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Irradiation Passport for Art (IPA)

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This talk zooms in on a project that has recently been executed in the Netherlands, and that now continues developing in an international context (within a European project, IPERION HS).

As is well known, exposure to radiation is of a cumulative nature. This fact is important for everyone involved in cultural heritage research and treatment, as this means that previous exposure of objects or environments may change the sensitivity of objects or research samples in future examinations, or may even alter the material characteristics if certain thresholds are surpassed. This makes it important for the cultural heritage field to record and document the exposure of art objects as well as research samples to irradiation. This idea is the starting point of the project presented in this talk, which introduces what we call the Irradiation Passport for Art (IPA), a database in which can be recorded the location, total exposure and circumstances of use of radiation. With such a passport, the field can work towards safer and more controlled use of radiation for the examination and treatment of cultural heritage. The passport can be used for research into the long-term effects of irradiation of objects of art. The information on earlier exposures is crucial for the selection of future areas of investigation and prevents double exposure. Finally, when a restoration treatment is planned it is of importance to know if and where an object was irradiated. The IPA project is led by conservation scientists, a physical chemist and a conservator and has the support of an international team with different irradiation expertise, in which important synchrotron-institutes and research institutes involved in research in cultural heritage are represented. The IPA database has been developed as a password-protected website that institutes can register for, which holds information on the exposure, all the relevant parameters that were used during the measurement and information on changes if they occurred. We hope that putting the information in the website will become part of the regular documentation process. The website is meant to be used by conservation scientists and conservators. It will not hold the actual data, this stays with the partner institutes that have uploaded the parameters. Partners can contact each other if they wish to have detailed information and would like to request examination results to be shared.

Primary author: Ms JOOSTEN, Ineke (Netherlands Institute for Cultural Heritage, Netherlands)

Co-authors: Ms STOLS-WITLOX, Maartje (University of Amsterdam); Ms TROMP, Moniek (University of Groningen); Ms KEUNE, Katrien (Rijksmuseum)

Presenter: Ms JOOSTEN, Ineke (Netherlands Institute for Cultural Heritage, Netherlands)

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