

Japan's best kept secret

Honkaku Shochu

本格焼酎

When was the last time you
discovered something new?

- Garrett Oliver
Brewmaster
Brooklyn Brewery

How often do you find a
new favorite thing?

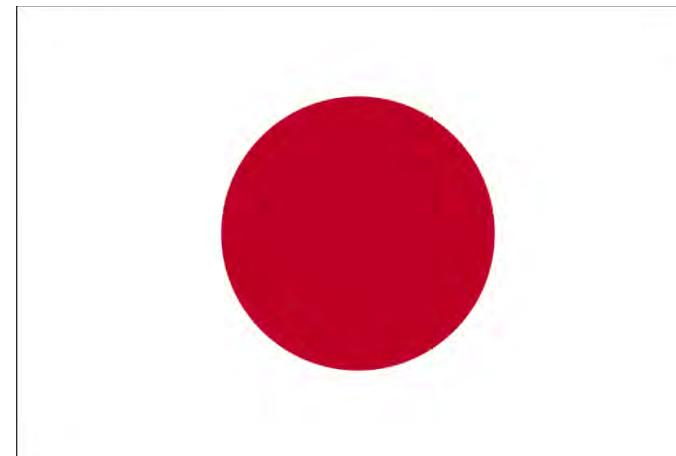
- David Wondrich

James Beard Award Winning Author

Pop Quiz

Question #1

Have you heard of sake?



Question #2

Have you heard of soju?



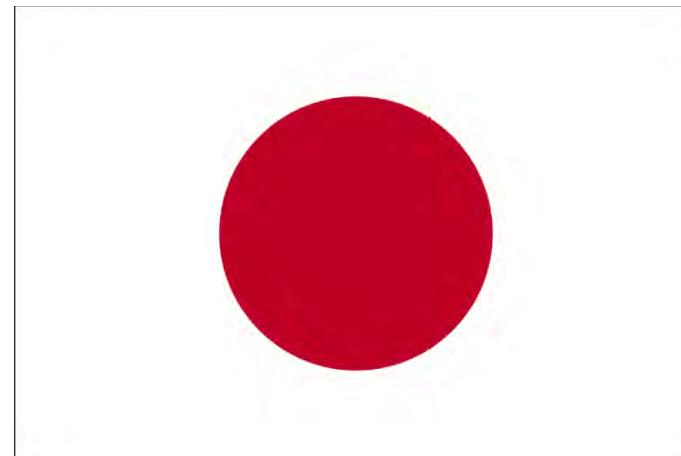
Question #3

Have you heard of tequila?

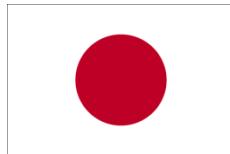


Question #4

Have you heard of Honkaku shochu?



Poll Results



Sake 88%



Soju 25%



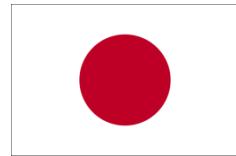
Tequila 99%



Shochu 6%

Internet Poll: 127 U.S. adults, November 4, 2017

Why these 3?



Sake both are from Japan, but very different



Soju similar names, confusing for Americans



Tequila more shochu made in Japan than tequila in Mexico

焼酎

So . . .

What is shochu?



Shochu is not sake.

Shochu ≠ Sake

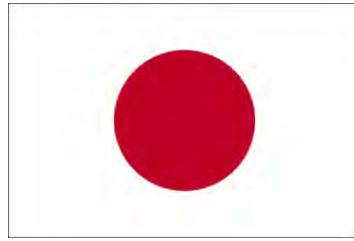
Shochu	vs.	Sake
□	Made with koji	□
□	Made with rice	□
□	<u>or</u> other grains or starches	□
□	<u>distilled</u> using a pot still	□



Shochu is not soju.



Shochu ≠ Soju



Pot Still (only once)

↑ 37-45% ABV

↓ 20-35% ABV

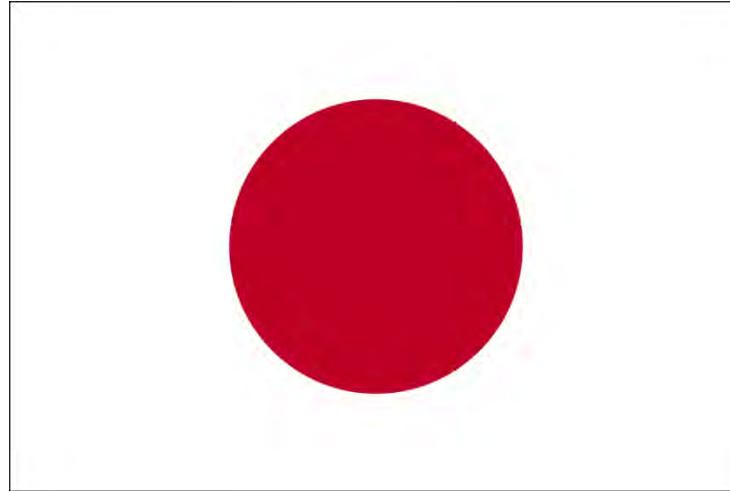
□ sugars, artificial flavors

Continuous Distillation

↑ 90% ABV (nearly pure ethanol)

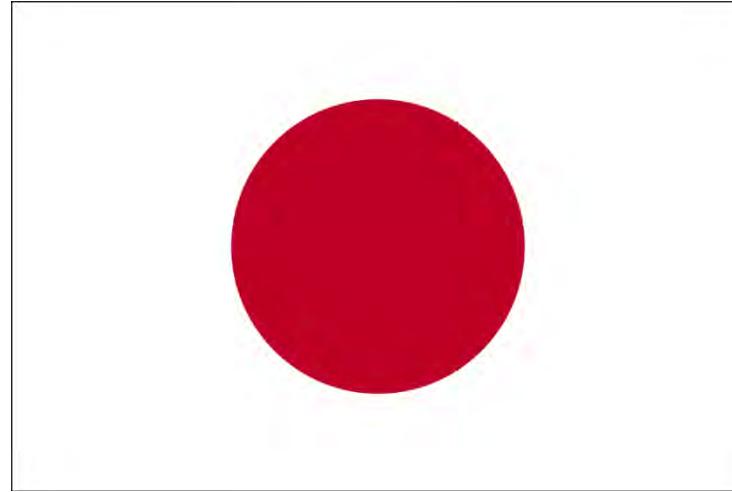
↓ 16-22% ABV

+ sugars, artificial flavors



Shochu is not tequila.





Shochu is a little bit like mezcal.





In 2012 Japan named
sake & shochu
“kokushu” – national liquors

a brief history of Japanese alcohol



Alcohol “discovered” by Jomon People



Sannai Murayama
Aomori, Japan

3,000 BCE

0 AD

2000 AD

3,000 BCE
Fruit Booze

2000 AD

15,000 BCE

Rice Cultivation Begins



Chinese Fermentation Methods



Chinese Fermentation

“kōji” introduced to Japan through introduction of



Jiuqu (Chinese yeast ball)

Molds

Aspergillus, Rhizopus, Amylomyces, Monascus, Absidia, Rhizomucor, Mucor

Yeasts

Saccharomycopsis, Issatchenkia, Saccharomyces, Pichia, Candida, Rhodotorula

Bacteria

Bacillus, Lactobacillus, Leuconostoc, Streptomyces, Acetobacter, Clostridium

Sake Fermentation

Molds

Aspergillus, *Rhizopus*, *Amylomyces*, *Monascus*, *Absidia*, *Rhizomucor*,
Mucor

Yeasts

Saccharomycopsis, *Issatchenkia*, ***Saccharomyces***, *Pichia*, *Candida*,
Rhodotorula

Bacteria

Bacillus, ***Lactobacillus***, *Leuconostoc*, *Streptomyces*, *Acetobacter*,
Clostridium

Sake Fermentation Agents

Aspergillus oryzae (mold) – breaks starches into sugars

Saccharomyces cerevisiae (yeast) – converts sugars to alcohol

Lactobacillus (bacteria) – creates natural lactic acid to fight off other organisms

Aspergillus mold is kōji



The Magic of *kōji*

sake

shochu

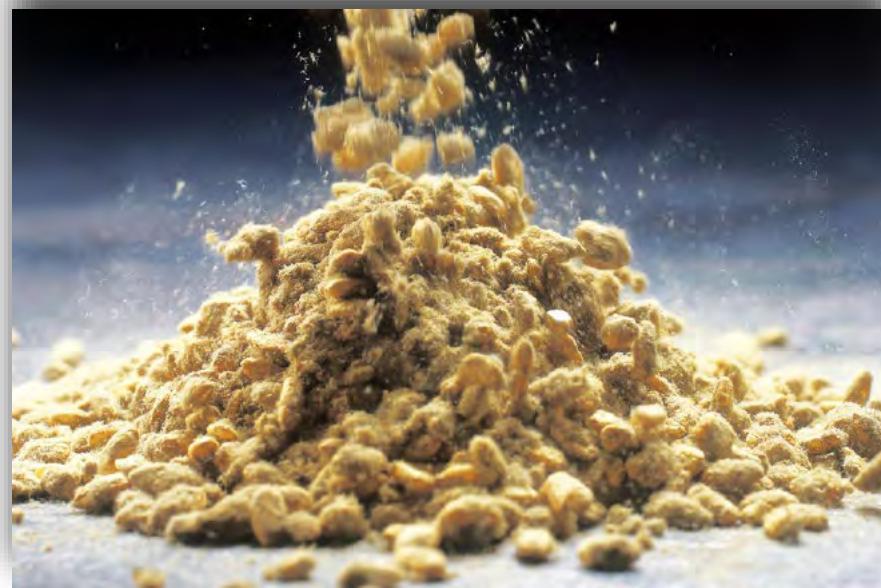
miso

mirin

awamori

pickles

soy sauce



meat tenderizer

digestive aid

"The national mold of Japan"
(this is not a joke)

How does kōji work?



kōji mold grown on steamed rice (or another starch base) creates amylase and protease (and other things)



amylase breaks down complex carbohydrates (starches) and protease breaks down proteins

Nara, Japan (710-794)

Modern sake methods developed by Buddhist Monks

- rice polishing
- growing kōji mold
- making lactic acid
- making yeast starter
- making main mash
- pressing sake



Japanese Sake

Ingredients: rice, water, yeast, kōji
+/- lactic acid or lactic acid bacteria

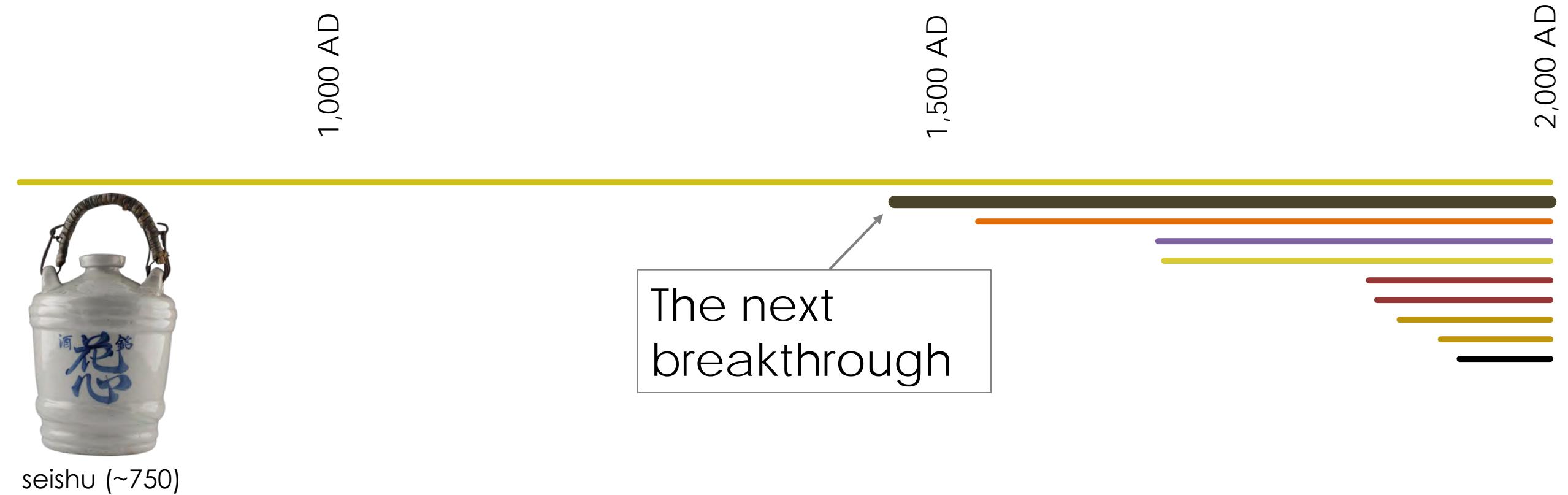
Production: fermented & pressed

Region: Nationwide

Other names:
"nihonshu" "seishu"



New Technology Arrives



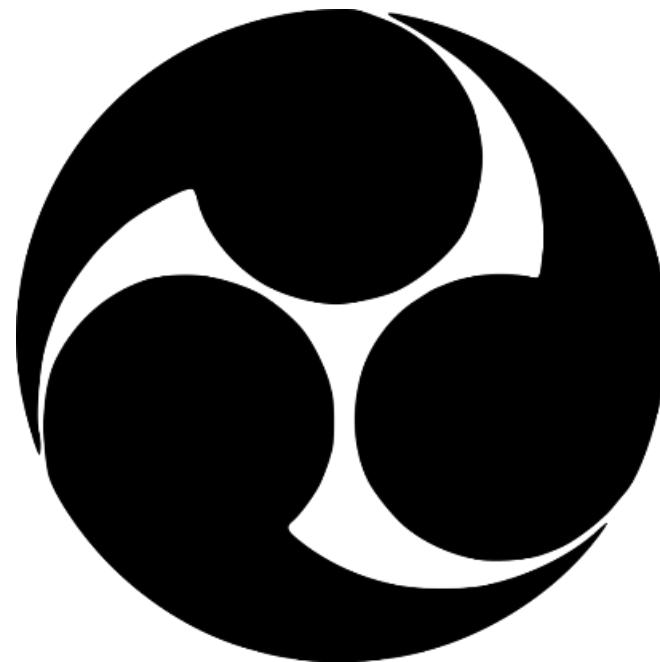
The Ryukyu Kingdom



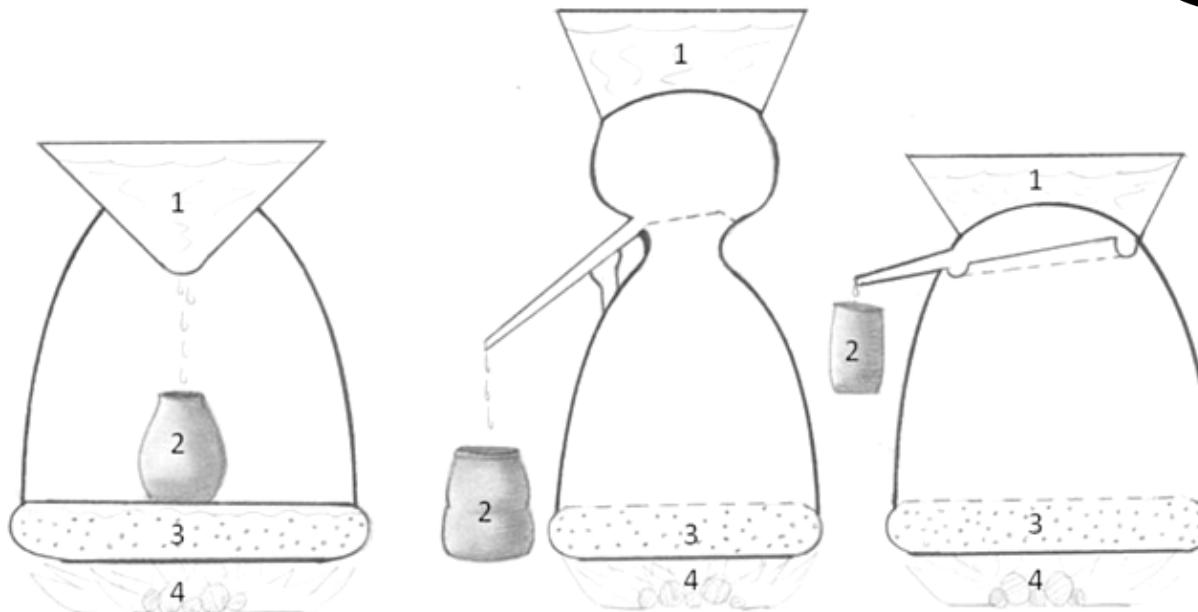
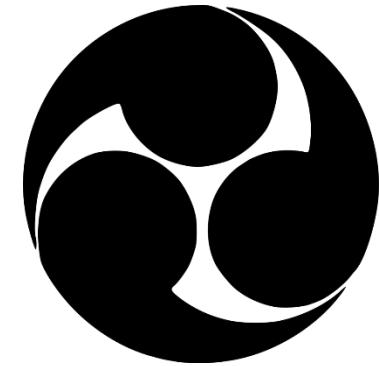
Ryukyu Trade Routes



The Ryukyu Kingdom



Distillation arrives in Ryukyu





Aspergillus Awamori

“black kōji”





Aspergillus Awamori

“black kōji”



Ryukyu Awamori

Ingredients: rice, water, yeast, kōji

Production: fermented & pot distilled

Aging: new make and long aged

Region: 99% in Okinawa



Ryukyu Awamori

Ingredients: rice, water, yeast, kōji

Production: fermented & distilled

Aging: new make and non-aged

Region: 99% in Okinawa

泡盛





Fishermen traded goods.

Even distillation
technology.

Distillation arrives in Japan



1,000 AD



1,500 AD



2,000 AD

Japanese Shochu

Ingredients: rice, water, yeast, kōji
+/- other fermentable ingredients

Production: fermented &
single pot distilled

Region: 90% in Kyushu



Japanese Shochu

Ingredients: rice, water, yeast, kōji
+/- other fermentable ingredients

Production: fermented &
single pot distillation

Region: 90% in KUSHU



燒酎

What is shochu
made from?



Yellow Koji (*Aspergillus Oryzae*)
Used in almost all sake production



Black Koji (*Aspergillus Luchuensis*)
Ancient mold from Okinawa
Awamori only made from black kōji



White Koji (*Aspergillus Kawachi*)
Mutation of black koji (1923)
Used most often in Shochu

Historical Interlude



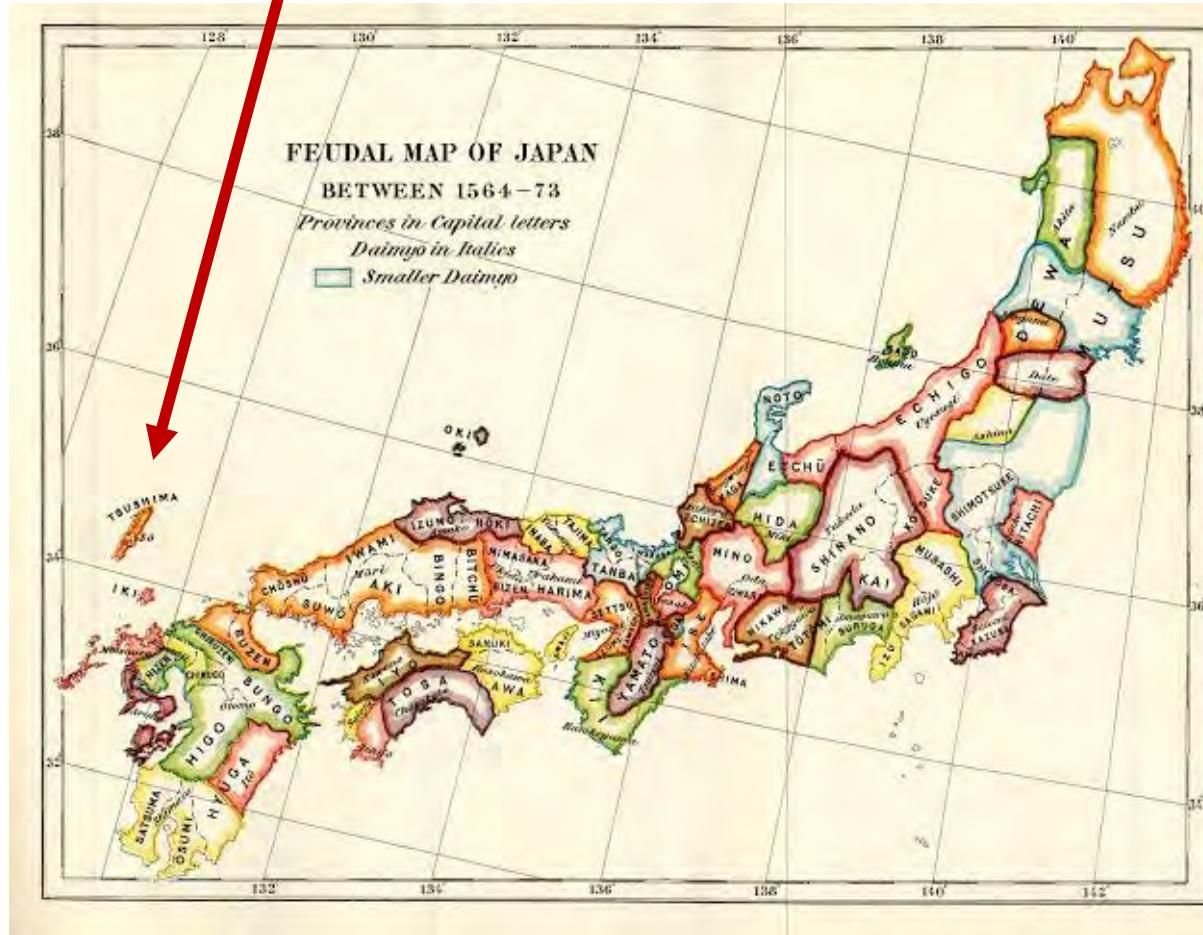
Remember,
fishermen traded goods.

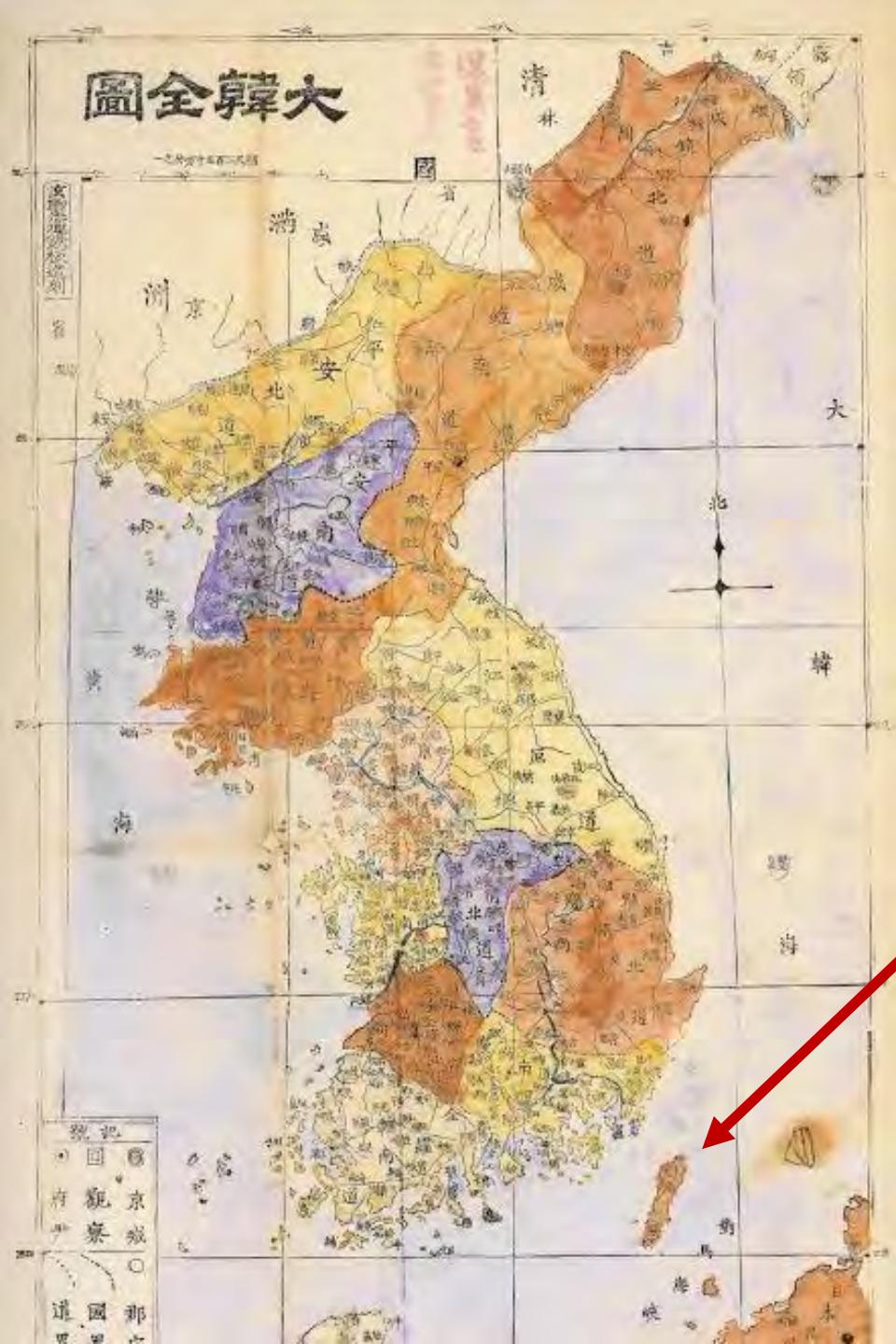


大日本物産圖會

10. The following table shows the number of hours worked by 1000 employees.

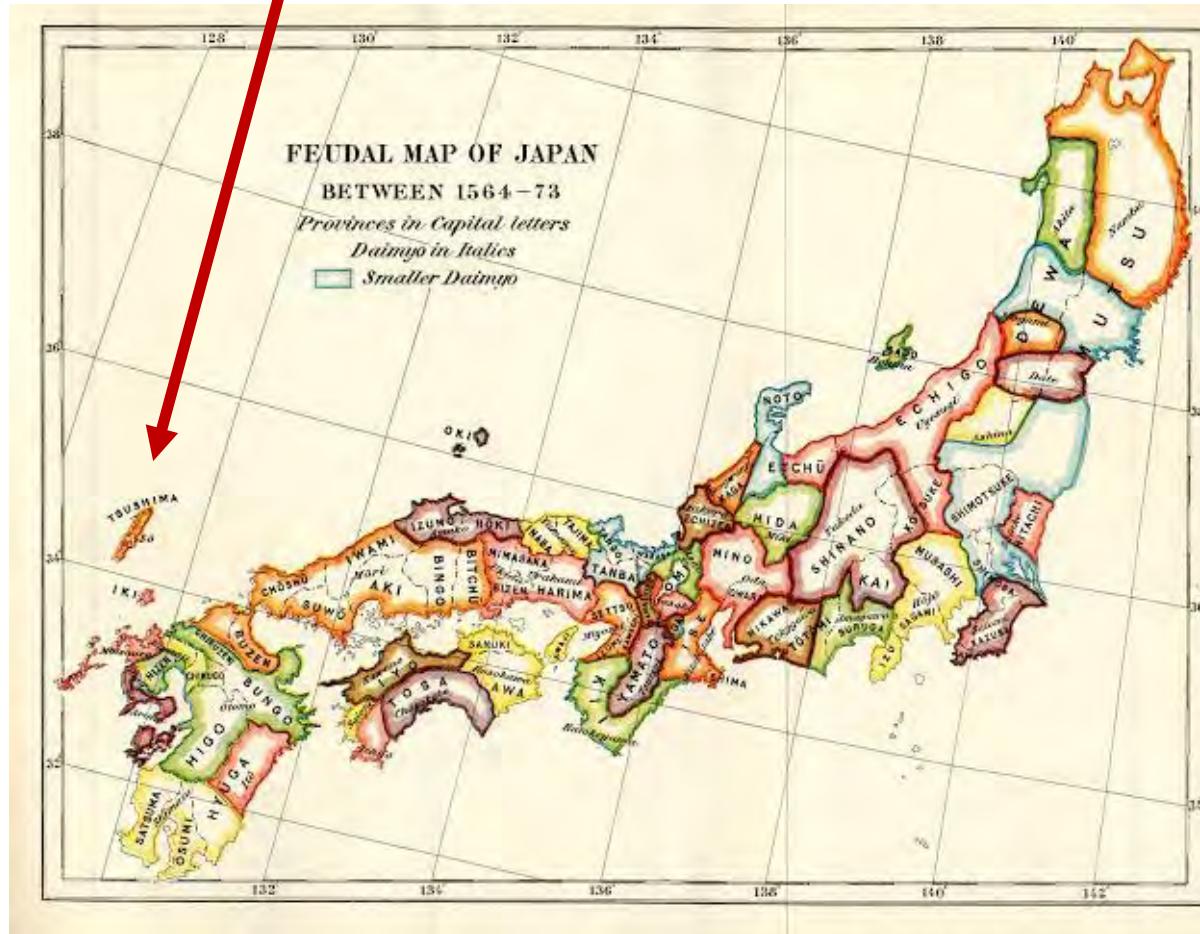
Tsushima Island





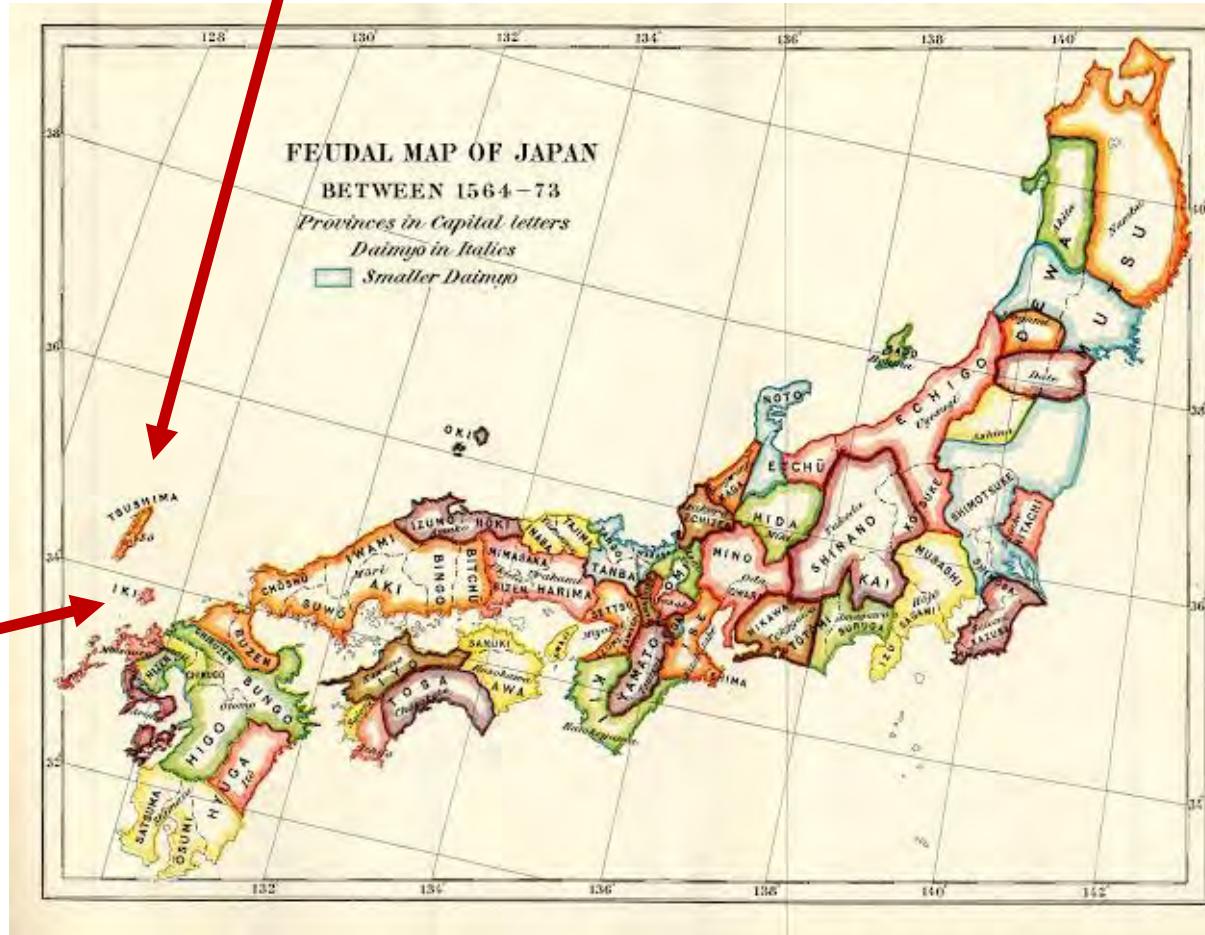
Tsushima Island

Tsushima Island



Tsushima Island

Iki Island



Iki Island Life



Necessity is the mother of invention.

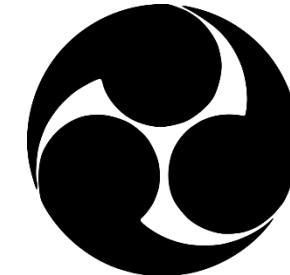
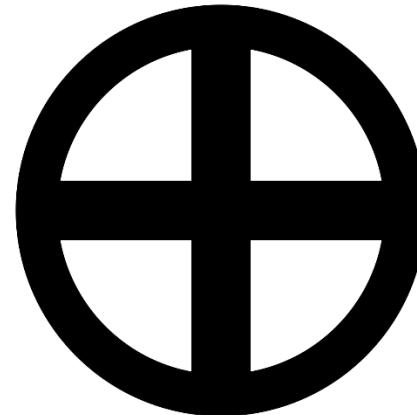
Iki “Barley” Shochu is born.





Satsuma Invades Ryukyu (1609)

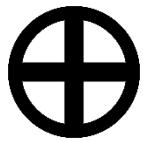
Ryukyu becomes a Vassal State



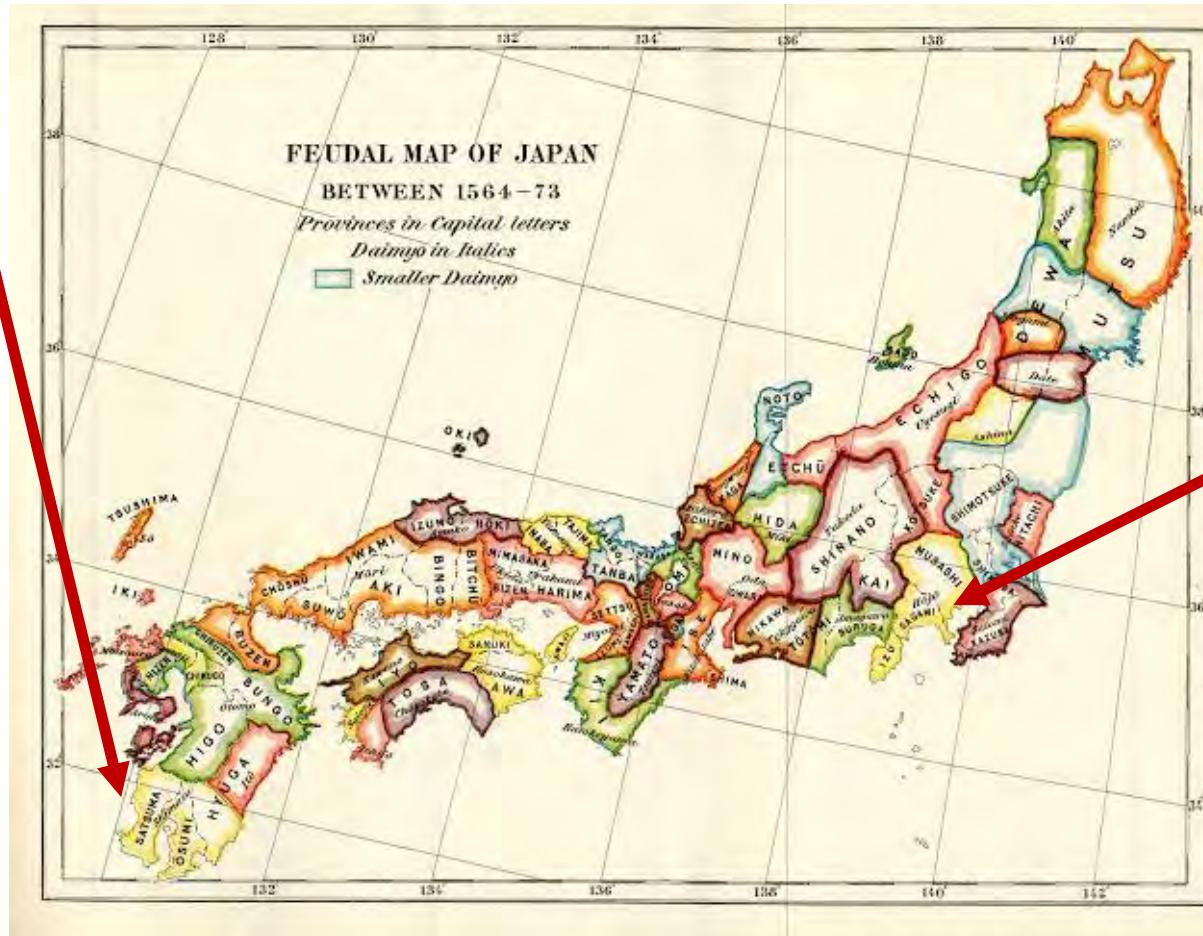


Sugar cane.





Satsuma Domain

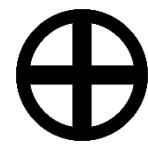


Edo (Tokyo)



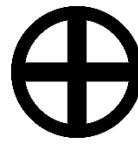
Sweet potatoes arrive in Japan (1705)





Massive crop failure (1732)





Satsuma Saved from Famine



Maeda Riemon

Remember all that sugar cane?



Amami awamori ... or rather shochu.



28 active kokuto distilleries today.

Kokuto sugar shochu can only be made in
the Amami Islands





Kasutori (sake lees)

a very traditional style

Soba (buckwheat) shochu

developed in Miyazaki Prefecture
in the 1970s



Kasutori Shochu Circle of Life



Everyone Loves a Souvenir







