**GREGG DE YOUNG**, The American University in Cairo, Cairo, Egypt Ziyādāt *Literature: An Early Form of Commentary in the Arabic Euclidean Tradition* 

The use of  $ziy\bar{a}d\bar{a}t$  (additions of propositions) is one of several forms that commentary on the medieval Arabic Euclidean corpus could assume. Like many genres of Euclidean commentary, its boundaries are not sharply and clearly delineated. Sometimes these additions occur individually, at other times they occur in blocks, almost as a separate sub-unit in the Euclidean tradition. These propositions are usually introduced either to fill a perceived logical lacuna in the Euclidean text or to complete a topic that Euclid did not, apparently, judge to be essential to his mathematical argument. For purposes of this paper, I shall confine myself to blocks of propositions which were specifically identified as additions. The best-known  $ziy\bar{a}d\bar{a}t$  are those ascribed to al-Jawharī (fl. 3rd century AH / AD 9th century) and to Abū Sahl al-Qūhī (fl. early 4th century AH / AD 10th century). This paper uses these early  $ziy\bar{a}d\bar{a}t$ , along with a block of newly analyzed propositions added to Book VI by al-Anṭākī (died 376 AH / AD 987) in his now incomplete Arabic commentary on the *Elements*, to introduce the general characteristics of  $ziy\bar{a}d\bar{a}t$  literature. I argue that these  $ziy\bar{a}d\bar{a}t$ , although one of the less studied forms of Euclidean commentary in Arabic tradition, offer insight into the concerns of early Islamic mathematicians as they encounter the Euclidean corpus.