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紀伊山地のハザードと文化

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国際地理学連合 2013 京都会議の野外巡検の一つ COMLAMD 2013 Field Trip to Kii Peninsula, Japan を KII PENINSULA: Natural Hazards and UNESCO Cultural Heritages と題して，July 31 - August 3, 2013 の 3 泊 4 日の日程で，海外から 14 名，合計 19 名の参加を得て実施した。

巡検の目的と内容は以下のようであった。

Outer Belt of Southwest Japan consists of mountain ranges newly made up as accretionary prisms which have been being kept build since Cretaceous period due to accretion of sediments underneath the edge of a continental plate by subduction of a sea plate, nowadays Eurasian Plate by Philippine Sea Plate. Kii Peninsula is located south of Kyoto and in one of these mountain ranges.

Uplift rate of the mountain range reaches 0.3 m by last 10 decades. Large amount of rain falls due to the elevated mountain range. Rainfall onto the southeastern slope of Kii Peninsula often exceeds 4 meters a year. The region is therefore blessed with natural diversity owing to such temperate humid climate as well as suffers from landslides that are induced by heavy rainfall. Slope instability is prepared by various processes. Earthquakes of subduction type contribute to prepare slope instability. Subduction-type earthquake of magnitude 8 repeats periodically with a recurrence of 90 - 150 years. Earthquake of M 9 also may occur with lower frequency. Peoples living in Kii Peninsula often suffer from landslides. Recent marked disasters from landslides occurred in 2011, 1953 and 1889. Some of such slide spots and debris flows as well as management strategies associated will be visited.

The trails called as Kumano Kodo along the mountain ranges have been used for pilgrimage since 11 Century which connect three Kumano Grand Shrines and the Koyasan Complex Temples. All of these shrines, temples and trails for pilgrimage were registered as a UNESCO Cultural Heritage in 2004, some of which will be visited.

During a trip we will also visit various land-use spots along the mountain range, river and coast, including habitation, agriculture, logging, sand mining, hydro-power plant, hot spa, and so on.

1日目：京都 8 時発。紀伊山地へ。①付加体の混在岩露頭，②2011 年 12 号台風豪雨により河原樋と赤谷，清水で起きた深層崩壊，③谷瀬の吊橋，④明治 22 年高津中山崩壊地すべりダム跡地，⑤十津川村歴史民俗資料館，⑥十津川村泊

2日目：十津川村発。①明治 22 年重里久保谷山崩壊跡地と“大畑瀞”2011 年決壊，②玉置山と玉置神社。白亜紀堆積岩中の枕状熔岩，③大峯奥駆道を歩く，④熊野本宮大社，⑤新宮市歴史民俗資料館，⑥熊野速玉大社，⑦那智勝浦町泊

3日目：那智勝浦町発。①新宮～那智勝浦付近の堆積段丘，②熊野那智大社，③2011 年 12 号台風豪雨で那智勝浦町で起きた表層崩壊と土石流による被災跡地，④那智勝浦から国道 168，311，371 と高野龍神スカイラインを経て高野町へ。紀伊山地の山々を展望，⑤高野山の宿坊泊

4日目：高野山を出発。①金剛峯寺，奥の院，関東大震災供養塔，壇上伽藍，など，②かつらぎ町花園の北寺と金剛寺の 1953 年地すべり跡地，③有田川流域の地形，地すべり地，二川ダム。19 時に京都帰着。

災害と文化，歴史の関わり，表層崩壊，や深層崩壊，地すべりダム，川津波など，ハザードの素因としての地質，地形，植生，誘因としての降雨，地震などについて活発な議論が交わされた。それらについても言及する。