

Quality and Quantity

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The skills of Japanese traditional handcrafts and performing arts have been handed down from masters to apprentices in the apprenticeship system. In the period of apprenticeship, an apprentice devotes himself/herself to the accumulation of own skills by stealing glances at master's skills. And only a few promising apprentices allowed by the master have been handed down with the esoteric points from mouth to ear. In this way, the qualities of skills have been maintained.

As the efficiency is valued in the industrialized society, the skills have been compiled in manuals and drilled by using textbooks. Nowadays, there is a specific example that the pictures of mold building craftsmanship were taken by a high-speed camera, and the analytical data were input to a computer for utilizing as part of 3D processing machine's artificial intelligence, and the mold building time were reduced dramatically in the result.

- Collection of links to Japanese traditional performing arts and handicrafts:

<http://www.ssac.co.jp/links/opera-2.html>

- For example of high-speed mold building system:

<http://www.ctc-g.co.jp/user/users/incus/main.html>

In the developed countries, industrial products have prevailed, the age of abundance of products has started, and now the quality or originality is called in question. Meanwhile, a manufacturer providing its products to the global market shall respond to the volume production to some extent.

The conventional parts ordering system and conventional production line cannot respond because both development period and product cycle are shortened for high-mix volume production. The assembly system has shifted from the conventional assembly-line system using belt conveyor to the cellular manufacturing system in which one worker assembles to some large unit. To motivate the employees, the number of companies established their proficiency measurement systems corresponding to assembly skills are increasing.

Not a few small-to-medium-sized companies trying hard in niches where large companies cannot respond. They secure the quantity by bringing in batteries of experienced part-time employees' manpower, and assure the quality through proprietary inspection equipments and advanced analyzing apparatuses. As just described, the companies in the 21st century cannot survive without responding to both quantity and quality problems flexibly. For recovering the competitiveness of Japanese-made products, a new apprenticeship system to create, develop, and hand down skills may be required.

- For cellular manufacturing system:

<http://www1.harenet.ne.jp/~noriaki/link71-3.html>

<http://www.alpha-net.ne.jp/users2/gzmgzm/article/04/55.html>

<http://www.eco.goo.ne.jp/zensen/files/0306.html>

- For German meister system:

<http://www.shou.co.jp/waza/myster.htm>

- For Japanese proficiency measurement system:

<http://www.mhlw.go.jp/general/seido/syokunou/ginou/>

At a restaurant serving tea ceremony dishes, people can enjoy examined serving dishes and beautiful arrangements visually, and enjoy tasting ingredient-conscious dishes cooked labor-intensively offered as their hospitalities. Other than such dishes thoroughly minding the quality of hospitality, the dishes to be emphasized at cheap restaurants in students' quarter or the towns where many physical workers are living or working may be their volume to satisfy stomachs rather than the qualities, and menus to keep them interested. Recently, increasing in number is the somewhat-stylish fixed-menu restaurants, they are non-smoking and with bright-mode such as even women can go casually. Western-style restaurants sticking to nostalgic tastes such as curry and omelet containing fried rice are still alive. As just described, there are various patterns of restaurants meeting customer's requests—valuing the quality, valuing the volume, balancing the quality and volume, etc.

- For differences between tea ceremony dishes and set of dishes served on an individual tray for entertaining guests:

<http://www.i-chubu.ne.jp/~reliable/kaiseki.htm>

- For cheap restaurants:

<http://homepage2.nifty.com/entetsu/taisyusyokudo.htm>

- For fixed menu restaurants:

<http://bb1.tv-tokyo.co.jp/gaia/keyword/030706comment.php>

- For western-style restaurants:

http://www.eat-in.info/archives/cat_27.html

One thing to call the rail travel to mind was the clickety-clack—the sound played by the rails and wheels when railway cars pass. Recently, however, this sound became lower drastically and its time has passed due to the accelerated adoption of continuous welded rails and the weight saving of railway cars.

Consequently, luxury express trains with sleeping berths featuring the compartments with sophisticated design, well-appointed car interior and fixtures, meals in the dining car equivalent to top-rated-restaurant's, etc. have been run to touch the heart of a traveler newly. Like this, new trade articles have been developed and new demands have been stimulated with the improvement in quality.

- For continuous welded rails and their welding:

http://www.nishitetsu.co.jp/train/koumu/rong_reil.htm

http://www.yahagi.co.jp/tech/tsmap/long_rail/main.html

- For journey by express trains with sleeping berths:

<http://www5.ocn.ne.jp/~hok/night.html>

<http://allabout.co.jp/M/s/040818/>

The wireless applications familiar to us such as mobile phones and wireless LAN have become widely used on

a massive scale. Furthermore, new-system wireless applications are expected to increase continuously. Given this factor, the Information and Communications Council in Ministry of Internal Affairs and Communications recommended guidelines for fundamental review of radio spectrum allocations, development of radio spectrum redistribution/allocation system, etc. in the form of Radio Policy Vision.

When this vision turns into reality, can be created is a situation that many wireless applications are around our ears such as remote controllers. To solve this problem, the research of software defined radio is in progress to achieve useful wireless applications that enable communications with different-system or different-spectrum stations by themselves.

To develop and provide user-friendly wireless applications satisfying requirements of applicable standards and regulated values is considered as matter of course, furthermore, to provide higher-quality EMC environment must be our responsibility.

- For recommended guidelines for Radio Vision from Information and Communications Council:

http://www.soumu.go.jp/s-news/2003/pdf/030730_01.pdf

- For Software Defined Radio (SDR):

<http://e-words.jp/w/E382BDE38395E38388E382A6E382A7E382A2E784A1E7B79A.html>

- For collection of links regarding SDR of ARRL:

<http://www.arrl.org/tis/info/sdr.html>



Lounge car of "Cassiopeia"
(express train with sleeping berths)



Working Japanese Sword



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1943 Born in Tokyo

1968 Graduated from Department of Engineering Science, Osaka University

~ 1984 Worked on developing Information Technology Device at Taga Works, Hitachi, Ltd.

1991 ~ Engaged in education on EMC related matters at Hitachi Institute of Technology

1999 ~ Planning Manager