The new bilingual photomap of Itokawa

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Introduction

A new – first – bilingual photomap of the asteroid 25143 Itokawa (Fig. 1) has been published by the cooperation of Eötvös University, Hungary, Okayama University of Science, Okayama, as part of the Multilingual Planetary Map Series initiated by the Planetary Cartography Commission of the International Cartographic Association (ICA) [1].

Multilingual Planetary Maps

Multilingual planetary maps are important for local(ized) distribution of planetary data: images, data, text. Their audience is mainly university students, amateur astronomers, the general public. Multilingual planetary maps published so far used data from NASA missions; used the place names approved by the Working Group for Planetary System Nomenclature of the International Astronomical Union (IAU WGPSN) and used English or Russian texts translated to a local European language. The Map of Itokawa is a first, and probably not last, which has a different approach. It shows the results of the first planetary mission where discoveries were made by a Japanese space probe (Hayabusa) and names were given by Japanese scientists, partly in Japanese, and partly in English language. IAS WGSPN has not approved all names but three. Even these names were chaged to fit the rules of Planetary Nomenclature. It is also a difference that all JAXA images are copyrighted, while NASA planetary images are on the public domain.

The Itokawa Nomenclature

The original full Itokawa nomeclature [2] uses three categories: region names (10), boulder names (9) and crater names (2). Most names have a descriptor term in English, while IAU rules state that descriptor terms should be in Latin (or descriptors might not be part of the name in the original).

Muses Sea refers to MUSES-C, the pre-launch name of Hayabusa also to the smoothness of the named surface; it is also mentionned as Muses Sea Planitia; Little Woomera (Region) [2] was later changed to Woomera Desert Basin [3] and to Woomera Desert. Uchinoura Bay is a third variant of descriptor terms. Although Bay and Sea is used in Latin (Sinus and Mare) but in this false meaning excusively on the Moon (in true meaning on Titan); Desert is not used. IAU WGPSN approved three names as Muses Sea Regio, Uchinoura Regio, and Sagamihara Regio. All other names are not officially approved but used in various publications.

Sources of names

Most names on Itokawa are taken from the addresses (city/neighbourhood names) of places related to the Hayabusa mission or JAXA. Some names are given in English and transliterated – not translated – to Japanese: the North Vertex, the Black Boulder which marks the 0 degree longitude and Pencil, a Japanese rocket name from 1955. Some names have no Japanese translation or transcription: they are excusively displayed using the Roman alphabet: such are location names in the USA (Hilo, Mountainwiev (sic!), and M-V, which is in fact “Mu-Five”, the name of launch vehicle of Hayabusa.

Other specialities

Itokawa is also split to three sections: Head, Neck and Body, related to its irregular, but two-part shape. It has a western and eastern side, and also a bodyward and headward side (centered 0 deg lon).

North is where North Vertex is on the top; Muses Sea is on the southern “polar region”.

Conclusions

The English-Japanese map of Itokawa shows an irregular planetary body with special naming conventions. Names are displayed in both Japanese and English (Roman) letters. This is the first time that planetary names are given directly by an Asian culture which does not fit the “classic European” based planetary nomenclature traditions. IAU only accepted three names and changed them. One of the most interesting question is if the Japanese original or the Roman transliteration is the “original form” of these names.

Acknowledgement

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References

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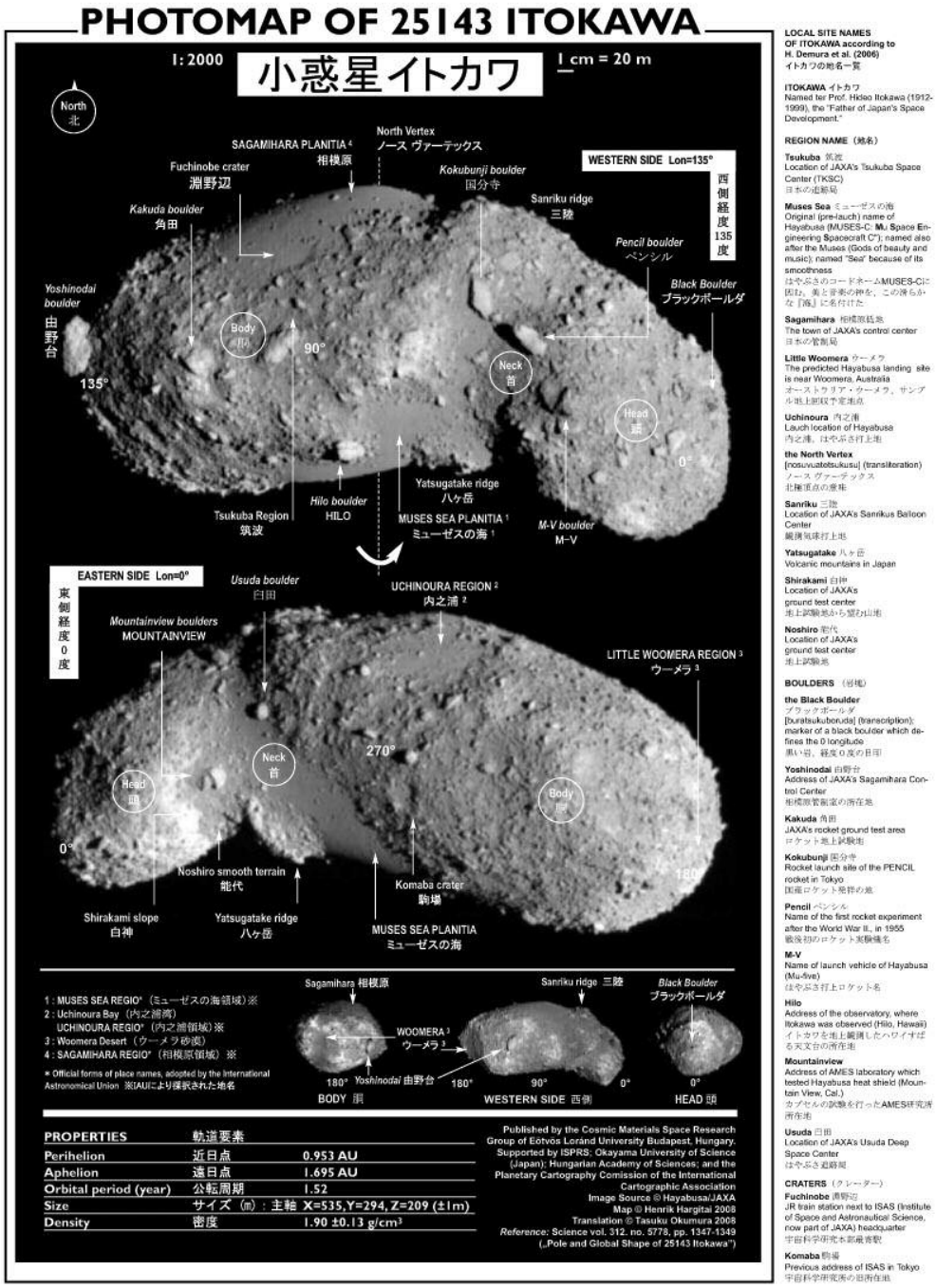

Fig. 1 Preprint of the bilingual map of Itokawa