

**From a calm puddle to a stormy ocean - Rendering water in *Uncharted***

Carlos Gonzalez-Ochoa

Eben Cook

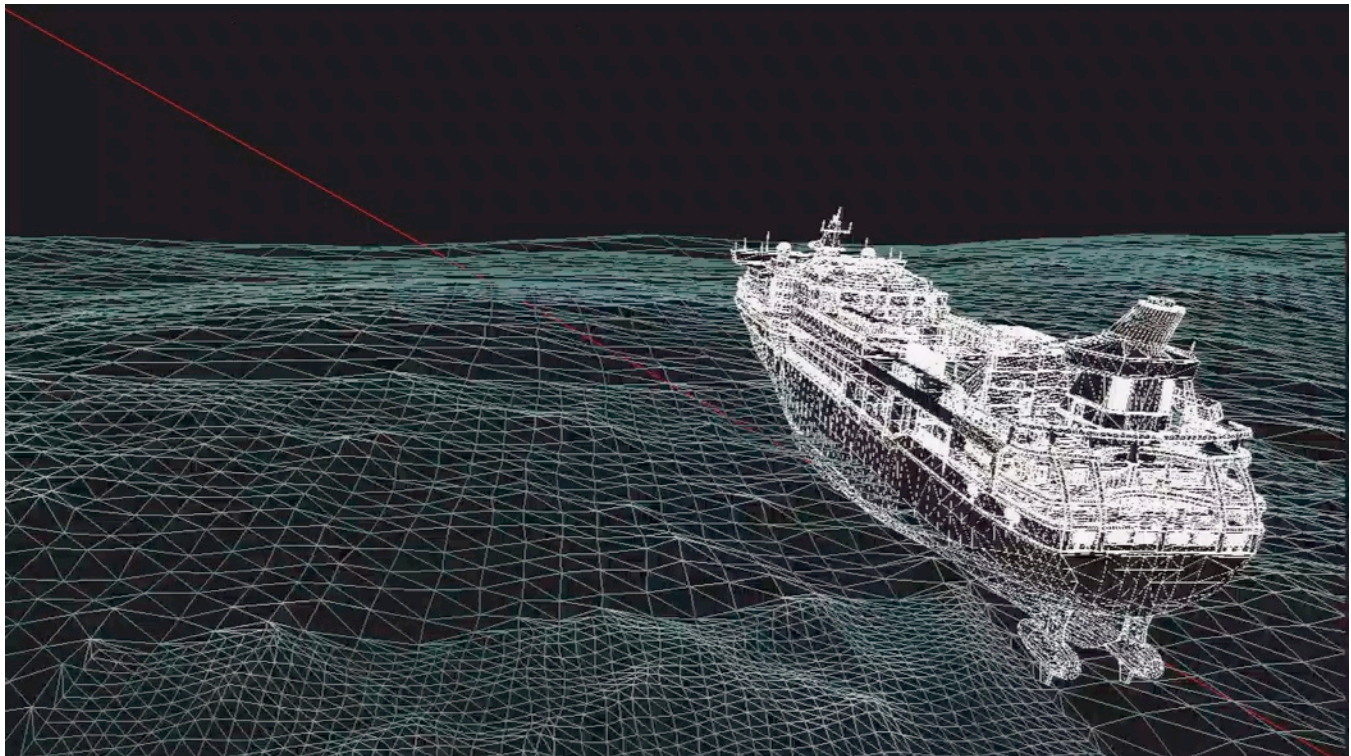
Doug Holder

Naughty Dog, Inc.

**Additional Material**



**Uncharted 3: Drake's Deception - The cruise-ship level**



**Uncharted 3: Drake's Deception - The cruise-ship level**  
The progressive levels of the clipmap are apparent in a wireframe view

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**Uncharted 3: Drake's Deception - The cruise-ship level**



**Uncharted 3: Drake's Deception - Ship graveyard level**  
The barges and the boat are moved by the waves

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**Uncharted: Drake's Deception- The hallway flood**



**Uncharted: Drake's Fortune - River level**

The mesh is displaced and the effects of refraction, reflection, foam and churn are used in the shader