

Kagoshima stone culture seen in Kagoshima Castle

鹿児島城に見る鹿児島の石文化

가고시마성에서 볼 수 있는 가고시마의 석재 문화

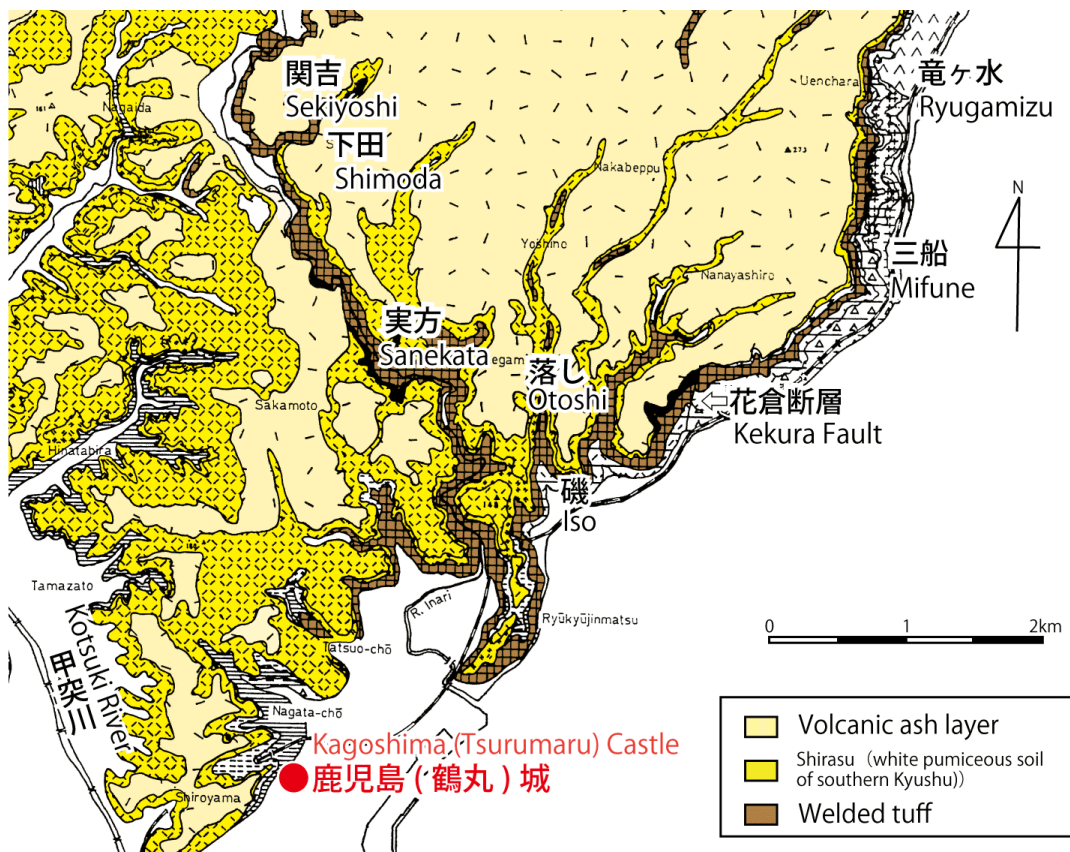
于鹿児島城内所见的鹿児島石头文化

於鹿児島城内所见的鹿児島石頭文化

In Kagoshima, where there are many volcanoes, there are widely distributed welded tuffs formed by the pyroclastic-flow deposits melted with their heat and pressure, consolidated, and solidified. Since these welded tuffs are relatively easy to process, they have been used for various stone structures since ancient times, and you can get a glimpse of the stone culture in your neighborhood. The welded tuffs are also used on the stone walls of Kagoshima (Tsurumaru) Castle. The most commonly used welded tuffs are of the Yoshino pyroclastic-flow deposits formed by an eruption about 500,000 years ago, and it is called “Tantado tuff stone”.

Many of the stone walls of Kagoshima (Tsurumaru) Castle are piled up in a way called “Kirikomihagi”, which processes stones into squares and piles them up. If you look closely at the surface of the stone, you can see traces carefully shaped with stone chisels. In addition, there are stone walls that require delicate techniques, such as Kikko-zumi and Kanabatorinokoshizumi, from the Goromon Gate to Karagomon Gate, where only feudal lords and guests are permitted to pass. It shows the characteristic of this land where easy-to-process stone was easily available.

In addition, there are the main stone structures made of Tantado tuff stone, such as the Reverberatory furnace ruins at Sengan-en, the Terayama charcoal kiln ruins and the turret ruins built along the Kinko Bay coast.



▲ Distribution map of welded tuff in Kagoshima Prefecture

(大木公彦・早坂祥三<1970>「鹿児島市北部地域における第四系の層序」『鹿児島大学理学部紀要<地学, 生物学>』)



▲The vertical section of welded tuff

The black layer in the vertical section is obsidian created by the changing heat and pressure of pyroclastic-flow deposits. Pressure from above formed the thin layer.



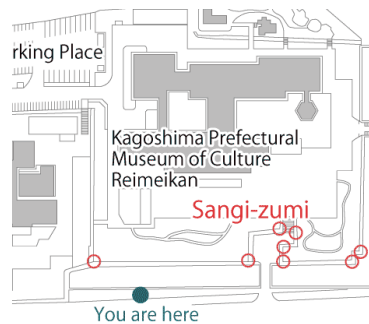
▲The horizontal section of welded tuff

Pyroclastic-flow deposits containing various substances were melted with heat, consolidated, and solidified to form rock.

Stone masonry technique

【Sangi-zumi】

Sangi-zumi is a masonry technique used to enhance the strength of the corner (also called Sumikado or Desumi) of a stone wall. Large stones are shaped into rectangles as Sumikado, and the long and short sides are laid alternately.



Characteristic masonry

【Kikko-zumi】

Kikko-zumi is a masonry technique of placing stones into a hexagonal arrangement. The technique is called Kikko-zumi (Kikko means tortoiseshell) because stones are placed in a turtle-shell pattern. This technique is seen on stone walls from the Goromon Gate to the Karagomon Gate of Kagoshima (Tsurumaru) Castle.



【Kanabatorinokoshi-zumi】

Kanabatorinokoshi-zumi is a masonry technique of shaving the edge of the stone. This technique is found in the stone walls of the Honmaru of the Kagoshima (Tsurumaru) Castle, and the stone wall around the Goromon Gate is unique in that Kanaba (edges) of the stones are coated with plaster.

