

# Traditional and Contemporary Houses in Japan:

Anatomy of the physical features and the relevant cultural variables



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# Natural Environment

Geography  
Climate  
Natural disasters



# House form

**Culture**  
Activity patterns  
Custom  
Life-style  
Idea/ Norm  
World view  
Belief

Materials  
Floor plan  
Elements

横浜



Characteristics of Natural Environment in Japan

Topography....mountains/ forest/ limited plain = highly populated





Climate: the monsoon = Four distinct seasons





Typical landscape

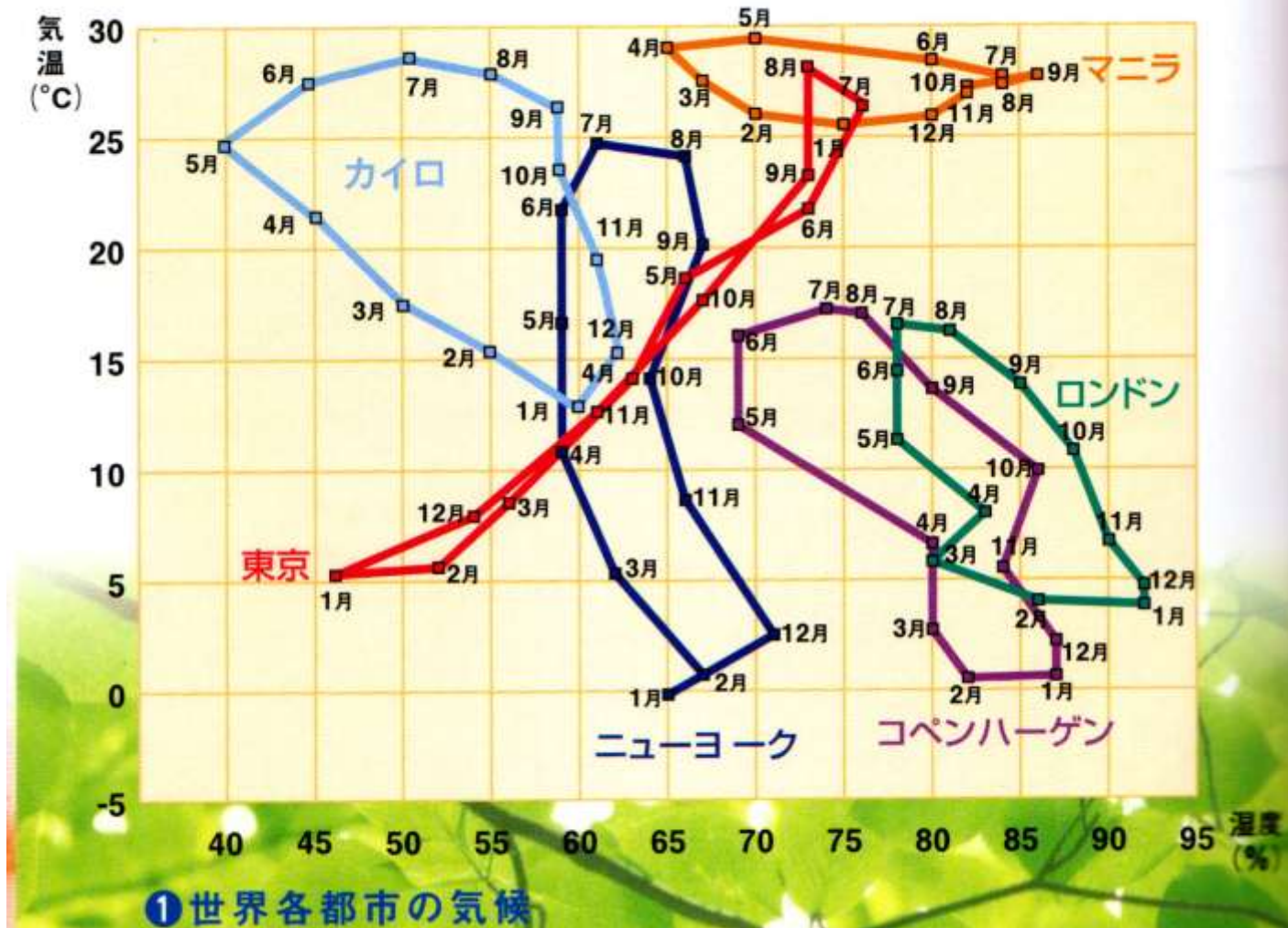
agriculture/ rice → sensitive to season/ time 農村風景



Fisherman's village

漁村

temperature



humidity

The climograph of major cities

クリモグラフ





Japanese house is designed for the warm and humid season



*There is a Japanese old saying about the most fearful things:*

?



# 地震・雷・火事・親父

Earthquake / thunder

fire /

father



怖いもの



# 地震



噴火

Volcanic activity





# 有珠山火山防災マップ

—— 新たな備えのために ——

※ 図面はあくまで目安にしてください。

## 山頂噴火の危険区域予測図

火砕流・噴石・降灰



山頂噴火の様子(1978年5月)

この予測図は、1922年(文政5年)噴火と同じ規模の山頂噴火が起きた場合に、予想される災害の範囲を示したものです。

噴火の種類や噴火条件などによって危険区域の範囲は変わります。

融雪型泥流・降雨型泥流(土石流)



## 山麓噴火の危険区域予測図

火口の位置によって危険区域は変わります!



山麓噴火はある限られた地域で起きるので、この危険区域全体が同じように危険だということを示しているわけではありません。火口の位置については事前に特定することが出来ないため昭和38年噴火と同じくらいの規模の「山麓噴火」が起こる可能性のある範囲の全域を総合して示してあります。実際の山麓噴火では、火口の位置によってこの図の一部分が噴石や火砕サージの危険区域となります。噴火がはじまった場合には、火口の位置にあわせて危険区域があらためて示されます。噴火の種類などによっても、危険区域の範囲は変わります。



火口の位置によって危険区域は変わります!



火砕サージ



噴石・降灰



火砕サージ



火砕サージ



噴石・降灰



火砕サージ



火砕サージ



噴石・降灰



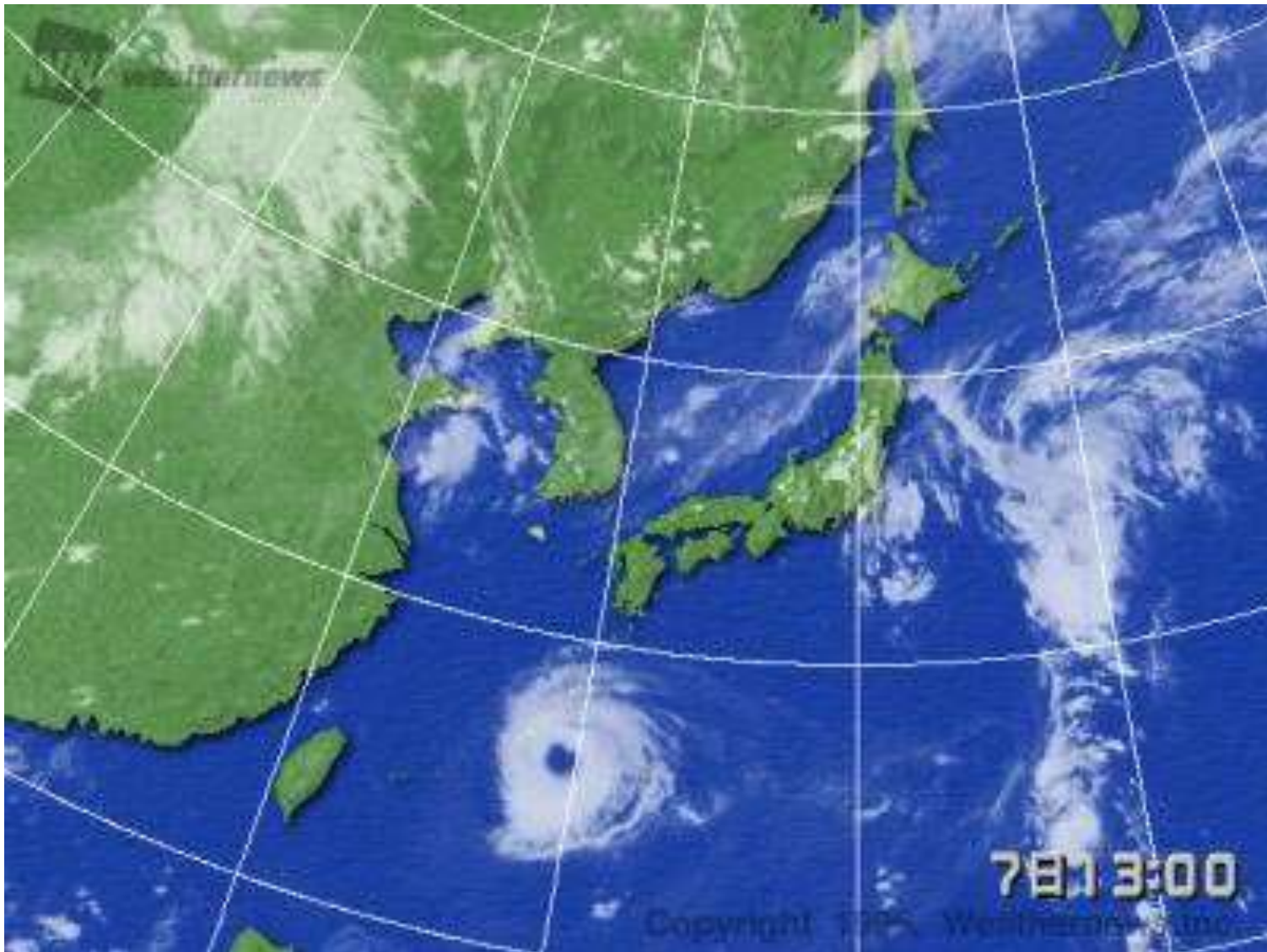
火砕サージ



火砕サージ



噴石・降灰



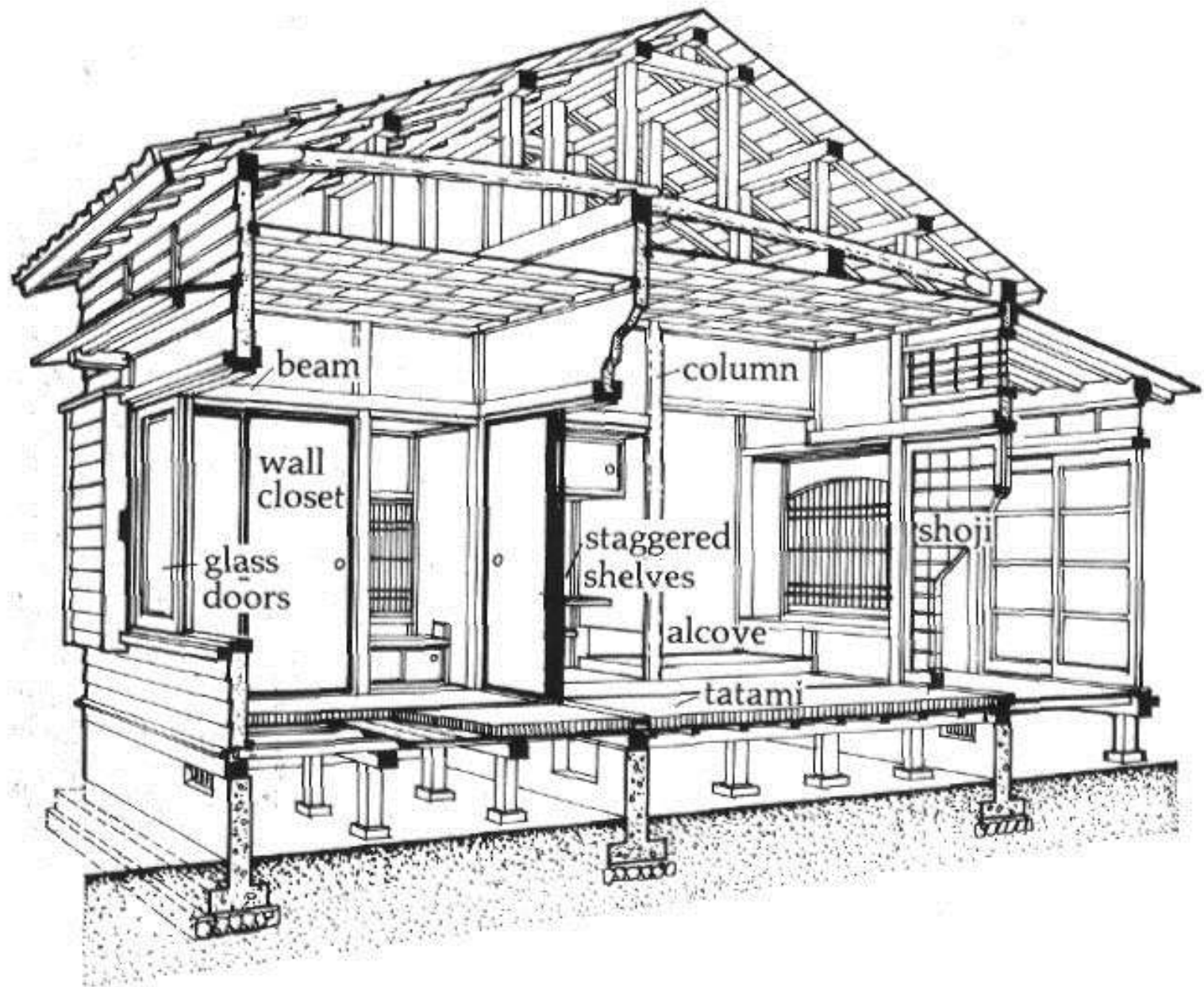
台風

Typhoon





Earthquake → building construction system (light timber frame, joints)



Section of a Japanese house.



# Natural Environment

Geography

Climate

Natural disasters

mountains, forest, limited plain

hot and humid summer

earth quake, typhoon, volcanic activity



## House form

Timber frame structure

Openness

Raised floor



# Culture

Activity patterns

Custom

Life-style

Idea/ Norm

Worldview

Belief

Natural disasters: → Attitude toward nature

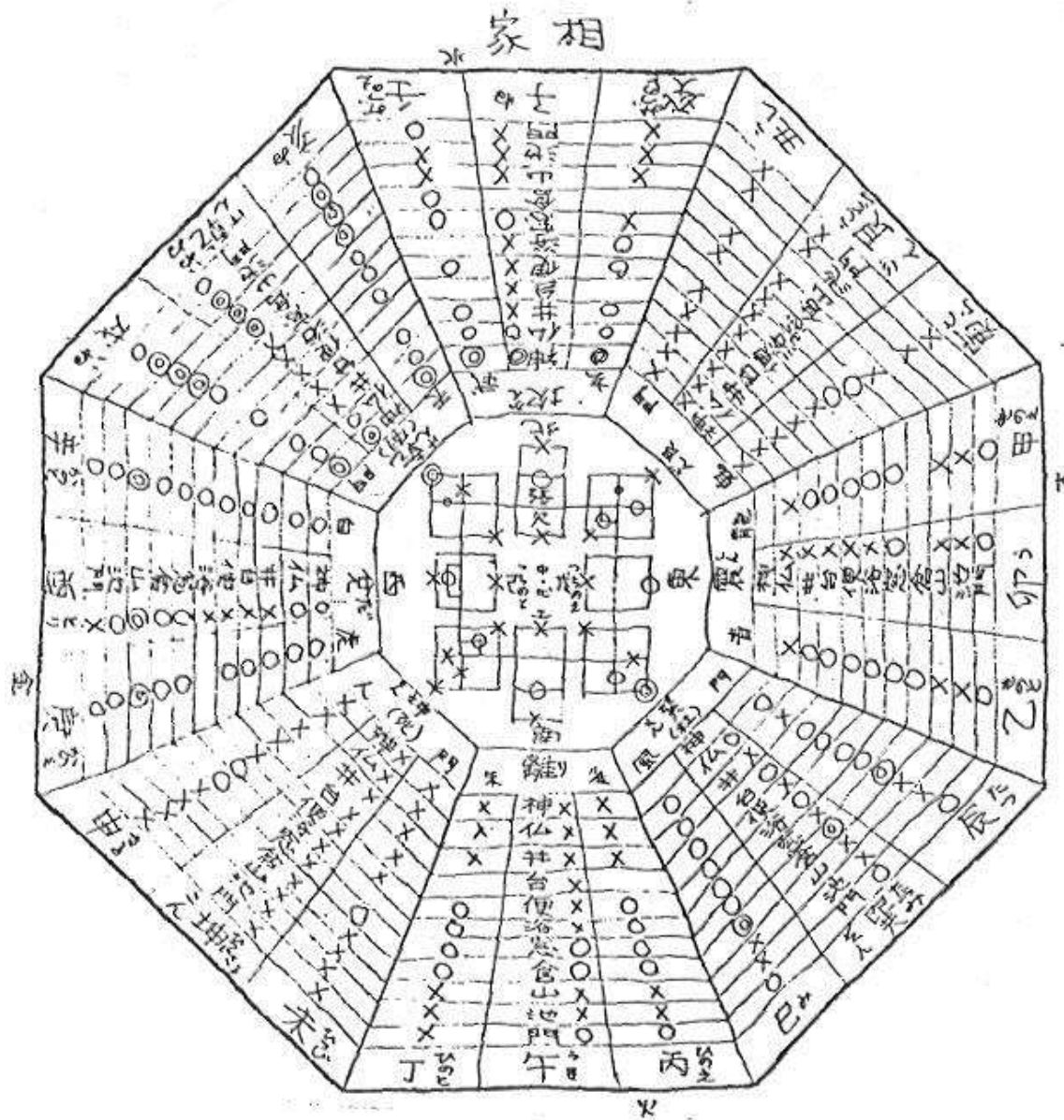












geomancy (Fenshui, Kaso)

: a folk belief in a direction being characterized by good luck or bad luck



***Jichin-sai:*** the ceremony of purifying a building site.



図 2-81 家相に対する考慮

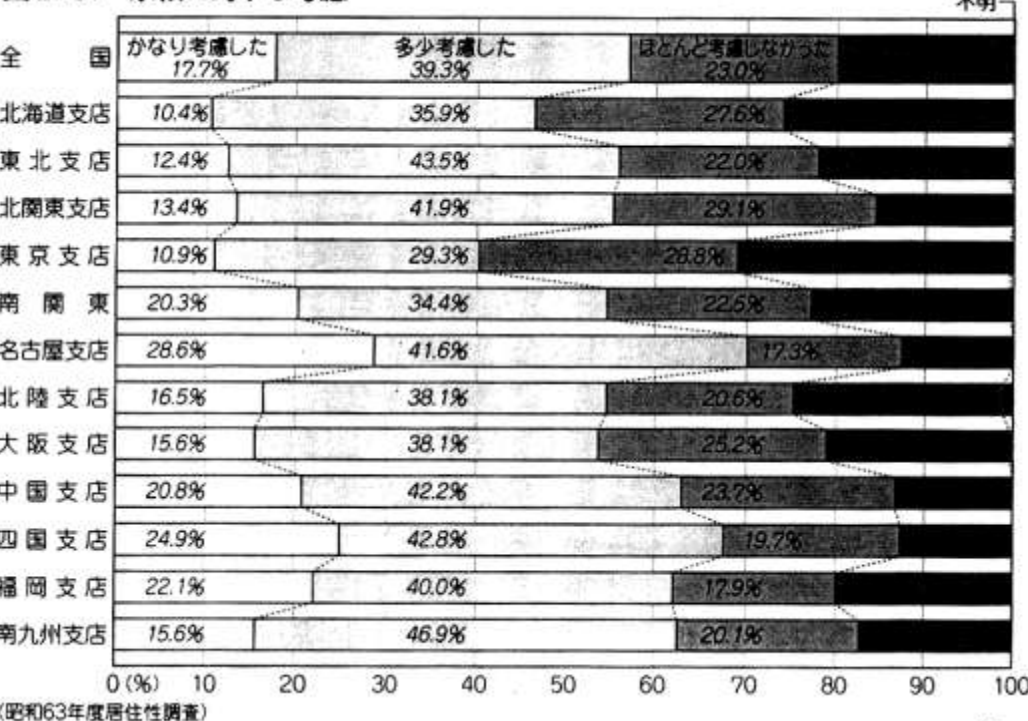
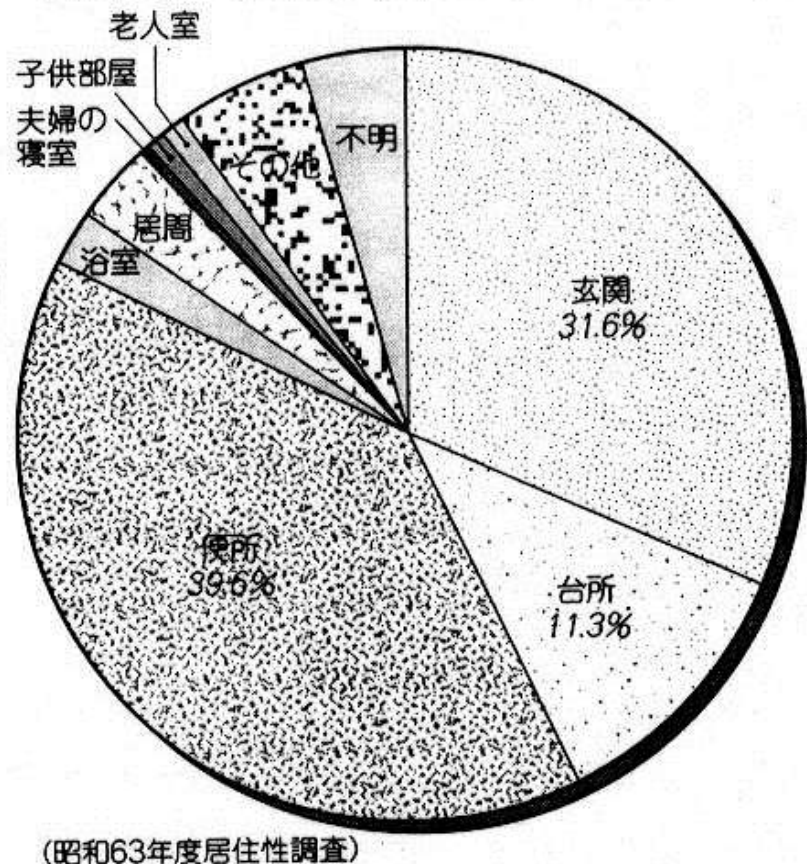


図 2-80 家相を考慮したスペース



How many people still believe Kaso?

## Socio-cultural Aspects Father in the family



おやじ



Large family for agriculture















**b. Spatial features:** Scale – human body size



Unsymmetrical and  
sequential approach





Symmetrical approach of an American house





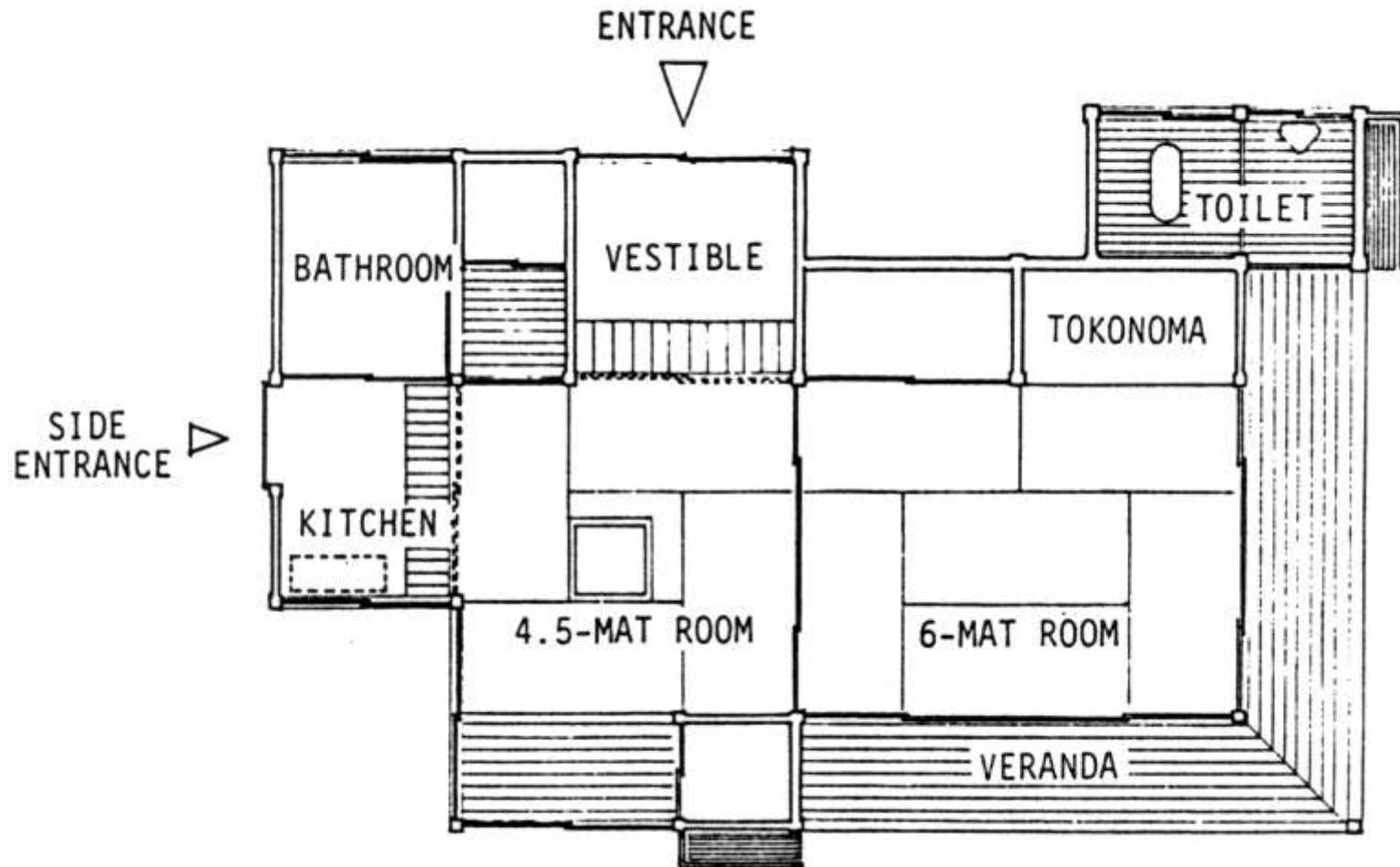
# 桂離宮

Sequential scenes in Katsura-rikyu villa





# Anatomy of the physical features in the Japanese house



The floor plan of the Japanese house in 1930's



## a. Elemental features

Tatami-mats –  
multi-sensory experience

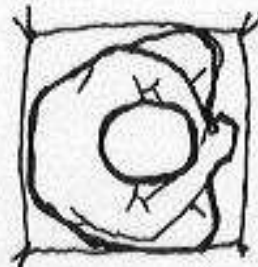
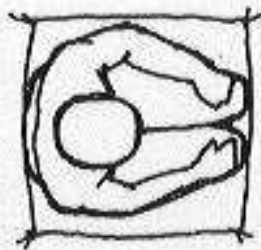
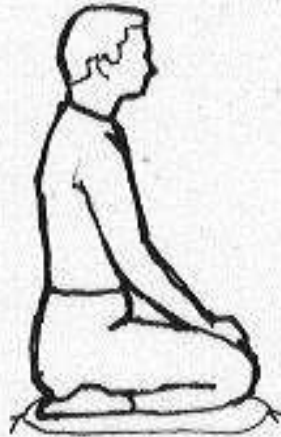
Tokonoma (ornamental alcove)  
hierarchical order of seating

Furniture -- simplicity,  
multiple use of the room

Material (Natural)



## WAYS OF SITTING



formal

informal (men)

informal (women)



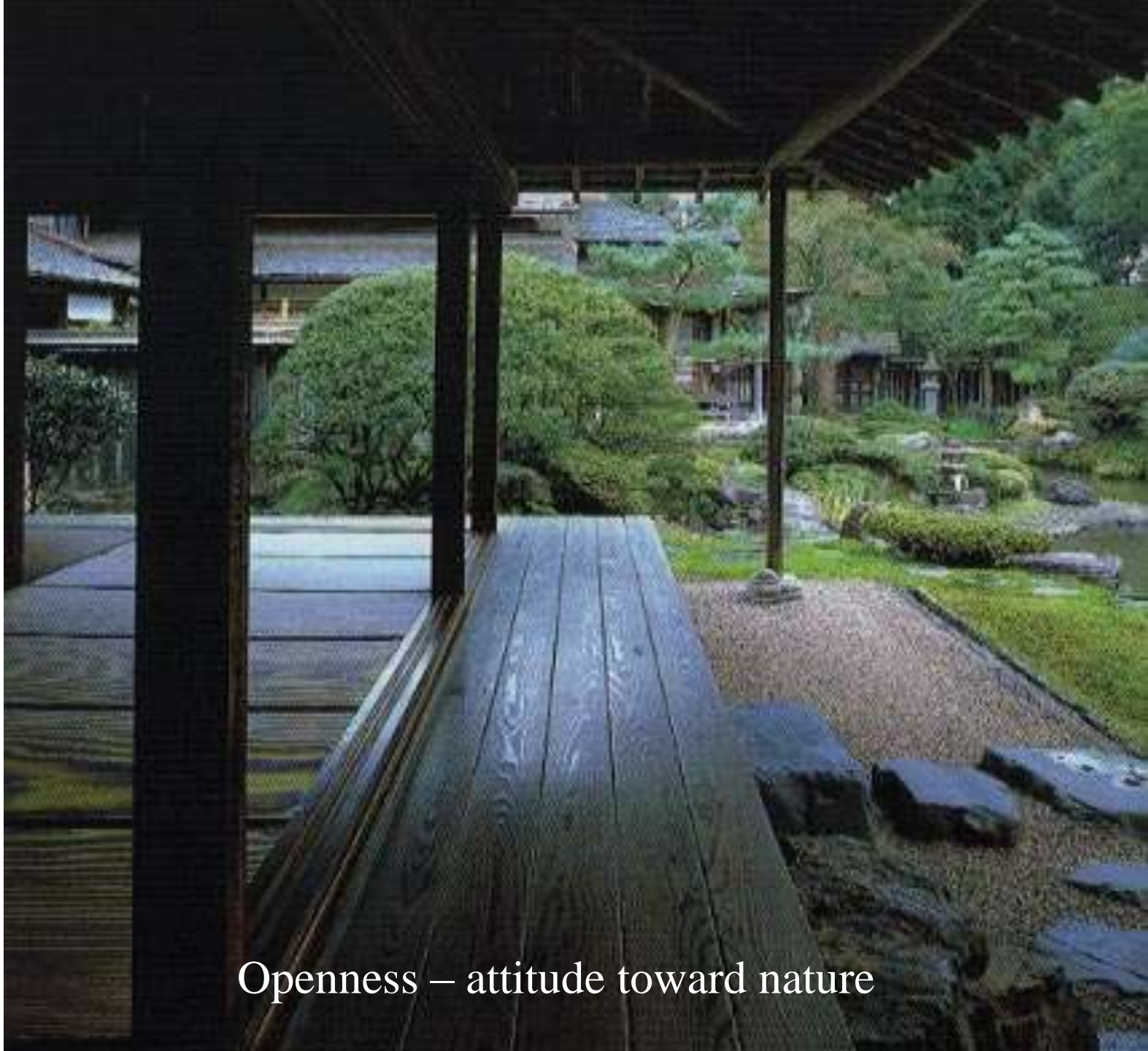
Material (Natural)  
-- attitude toward nature





multi-sensory  
experience  
/ texture





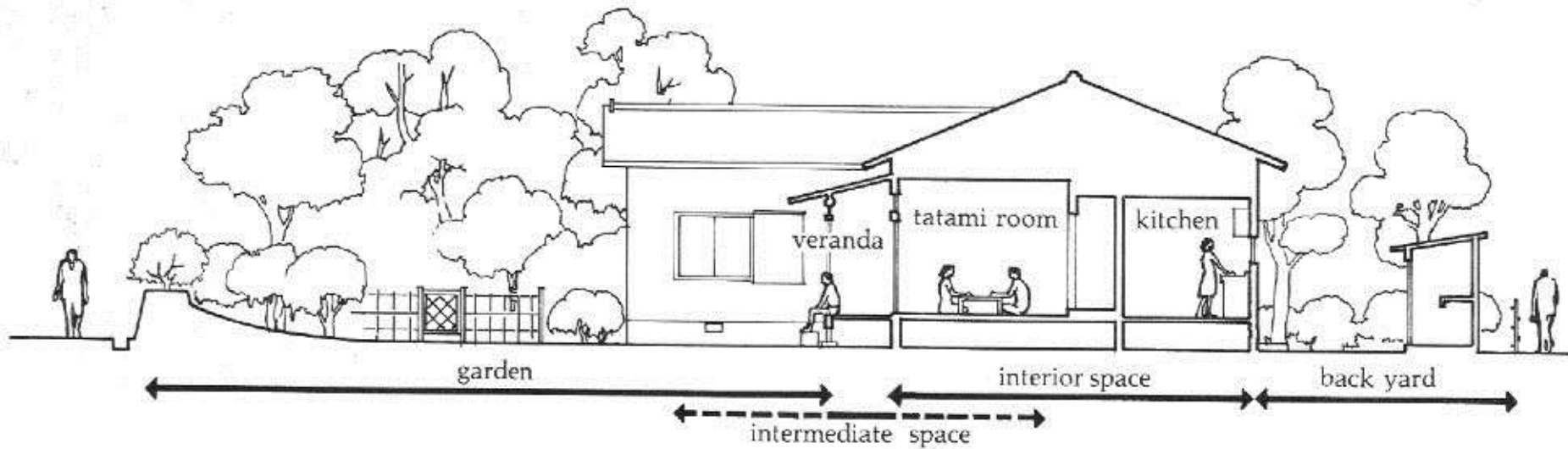
Openness – attitude toward nature





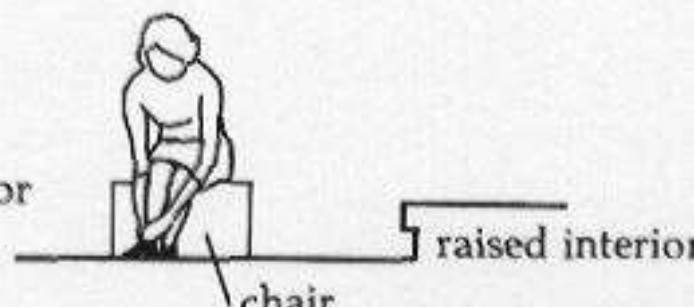
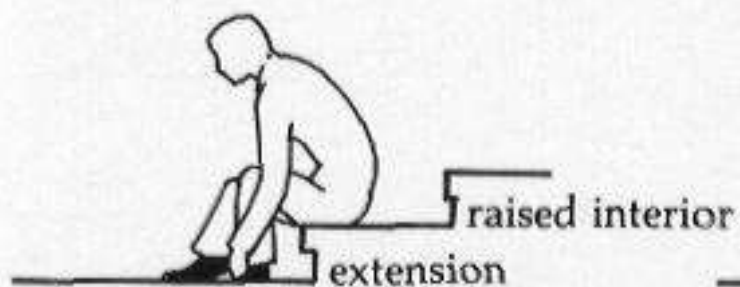
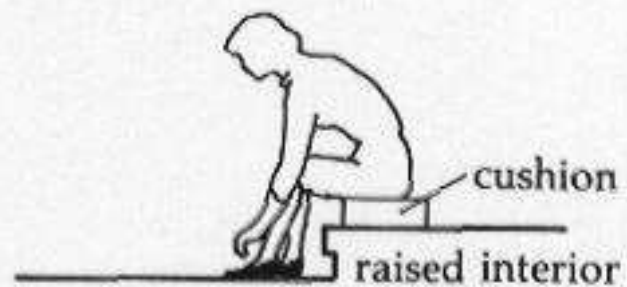
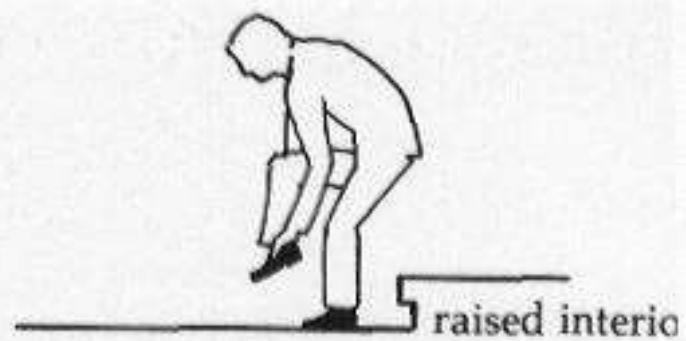
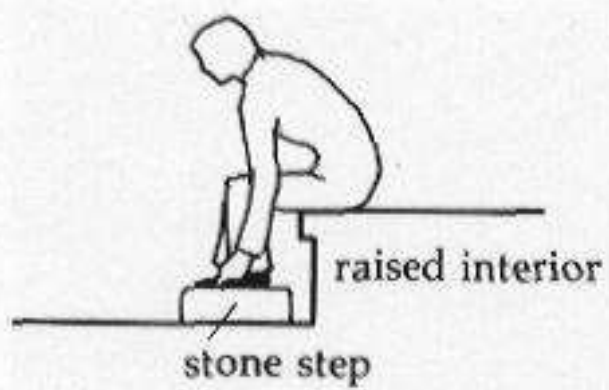
Openness – concept of privacy/ family

Cross section.



Raised floor -- inside/ outside boundary







Flexibility (sliding screen) -- multiple use of the room



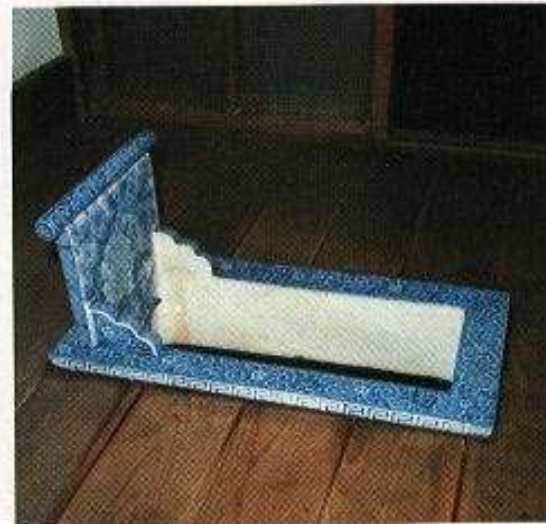


c. Features of rooms: Entrance hall – custom of removing shoes

# House equipments (old)



明治26年につくられた沼津市用器（東部）にあるもの 写真——山本健治



東京・日蓮宗徳大寺のトイレ（昭和六年竣工、開館年増築）

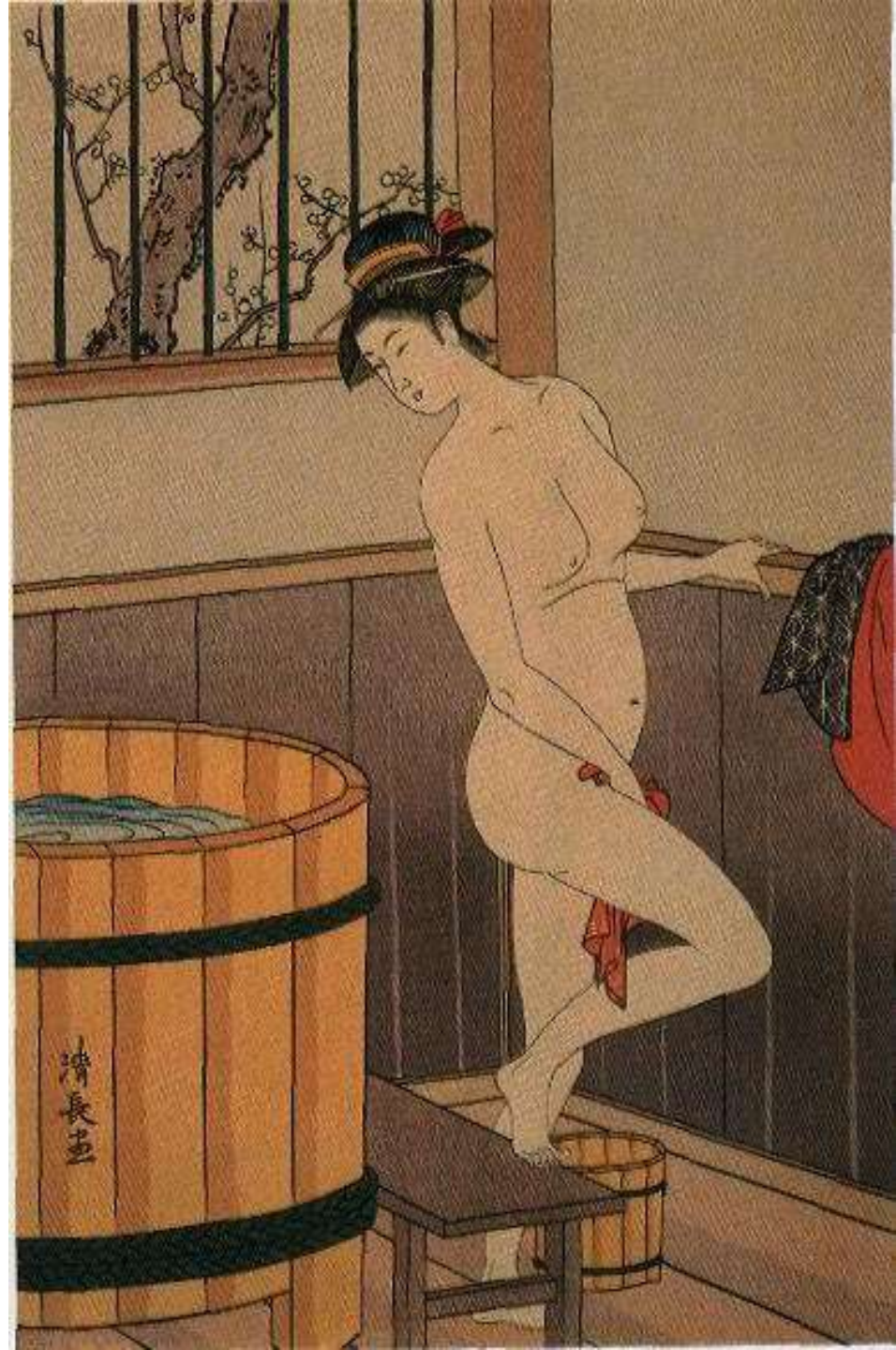




House  
equipments  
(new)



Bathroom – manner of taking bath









Public bath



## 簡易風呂



### AT LAST

Waterless for days on end, these young evacuees finally enjoy a hot bath courtesy of military relief workers

mains solid. What the country will need to

mostly to Kobe's citizens, who pitched in to dig their relatives and neighbors out of the rubble. Remarked Ichizo Kubo, the 74-year-old owner of a building-supply shop: "Now people seem calmer, and smiles are gradually returning. They have shared the

# Natural Environment

Geography	mountains, forest, limited plain
Climate	hot and humid summer
Natural disasters	earth quake, typhoon, volcanic



## House form



- △ Natural materials
- X Absence of furniture
- △ Flexibility
- △ Openness
- △ Scale
- X Kitchen
- △ Bathroom

# Culture

Activity patterns	multiple use of rooms	△
Custom	manner of sitting	△
Life-style	manner of taking bath	○
	removing shoes	○
Idea/ Norm	individual privacy	X
Worldview	wife's status	X
Belief	attitude toward nature	△
	geomancy (Fenshui)	△





END

Juxtaposition of old and new (新旧の共存)