



Japan Screen Topics

ISSUE No. 82-9

FLOWERS IN MID-AIR

107 feet 2 min. 58 sec.

1. (FIREWORKS) A sultry summer evening in Japan. The sky grows dark, and suddenly the air is alive with the excitement of... fireworks. Fireworks have been in Japan for over 400 years....

2. (FACTORY) In the 1800's, new chemical know-how was introduced from the West...and Japan's fireworks took a giant leap forward.

The color of fireworks depends on what metallic powder is used. For example, copper powder makes blue fireworks.

It's a delicate balance of charcoal, chemicals, gunpowder and paper tubing.

Japanese aerial fireworks are unique in shape, round instead of the cylindrical ones produced elsewhere.

And only Japanese fireworks can change color 2 or 3 times in mid-air.

Fireworks really came to the fore when the country was pacified under Tokugawa Ieyasu in 1600.

With him came peace...and a degree of prosperity, especially among the free-spending citizens of Edo, the capital.

All forms of entertainment blossomed, and fireworks shows were one of them.

It wasn't long before pyrotechnic displays became a great pastime for the common people...and a part of popular culture throughout Japan.

3. (BASEBALL GAME, FIREWORKS) Sparklers are a great favorite with children. Fireworks help celebrate a home run at a ball-game. Just like in the days of old, today fireworks light up summer nights every year in Japan.

FACTORY OF THE FUTURE

81 feet 2 min. 15 sec.

1. (FACTORY) Robots at the Yamazaki Machinery Works...the workforce of what is a fully-automated factory.

2. (DRILLING MACHINES) The Yamazaki metal-working factory has 3 shifts...the first two have a minimum maintenance crew of 6 people...but on the 3rd...the so-called Graveyard Shift, the factory runs without a single human soul minding the store. These robots may not have regular arms and legs, but the 18 automatons in this factory do the work of over 200 human technicians.

3. (MACHINES, TOOL DRUM, COMPUTER) The metal to make the product is automatically rolled from the casting area to the correct robot.

The computer picks out what tool is needed for the job... from an array of 40 or more accessories.

The robot knows when, for example, a drill bit has snapped... and right away pulls out a new one to replace it.

4. (COMPUTER) The central computer gives special instruction each robot gets a separate job to do.. And each robot works on its own.

Under this new system, finished parts are produced in 3 days instead of the 3 months normally needed in traditional metal-working shops.

And the 24-hour robots do practically everything except deliver the goods to the customer!

The factory of the future is...already here.

NOTE

Yamazaki Machinery Works is the largest maker of machine tools in Japan, with a monthly quota of 1400 precision parts. Japanese industry uses more programmable robots than the rest of the world combined...some 14,000 in all. When the factory was fully-automated, no one lost his job. Instead, workers were retrained and transferred to other sections of the company.

THEATRE BY FIRELIGHT

80 feet 2 min. 13 sec.

1. (YOKOHAMA, PARK) Yokohama was recently the scene of a special cultural event. For the first time in the city...a series of NOH plays were performed by firelight.
2. (STAGE, BRAZIER, DANCERS) They call this TAKIGI, or firewood, Noh. This play is probably the most famous in the Noh repertoire... Hagoromo, the Featherless Robe.

An angel descends to earth to go for a swim. She puts her splendid robe on a pine tree. But a fisherman passing by sees the beautiful cape and steals it for himself. The celestial lady begs that her garment be restored to her. And the fisherman agrees, on the condition that the angel perform a dance for him.

3. (SPIDER DANCE, FLUTE PLAYER) Next is a story of a demon spider that traps humans in its giant web.

The spider flings out its evil web...but in the end, the hero cuts the creature down with his sword.

4. (DANCERS, AUDIENCE) In the Middle Ages, Noh plays were presented at feasts in the shogun's palace...

And today, the classical theatre like this is enjoying a big revival in popularity.

SALT WATER ENGINE

79 feet 2 min. 12 sec.

1. (UNIVERSITY, ENGINE) The search for good alternative sources of energy...is a never-ending battle.

A team from the Tokyo Institute of Technology and Shibaura Institute of Technology has taken up the challenge... and put together a motorcycle that runs on steam generated by sun-heated salt water.

....The first such motorized vehicle that can run on water straight from the ocean !

2. (SCIENTISTS, MOTORCYCLE) It's called the CDE car, short for "Concentration Difference Energy".

A generator containing pure water is put into a salt water solution heated close to the boiling point by the sun .

Fresh steam is released from the generator and fed into the steam engine. The exhaust steam is then injected straight into the original salt water...

The steam is absorbed quickly and the heat produced is enough to generate more steam from the generator.

3. (CAR) The steam that is recycled is what moves the CDE car.

The CDE car can travel at 8 km. per hour for 20-30 minutes... on 26 liters of heated salt water.

So far, the university team has constructed 2 CDE vehicles... another milestone in the quest for new energy sources.