Introduction

Towards the end of the Summer of 2011, a small team led by Dr Trifilò carried out a survey of all surviving game boards carved on the surfaces of the buildings of the Forum Romanum in Rome. The project forms part of Dr Trifilò’s short and long term research strategy, focusing on the methods for recording trace-archaeology, the study of informal space in Antiquity, and the potential offered by gaming of describing key aspects of Roman society and culture.

A survey of carved markings on the site published in the 1900s had outlined that up to one hundred of them, most of which game boards, survived on the surfaces of the forum. However, with the notable exception of fourteen examples, none of these were recorded in any detail. While the presence of these artefacts is known to be widespread across the Roman world, no single site appears to contain more than the Forum Romanum. The possibility of surveying all of these game boards offered the chance to acquire a detailed record of all of them, and thus gain substantial new information on the practice of gaming in Roman public space. The result has far exceeded our expectations and will provide a significant boost to the study of gaming in Antiquity which is gaining increasing popularity among archaeologists and historians alike.

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The Method

The team was composed of Dr Trifilò, Research Associate at the University of Kent, and Mr Lloyd Bosworth, an expert on CAD, GIS, and Imaging at the University of Kent. The survey was carried out by utilising a new methodology aimed at maximizing the effectiveness of a short stay on site with a very small operating team. This consisted of using the method of traditional triangulation applied to
long-distance measurements. The measurements were made by using a LEICA Disto D5 distance-meter, capable of measurements of up to 200 metres with an error of 1 millimetre. The instrument detects and corrects errors produced by measurements made at an angle of up to 45° and is built to be used outdoors. Use of the distance meter was aided by a photographic tripod (Fig.1). The distance meter was initially used to construct a site polygonal (closed traverse) of the key monuments on the site. This was necessary to compensate the lack of a suitably accurate site plan for the project.

Following the creation of the polygon, surveying began in earnest. We calculated an average of ten game boards per day would allow us to achieve our aim of completing a site survey and to check for any errors.

The survey was carried out by taking two measurements from the centre of each game board to the nearest corners of two large monuments in the immediate vicinity (for the Basilica Iulia these mainly consisted of the large bases located along the Sacra Via). Then we would take a photograph of each game board, and record its location, properties and key measurements (including a sketch) on a purposely designed object-sheet.
After the survey, data were elaborated through CAD software, which was used to transfer on-site measurements onto a new plan of the Forum Romanum drawn from different reference plans, including aerial photography. The resulting data were transferred onto Google Earth, as a KMZ file (Fig.2) and onto a vector plan of the forum which was re-elaborated through Adobe Illustrator. Location points on this plan were then replaced with high-resolution photographs of each surveyed game board, allowing for the games to be studied at any resolution, down to details of 0.5 centimetres, without loss of image quality.

Fig.2 Location of the surveyed game boards on Google Earth (the knife and fork indicate the site-base)

**The Fieldwork**

Work in the field took place during a period of two weeks in the month of August 2011.

The first day was devoted to preparing the site for our work by rapidly assessing the survival of game boards and the buildings to use for our measurements. The length of the project and our site permissions did not allow us to remove grasses. These, however, were a minor problem. The major
problem was site-preservation. It is clear that since the earliest surveys (first records of these artefacts date back to 1877) much pavement has been damaged and many carvings (gladiator graffiti, one worded game board) lost forever. Furthermore, the Arch of Septimius Severus could not be visited because of danger of collapses, and the floor of the Basilica Aemilia could not be surveyed because currently covered with protective material.

Overall we were able to record seventy seven game boards, located mainly on the surface of the Basilica Iulia (Fig. 3). A few of these have revealed characteristics that have never been recorded before, while others are distinguished by their size, location, and internal workings, both as single artefacts and as meaningful clusters. There is a clear spatial distinction, for example, between game board types, spatial clustering, carving technique, and game-dimensions. Also, in the case of the game-type commonly known as *merels* there would appear to be characteristics that differentiate the appearance of this game in the

![Fig. 3 Example of a game board recorded in the Basilica Iulia](image)

Forum. One factor which is crucial for the importance of this collection is that thanks to a combination of related artefacts, symbols, and letters, it may be possible to determine their date with some precision. Overall, the quality and number of recorded game boards confirms that this is one of the most important collections of gaming-related artefacts ever recorded in a Roman context.
Dissemination and further research

Both methodology and interpretation are part of the plans to publish the project. The adopted method and a preliminary site report will be published as articles on specialised journals. The dataset is of sufficient quality to warrant publication as a single volume. Work on all is starting now that the digital elaboration of the data has been completed. Finally, this dataset is already being used for the design of a larger research project aimed at exploring the nature and wider implications of the apparent explosion of gaming in the cities of Late Antiquity.

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