

Bundit Pradabsook, Pol.Lt.Col. 2012: Guideline to Eco-investigation for Proving the Damages of Cultural Environment on Aesthetic Values : A Case Study of the Historic City of Phra Nakhon Si Ayutthaya Phra Nakhon Si Ayutthaya Province.

Doctor of Philosophy (Environmental Science), Major Field: Environmental Science, College of Environment. Thesis Advisor: Professor Kasem Chunkao, Ph.D. 130 pages.

The objective of this research is to design the guideline of eco-investigation in cultural environment to provide the damage of aesthetic values in cultural environment at the city of Phanakorn Sriayudhya, Phanakorn Sriayudhya province.

The guideline of eco-investigation is the integration among the principles of environmental science, archaeology, art, psychology and law by using systematical approach in order to gain eco-investigation. The result showed that there are 7 steps of eco-investigation including 1) Notification 2) Primary Crime Scene Investigation 3) Equipment Preparation 4) Take a Photograph 5) Photo Analysis 6) Prove the Quantity 7) Conclusion and Presentation of Evidence

The elements of beauty consisting of size, form, contrast, intensity, color and texture were used to design the mathematic model for calculating the damage of aesthetic value and the criteria for determining the damage magnitude of aesthetic value

$$DI = \frac{SAI}{SCI} + (1 - |FCI - FAI|) + \frac{|LCI - LAI|}{255} + \frac{\Delta EI}{100} + \frac{|TCI - TAI|}{128}$$

The results showed that the guideline of eco-investigation can be used to find the magnitude of the damages of aesthetic values by quantitative and the magnitude is not exceeded than 1.38.

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Thesis Advisor's signature

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