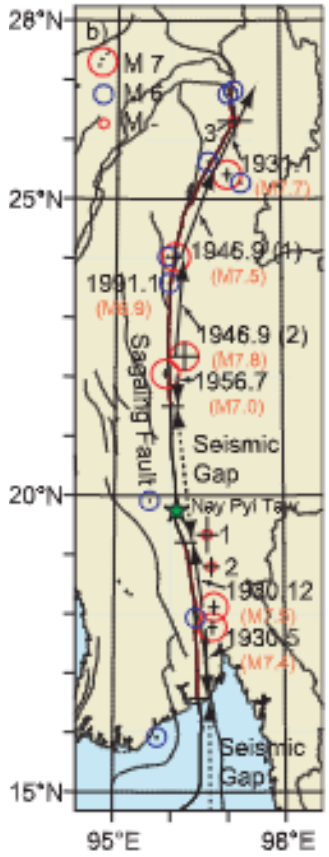


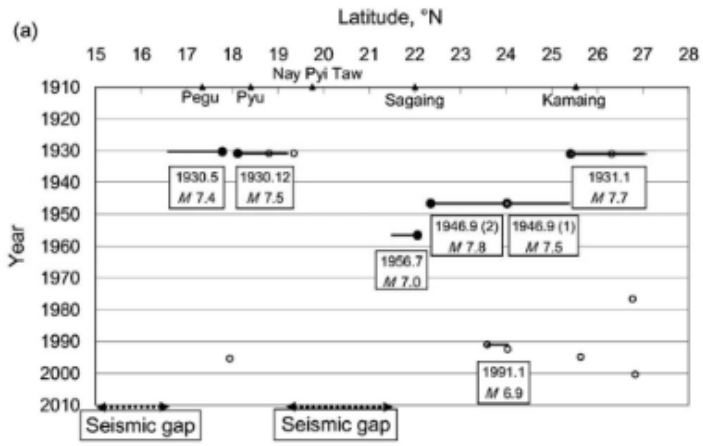


Figure 3. (a) History of earthquakes along the Sagaing Fault. Large solid circles indicate $M \geq 7.0$ earthquakes relocated in this study. Small open circles indicate $M < 7.0$ earthquakes relocated in this study. Horizontal bars represent the extent of the ruptured fault for each earthquake, as estimated from factors such as foreshocks, aftershocks, the distribution of seismic intensities, and displacement. Also shown are seismic gaps (double-headed arrows at the base of the figure) and the locations of towns (triangles at the top of the figure) after which the earthquakes are named, as well as the location of Nay Pyi Taw—the capital of Myanmar. (b) Relationship between magnitude (M) and

tional Seismological Centre) data. (b) Locations of epicenters relocated by the MJHD (Modified Joint Hypocenter Determination) method in this study. Red and blue circles indicate earthquakes before and after 1964. The numbers assigned to each earthquake indicate the year and month of $M \geq 7.0$ earthquakes and of the January 1991 earthquake. Numbers 1 and 2 (not in parentheses) indicate foreshocks of the December 1930 earthquake; number 3 indicates an aftershock of the January 1931 earthquake. Because two earthquakes occurred in September 1946, their sequence is indicated by numbers in parentheses. Large, intermediate, and small open circles indicate earthquakes with $M \geq 7.0$, $M \geq 6.0$, and unknown magnitude, respectively. Red lines in Figure 2b show the fault planes of the $M \geq 7.0$ earthquakes analyzed in this study. Solid arrows indicate the rupture directions of the $M \geq 7.0$ earthquakes. The paired arrows in Figure 2a indicate the sense of movement along the Sagaing Fault. Dotted arrows in Figure 2b indicate seismic gaps. The green star denotes Nay Pyi Taw, a new capital of Myanmar.

4. Seismic Gaps

[16] We identified two seismic gaps along the Sagaing Fault (Figures 2b and 3a). The first exists between 19.2°N and 21.5°N in central Myanmar, with a length of ~260 km, corresponding to M 7.9 according to the M–L relation. Although the M 7.7 Maymyo (Burma) earthquake occurred at ~21°N on 23 May 1912, it occurred along the Kayukkyan Fault, ~80 km east of the Sagaing Fault [*Chhibber*, 1934; *Satyabala*, 2002]. Previous studies on the magnitudes of large shallow earthquakes from 1897 have reported that no other $M \geq 7.0$ earthquake occurred in central Myanmar between 1897 and 1918 [*Abe*, 1981; *Abe and Noguchi*, 1983a, 1983b]. Therefore, at least 113 years has passed since the last earthquake in this seismic gap. The recurrence interval of May 1930-type earthquakes (M 7.4) would be 160 years or longer, based on the horizontal slip rate of the Sagaing Fault and the 3 m of coseismic horizontal slip that occurred during the May 1930 earthquake [*Tsutsumi and Sato*, 2009]. Consequently, it is likely that more than half of the recurrence interval has passed in this seismic gap, meaning that the fault has accumulated elastic strain of ~2.0 m during the past 113 years. Therefore, the next large earthquake is expected to strike the area in the near future. Nay Pyi Taw, the recently established (since 2006) capital of Myanmar, is located near the southern end of the expected fault, meaning that its population is exposed to a significant earthquake hazard. To evaluate the recurrence interval of the Nay Pyi Taw earthquake, paleo-seismological and geomorphological studies of the fault are required, including trenching.

Hurukawa and Maung (2011), Two seismic gaps on the Sagaing Fault, Myanmar,derived from relocation of historical earthquakes since 1918, GRL 38.
https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2010GL046099

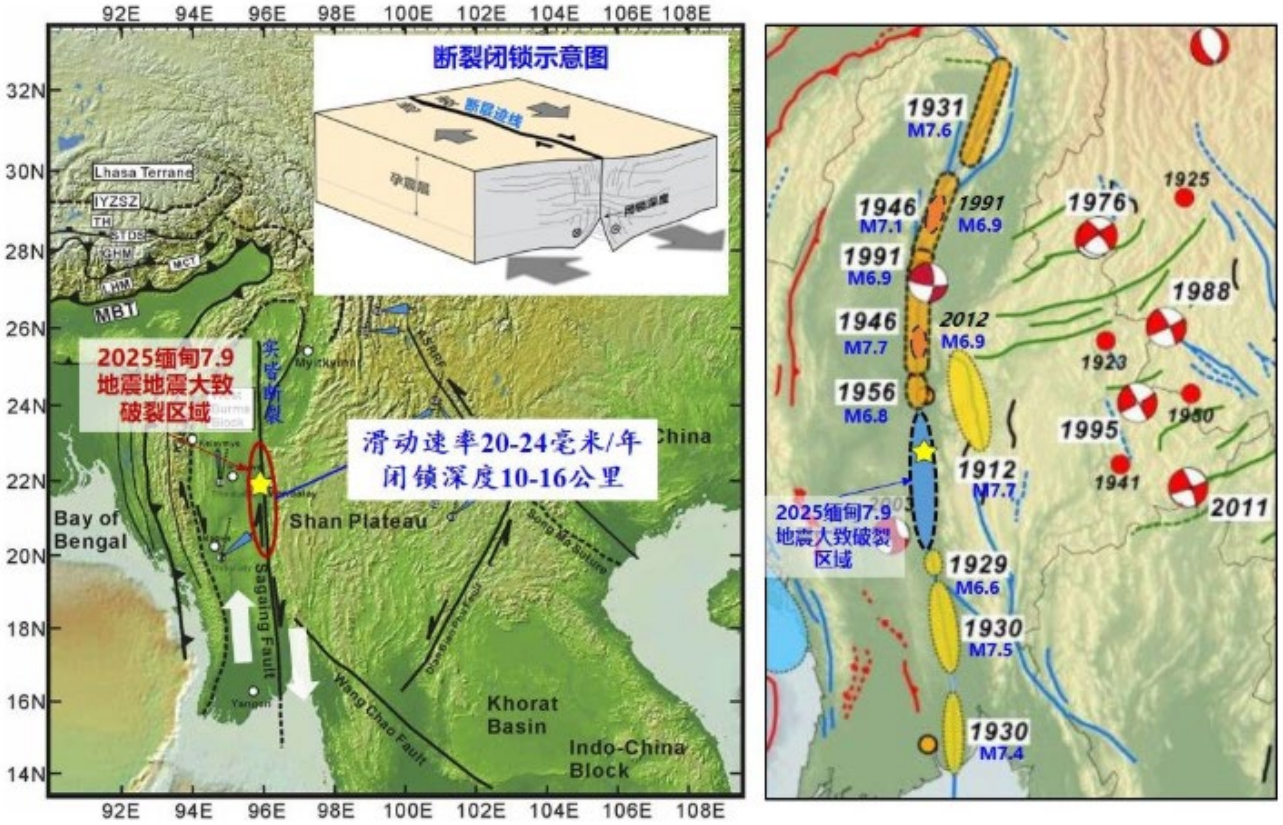


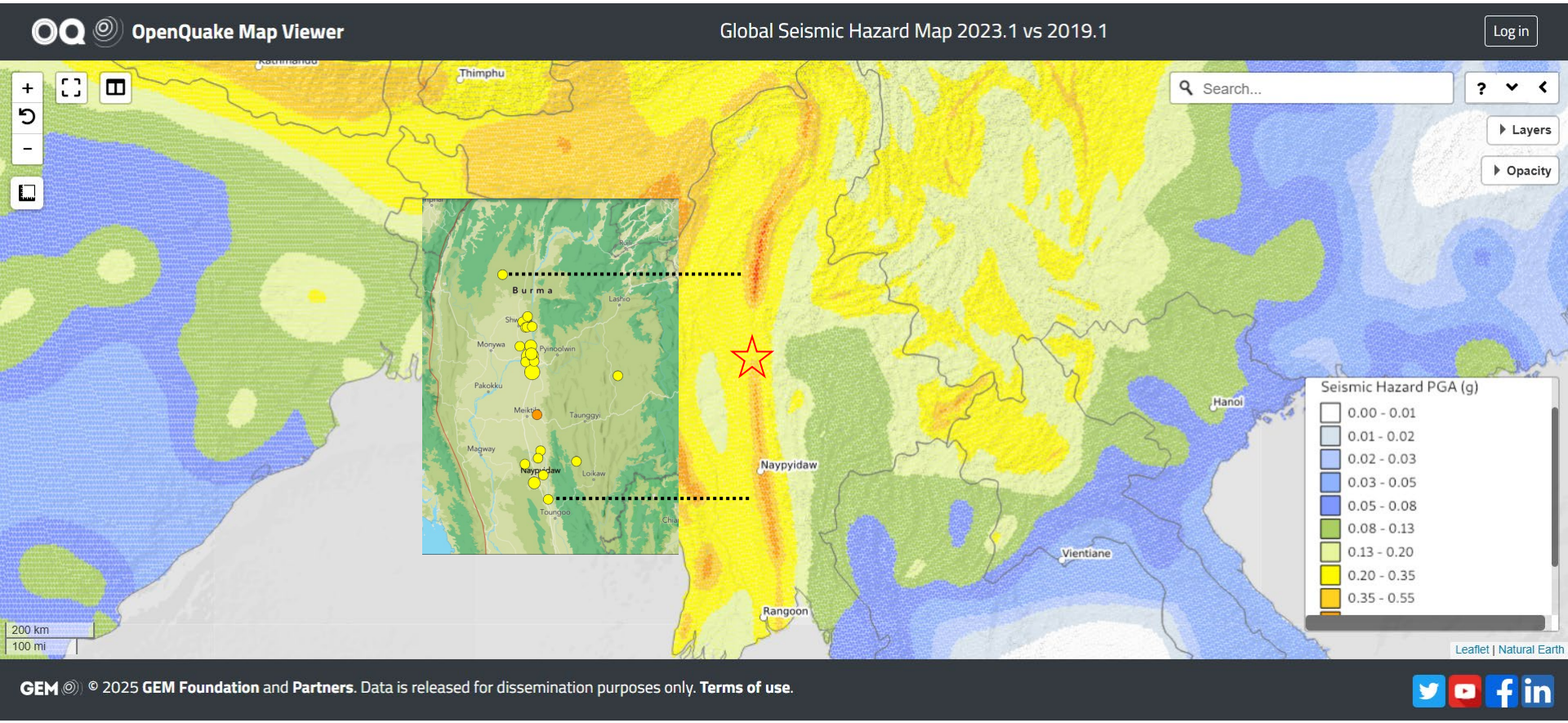
图2：实皆断裂的滑动速率、闭锁深度及1900年以来地震破裂位置图

右图中黄色虚线圈表示1900年以来地震破裂的位置，浅蓝色椭圆表示2025年缅甸7.9地震大致破裂区域。

（图修改自Li et al., 2020；地震破裂范围和震级引自USGS）

中国地震局
https://www.cea.gov.cn/cea/dzpd/dzzt/5807583/5807590/5808035/index.html

事務局収集資料

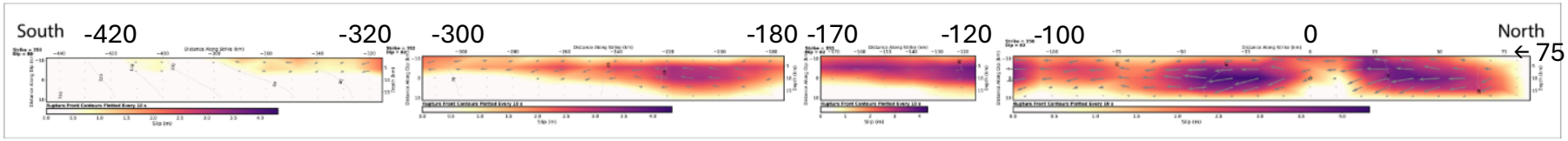


Global Earthquake Model（https://maps.openquake.org/map/gshm-2023-1/#3/32.00/-2.00）に加筆
震央分布図はUSGS（https://earthquake.usgs.gov/earthquakes/map/）

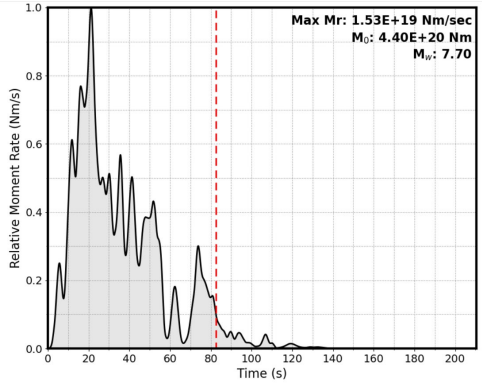
事務局収集資料

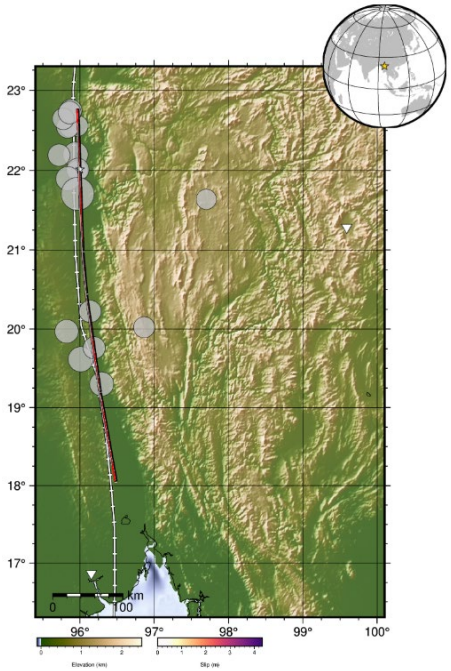
USGS
https://earthquake.usgs.gov/earthquakes/eventpage/us7000pn9s/finite-fault

Cross-section of Slip Distribution

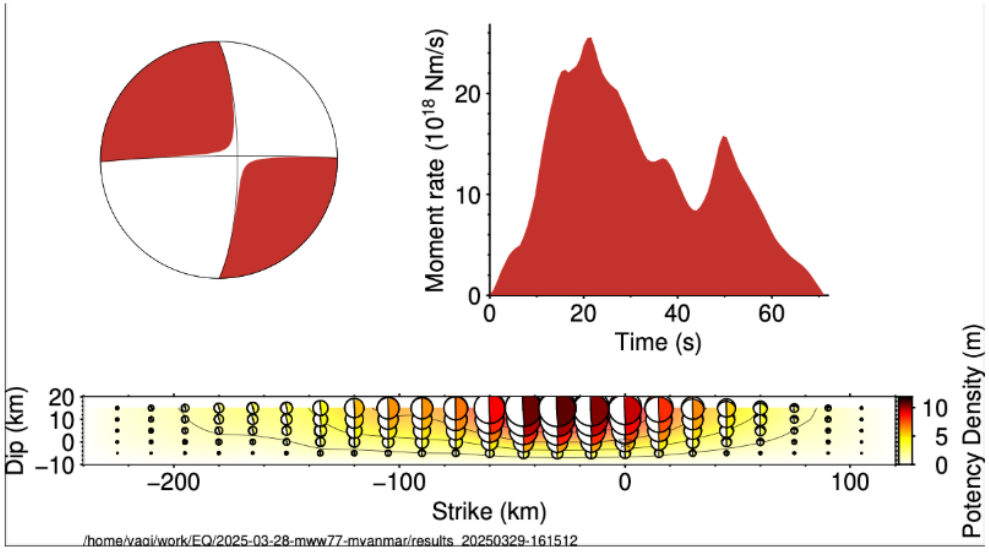


Cross-section of slip distribution. The strike direction is indicated above each fault plane and the hypocenter location is denoted by a star. Slip amplitude is shown in color and the motion direction of the hanging wall relative to the footwall (rake angle) is indicated with arrows. Contours show the rupture initiation time in seconds.





断層メカニズム解、モーメント速度関数、モデル平面でのポテンシーテンソル分布



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https://www.geol.tsukuba.ac.jp/~yagi-y/EQ/2025MyanmarEQ/index.html

事務局収集資料