

SAFETY FIRST FOR STAIRS

Once at a house exhibition, I have seen a 3-4 year old kid fall down the stairs. This happened exactly when the parents looked away for a second. Luckily it was just a hamp-getting accident, but it could have been worse if fallen badly. Stairs are ones of the places where accidents happen most frequently. Safety should be fully considered.

I also happened to meet a family moaning about the narrow stairs in their house. Despite the same distance between the column cores, the new stairs of Shinkabe-wall were narrower than the previous ones of Okabe-wall due to their architectural difference. Wider stairs would be more preferable, considering the possibility of installing handrails.

The stair rise is also tricky: even if the rise is lower than 20cm, as often requested, unbalanced tread makes the stairs awkward to climb up.

A stair pitch is ideally less than 6/7, referring to a formula ($\text{tread} + \text{rise} \times 2 = 55\text{-}65\text{cm}$), and the shallower the better for the convenience and safety of elderly people.

Stairs really vary. Straight stairs are good in a way that they save space, but are bad in that they let stumbling people fall down to the ground. A landing, half landing, or quarter landing makes the stair safer and easier to negotiate. I recommend no rise in the part where turning directions. Talking about changing directions, the spiral stairs of the Sagrada Familia designed by Gaudi are narrow and steep but not so difficult to walk up. A hidden stair that fits tight to ninety by ninety cm area in an old Japanese house was much more walkable than expected. Not only the width and pitch of the stairs, but also The rhythm of the climber seems to matter.

Not just as transferring people to a different floor, stairs can serve other functions. Art works of the children like paintings will entertain those walking up and down. But watch out for your steps!