

these three rates will come into quite close agreement, and stand 2.54, 2.50, 2.55. I have therefore taken 2.5 feet per century as the rate of growth of culture-strata in Anau city.

The shafts sunk in Anau city found a very much looser earth than in the kurgans, so loose indeed that there was at times danger of caving. On the other hand, the kurgan strata are closely compacted and hard; they have evidently either grown at a considerably slower rate or have compressed in time by gravity. Perhaps both of these causes operated, but in any event, there is no doubt that the accumulation of a century is represented by fewer inches in the kurgans than in the city. The difference in texture and character is so very marked that I have taken a rate of 2 feet per century for all of the kurgan strata.

NOTE.—In the winter of 1906-7 I visited Egypt in order to get some information as to the rate of growth of culture-strata in Egyptian village mounds. The places examined were the mounds which have grown up around the temples, in some instances nearly burying them. The excavation of the temples during the past few decades has left good sections of these mounds. In these towns all constructions—houses, walls, etc.—were built wholly of unburnt bricks. According to their age these mounds now vary in height from 25 to 50 feet or more above the present level of the plain. Their upward growth has been caused by the fact that all material for construction and repairs, and practically all

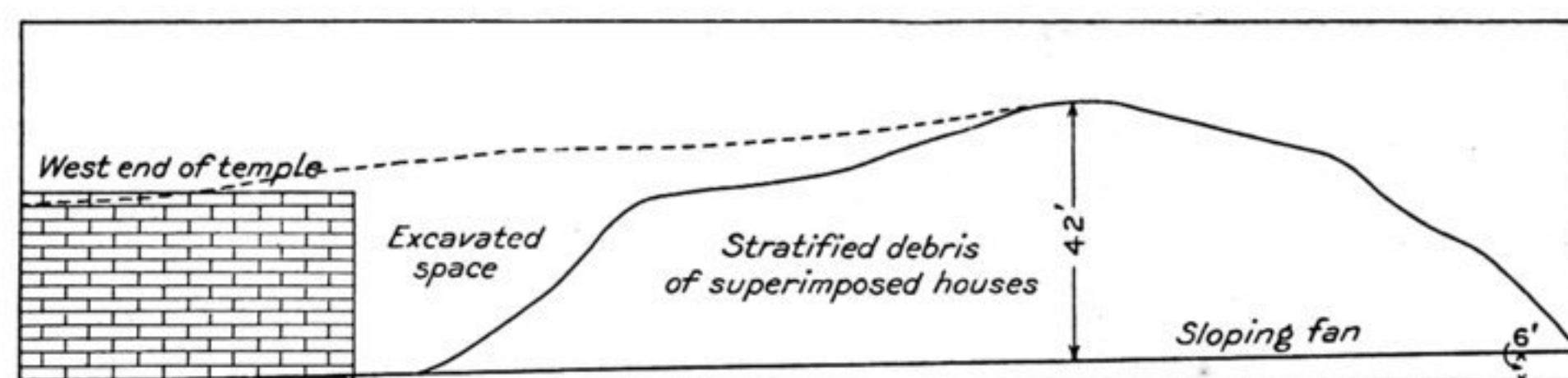


Fig. 20.—Explanatory Diagram of Village-mound Culture-strata at Medinet-habu, Thebes, Egypt.

solid inorganic material that has been brought into the village from the beginning, has remained there. The bed of the Nile and the surface of the plain both rise at the rate of 39 inches in 10 centuries. The mounds (culture-strata) rise more rapidly. Thus, while the base of a mound is always being buried, the elevation of the streets and of the house-floors of the village at the top is always increasing. The mounds consist, from top to bottom, of the standing walls of houses and other constructions, and of earth which, in more or less regular and compacted layers, fills the spaces which have been rooms, courts, and streets. In this earth is contained practically all the organic matter that through the centuries was consumed by the population, and its high content of phosphates and nitrogenous salts gives it great value as a fertilizer. The mounds that have been bought in order to excavate the temples are for this reason being extensively exploited by the fellah-  
 een for fertilizer. Fortunately for our purpose the fertilizing quality is largely confined to the earth instead of the walls; and the excavation of the former often leaves the walls standing, in places down to near the level of the plain. Observation shows that the growth of the mound is due to the combined rising of the level of the earthen floors, courts, and streets, through slow accumulation of earth and the mutual adjustment of all these factors to maintain a general level. The walls are continually becoming buried. When rooms become too low, additions are made to the top of the walls and a new roof is added. The products of wear and tear of the outer surfaces of the walls and of roofs by wind and occasional rains, go, together with abundant potsherds, to raise the surface of streets and