



# *Hybrid : 3D Interaction with Virtual Environments using Body and Mind*

*Inria Rennes Bretagne Atlantique - IRISA*

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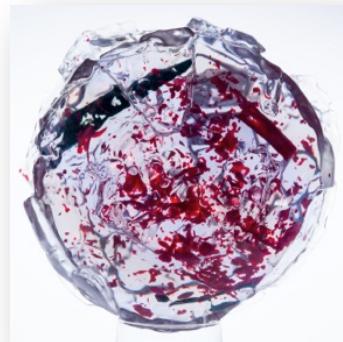
# Impressions 3D

Impressions 3D basées sur de la timodensitométrie (scan rayons X)

## Impressions en transparence



[T. Nicolas, R. Gaugne, V. Gouranton, Physical Digital Access Inside Archaeological Material, ERCIM News, Special Theme: Digital Humanities, Number 111, October 2017]



[T. Nicolas, R. Gaugne, C. Tavernier, V. Gouranton, B. Arnaldi. *Internal 3D Printing of Intricate Structures*. 6th International Conference on Culturage Heritage – EuroMed 2016, Lecture Notes in Computer Science, 10058 (Part I), pp. 432-441, Oct 2016]

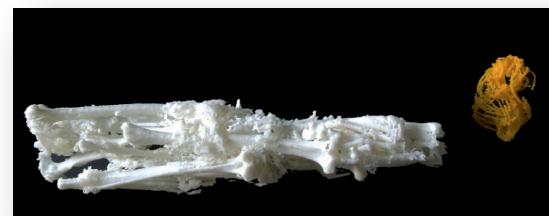
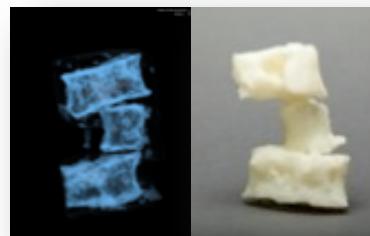


[T. Nicolas, R. Gaugne, C. Tavernier, E. Milliet, R. Bernadet, V. Gouranton. *Lift the veil of the block samples from the Warcq chariot burials*. Digital Heritage Congress– IEEE 2018]

## Impressions d'éléments internes



{T. Nicolas, R. Gaugne, C. Tavernier, Q. Petit, V. Gouranton, B. Arnaldi. Touching and interacting with inaccessible cultural heritage. *Presence: Teleoperators and Virtual Environments*, Massachusetts Institute of Technology Press (MIT Press), 2015, 24 (3).}



[R. Gaugne, S. Porcier, T. Nicolas, O. Hays, F. Coulon, V. Gouranton. A digital introspection of a mummy cat. *Digital Heritage Congress– IEEE 2018*

# Réalité virtuelle

## Navigation sur un navire du 18<sup>e</sup> siècle – Visite de l'histoire de la musique

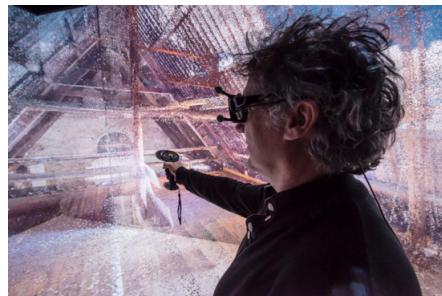


J.-B. Barreau, F. Nouviale, R. Gaugne, Y. Bernard, S. Llinares, V. Gouranton. An Immersive Virtual Sailing on the 18 th -Century Ship Le Boullongne. *Presence: Teleoperators and Virtual Environments*, Massachusetts Institute of Technology Press (MIT Press), 2015, 24 (3).



R. Gaugne, F. Nouviale, O. Rioual, A. Chirat, K. Gohon, B. Bossis, V. Gouranton, EvoluSon: Walking through an Interactive History of Music *Presence: Teleoperators and Virtual Environments*, Massachusetts Institute of Technology Press (MIT Press), 2018, Special Issue: Virtual and Augmented Reality in Culture and Heritage, 26 (3), pp.281-296.

## Salle du jeu de paume de Rennes – Cairn de Barnenez



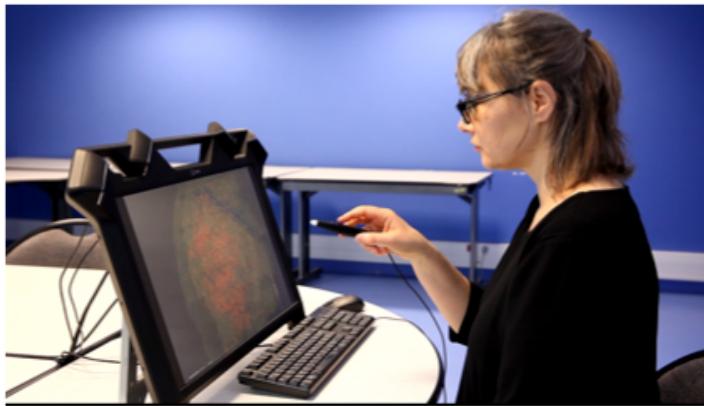
Jean-Baptiste Barreau, Ronan Gaugne, Valérie Gouranton. Immersive Point Cloud Manipulation for Cultural Heritage Documentation, *ERCIM News* 111, Special theme: Digital Humanities, October 2017



R. Gaugne, J.-B. Barreau, F. Cousseau, V. Gouranton. Large-scale immersive reconstitution of a Neolithic corbel dome. International Symposium on Virtual Reality, Archaeology and Cultural Heritage, VAST, Brighton, United Kingdom. pp 1-8, Nov 2012

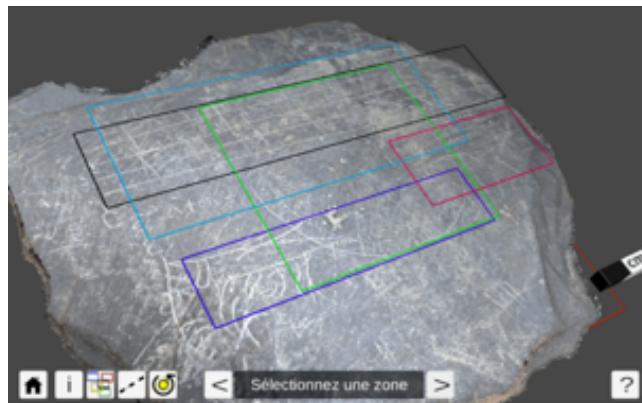
# Interaction 3D

## INSIDE : archéologie virtuelle



F. Lécuyer, V. Gouranton, R. Gaugne, T. Nicolas, G. Marchand, B. Arnaldo INSIDE Interactive and Non-destructive Solution for Introspection in Digital Environments, *Digital Heritage 2018 - 3rd International Congress & Expo, IEEE*, Oct 2018, San Francisco, United States.

## Tablette musicale du couvent des Jacobins



R. Gaugne, F. Labaune, D. Fontaine, G. Le Cloirec, V. Gouranton From the engraved tablet to the digital tablet, history of a fifteenth century music score, *on going redaction*