Studi Arkeoastronomi: Kesegarisan Candi-Candi di Jawa Tengah dengan Objek Langit

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Abstract

Arkeoastronomi merupakan ilmu yang mempelajari pengetahuan manusia jaman dahulu tentang benda langit melalui peninggalan artefak, bangunan, dan budaya. Salah satu praktek arkeoastronomi adalah menjelaskan kesegarisan bangunan dengan posisi benda langit. Beberapa penelitian telah membuktikan bahwa candi di Jawa tengah, seperti candi Prambanan, Borobudur, Kalasan, Sewu, dan Pawon memiliki kesegarisan dengan objek yang ada di langit (Matahari dan/atau Bulan). Dalam Tugas Akhir ini, dicari kesegarisan candi-candi yang ada di Jawa Tengah dengan cara menghitung deklinasi dari arah hadap candi. Dari perhitungan deklinasi candi pada nilai ketinggian horison untuk objek langit saat terbit dan/atau terbenam didapatkan 12 dari 32 deklinasi candi di Jawa Tengah memiliki kesegarisan dengan equinox, winter solstice dan zenith passage Matahari. Selain itu, kemungkinan kesegarisan dicari dengan melakukan perhitungan deklinasi arah hadap candi pada berbagai ketinggian (0 derajat-90 derajat). Berdasarkan hasil tersebut, 6 dari 20 candi yang ada di Jawa Tengah pada ketinggian hampir zenith passage memiliki kesegarisan dengan Matahari.

Keywords: arkeoastronomi, candi, orientasi, kesegarisan

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