

氏名： Toque Jay Arre Oliveros

専攻・学年： Postdoctoral fellow, Dept. of Mechanical Engineering and Science

機械理工学専攻・研究員（工学博士）

派遣国： 英国

派遣先（研究機関名）： University of East London

受入研究者（職・氏名）： Professor Haim Bresheeth

派遣期間： 2011年1月22日 ～ 2011年3月12日（50日間）

派遣先での研究テーマ： ヨーロッパ文化財の高精細分析イメージングに関する研究

(Application of High-Resolution Scanning for Analytical Imaging of European Cultural Heritage)

#### 【研究実施概要】

Digitization of cultural heritage was carried out at the Science Museum Library and Archives at Wroughton. One of the Science Museum's unique archives, not seen by the public, and only rarely seen by researchers, is the Ship Rolls collection, bringing together 148 ship designs, each roll including between 5 and 10 individual designs. As these Rolls are very long (up to 3 metres) and are rolled together, they are very difficult to display or study.

The other unique item digitized is the Panorama lithograph of the Great Exhibition in 1851, originally published by The Illustrated London News. The piece is a roll 6.3m long, and is in a fragile state, making frequent viewing of it impossible.

#### 【研究成果概要】

As a pilot project, our research team has scanned the designs of the Great Eastern ship, (Inventory Number 1861-26/1-7); Archival Reference MSR128/1-7) a famous 19th century ship which laid the first telegraph cable across the Atlantic. These drawings, although part of the Ships Rolls, were flattened in the past but are nonetheless of such a large format that they remain difficult to display or study. We have managed to scan 6 out of the 7 extant designs at high resolution - the seventh is currently on display at the Science Museum in London in the Making the Modern World Gallery.

On the other hand, the digitization of the Great Exhibition Panorama would be the first High Resolution archived date of it which will be of value to the public and researchers alike. It is to be displayed on the Science Museum Library and Archives site in due course.

The objects that were scanned, especially the Great Eastern ship design, is not only of high cultural importance but also of great engineering value. The ship's design provides a historical documentation of the early advances in modern ship building. The digital archive collected from the project could provide engineers and researchers an insight to how ships were designed during those days. Since the images are of ultrahigh resolution, it contains details which are not readily visible to the naked eye. The result of this scanning project could have a positive impact not only for the ship building in the UK but as well as Japan, Korea and the rest of the world.

**【外国語のスキルアップ・コミュニケーション能力の向上, 海外におけるネットワークづくり】**

Since the country of my research destination is a major English-speaking nation, my command of the English language has significantly improved and my level and skills have increased. In addition, London is very strategically located which could be a good gateway to Europe for widening my network of international contacts.

**【派遣の感想】**

In my opinion, this program is very helpful in helping young researchers be exposed to international collaboration. It also provides a venue not only for academic exchange but also cross-cultural exposure. It also helped me gauge the level of my technical and research skills compared to other universities outside of Japan. If given the opportunity, I would like to be involved in this project again and I would also recommend this program for other budding researchers.