

Shadows and Light – Using Reflective Transformation Imaging to examine historical graffiti at ancient monuments.

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Where ever man goes he seeks to leave his mark, this is nowhere more evident than at pre-historical stone monuments. Given the nature of these monuments the markings remain, but like the 'trunkless legs of stone' in Shelly's poem, their creator is long forgotten. As time passes, so too does the stone wear, and the markings fade taking with them a part of the story of the monument on which they were etched.

This paper will discuss the use of Reflective Transformation Imaging (RTI), a digital camera based method for recording the surface texture of objects, through the manipulation of light. Using this methodology it is possible reveal hidden details inscribed on stone carvings. The discussion will highlight the success of the RTI method in recording minute details on rock surfaces, and discuss the use of simulated RTI using digital 3D models to repeat the process. The paper will outline the multiple possibilities for the examination of stone objects provided by the RTI method, ranging from the examination of petroglyphs to deciphering of faded gravestones. The key focus of the paper is the identification of historical graffiti using the RTI method, and the stories behind these markings.

The paper will focus on monuments in the Rathcroghan and Carnfree complex in Co. Roscommon, Ireland. While not as prominent as Tara, or Newgrange, this sites has long attracted antiquarian interest and among the historical graffiti left behind is the suggestion of a visit by Douglas Hyde, first president of Ireland.