

21

Universal Design: Design Issues for the 21st Century

(Universal Design)

ADA(Americans with Disabilities Act)

(Ronald Mace)

ADA

4가

ASID

(Susan Behar) “

45.7cm

4가
가

(Supportive Design)

가
가
가

(Adaptable Design)

가
가

가

가가

가

가

가

(Accessible Design)

가
가

ADA

가

)

가

(curb cuts)

가

가

가

가

가

.”

가

가

가

가



가



(Safety-Oriented Design)

“

가

(Ronald Mace)

가

가

가

가

가

가

가

가

가

ADA

.ADA

가

가

4가

가

가

가

가,

(91.4cm)

가

가

가

,가

가

가

가

가

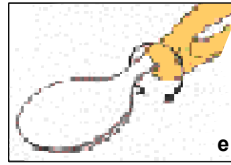
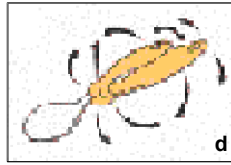
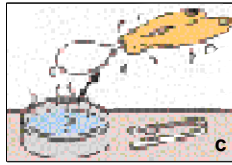
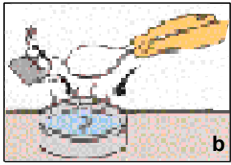
(Roberta L. Null)

가

<

Universal Design>(1999)

가



가

b 70.C

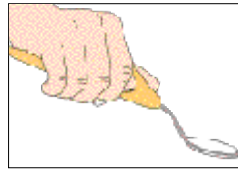
c 3 5

d

e (grip)

f 가 가



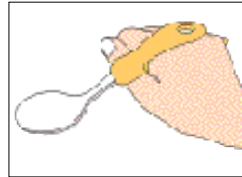


U

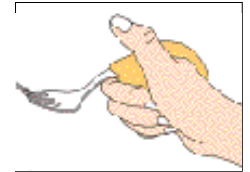
가



U



U



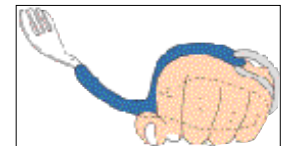
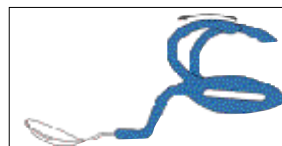
Shape-Memory Cutlery to Increase Independence for the Handicapped : Aoyoshi's WiLL-Series

Japanese people are strongly interested in welfare enhancement, preparing for the future society overpopulated by elderly citizens. In that sense, the 'WiLL-Series', a product especially designed to fit the need of the handicapped and the aged, is characteristically Japanese. With this product, users no longer need to adjust themselves to what they use. The shape of this product can be freely changed over and over again to fit users' physical conditions. Made of a new material called 'Shape-Memory Polymer', this cutlery for the disabled can accelerate the recovery of users' health and raise the patient's confidence. It can also reduce caretakers' labour. This product has been jointly developed by Mitsubishi Heavy Industry Co.,Ltd. and Aoyoshi Co.,Ltd. Since the "WiLL-1" was released in 1990, several other products of this series have been developed including "WiLL-4". The product has won the 1996 Award of the Minister of International Trade and Industry, and Japanese Good Design Award in 1999. www.mediagalaxy.co.jp/aoyoshi

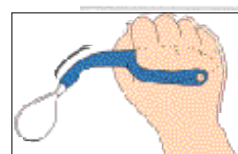
(2 - 8)

가

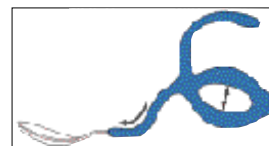
가



가



가



가



(Radius)
 (Petra Goebel), / (Maquet).
 1999 iF .www.maquet.com

4
가





(usability)
가

가

가 ,
가 ,
가 ,
가 ,
가

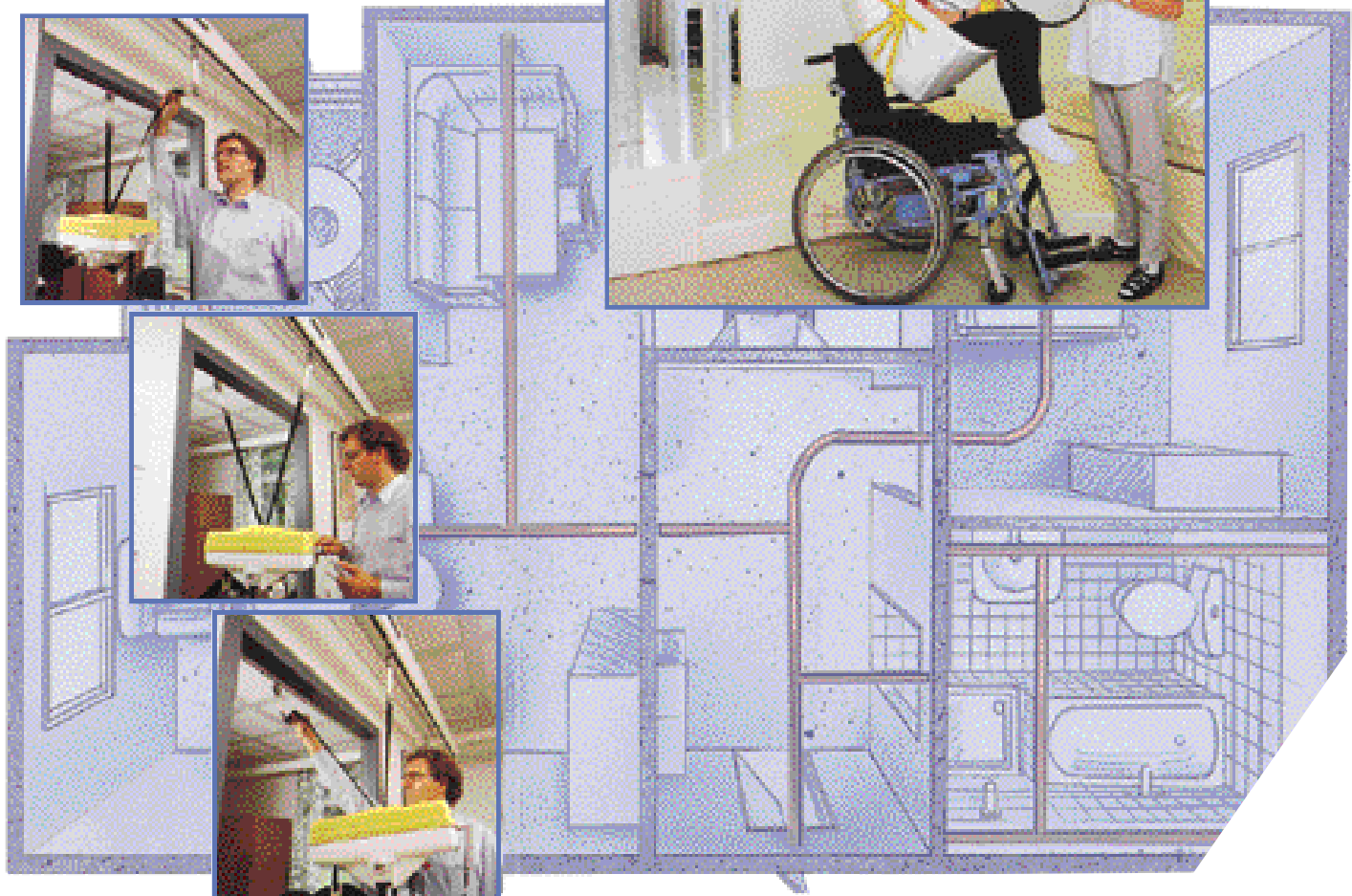
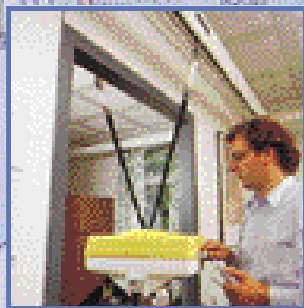


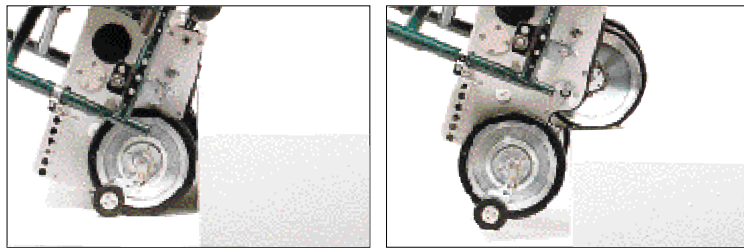
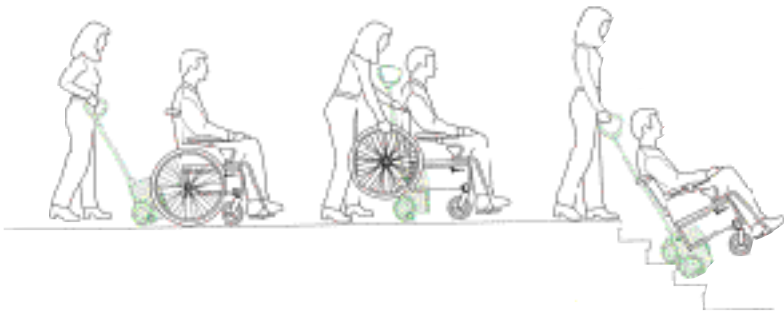
Medical Instruments Designed from the Patient's Point of View

Due to the problem of cost and production, and technical complications, rehabilitation devices and medical instruments are infrequently renewed. In this issue, we are introducing several medical rehabilitation products designed to increase the convenience of disabled patients who have special physical condition. 'Radius' (Gynecological examining table), 'HumanLift' (bathroom safety instrument designed to assist the disabled in taking bath), and 'ScalaMobil' (wheelchair stairclimber) are three of the most superior medical devices in their concepts and designs. 📷



(HumanLift)
/ (Mannesmann Dematic).
가
가
가
1.70m 150kg
www.dematic.com





(Scalamobil)
/ (Alber).

1 가
. www.ulrich-alber.de



1980
가

가

가

가

가

가

(Ashcraft)

.1996
NPA(Network

Peripheral Adapter)

() “

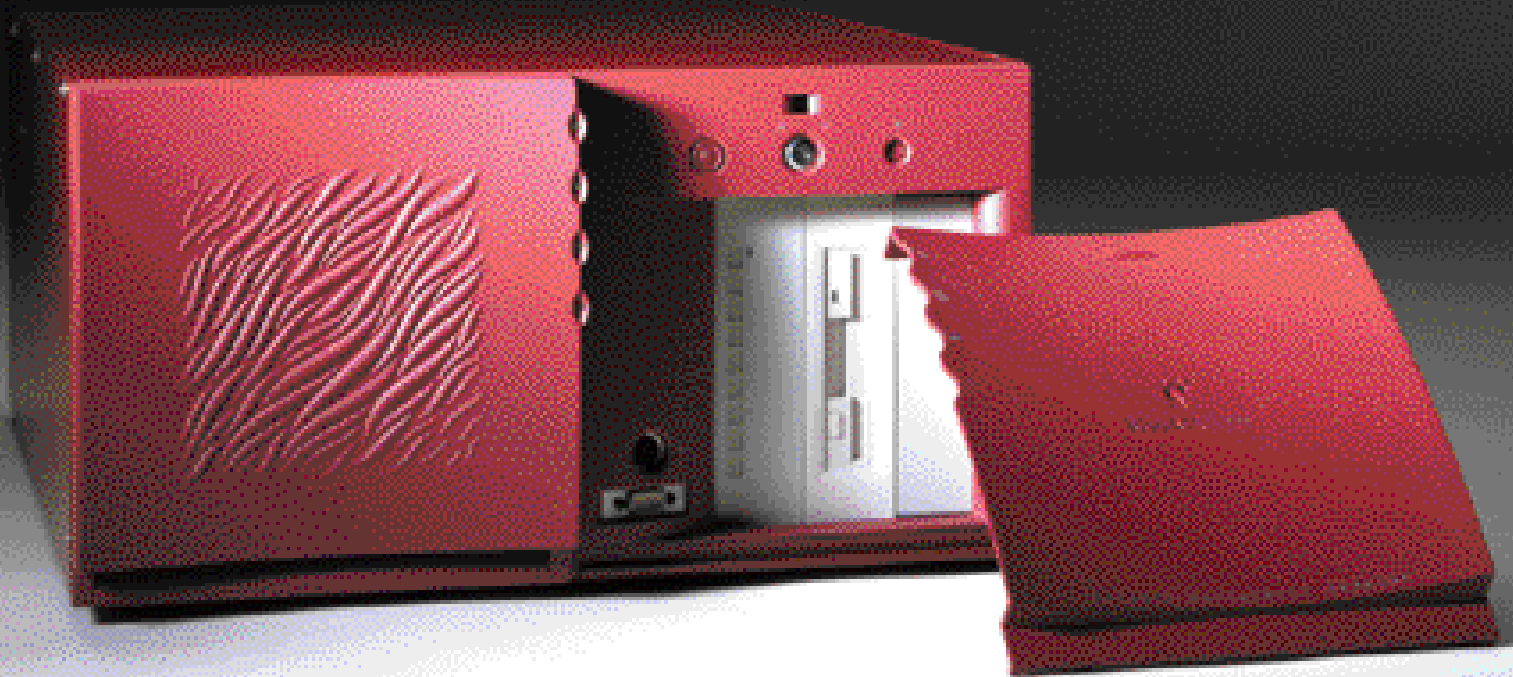
가NPA

”

“ NPA 가

.NPA 가

DSNA(Distributed Storage Node Architecture)
NPA (Disk Array)
(File Server)
(Tape Libraries) Hippi, ATM, Fiber
Channel, Ethernet, FDDI



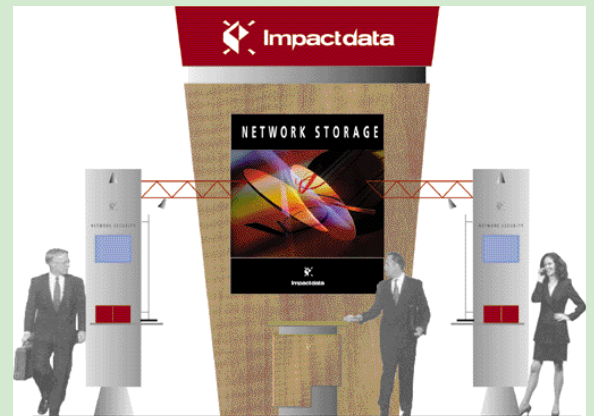
Registering User-Experience into the Brand, Ashcraft Design

In the 80s, American design firm Ashcraft Design had mainly focused on developing technology-oriented brand products. However, the company recently has been redirecting its strategic focal point on the creation of brand image reflected upon 'Experiential Design Strategy'.

That is, Ashcraft establishes product design and marketing strategies upon the customers' product evaluation and brand preferences. It is needless to say that reinforced user-product interactivity monitoring, brand image integration, and vigorous market distribution system are essential precedents to successful implementation to the strategy.

Reputed to adopt wide range of factors leading to a successful product development, including marketing, sales, advertisement, and consumer experience, Ashcraft Design has introduced NPA(Network Peripheral Adapter) already in 1996.

Launching of NPA brand, representing sci-tech commercial product lines, is a showcase of successful implementation of 'Experiential Design Strategy'. www.ashcraftdesign.com



” ()

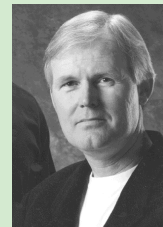
, , , 가

. 6 4

NPA

NPA

JBL, Harman Kardon, Xcrox,



(Daniel Ashcraft)

<I.D>, <

>, IDEA,

Nike

(Monrovia)

www.ashcraftdesign.com

UCLA

IDSA



(1992. 11. 1.) 2000. 6. 6.

) 2001.

2.

가

가

(), (1), Uniform Federal

Accessibility Standards Americans with Disabilities Act.(U.S. Access Board 1994. 9))

(), (

), (), ()

가

가 가

가

가

가

가

가

가 ()

. www.airport.or.kr / (가)

Sensible Support System Designed to Help the Handicapped, Incheon International Airport

Aiming to become Northeast Asia's largest hub airport, Incheon International Airport is looking forward to the completion of its construction by coming June 2000. This ambitious, nearly ten year-long undertaking of Incheon International Airport Corp. (IIAC) has launched its first level construction in November 1992 and is expecting an opening early next year, after some six month's of test period. It will be not only the first international airport implementing the latest comprehensive airport information system for the expected high traffic of wide range of aircrafts and transportation, but also a user-friendly public space, especially for physically-handicapped visitors in and out of the airport. Adopting universal design approach, the airport was designed to help the mobility of the handicapped together with assistance of special staffs, while the non-handicapped are not hindered in their normal transactions and utilization. www.airport.or.kr



1992 12 1998

9

38 가

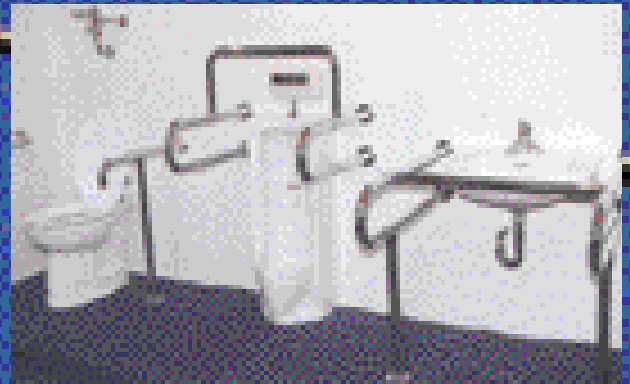
CAD

3 CAD

1/100 1/50



가



가



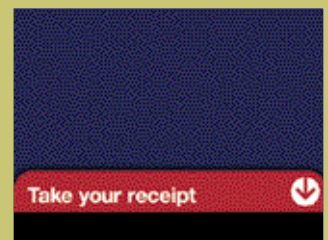
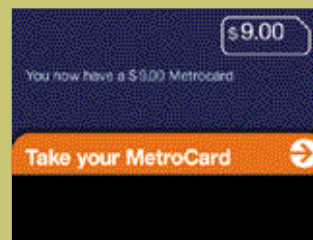
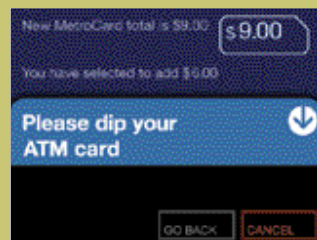
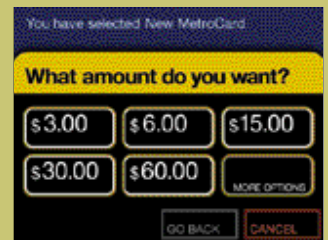
가

가

가

가

가



Applying Technology to Environment, Antenna Design

Antenna Design was founded in 1997 by two industrial designers Masamichi Udagawa and Sigi Moeslinger with the mission to put technology products to improve the urban environment. Ranging from public to commercial sectors, from concept to production stage, the firm has been undertaking diverse range and level of projects for a number of respectable clients. Thank to the thorough expertise of the both designers in the industry, Antenna Design boasts its knowledge and expertise in development of universal design, application of rapid prototypes, and maximization of user interactivity. With the firm's latest focus on user-comfort oriented approach, Antenna Design has been consistently developing to apply integrated hardware and software technology. Recent major project for the New York City's Metropolitan Transit Authority included user-friendly Metrocard Vending Machine and R142 and R143, new vandal-proof subway trains for the New York MTA system. www.antennadesign.com

NYCT
(Metropolitan Transportation Authority) & (New York City Transit).

(NYCT Metrocard Vending Machine)

(MetroCard) IDEO

8가

Disabilities Act:) ADA (Americans with

(bezel)

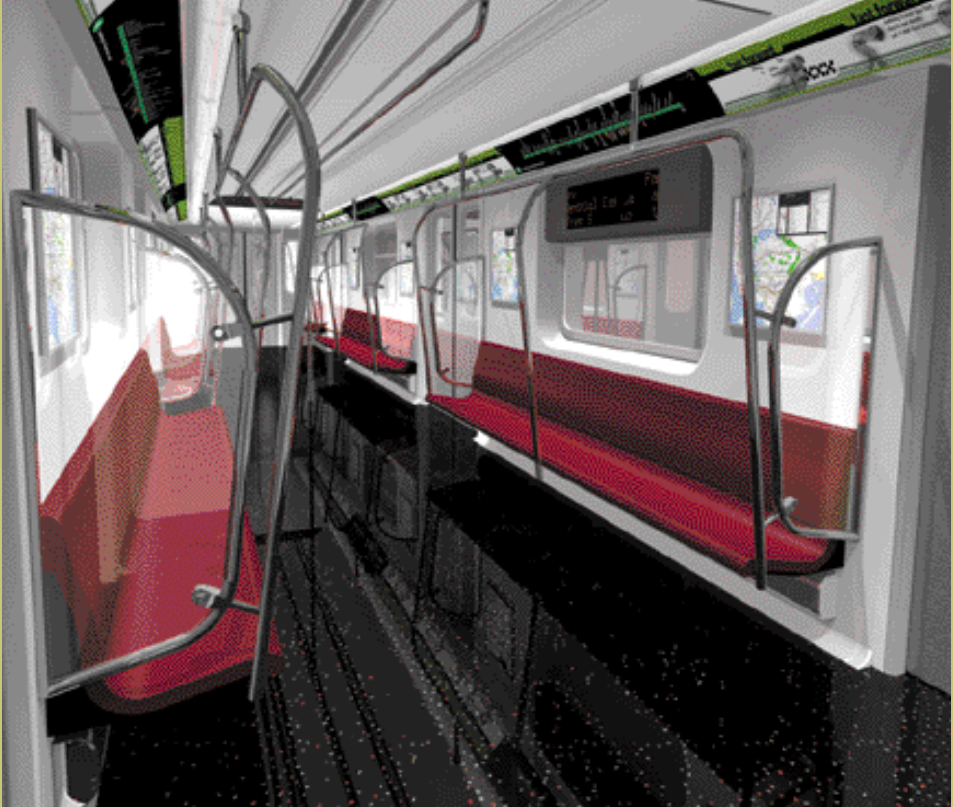
가



1m37cm

) () 8 가 (10

ADA



(NYCT R142&143 Subway Cars)

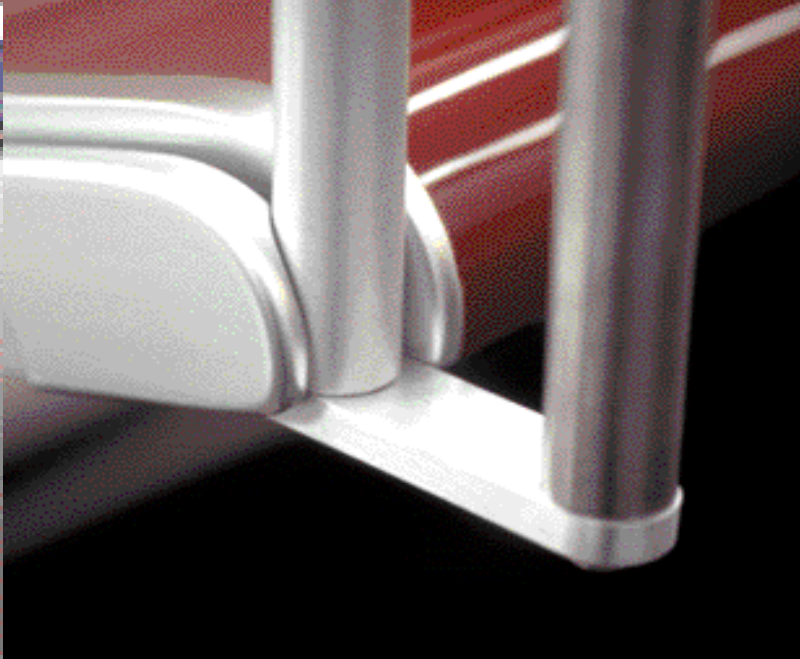
R142(IRT) R142(BMT IND)

가

PA

가

NYCT R142&143 Subway Cars()
: (FRP: Fiber Reinforced Plastic), :
(Melamine panels), : (Rubber composite), :FRP, :
/ (Metropolitan Transportation Authority) &
(New York City Transit).



가
50%
가
(melamine)
가 2 3 가

(Antenna) 1997 가 (Masamichi Udagawa) (Sigi Moeslinger)
가
가
(Fujitsu), (Orix), (Walker Art Center), IBM, (Steelcase),
Museum), (Interval Research) . www.antennadesign.com (Cooper - Hewitt National Design



가 (Masamichi Udagawa)
1987 (Yamaha Product Design Laboratory) YS200 .1991
(Cranbrook Academy of Art) (Emilio Ambasz Design Group)
(Apple Computer Industrial Design Group) 5300/3400 (1992-1995)
(Advanced Technology Group) IDEO
(1995-1997) IDEA , <I.D>



(Sigi Moeslinger)
1991 IDEO , NEC, (Matsushita),GM/ (Hughes)
Research) (1996) (Interval
(Digitale) , CHI , .IDEA, <I.D> , iF
(Thread Waxing Space)