THERMOLUMINESCENCE DATING - THE BRICK OF THE ANCIENT MADURU OYA DAM

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An ancient earthen bund containing a high level sluice structure was accidentally uncovered during the work on the modern dam site of the Maduru Oya. The Archaeological Survey conducted by the Canadian International Development Agency and the Mahaweli Authority of Sri Lanka revealed that the dam would have been constructed in two different stages. Carbonized wood extracted under the extreme northern end of the wing wall submitted to Beta Analytical Inc gave a date of 540^{+} 62 A.D. These results show that the first stage of the sluice was built for an unknown length of time prior to 540 A.D., while the second stage of the sluice was built for an unknown length of time after 540 A.D. According to Jayawardene the dam may have been built by King Mahasen (275-301 A.D.) and would have been restored later by King Vijayabahu (1055 - 1110 A.D.). The Thermoluminescence Dating carried out on three bricks gave the following ages :-

S 27 (Flat)	249 $\pm$ 87
S 28 (Large)	E85 $\pm$ 84
S 29 (Flat)	567 $\pm$ 86

These results indicate that the construction of the dam would have been originally done during the 3rd century and the second phase of construction in the 6th century A.D.

References

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