

Designs for independent living : the Museum of Modern Art, New York, April 16-June 7, 1988

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DESIGNS
FOR
INDEPEN-
DENT
LIVING

THE MUSEUM OF MODERN ART, NEW YORK APRIL 16-JUNE 7, 1988



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DESIGNS FOR INDEPENDENT LIVING
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DESIGNS FOR INDEPENDENT LIVING

During the last ten years there has been a significant change in attitude toward designing products to meet the needs of the elderly and people with physical disabilities. While previously the tendency was to view people with physical limitations as dependent on others, today the emphasis is on designing environments that help integrate people into the community and enable them to live as independent and normal a life as possible. People with physical impairments represent a large segment of our population, and the recognition of their specific needs is creating a design movement that is providing new challenges and opportunities for industrial designers.

Those with physical limitations often have difficulty living independently because of problems created not by disability or age, but by obstacles in their surroundings. The importance of adaptive aids can be appreciated when we understand that a handicap is not a characteristic of a person with a disability, but rather describes a relationship between an individual and the environment. Thus someone with physical limitations may be handicapped in some circumstances but not in others: with the appropriate products a person may be able to perform daily activities, and so is no longer handicapped in those particular situations. Many disabilities are not readily apparent while others are so common we take them for granted. For example, people with impaired vision need eyeglasses, yet today we rarely think of them as aids for a disability. In fact, some people who do not even need glasses wear them as a fashion accessory.

Cumbersome designs reinforce people's feelings of isolation and inadequacy and have contributed to society's stigmatization of people with disabilities. Usually it was the equipment, not the disability, that detracted from the appearance of the person, making the individual seem different, even unapproachable. The equipment formed a psychological barrier to interaction. Traditionally, adaptive aids have been developed by family members, occupational therapists, or medical technicians. Many of their designs, however, can be described as clumsy and makeshift, and often look institutional.

The items selected for this exhibition represent some of the most outstanding examples of well-designed, mass-produced objects currently available for the elderly and those with physical disabilities. What distinguishes them from many improvised aids is that in the hands of sensitive designers they have been enhanced by an aesthetic quality not usually associated with adaptive technology. Their beauty derives in large measure from an economy of design and purity of form. Nothing is extraneous. Another remarkable quality is their unobtrusiveness: they do not draw attention to their function as adaptive aids. Some ultra-light wheelchairs, for example, are so minimal that the viewer focuses on the user rather than on the equipment.

A major factor contributing to these recent design innovations has been the growing consumer market created by shifting demographics. More than half the people who have ever lived beyond the age of 65 are alive today.¹ By the year 2030 one out of five Americans will be 65 or older.² As people age, they often lose their functional abilities in a slow but progressive manner. While many elderly people have diminished physical capacities, most do not wish to be identified as "disabled."

But perhaps the more significant factor has been the change in society's attitude. Until recently people with physical limitations have been prevented from fully participating in the community; their greatest barrier was society itself. The civil rights movement of the 1960s, which increased our awareness of the rights of all minority groups, provided the initiative to integrate people with physical disabilities into the community. As these groups become more actively engaged they will be less conspicuous as a separate group.

Adaptive aids are designed to supplement a physical impairment, to assist the elderly, and to replace missing parts of the human body. The products are essentially tools: although they cannot totally compensate for an impairment, they extend a person's capability, enabling him or her to do more than would be possible without these tools. What makes designing for specific needs challenging is that strict parameters and objective criteria dominate: the functional requirements of the user determine design constraints that must be met in the final product. A concern



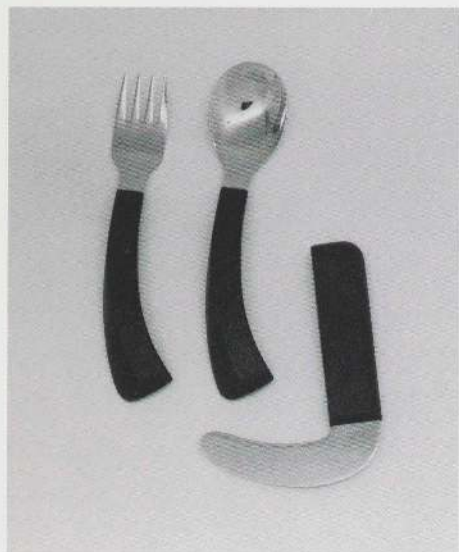
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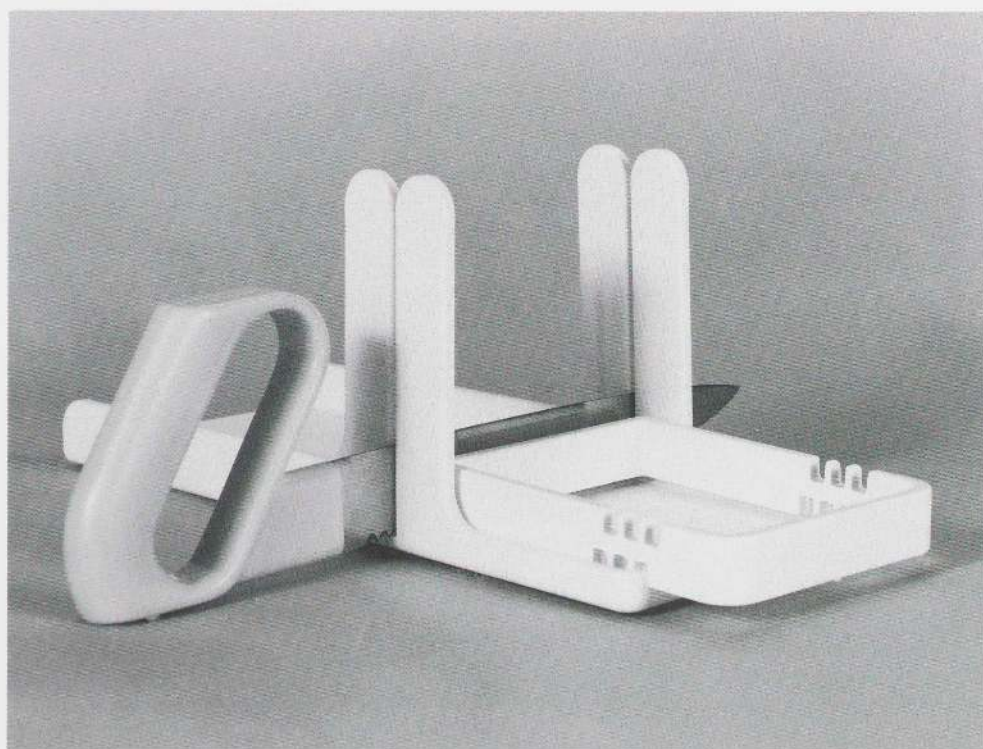
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for the most efficient performance helps discipline designers and encourages them to focus on the essentials. This approach differs from the design of most consumer objects, whose forms are frequently marked by incidental ornament and frivolous styling created for market acceptance.

These new designs derive from a collaborative approach to product identification and problem-solving among industrial designers, medical professionals, and users. To achieve meaningful results, it is imperative to involve the user in the design process, for the objective is to develop aids that will make maximum use of a person's abilities. Carefully constructed handles, for example, direct the hand to hold an object in a particular way, promoting a less stressful and more effective grasp. In the past, the tendency was to focus on what a person could *not* do, and products required assistance for use, encouraging dependency. The collaborative process has helped clarify the differences between the various impairments and has furthered our understanding of disabilities.

The determination of athletes with disabilities has brought about many of the changes that exemplify the new design movement. Extraordinary advancements in wheelchair designs were prompted by a change in regulations governing wheelchair sports competitions during the late 1970s. These athletic competitions help focus on a product's strengths and weaknesses and often lead to innovations in equipment design. With competition between equally skilled individuals, excellence in equipment becomes the deciding factor.

Like other industrial designs, wheelchairs are making use of advanced technology. Lightweight materials developed in the aerospace industry are now used to achieve more portable and faster wheelchairs. While the initial benefactors were athletes with disabilities, sports wheelchairs have transformed the design of everyday wheelchairs. In the past a wheelchair was considered a chair, a place to sit. Today it is seen as a tool to enhance mobility. It can be maneuvered with little effort. As with many new products, the use of color has become a vital feature: often the sole decoration, it creates a sporty, positive character.

Like the elderly, very young children have needs that can be met by specially designed equipment. Although they are not disabled, they too

have physical limitations. Because many of a child's first movements can be characterized as primitive, some of their products derive from designs originally developed for people with limited hand strength and grip facility. Products are developed to assist them to learn—for example, to eat by themselves. The feeling of independence can be the most important factor in the quality of an individual's life, and results in greater pride and self-confidence.

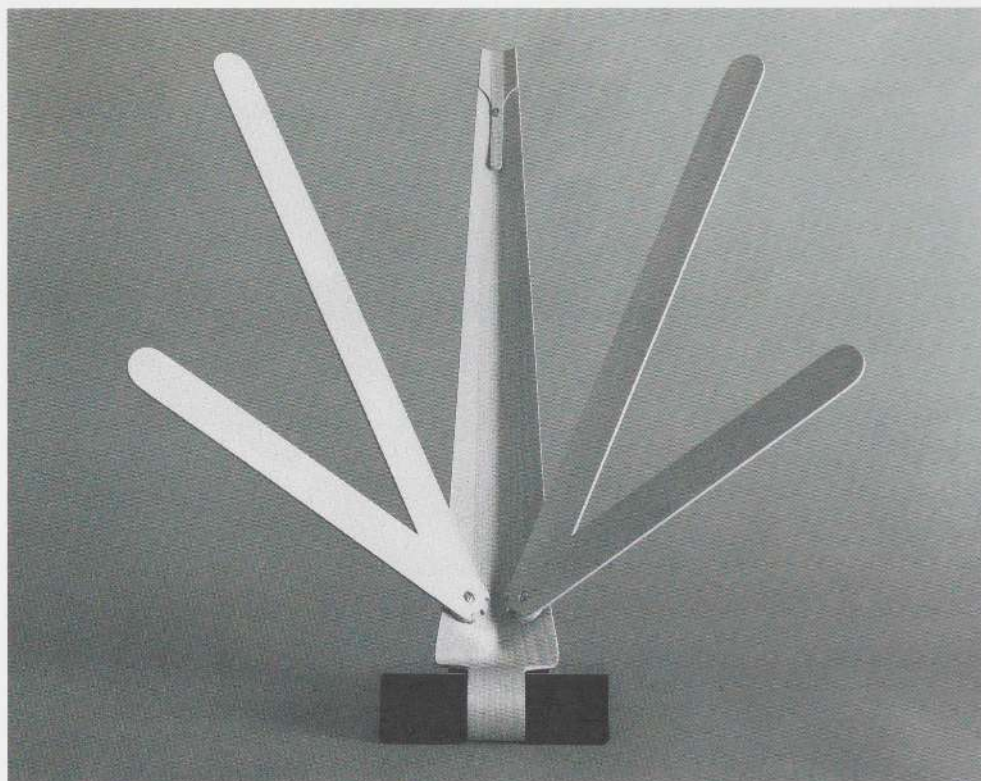
The use of electronic aids to serve the needs of people with impaired abilities offers enormous potential. Already electronic devices are improving methods of communicating with others and are opening up employment and educational opportunities. Many applications of sophisticated technology—for example, for synthetic speech and vision prostheses—are still being researched and will continue to be a major area of development. Because this exhibition is necessarily limited in scope and does not include prototypes, a number of fascinating technological achievements have been omitted.

Although this new design activity is directed toward the elderly and people with disabilities, designing for those with special needs is teaching us more about designing for people in general. Curb cuts in sidewalks, for example, initially intended to facilitate access for those with disabilities, assist bicyclists and those pushing shopping carts and strollers. Because some of the items in this exhibition, like the Swedish breadboard and knife, have a mass appeal, they have already penetrated the larger consumer market. A better understanding of the relationships between product and user is leading to more effective designs that may eventually transform a wider set of consumer products and benefit society as a whole.

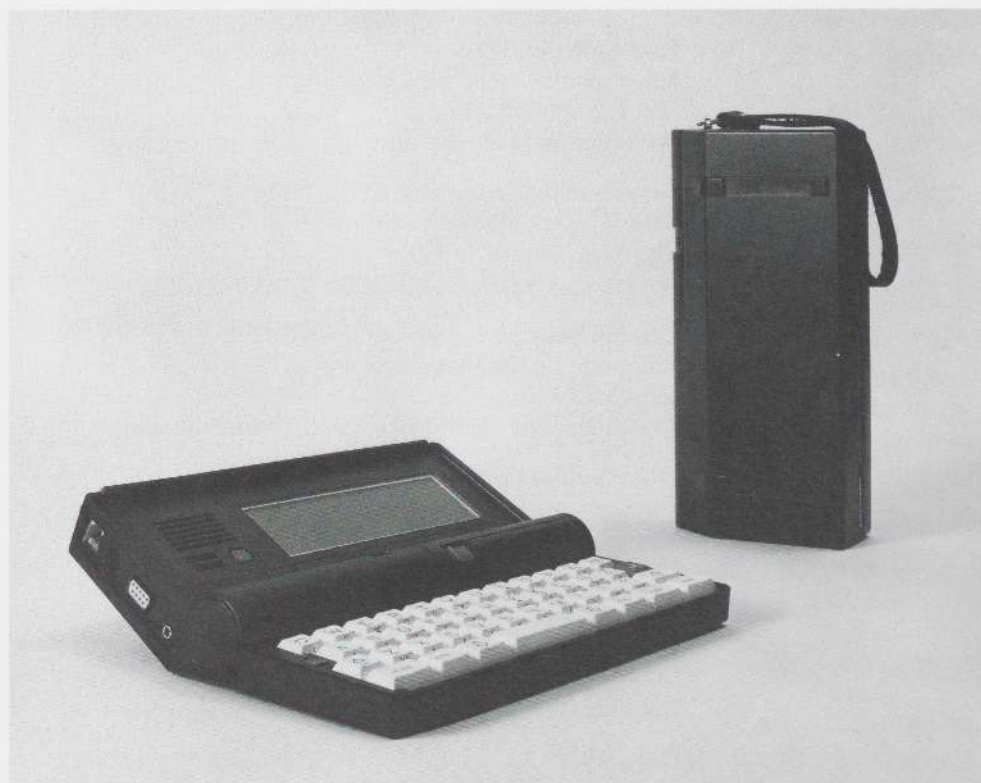
Cara McCarty
Curator of the Exhibition

¹ T. Franklin Williams, M.D., "The Future of Aging," *The Archive of Physical Medicine and Rehabilitation*, vol. 68 (June 1987), p. 335.

² H. Brotman, *Every Ninth American* (Washington, D.C.: House Select Committee on Aging, 1982).



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EXHIBITION CHECKLIST

DESIGNER: BOB HALL

1 Racing Wheelchair. 1986

Aircraft steel tubing, cotton, nylon
Mfr: Hall's Wheels, Cambridge, Massachusetts
Lent by the designer

2 Racing Wheelchair. 1987

Aircraft steel tubing, cotton, nylon
Mfr: Hall's Wheels, Cambridge, Massachusetts
Lent by the designer

DESIGNER: RAINER KUSCHALL

3 "Champion 3000"

Adjustable Rigid-frame Wheelchair. 1986

Aluminum, rubber, plastic, nylon
Mfr: Kuschall of America, Camarillo, California
Lent by the manufacturer

DESIGNER: LEE R. THORN

4 "Impulse" Rigid-frame Wheelchair. 1987

Steel, rubber, plastic, nylon
Mfr: Everest & Jennings, Camarillo, California
Lent by the manufacturer

DESIGNERS: KARL AXEL ANDERSSON,
MORGAN FERM

5 "Swede 24" Rigid Folding-frame Wheelchair. 1982

Steel, rubber, plastic, velour
Mfr: ETAC, Sweden
Lent by Team Swede, Milwaukee, Wisconsin

6 "Minova" Children's Folding Rollator. 1985

Steel, polyurethane, plastic
Mfr: ETAC, Sweden
Lent by Team Swede, Milwaukee, Wisconsin

7 "Nova" Folding Rollator. 1985

Steel, polyurethane, plastic
Mfr: ETAC, Sweden
Lent by Team Swede, Milwaukee, Wisconsin

DESIGNER: TIMOTHY BERGERON

8 "Tumble Forms" Rolls. 1975

Molded polyurethane foam,
flexible polymer upholstery
Mfr: Tumble Forms, Inc., Clifton, New Jersey
Lent by the manufacturer

9 "Tumble Forms" Side-lying Positioner. 1978

Molded polyurethane foam,
flexible polymer upholstery, Velcro
Mfr: Tumble Forms, Inc., Clifton, New Jersey
Lent by the manufacturer

10 "Tumble Forms" Wedge. 1986

Molded polyurethane foam,
flexible polymer upholstery, Velcro
Mfr: Tumble Forms, Inc., Clifton, New Jersey
Lent by the manufacturer

11 "Tumble Forms" Barrel. 1978

Molded polyurethane foam,
flexible polymer upholstery
Mfr: Tumble Forms, Inc., Clifton, New Jersey
Lent by the manufacturer

12 "Tumble Forms" Mobile Positioning System. 1982

Molded polyurethane foam,
flexible polymer upholstery, Velcro
Mfr: Tumble Forms, Inc., Clifton, New Jersey
Lent by the manufacturer

DESIGNER: PIA WINDBERG

13 Windproof Jacket and Trousers. 1987

Polyester, acrylic
Mfr: Team Rehab, Sweden
Lent by Team Swede, Milwaukee, Wisconsin

DESIGNERS: ERGONOMI DESIGN GRUPPEN:
MARIA BENKTZON, SVEN-ERIC JUHLIN

14 Folding Knife. 1978

Polyurethane, stainless steel
Mfr: RFSU Rehab, Sweden
The Museum of Modern Art, gift of the manufacturer

15 Combination Spoon and Knife. 1978

Polyurethane, stainless steel
Mfr: RFSU Rehab, Sweden
The Museum of Modern Art, gift of the manufacturer

16 Combination Fork and Knife. 1978

Polyurethane, stainless steel
Mfr: RFSU Rehab, Sweden
The Museum of Modern Art, gift of the manufacturer

17 Wine Goblet. 1978

Polycarbonate plastic
Mfr: RFSU Rehab, Sweden
The Museum of Modern Art, gift of the manufacturer

18 Mug. 1978

Polycarbonate plastic
Mfr: RFSU Rehab, Sweden
The Museum of Modern Art, gift of the manufacturer

19 Plate. 1978

Melamine, rubber "no-skid" ring
Mfr: RFSU Rehab, Sweden
The Museum of Modern Art, gift of the manufacturer

20 Breadboard and Knife. 1974

ABS plastic, stainless steel
Mfr: AB Gustavsberg Fabriker, Sweden
The Museum of Modern Art, gift of RFSU Rehab

DESIGNERS: ERGONOMI DESIGN GRUPPEN:
MARIA BENKTZON, HÅKAN BERGKVIST,
SVEN-ERIC JUHLIN

21 Cutting Board with Clamp. 1982

Polystyrene, stainless steel, rubber, ABS plastic
Mfr: RFSU Rehab, Sweden
Lent by Lumex, Bay Shore, New York

22 Grip Tongs. 1984

ABS plastic, magnet
Mfr: RFSU Rehab, Sweden
The Museum of Modern Art, gift of the designers

23 Cane. 1983

Polyurethane, aluminum
Mfr: ETAC, Sweden
Lent by Team Swede, Milwaukee, Wisconsin

DESIGNER: JENS MØLLER-JENSEN

24 Crutch. 1984

Anodized aluminum, polyamide, rubber
Mfr: Dansk Handicap Teknik A/S, Denmark
Lent by Kurt Høgsted, Hørsholm, Denmark

DESIGNER: RUSSELL MANOY

25 Mug and Plate. 1966-67

Melamine
Mfr: Antiference Ltd., England
Lent by Lumex, Bay Shore, New York

DESIGNER: PLAYSKOOL COMPANY

26 Scooping Bowl. c. 1975

Plastic, vinyl
Mfr: Playskool, USA
Lent by Enrichments, Inc., Hindsdale, Illinois

DESIGNER: KARIN SCHOU ANDERSEN

27 Flatware. 1979

ABS plastic, stainless steel
Mfr: Amefa Alpeldoornse Messenfabriek,
Apeldoorn, The Netherlands
Lent by the manufacturer

DESIGNER: PETER SVANNÄS

28 Cheese Slicer. 1978

Plastic, stainless steel
Mfr: RFSU Rehab, Sweden
The Museum of Modern Art, gift of the manufacturer

DESIGNER: W.D. SLATER

29 Rocking Knife. 1968

Plastic, stainless steel
Mfr: Nottingham Rehab Ltd., England
Lent by Nottingham Rehab, Tulsa, Oklahoma

DESIGNER: MICHAEL WILSON

30 Infant's Fork and Spoon. 1986

Plastic, stainless steel
Mfr: Tyke Corp., Chicago, Illinois
Lent by the manufacturer

DESIGNER: ARTSANA COMPANY

31 Infant's Fork and Spoon. 1971

Plastic
Mfr: Artsana S.p.A., Italy
The Museum of Modern Art,
Friends of the Department Fund

DESIGNERS: NICKIE CAMPBELL,
WILLIAM CAMPBELL

32 Infant's Bottle. 1983

Polyethylene
Mfr: ANSA Bottle Co. Inc., Muskogee, Oklahoma
Lent by the manufacturer

DESIGNER: INGVAR PERSSON

33 Carton Opener. 1976

Beechwood, steel
Mfr: Samhall Rehab AB, Sweden
Lent by Lumex, Bay Shore, New York

DESIGNER: GÖRAN ASLIN

34 Universal Grip Assistant. 1982

Nylon, spring-loaded plastic fingers
Mfr: Pernova AB, Sweden
The Museum of Modern Art, gift of RFSU Rehab

35 Button Fastener. 1980

Plastic, steel
Mfr: Pernova AB, Sweden
The Museum of Modern Art, gift of RFSU Rehab

DESIGNER: GRAHAME DAVIS

36 Jar Opener. 1974

Rubber
Mfr: Homecraft, England
Lent by Ways & Means, Romulus, Michigan

DESIGNER: GEORGE YGFORS

37 Spring-band Scissors. 1974

Plastic, stainless steel
Mfr: Stirex Innovation AB, Sweden
Lent by Lumex, Bay Shore, New York

38 Spring-band Tongs. 1974

Plastic

Mfr: Stirex Innovation AB, Sweden

Lent by Lumex, Bay Shore, New York

DESIGNER: HANS TOLLIN

39 Pen. 1978

ABS plastic

Mfr: RFSU Rehab, Sweden

The Museum of Modern Art, gift of the manufacturer

DESIGNERS: JOHANNES FOERSOM,
PETER HIORT-LORENZEN

40 Folding Newspaper Holder. 1981

Laminated beechwood

Mfr: Hospitalsartikler A/S, Solbjerg, Denmark

Lent by the manufacturer

DESIGNER: BOB RADO CY

41 "Super Sport" Hand Prosthesis. 1983

Polyurethane, stainless steel

Mfr: Therapeutic Recreation Systems, Inc.,
Boulder, Colorado

Purchase

42 Hand Prosthesis. 1984

Polyurethane, aluminum, steel

Mfr: Therapeutic Recreation Systems, Inc.,
Boulder, Colorado

Purchase

DESIGNER: ROBIN EDMAN

43 "Polycom"

Portable Electronic Communicating Device. 1984

ABS plastic case

Mfr: Comterm Electronik AB, Danderyd, Sweden

Lent by the manufacturer

DESIGNER: RUSSELL SMITH

44 "Viewscan"

Portable Electronic Magnifying Device. 1983

ABS plastic case

Mfr: Wormald International Sensory Aids Ltd.,
New Zealand

Lent by Sensory Aids Corp., Bensenville, Illinois

DESIGNER: CANON INC. COMPANY

45 "Optacon II"

Portable Electronic Reading Device. 1987

ABS plastic case

Mfr: Telesensory Systems, Inc.,
Mountain View, California

Lent by the manufacturer

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