Some four years ago, I observed that a certain number of most significant theorems and constructions of modern mathematics have undergone the following evolution, and that one might even talk of a principle. Viewed historically, at first one knew certain natural objects (e.g., spaces); then certain "abstract objects" were discovered, or one was forced to introduce them. Finally, with considerable effort and brilliance of mind, it was proved that these objects were "simply" subspaces of the well-known spaces, and that in some (favorable) cases they were indeed isomorphic with "classical" objects. The more natural the spaces were, the more difficult it was to prove the corresponding embedding theorems.

I realized that the evolution principle of modern mathematics which I had observed was an exact illustration of the famous parable of the cave from the seventh book of Plato's "Politea." The following correspondences were found:

(a) Shadow's on the cave's walls are classical mathematical objects: e.g., planes in the Euclidean space, algebraic projective varieties, etc.
(b) Ideas are "abstract objects," e.g., Riemann spaces, Hodge manifolds.
(c) The dramatic "descent" into the cave is the corresponding embedding theorem.

And who is the prisoner at first fettered, then released, and dragged (by force) into the sunlight, and finally descending again into the cave? It is mathematics itself as a whole, for it is different researchers belonging to different generations of mathematicians who have accomplished the ascent, the creation of awakening of a great mathematical idea, e.g., the Riemann surface, and an embedding or uniformization theorem which is often, several decades later, proved by quite different mathematicians.

The well-known *bon mot* that "European philosophy" is only a footnote to Plato is perhaps true, but I should venture the much truer one: modern mathematics is only a footnote to Riemann.

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