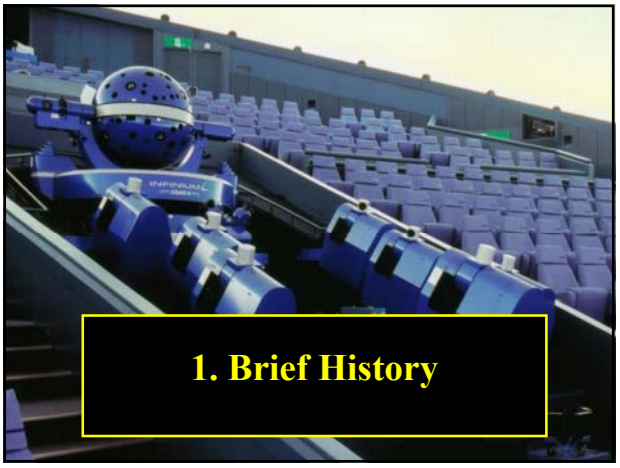
Educational Activities of Planetariums in Japan

Ken-ichi Kato
Chairperson, Japan Planetarium Association
(Osaka Science Museum)

October 11-12, 2007

Abstract

- Present status of planetarium institutions in Japan, their educational activity, and recent progress of hardware and software by stressing on the development of digital planetarium will be shown together with the talk on the Japan Planetarium Association (JPA) and International Planetarium Society (IPS).



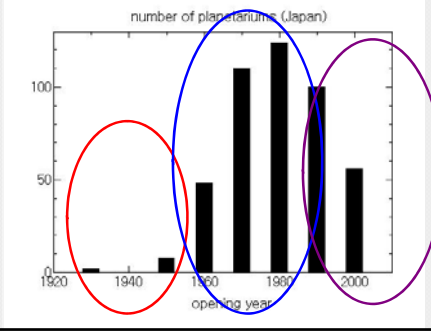
1. Brief History

Osaka Science Center for Electricity First Planetarium, 1937

Second Planetarium, 1938

Tohnichi Hall, Tokyo, Yuraku-cho

The Number of Planetariums Opened Counted for Every 10 Years



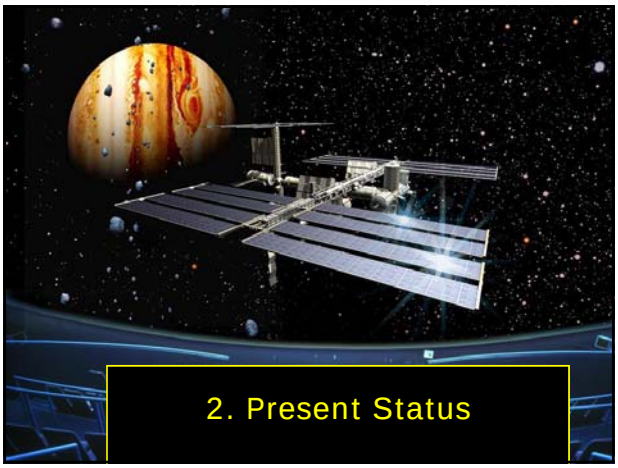
Three Stages of the Transition

The purpose and its role varied across the ages.

1. 1930-1960 The planetarium was very rare. Many people were attracted by the **rarity value**. The age that the planetarium was filled with modern astronomy !
Big Dome : 20m / Osaka, Tokyo, Akashi, Nagoya

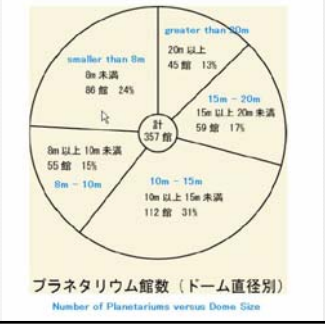
2. 1960-1985 Planetariums were planned and build to utilize for the **science education**, so that the most of them were installed at local science centers for young students.
Small or Medium Size Dome : 6 – 16m / at many cities

3. 1985 – today The Planetarium became to be very popular. Not only for the science education but for the **leisure of young families**. Today, it is seemed to be one of the accessary for city life like library, et al. But, the recent economical situation get worse year by year. ・・・・・・
Huge Dome : 20 – 30m / Ehime, Tama, Himeji, Miyazaki, Osaka



2. Present Status

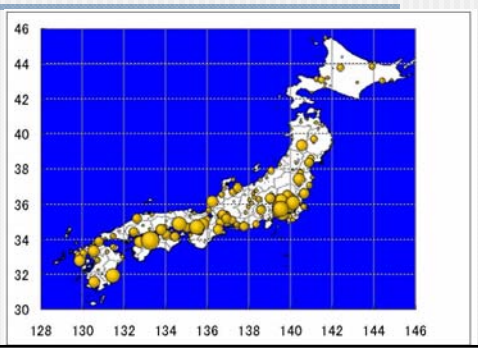
Dome Size



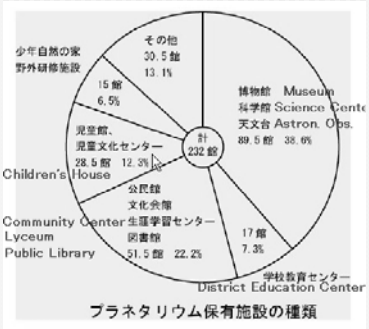
White Paper on Planetarium (2005)

Sho Ito lists a total of **375** planetariums in the latest survey.

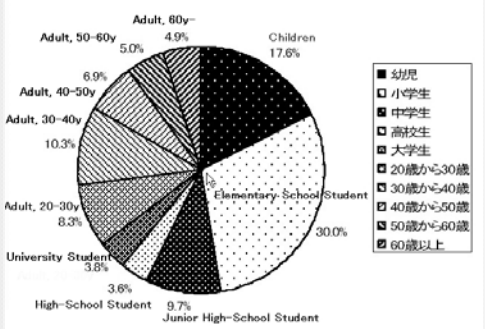
Local Distribution, over 5m



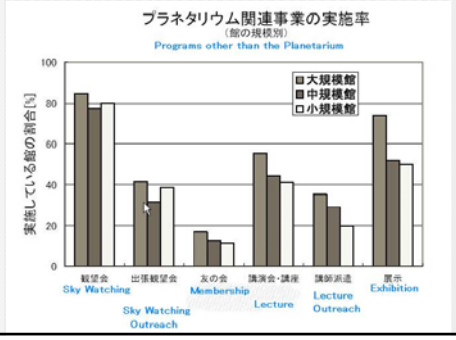
Administrators



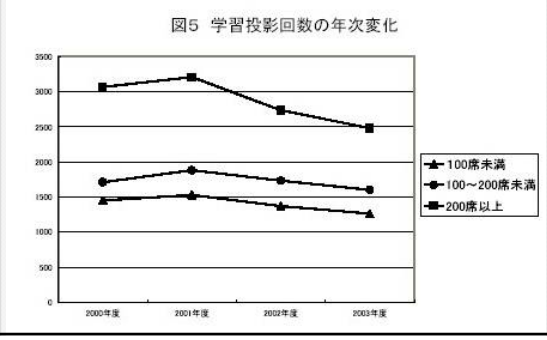
Attendance



Education Programs other than the Planetarium



Decreasing School Times



Conclusion

Planetariums have been seriously affected by the economical and political attitude.

A clear vision is important –
Science Education + (?)

- Appendix - 3. Japan Planetarium Association

JPA

- Three domestic planetarium associations united to JPA in 2006.
- Members – 217
  Planetarium Institution – 142
  Organization, Vender – 39
  Individual – 36
- Affiliate of the IPS (International Planetarium Society)

Fin

1:1. My name is Ken-ichi Kato, from Osaka Science Museum.
2:I would like to talk the present status of planetariums in Japan as chairperson of the Japan Planetarium Association.
3:
4:2. The abstract is here.
5:
6:3. First, we briefly present the history of planetariums in Japan.
7:
8:4. In 1937, the first planetarium opened the door to the public. Osaka City Government installed Zeiss II plenatrium in the Science Center for Electricity.
9:
10:5. Next year, in Tokyo, the second planetarium appeared at Ginza, Yuraku-cho, one of the most gorgeous districts. This was unforntunately burned down during the world war II.
11:
12:6. This shows the statistics on opening year of new planetariums counted for every 10 years. As you can seen from this figure, after the world war II and until 1980s, the number dramatically increased, and fall down after 1990's. In 1980's, a total of 122 planetariums was build and opened during this decade. It's amazing! This attitude coincides with the growth of japanese economy.
13: From this, we can divide the history of planetariums into 3 stages.
14: 1st-the age of rarity, 2nd-the age of rapid growth, and 3rd-the age of leisure for families.
15:
16:7. From the beginning to 1960's, the planetarium was exremely rare so that the most people desired to touch the star theater in which they were able to watch many stars during day time. It was very attractive.
17: From 1960s to around 1985, planetariums were planned and build to use for the science education for school students. 280 planetariums were installed during three decades. Through this process, the planetarium spread all over the country, so it became very popular for japanese people.
18: From around 1985 until now, the dome size increased to 30m, the planetarium systme itself became bigger and bigger, and gets much power as a audio-visual device. Today, the power is greater than that of usual movie theaters. This is the reason why the planetariums are used not only for astronomical education but also for entertainment.
19:
20:8. Next, I am going to show the present status.
21:
22:9. This is the result of survey of the dome size.
23:A total of 357 institutions are listed in the White Paper published in 2005. Recently, Sho Ito kindly presented me the latest result of survey. He lists 375 planetariums.
24: 40% have the dome smaller than 10m, about 50% institutions have the medium size dome, and the rest 10% have the dome greater than 20m.
25: As you may know, in Japan, there are big planetariums more than the United States.
26:
27:10. This shows the location.
28:In the big cities such as Tokyo, Nagoya and Osaka, and around them, many institutions are located.
29:

30:11. This shows the administrators. About 40% planetariums belong to Museum, Science Center and public astronomical observatory. Other 40% are installed in District education Center, local community center, or children's house. It is rare case where schools or universities have planetarium. This is entirely different from that of the western world.
31:
32:12. 6 million people in total visit and appreciate planetarium every year, in which 60% are children and school students. Over a half of them call at planetarium on a school program and the rest of the young students and children visit planetarium together with their families.
33:
34:13. While the most audiences are ceratinly young school students, the school time at planetariums are decresing after 2001. This is due to the alternation of the official curriculum for school.
35:
36:14. A number of educational courses other than planetarium are offered. They are sky watching, lectures, exhibits, et al. Recently, outreach activities get well noticeable.
37:
38:15. This is the conclusion. Until today, planetariums have been seriously affected by the economical and political attitude like a leaf on tidal wave. I think, in addition to the education, any other vision which is specific to indivudal institions is necessary to keep this powerful educational device for a long time,
39:
40:16. Finally, I'd like to introduce briefly the Japan Planetarium Association.
41:
42:17. Last year, The Japan Planetarium Association got started as an unified organization. The relation to the IPS will be continued as an affiliate member.
43:
44:Thank you.