

Vietnam Volcanic Cave Survey Project Report

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Abstract:

From December 2013 to January 2015, the joint team of the Geological Museum of Vietnam belonging to the General Department of Geology and Minerals and NPO Vulcano-Speleological Society of Japan carried out a survey for volcanic caves in the lava flowed from the Chu'B'luk Volcano located in the central Vietnam plateau in Dak Nong Province, Krongno District^{1,2}) (Photo1-Photo7).

As a result of the survey, the joint team explored 18 lava tube caves, among which the measured total length of the caves C2, C3, C4, C6, C61, C7, C8, C9 and A1 is 4832.5 m (Fig1-Fig9). The longest lava tube cave found is C7 which has a total length of 1066.5 m. The second longest cave is 967.8m of C3+C4 lava tube cave. The third longest cave is 791.0m of C8 lava tube cave. The sixth longest cave is 475.5m of C0 lava tube cave. The seventh longest cave of A1 lava tube cave has a length of 438m. The eighth longest cave of C2 lava tube cave has a length of 402.2m.

So far the longest lava tube caves known from South East Asia since then was Hang Doi 1+2 Km 122 cave (549m) and Hang Doi 1+2 Km 123 cave (495m) discovered by a team of speleologists from the German Speleoclub Berlin and members of the Vietnam Academy of Sciences (Institute for Tropical Biology) in the Tan Phu area of Dong Nai Province^{3,4}).

Consequently, Hang Doi 1+2 Km 122 and Hang Doi 1+2 Km 123 cave is fourth and fifth longest lava tube cave in South East Asia. Then, after C0, A1 and C2, Gua Lawa II cave in Indonesia⁵) will be ninth longest in South East Asia. Vietnam hosts now eight longest lava tube caves in South East Asia. Total integrated length measured as a tube system of lava caves C2~C9 is 4393.8m.

Also, it is worth to mention that the large lava tree mold (Photo8,9) is found on the surface of the inner side wall of C2 and C3 lava tube cave^{1,6}).

Joint team member: Kazutoshi Suzuki, Katsuji Yoshida, Hirofumi Miyashita, Akira Miyazaki,

Yumi Kuroishikawa, Hirohisa Kizaki, Yuriko Chikano, Yukari Yamaguchi, Futa Hirayama, Hoang Thi Bien, Katsuaki Nishikawa, Minoru Shiokawa,

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Photo1 Chu'B'luk Volcano (Photo by Tsutomu Honda)



Photo2 C7 Lava tube cave(Photo by Katsuji Yoshida)



Photo5 Lava stalactite of ChuBluck Volcano of Vietnam,C0 Lava tube cave (Photo by Tsutomu Honda)



Photo3 C3+C4 Lava tube cave(Photo by Katsuji Yoshida)



Photo6 Ribbed wall of ChuBluck Volcano of Vietnam,C3 Lava tube cave (Photo by Tsutomu Honda)



Photo4 C8 Lava tube cave(Photo by Katsuji Yoshida)



Photo7 Ribbed wall of ChuBluck Volcano of Vietnam,B14 Lava tube cave (Photo by Akira Miyazaki)



Photo8 Lava tree mold in C3 Lava cave(Photo by Tsutomu Honda)



Photo9 Lava tree mold in C2 Lava cave(Photo by Hiroshi Tachihara)

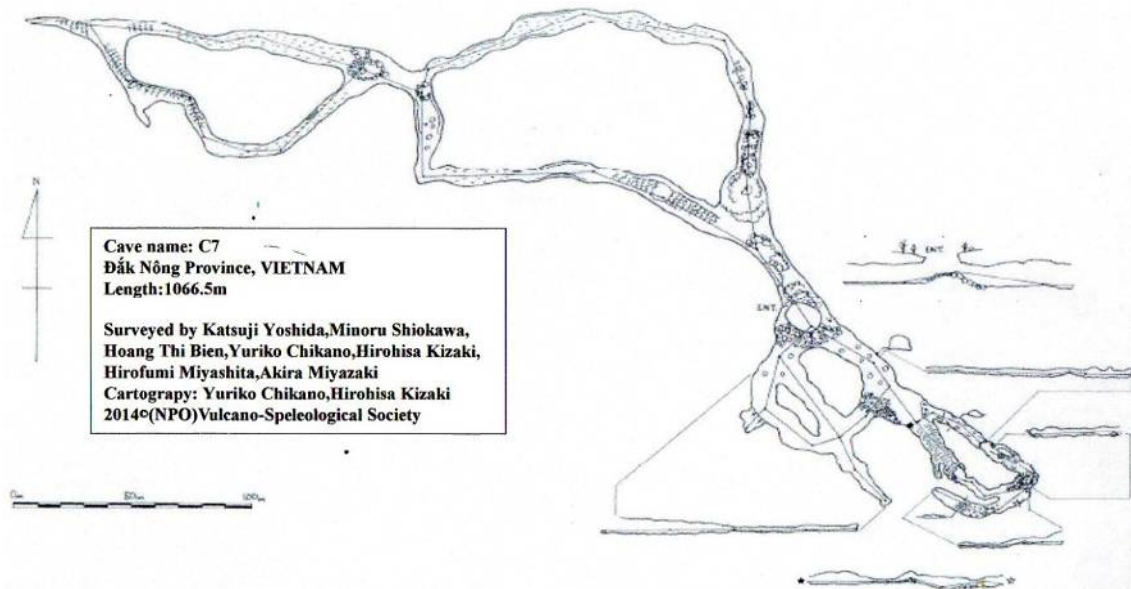


Fig1 Topography of C7 Lava Tube Cave

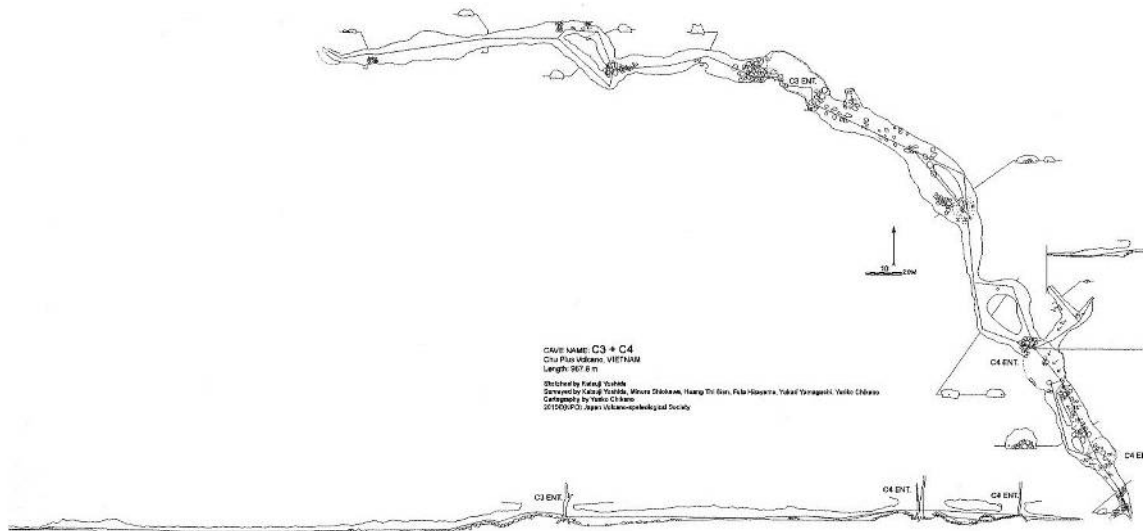
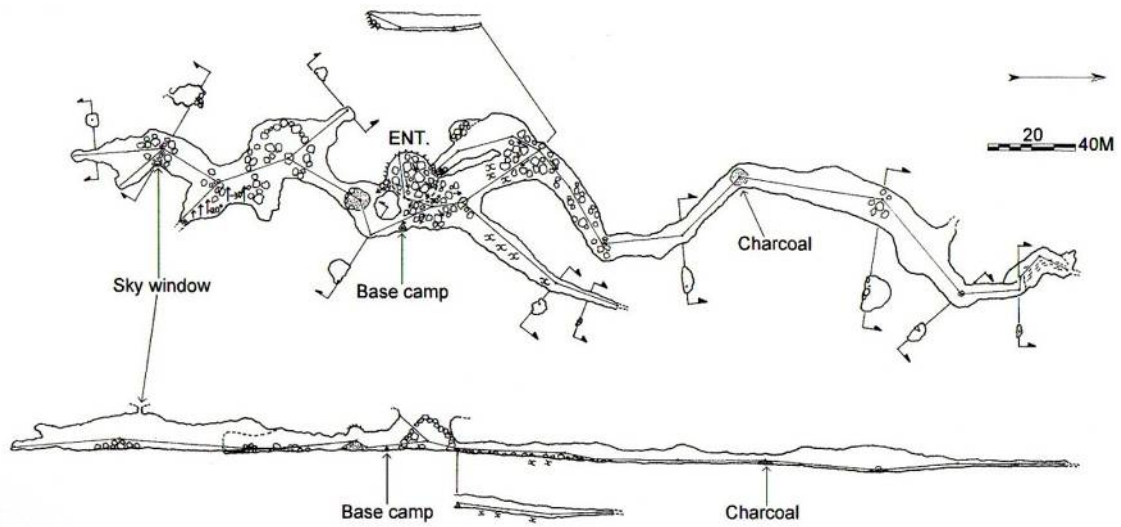


Fig2 Topography of C3+C4 Lava Tube Cave



CAVE NAME: C8
 Chu Plus Volcano, VIETNAM
 Length: 791 m Depth: 23.8 m

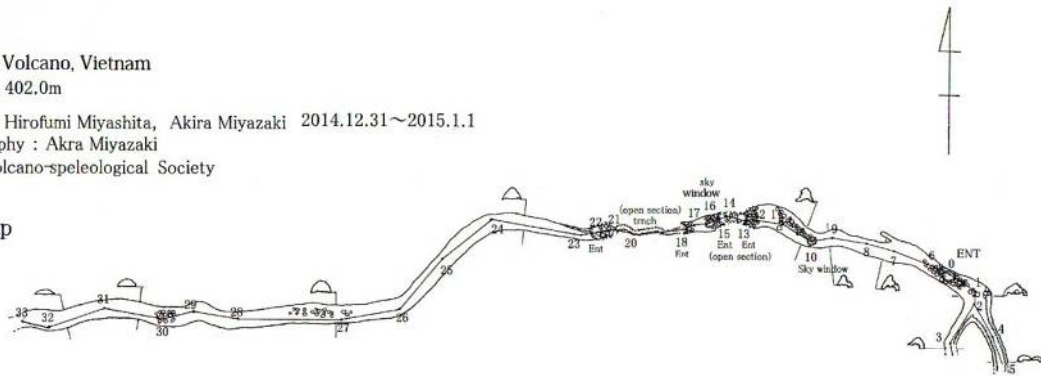
Sketched by Katsuji Yoshida
 Surveyed by Katsuji Yoshida, Futa Hirayama, Yukari Yamaguchi, Yuriko Chikano
 Cartography by Yuriko Chikano
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Fig3 Topography of C8 Lava Tube Cave

C2
 Ch Pluk Volcano, Vietnam
 length : 402.0m

survey : Hirofumi Miyashita, Akira Miyazaki 2014.12.31~2015.1.1
 cartography : Akira Miyazaki
 Japan Volcano-speleological Society

plan map



cross section

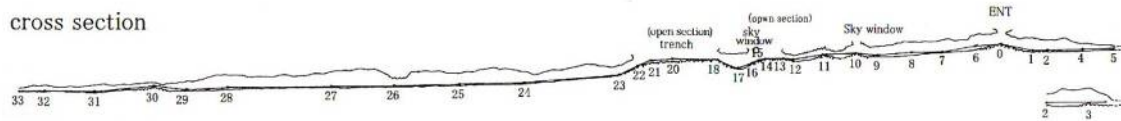
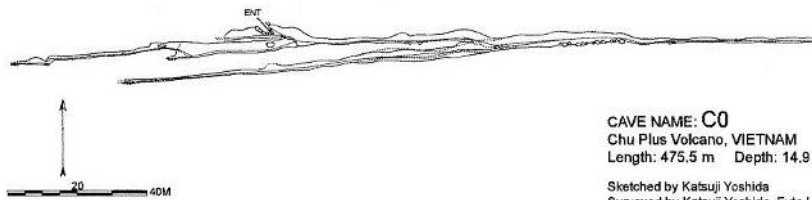
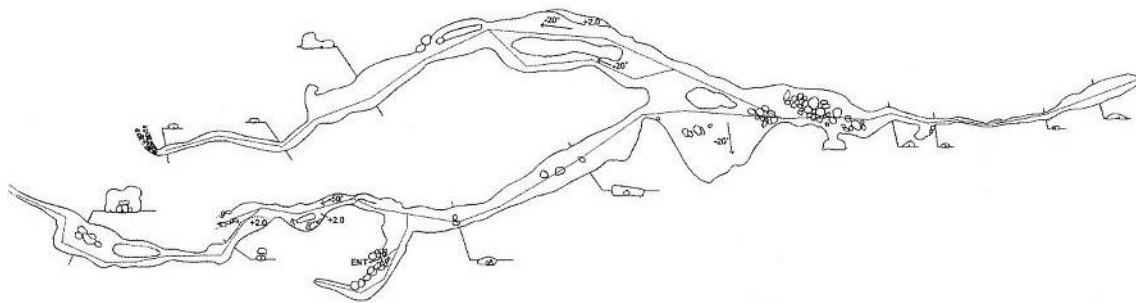


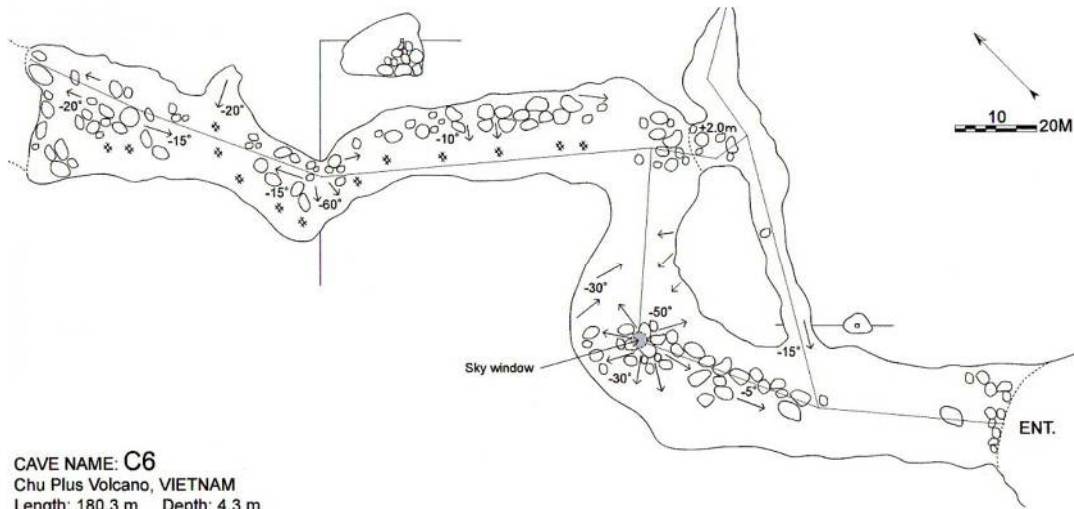
Fig4 Topography of C2 Lava Tube Cave



CAVE NAME: C0
 Chu Plus Volcano, VIETNAM
 Length: 475.5 m Depth: 14.9 m

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 Cartography by Yuriko Chikan
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Fig5 Topography of C0 Lava Tube Cave



CAVE NAME: C6
 Chu Plus Volcano, VIETNAM
 Length: 180.3 m Depth: 4.3 m

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 Cartography by Yuriko Chikano
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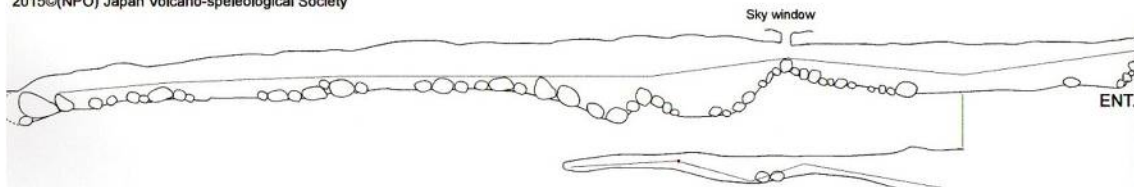
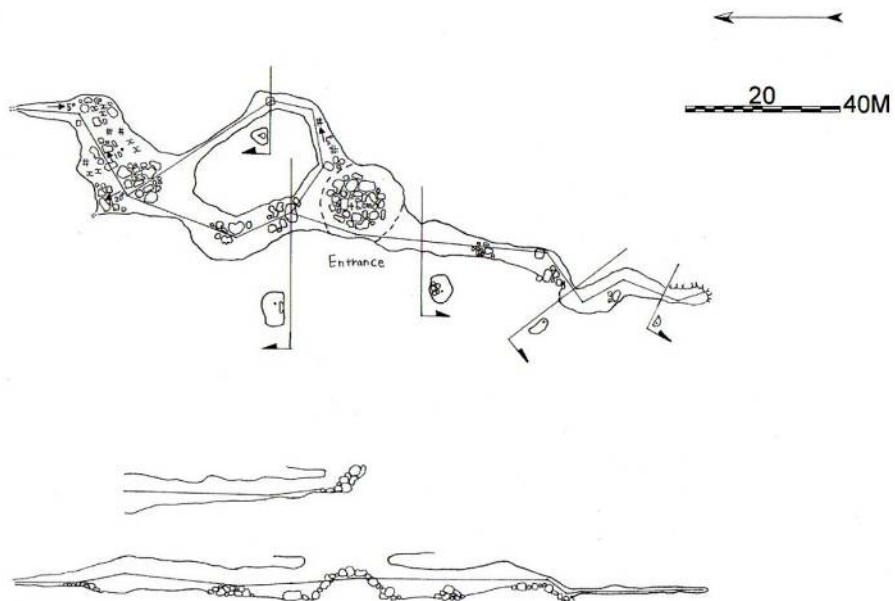


Fig6 Topography of C6 Lava Tube Cave



CAVE NAME: C61
 Chu Plus Volcano, VIETNAM
 Length: 293.7 m Depth: 4.6 m

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 Surveyed by Katsuji Yoshida, Futa Hirayama, Yuriko Chikano, Yukari Yamaguchi
 Cartography by Yukari Yamaguchi
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Fig7 Topography of C61 Lava Tube Cave

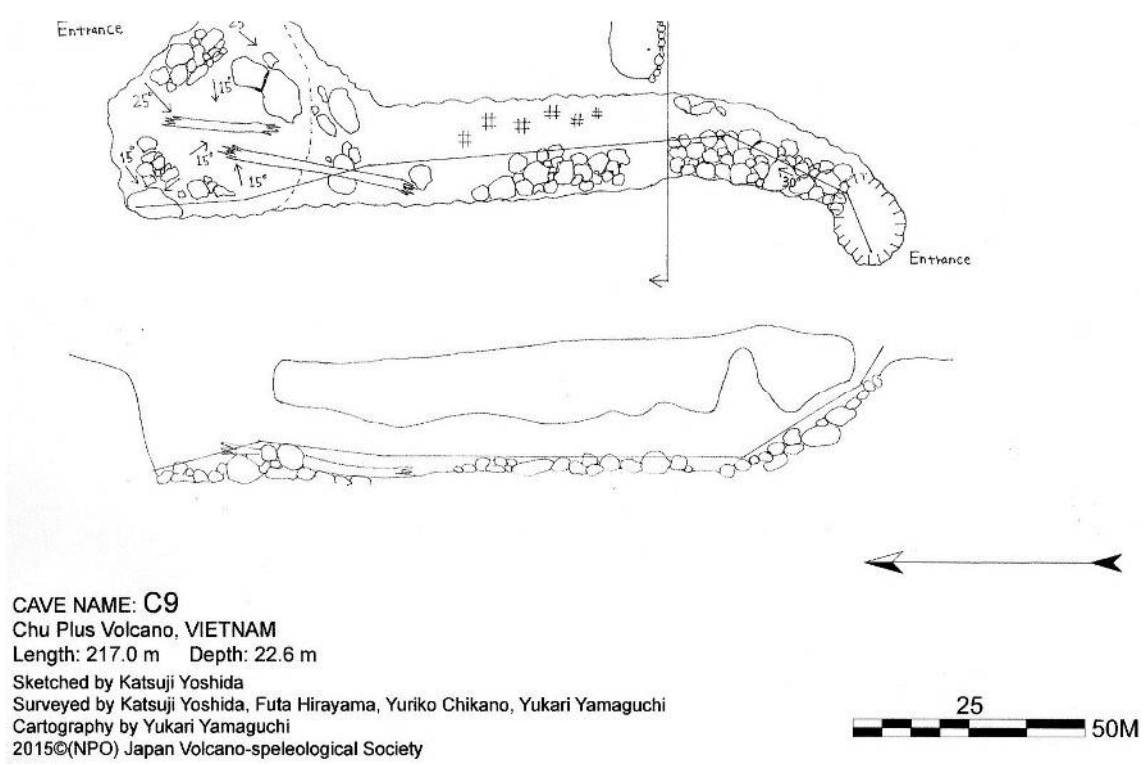


Fig8 Topography of C9 Lava Tube Cave

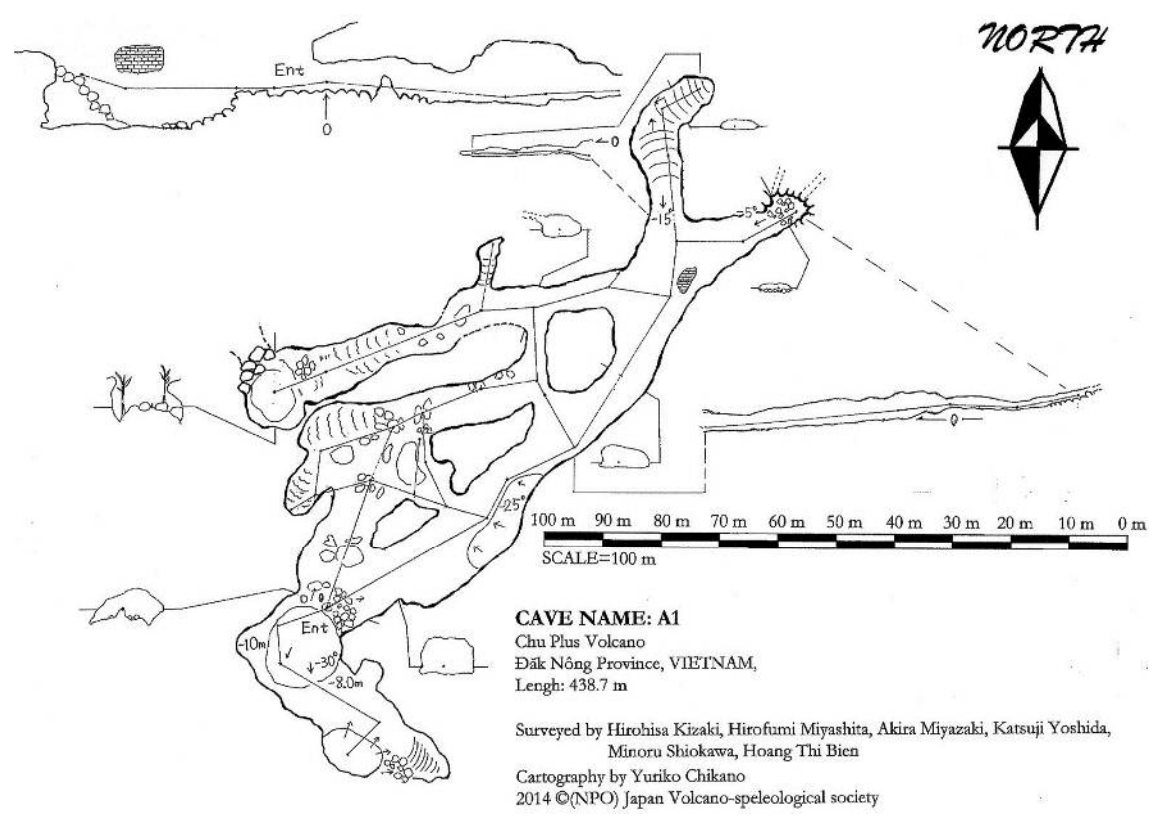


Fig9 Topography of A1 Lava Tube Cave