

Every Country to Its Design
– Design and Overseas Projects –

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Design Challenges Involved in Overseas Projects

Starting with a project in Boston which Kinki Sharyo won in 1983, I have been involved, as designer, in most overseas projects with which our company has been entrusted. The projects in which I participated comprise six LRV projects in various parts of the U.S.; the Line No. 2 in Cairo, Egypt; and projects in Hong Kong, Manila and Dubai, the last currently in progress. Needless to say, no two overseas projects are similar to each other; conditions vary widely according to country and customer. Looking back on my experience of over 20 years, however, I feel that there are certain common trends that are noticeable in a bird's-eye view.

First, customer demands and expectations related to design are growing steadily. In the past, customers were usually satisfied with only one design presentation meeting. Recently, however, they make detailed demands on design, regarding design as a main element of vehicle development.

I also note that while we designers were once involved only in matters related to image and coloring, we have come to engage in matters related to "soft engineering," so to speak, which deals with passenger comfort. Such engineering involves ergonomics, universal design, and the use of mockups. There are several reasons for this trend. First, industrial design has been reoriented in such a manner that it now has a clear focus on special needs, while technological developments have generally reached a saturation point. Also, customers lay a growing stress on rail vehicle design from the viewpoint of promotion. Furthermore, the border between design and engineering has become increasingly unclear; as a result, it is now a common practice to approach engineering problems from the standpoint of design.

In carrying out an overseas project, our design team now acts a spearheading unit, which drives the project by identifying the images of the object country, area and city; and thereby embodying customer demands in the form of a basic design. The team then finalizes the design through cooperation with other designers who take charge of technical aspects. In a recent project, therefore, the design team works in close cooperation with the customer during an early period of the project, to determine a basic design viewpoint. We think that this approach eventually allows us to win customer trust by providing what satisfies them.

Presupposing Differences in Design

As I mentioned before, no two overseas projects are amenable to the same approach. We deliver vehicles to a customer whose culture, language and ethnicity are different from our own. This naturally means that we must design our vehicles so as to suit a different taste and a different way of thinking. The most important point is how far we can understand these differences. We cannot apply the yardstick used in Japan to an overseas project; rather, we must realize the fact that criteria different from our own exist. This is easy to say but very hard to do: you cannot understand differences only by reading some reference documents or making some trips to an object area. You can begin to accomplish this task only by communicating with a customer frequently, and get a feel through these direct contacts.

Given this situation, we must avoid becoming a prisoner of ethnocentrism. The term "ethnocentrism" refers to the attitude of seeing your environment as the center of the world, and regarding all other environments as inferior to yours. For example, we adopted stainless steel seats for vehicles manufactured for our Hong Kong project. Japanese



Heliopolis
Municipal
Tram

Boston
LRV
(MBTA)

Cairo
Metro
Line 2

Dallas
LRV
(DART)

New Jersey
70% Low Floor
LRV (NJT)

people would feel that stainless steel is a poor material for vehicle interior, and that therefore, its use for seats is out of the question. However, local staff were of the opinion that stainless steel was the best seat material, given the climate of Hong Kong; and that cloth seats, such as ones used in Japan, were unsuitable for commuter trains in the territory. In fact, stainless steel seats later found acceptance among local passengers. As this example shows, some design preferences derive from a particular environment or a particular taste of people, and therefore it is meaningless to discuss the reasonableness or unreasonableness of such preferences.

In other words, design must be tailored to the yardstick of users, and we should not force our own criteria upon them.

Also, we think that with regard to LRVs we delivered to six cities in the U.S., we were successful in providing vehicles which were designed to answer each city's needs, and which citizens could be proud of. This result could be achieved because we sufficiently identified the environment and characteristics of each city, and cooperated closely with each customer in vehicle development. We, as native Japanese, cannot easily understand the different ways of thinking to which our customers in Europe, America, Asia, Middle East and various other parts of the world are accustomed. However, I think that understanding them is a key point in designing vehicles to be exported.

Importance of Design Management

When communicating with a customer whose culture is different from ours, it is important to make what we are doing as understandable as possible. As our team and the customer have different cultural bases, another key point is to explain our intentions clearly to avoid possible misunderstandings.

Needless to say, we must present our design work proper in an appropriate manner. In an actual situation, we must also make constant efforts to present our scenario (i.e. a plan consisting of a time schedule and other details) for design development; communicate, in a plain language, what we are doing and what should be determined; and carry out this scenario accordingly. In other words, design management is extremely important; it ensures that our project will be promoted in close cooperation with the customer.

Conclusion

Unlike automobiles, rolling stock cannot be marketed on a universal basis. Rather, they are an element of public transportation which should be friendly to people in an object area; and, as such, represent specific-area products. Therefore, we will continue to develop industrial design for each project by considering regional differences, while trying to establish Kinki Sharyo as an international brand.



Hong Kong
Electric Car
(KCRC)

Santa Clara
70% Low Floor
LRV (VTA)

Seattle
70% Low Floor
LRV (ST)

Manila
LRV
(LRTA)

Phoenix
70% Low Floor
LRV (VMR)