dome would weigh about the same as the air inside it. He thought that heating the air inside by even one degree would make the sphere airborne. Fuller's imagination had no bounds; he envisioned airborne cities enclosed in such spheres, as well as gigantic domes to cover entire Earth-bound cities. In addition to these structural features, geodesic domes[10] made of repeated units[10] are inexpensive[10] and quick and easy to assemble. In 1954,[11] a 55-foot (16.8 m)[12] diameter and 40-foot (12.2 m)[12] high dome made of fiberglass was erected in 14 hours; in testing,[11] it remained stable at wind velocities of 220 miles per[12] hour (354 km/h)[12].

Geodesic domes found a market, and many special buildings around the world are evidence of that. The first was a dome to sit atop the Ford Motor Company rotunda, built in 1953. The Montreal Biosphere, the Epcot Center at Disney World, Shaw's Garden in St. Louis, Missouri, and military stations around[13] the world also bear witness to the appeal of the design. Ironically, these days,[14] the geodesic dome is more likely to be considered a 1960s fashion fad than the ultimate in human shelter.

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1. Grammar error: comma added because there are two independent clauses separated by a coordinating conjunction (and).
2. “Geodesic dome” is the subject of the clause, but Fuller was added for clarity.
3. Grammar error: past tense is correct.
4. Grammar error: comma removed because here was a subordinate clause (“and thus understand the fundamental laws of materials”) with an independent clause (“Fuller set out to systematically understand and model the true nature behind nature’s structures”). They don’t get separated by a comma if they’re already separated by a coordinating conjunction (and). The comma would have been correct had we repeated the subject (“and thus he set out to understand…”), turning the subordinate clause into an independent clause.
5. Grammar error: comma was removed. We could have added another comma after “ways” to make “in uncanny ways” parenthetical info, but it was an interesting characterization.
6. This is the error that was missed by me, and all the editors when the book was published. There should be a comma after “i.e.”.
7. Hyphens were added. It’s a stylistic convention that hyphens are added to a compound adjective (an adjective composed of more than one word) when it is before the word it’s modifying. So it’s a “volume-to-surface-area ratio,” but the “ratio is volume to surface area.”
8. A comma was added; “not straight” is parenthetical info, so it should be set off with commas. (The rule of thumb: If adjectives could be separated by “and” you use a comma, but if they can’t you don’t. So while it could be “triangles with thin and curved sides,” it would never be “triangles with dark and blue sides,” so you’d never use commas with “triangles with dark blue sides.”
9. Grammar error: dome is singular.
10. This sentence was improved by omitting repeated use of “are”, and unnecessary commas.
11. Commas were added to be consistent. Copy editing is as much about being consistent as it is about being right. I noted you tended to use a comma after introductory phrases such as this one, so I tried to ensure they were used consistently.
12. Miles per hour is correct, miles an hour is slang. Metric equivalents were added for Canadian and European audiences.
13. “About” was replaced with “around” because the book is being published in U.S. English, which has less of a tolerance for this usage of “about.” With Canadian English the editor would have left it as is, and with British English she definitely would have left it as is.
14. This sentence was improved by omitting “in the light of” and moving “these days” closer to beginning of statement. Phrases such as “in light of” can almost invariably be deleted from texts. More often than not they don’t really add anything.