(dis)ABLED BEAUTY: the evolution of beauty, disability, and ability

Tameka Ellington
Stacey R. Lim
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- Dr. Tameka N. Ellington and Dr. Stacey R. Lim

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(dis)ABLED BEAUTY:
the evolution of beauty, disability, and ability

Dr. Tameka N. Ellington and Dr. Stacey R. Lim
Guest Curators

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Curatorial Statement

The concept for the show began with a research project conducted by the guest curators, Dr. Tameka N. Ellington and Dr. Stacey R. Lim. The project entitled Adolescents’ Aesthetic and Functional View of Hearing Aids or Cochlear Implants and Their Relationship to Self-Esteem Level, focused on what teens wanted in their hearing devices. We asked our teen participants, “If you could design your own hearing device, what would it look like?” The responses received sparked a desire within the curators to dive deeper into this topic of the aesthetic and functional properties of these devices.

While attending a symposium on Fashion and Health at the University of Minnesota, the curators met researcher, Martha Hall, who presented on fashionable prosthetic limbs. This connection was the beginning of further exploration of fashionable assistive devices, adaptive apparel, and prostheses for individuals with disabilities. During our exploration, we discovered the Alternative Limb Project in London, England, where Sophie de Oliveira Barata is the head prosthetic artist. She can be thought of as an Alexander McQueen of prosthetic limbs. Her pieces are fanciful and opulent, offering a means of deconstructing the paradox of what it means to be disabled and beautiful. Ms. de Oliveira Barata’s work has inspired us to look at how perceptions of disability has changed and are changing as a result of today’s technology and fashion.

(dis)ABLED BEAUTY: the evolution of beauty disability and ability features a collection of hearing devices, canes, prosthetics, apparel and other assistive devices which make their wearer fashionable, abled and to some degree... superhuman.

--Dr. Tameka N. Ellington and Dr. Stacey R. Lim, Guest Curators
“According to the Institute on Disability, “‘If people with disabilities were a formally recognized minority group, at 19% of the population, they would be the largest minority group in the United States,’” (Invisible Disabilities Association, 2011). In 1990, the Americans with Disabilities Act (ADA) was signed into law (and amended in 2008), creating broad civil and human rights for people with disabilities. The ADA is comprised of five “Titles.”

Title I created equal employment rights for people with disabilities to remedy employment barriers at all stages of employment, including the hiring process, obtaining reasonable accommodations, training and promotion.

Title II requires public entities to provide equal access to all government programs and services.

Title III requires equal access to businesses including hotels, schools, museums, live theatres, restaurants, stores and more.

Title IV provides telecommunications access.

Title V includes a variety of other provisions including protection from retaliation when asserting these rights.

The ADA has greatly improved the lives of millions of people with disabilities over the past twenty-six years; yet, there is more work needed to continue these advances in the years to come.

-- Rachel Arfa, Disability Rights Attorney
Accessibility and People with Disabilities

Accessibility is based on the principle of equity. Accommodations, such as specialized technology, or alternate formats, are designed to overcome an existing barrier, whereas accessibility is the idea that the infrastructure is inherently usable by all.

A popular cartoon illustrates the concept of equity: an official-looking person sits at a desk facing a row of animals including a crow, monkey, penguin, elephant, fish in a bowl, seal, and dog. The text reads “For a fair selection, everybody has to take the same exam: please climb that tree.” Accessibility would give each applicant the opportunity to choose their most effective pathway to get from point A to B: a tree, flat surface, water, or air.

The digital world is particularly suited to accessibility as it can be structured to allow each individual to select pathways that work with the user’s preferred mode of operation. While we may not always be able to do the same with the physical world, the concept of accessibility remains valid. We can design spaces, tools, furniture, and other physical elements for the most effective use by the greatest number of individuals.

--Jay Wyant, Chief Information Accessibility Officer, State of Minnesota

Tecla Shield DOS and Switch Interface

Komodo OpenLab at the Digital Media Zone, manufacturer
Canadian, 2016

Plastic enclosure with electronic board and battery

Loan Courtesy of company, KSUM L2016.1.1ab

The Tecla Shield was designed for those with limited upper body mobility and dexterity. It gives its user the capability to use iOS and Android devices with voiceover or switch technology.
Assistive devices (AD) are used to increase safety, opportunities for social interactions and movement, and promotion of independence. The decision of which AD is “best” for a person is often based solely upon safety. Frequently, the safest devices are bulky, rigid, heavy, and “ugly.” These design challenges may cause individuals to stop using ADs or use them incorrectly, resulting in further restrictions of independence – physically and socially. The social implications for use of an AD is driven in large part by the activities the user participates in and how well use of the AD allows them to participate to their desired potential in life activities.

Until recently, the design of ADs was driven primarily by safety and function, but now, designs of ADs also consider the social implications for device use. With this evolution for AD design and use, we gain a unique insight into our changing view of (dis)ABILITY. The concept of AD transcends medical devices and weaves itself into the world of jewelry, apparel, shoes and other wearable accessories.

--Jennifer K. Sansom, PT, MPT, MS, PhD, Assistant Professor, School of Rehabilitation and Medical Sciences, Central Michigan University

**Hearing Aid Necklace**

Location unknown, 1950

Red garnet-like rhinestones, embellishing plastic, hearing aid receiver cord

Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, KSUM L2016.74.25
The first prosthetic limbs used for legs were designed in the peg shape and for arms were in a hook shape made of wood and/or metals. Advancements were made to arm prostheses where the hook was controlled by a harness worn over both shoulders. Movement of the shoulders pulls a cable that opens and closes the hook. This simple mechanism was the standard after World War II and is still common today.

In the late 1940’s and 1950’s, doctors at Walter Reed Army General Hospital explored a different alternative to the harness - the cineplasty. Surgeons placed a tunnel through an arm muscle, frequently the biceps. When the individual contracted the muscle, a small bar through the tunnel pulled cables to close the hook. Many patients preferred this system to the shoulder harness, but the technique never became widespread because it required surgery and extensive follow-up care.

Today prosthetics have moved beyond the simple function and appearance of the hook arm and peg leg. New electric prostheses do not require a harness and instead are controlled by the electrical signals from muscles in the remaining portion of the arm. The newest wave of prosthetics to appear on the market are made by 3-Dimensional printing. These prosthetics have simple functioning with the use of bolts and or elastic threads. The main push for these products were was readily accessible to the masses.

--Bambi Brewer, Robotics Specialist and Dr. Tameka N. Ellington
Fashion and Health Professions Prosthetic Collaborative Concept

Dr. Tameka Ellington, Dr. Stacey Lim and Austen Bio Innovations Institute, designers and fabricators
American, 2016

ABS plastic and paints
Loan Courtesy of The Kent State University Fashion School, KSUM L2016.90.18

This piece was designed by the co-curators of the show in collaboration with Mike Singer, engineer of Austen Bio Innovations Institute in Akron, Ohio. This prosthetic is a representation of the interconnection of the fashion and health industries and a symbol of partnership between Kent State University and Central Michigan University.
The E-Nable Community is a global network of digital humanitarians who are using 3D printing to create free (and low cost to produce) hands and arms for those born without fingers, or who have lost them due to war, disease or accident. For more information go to www.enablingthefuture.org/

-- Dr. Tameka N. Ellington

D-1
Evan Kuester, designer and fabricator
American, 2014
ABS Plastic, elastic cording
Loan Courtesy of Evan Kuester, KSUM L2016.101.4

K-1
Evan Kuester, designer and fabricator
American, 2014
ABS Plastic, elastic cording
Loan Courtesy of Evan Kuester, KSUM L2016.101.3

This hand was designed with a sleek appearance and contrasting red elastic bands which were tension set and allow for gripping objects. This piece won the 2016 Consumer Technology Innovation Award.
Ivania 2

Evan Kuester, designer and fabricator
American, 2014

ABS Plastic, and ribbon

Loan Courtesy of Evan Kuester, KSUM L2016.101.3

This 3-D printed arm was designed by the lender while he was working on his Master’s degree in Architecture at the California College of the Arts. This piece won the title of design of the week from the 3-D printing blog Fabbaloo.

JD-3

Evan Kuester, designer and fabricator
American, 2014

ABS Plastic

Loan Courtesy of Evan Kuester, KSUM L2016.101.2

This 3-D printed prosthetic celebrates the concept of lightness in prosthetics with its airy appearance and partial see-through qualities.
Prosthetic Limb Covers

**Venus**

UNYQ  
American, 2015  
ABS plastic  
Loan Courtesy of UNYQ, KSUM L2016.82.2

This item was designed for the UNYQ Style Collection and features beautiful curves and asymmetrical orientation.

**Reed**

UNYQ  
American, 2015  
ABS plastic, polyamide knee bumper, dye  
Loan Courtesy of UNYQ, KSUM L2016.82.1

UNYQ creates a variety of prosthetic covers to go over the top of basic metal stem upper and lower limb prosthetics. This item, inspired by the filigree structure of a blade of grass, is from the Style Collection, which encompasses elegant prosthetic covers featuring a variety of decorative looks from florals to stripes.
Flora Prosthetic Leg Cover
ALLELES Design Studio, Ltd.
Canadian, 2016
ABS Plastic, paints and buckle straps
Loan Courtesy of ‘The ALLELES Design Studio, Ltd.’, KSUM L2016.57.2

This product is designed in a lighthearted floral pattern that plays with textures to transform the prosthetic to appear less like plastic and more like a textile. This is one of the new items featured in the WONDERLAND Collection by the ALLELES Design Studio, Ltd.

Future Plaid Prosthetic Leg Cover
ALLELES Design Studio, Ltd.
Canadian, 2016
ABS Plastic, paints and buckle straps
Loan Courtesy of ‘The ALLELES Design Studio, Ltd.’, KSUM L2016.57.1

This product is designed as a new variation of traditional plaid. The creators wanted the piece to transform the idea of a prosthetic cover to being considered fashionable clothing rather than just a medic device. Both covers are new items featured in the WONDERLAND Collection by the ALLELES Design Studio, Ltd.
Chromed and Airbrushed

Dan Horkey lost his lower left leg in a motorcycle accident in 1985 at the age of 21. Twenty years later, he is now proudly using his talents to create beautiful art pieces for himself and others of the amputee community.

--Dr. Tameka N. Ellington

Copper Chrome Prosthetic Arm with Attached Hand

Dan Horkey, designer and fabricator
American, 2015

Chrome sprayed aluminum

Loan Courtesy of Prosthetic Ink, KSUM L2016.77.5

This glossy product was created as a lower arm attachment for an amputee.
**Pink Rose Socket**

Dan Horkey and W.M. Dalton, designers and fabricators  
American, 2015

Aluminum with airbrush paint

Loan Courtesy of Prosthetic Ink, KSUM L2016.77.2

This product was created as the socket which connects to a lower limb prosthetic. The beautiful rose and scroll detail were carefully inlaid on top of the marbelized effect.

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**Gold Chrome Lace Socket**

Dan Horkey and Ed Persike, designers and fabricators  
American, 2015

Chrome sprayed aluminum with airbrush paint

Loan Courtesy of Prosthetic Ink, KSUM L2016.77.1

This product was created as the socket which connects to a lower limb prosthetic. In a glossy lace pattern, this piece becomes a fashion accessory instead of just a medical device.
Bionic Prosthetics

BiOM Ankle

BionX Medical Technologies Inc.
American, ca. 2007

Prosthetic ankle with powered propulsion
On Loan from BionX Medical Technologies Inc. Bedford, Massachusetts, KSUM L2016.3.1

This item was designed with a propulsion system which mimics the movements of a normal functioning ankle. This ankle offers enhanced mobility allowing its wearer the ability to walk faster and with more stability, even up hills and ramps.
i-limb ultra and skin active cover

Touch Bionics, Incorporated
American, 2011

Metal and electronic components, skin made from silicone mixture

Loan Courtesy of Touch Bionics, Inc., KSUM L2016.76.1

This prosthetic hand has motorized digits which allow the hand to bend at the joints of each digit just as a human hand would. The hand has 14 programmable grip patterns, allowing flexibility and the ability to customize the hand for a variety of daily activities.
Historic Prosthetics

Historic Prosthetic with optional hook hand

American, ca. 1930

Steel, plastic, leather, rubber, textile

On loan from the Mütter Museum of the College of Physicians of Philadelphia, KSUM L2016.88.1

This arm was previously owned by Arline Stephan of Connecticut. The donor’s father received the prosthetic in the late 1930s after he lost his left arm in a farming accident.
**Prosthetic Arm for WWII Veteran with Biceps Cineplasty**

American, 1952, replication 1998

Acrylic resin socket, stainless steel hook and cables, leather

Loan from the family of Edgar L. Roberts, Jr. KSUM L2016.55.1

This prosthetic arm belonged to Mr. Edgar L. Roberts, a World War II veteran who lost his right hand in North Africa in 1945. This type of prosthesis did not require a harness like many other prosthetics of that time, and enabled Mr. Roberts to not only perform daily activities, but also to design and build things with machine tools.

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**Pittsburgh Orthopedic Co. Catalog**

American, 1916

Ink on paper

On loan from the Mütter Museum of the College of Physicians of Philadelphia, KSUM L2016.88.2

This catalog displayed a variety of fashionable leg and arm prosthetics for patients at the time.
Hearing Devices

Over 35 million Americans have hearing loss, and for some of these individuals, hearing aids can help them gain access to sounds. Hearing aids amplify sounds that would otherwise be difficult to hear. Hearing aids are electroacoustic devices designed to amplify sound, with the goal of making speech audible for people with hearing loss. The invention of the telephone inspired the development of the first electronic hearing aid in 1898.

Hearing aid styles have advanced from speaking tubes to body-worn hearing aids, to smaller hearing aids worn behind or in the ear. The technology in hearing aids has moved from analog technology to digital technology. Indeed, improvements in today’s technology not only allow hearing aids to be smaller, but also provide better sound quality and connectivity to various devices, such as smartphones.

-- Dr. Stacey Lim and Dylan Stillpepper, Undergraduate Student in Health Sciences

S14V
Oticon, manufacturer
Danish, 1974
Electret microphone
Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, Oticon A/S, KSUM L2016.74.8a-c

“WH-6000”
Panasonic, manufacturer
Japanese, 1984
Multi-colored plastic behind-the-ear hearing aid
Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, HIS, Eden Prairie, MN, KSUM L2016.74.36a-d
Historic Hearing Aids

**Amplivox “Sonette”**
- American, 1958
- Materials unknown
- Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, Amplivox, Ltd., KSUM L2016.74.18

**Acousticon A-660**
- Acousticon, manufacturer
- American, 1962
- Four transistors
- Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, Milton H. Tavel, Indianapolis KSUM L2016.74.17

**Siemens 104PP**
- Siemens, manufacturer
- American, 1984
- Tan plastic with a brown bottom behind-the-ear hearing aid
- Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, KSUM L2016.74.10

**Telex 333**
- Telex, manufacturer
- American, date unknown
- Includes four transistors; three-hole microphone opening
- Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, KSUM L2016.74.14ab

**Philips 8295**
- American, 1970
- Multi-colored plastic
- Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, Ravenna Optical, KSUM L2016.74.9a
Ear trumpets are one of the earliest forms of technology used to enhance hearing. They were passive funnel-like amplification cones or cups designed to gather sounds and direct into it the ear canal. Trumpets were made of a variety of materials from shell to metal.

--Dylan Stillpepper, Undergraduate Student in Health Sciences

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**Clarvox Lorgnette Trumpet**

French, date unknown

Artificial tortoise shell

Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, Widex Hearing Aid Co., New York, KSUM L2016.74.22

**Small Ear Trumpet**

Arnold and Sons, London, manufacturer English, 1910

Brass with black composition eartip

Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, KSUM L2016.74.28

The wearer would insert the eartip of the ear trumpet into his or her ear, and point the trumpet in the direction of the sound they wish to hear.
**Speaking Tube**
Location and date unknown
Materials unknown
Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, F.P. Christman, KSUM L2016.74.31

**F.C. Rein Ear Trumpet**
F.C. Rein and Son of London
English, ca. 1907
Single flat auricle on headband
Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, Wi- dex Hearing Aid Co., New York, KSUM L2016.74.32

**Sonor**
Drapier of Paris, manufacturer
French, ca. 1950
Imitation shell
Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, KSUM L2016.74.29
Older models of these types of hearing devices were made of silver, often with a telescopic earpiece. Sometimes these were held in a leather pouch.

**Metal Ear Trumpet**
American, date unknown
Brass and copper
Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, Elsie Jones, Ashland, OH, KSUM L2016.74.30

**Luchshören “Lynx Ear”**
Hans Burschers, Manufacturer
German, 1938-45
Non-electric cups and plastic headband
Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, Dr. Zinser, Berlin, KSUM L2016.74.34

**Double Auricle on Headband**
American, date unknown
Brass painted black
Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, Russell H. Phillips Schenectady, KSUM L2016.74.33
The wearer would don the headband and position the cups on the ears, pointing outward so that the cups could collect sound.
Historic Glasses with Hearing Aids

Transistor hearing aids were built into the temples of eyeglasses. These were a popular option in the 1950’s through the 1970’s, because they were considered more fashionable and less obvious. These eyeglasses were even worn by those who had perfect vision.

--Dylan Stillpepper, Undergraduate Student in Health Sciences

"CO" (Fairmount)

Maico, Manufacturer
American, 1971

Eyeglasses; integrated circuit, three transistors

Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, Maico Hearing Instruments, KSUM L2016.74.6

Hearing aid eyeglasses had hearing aids built into the temples of the hearing aids, and were one way to conceal a hearing loss while remaining fashionable.

Magnatone M-3

American, 1963

Eyeglasses

Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, Wm. A. Jewell, Magnatone, KSUM L2016.74.4
Body worn hearing aids were the first type of hearing aid that was developed. It consisted of a case and an earmold attached to the case via a wire. The case would include the battery, electronic amplifier components, and controls. The earmold was coupled to a mini loudspeaker. The individual would wear the case at chest level on his or her body. Along with this device came the challenge of incorporating new ways of making them look more appealing. Manufacturers and designers found ways to conceal the case under clothing, or to turn the case into a fashion accessory by adding decorative elements. Others designed the case to look like other wearable objects.

--Dr. Stacey R. Lim

**Acousticon W-130 Battery Bandeaux**

Acousticon, manufacturer
American, date unknown
Pouch for battery pack attached to bra

Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, KSUM L2016.74.23

**Beltone “Mono-Pac M” (Melody)**

Beltone, Manufacturer
American, 1950
Chrome front and back over a wine-colored plastic chassis with brooch embellished with jewels; vacuum tube

Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, Jackson Educational Service, KSUM L2016.74.26

Body aids were worn on the individual’s chest, with a cord that was attached to the wearer’s ear. Some body aids had decorative components, such as this one, which has a jeweled brooch.
Historic Body Worn Hearing Aids

Multitone “Transitone”
American, 1954
Gold-tone metal front with a black back; grill upper center with filigree; four vacuum tubes
Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, KSUM L2016.74.7

Acousticon A-90
Acousticon, manufacturer
American, 1947
Maroon and wine colored aluminum body worn hearing aid
Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, KSUM L2016.74.19ab
Telex 300, Battery Pack and Hearing Aid

Telex, manufacturer
American, 1950

Gold metal case in the shape of a pen

Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, from Radioear Corp., KSUM L2016.74.11

The wearer would wear the pen-shaped portion of the hearing aid in his or her lapel pocket, and the cord would be attached to the receiver worn in the ear.

other prosthetics of that time, and

Ardente “Duchess”

Starkey Laboratories, Inc., manufacturer
English, 1958

Barrette; tortoise shell plastic casing with silver moldings; three or four transistors.

Loan Courtesy of Loan courtesy of The Kenneth Berger Hearing Aid Museum and Archives, Starkey Laboratories Inc., KSUM L2016.74.16ab

Telex 1550

Telex, manufacturer
American, 1942

Vacuum tube; D99 and 455 batteries

Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, KSUM L2016.74.12
Historic Hearing Aid Jewelry

Hearing aids have been made to resemble jewelry or wearable fashion accessories. Examples of these include hearing aid necklaces, earrings, or brooches. By turning hearing aids into fashionable pieces, manufacturers and wearers were able to disguise hearing devices. Today, some wearers and designers embellish their hearing devices with either commercially available decorative items or specially designed items. As a result their hearing aids are more than just a necessity; they are transformed into a must-have accessory.

--Kay Caprez, Undergraduate Student in Speech and Language Pathology and Audiology

**Coro Decorative Clips**

*Coro for Zenith Radion Corp, manufacturer*
*American, ca. 1956*

Decorative clips to secure hearing aid in place; silver leaf pattern and gold flower;

Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, KSUM L2016.74.15ab

**Hairband Receiver**

Location and date unknown
Metal hairband covered with a braid of human hair

Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, KSUM L2016.74.24

This was part of a bone conduction unit. The metal headband would be placed on the individual’s head, and the black component on the end of the headband would be placed on the mastoid bone behind the ear. Sound would be transmitted to the inner ear through vibrating the wearer’s skull. This particular headband is covered by a braid of human hair, making the device look as if it were part of the wearer’s hairstyle.

**“Hear-Rings”**

*Maico, Manufacturer*
*American, ca. 1950*

Hearing aid receiver concealed in a fashionable earring

Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, Verne Augspurger, Fairfield, OH, KSUM L2016.74.3ab

The earrings would hold the hearing aid receiver, and the cord would attach to the body-worn hearing aid, which was usually worn under or inside the wearer’s clothes.
**Gaes 27 “Pedientes”**

Spanish, 1970

Silver filigree; three transistors

Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, GAES, Barcelona, Spain, KSUM L2016.74.35ab

The Gaes 27 “Pedientes” were designed to be worn as earrings, concealing the hearing aid components worn on the ear.

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**Earmaster “Golden” 400**

American, ca. 1963

Gold casing used in cases of extreme sensitivity to plastics

Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, KSUM L2016.74.12ab

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**External Brooch Microphone**

Maico, Manufacturer

American, date unknown

Materials unknown

Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, F.L. Clark, KSUM L2016.74.5

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**Hearing aid necklace**

Location and date unknown

Strand of pearls with attached hearing aid

Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives, KSUM L2016.74.37
Contemporary Earmolds

Individuals who wear behind-the-ear (BTE) hearing aids will also wear an earmold that holds the hearing aid securely on the ear and delivers sound through the ear canal. Earmolds are custom-made to fit the wearer’s ear. Depending on the person’s hearing loss and needs, earmolds are made of materials such as silicone or acrylic, and can come in an array of colors. Westone Laboratories, Inc. is an American earmold manufacturer, and has made all the earmolds in the exhibition. The Westone earmold designers are having a “Fan Favorite” friendly competition. Vote for your favorite earmold at: www.facebook.com/disABLEDBEAUTY

- - Dr. Stacey R. Lim

Starry Night
Cassie Miller, Crystal Parker, Lillian Madrid, Tess Osborn, and Jake Garcia, designers, Westone Laboratories, Inc.
American, 2016
Black silicone earmold with rhinestones
Donated by Westone Laboratories, Inc., transmitted by Central Michigan University, KSUM L2016.86.25

Happy Feet
Alex Rodriguez, designer, Westone Laboratories, Inc.
American, 2016
Silicone earmold with penguin design
Donated by Westone Laboratories, Inc., transmitted by Central Michigan University, KSUM L2016.86.24

Mixed Minerals
Labs 3 & 4, designers, Westone Laboratories, Inc.
American, 2016
Clear acrylic earmold with copper and silver flakes
Donated by Westone Laboratories, Inc., transmitted by Central Michigan University, KSUM L2016.86.23

Judicious Tones
Labs 3 & 4, designers, Westone Laboratories, Inc.
American, 2016
Clear acrylic earmold with copper flakes, green glitter
Donated by Westone Laboratories, Inc., transmitted by Central Michigan University, KSUM L2016.86.36
**Wolverines**
Grace Kingston, Tess Osborn, and Jake Garcia, designers, Westone Laboratories, Inc.
American, 2016
Light blue silicone earmold with white swirls and a lime green “M”
Donated by Westone Laboratories, Inc., transmitted by Central Michigan University, KSUM L2016.86.41

**Wolverines**
Grace Kingston, Tess Osborn, and Jake Garcia, designers, Westone Laboratories, Inc.
American, 2016
Blue silicone earmold with green polka dots
On loan from Central Michigan University, KSUM L2016.86.40

**Over the Rainbow**
Andrea Williams, Ryan Reyes, and Jake Garcia, designers, Westone Laboratories, Inc.
American, 2016
Silicone earmold with red, blue, yellow, and green designs
Donated by Westone Laboratories, Inc., transmitted by Central Michigan University, KSUM L2016.86.21

**Spectrum**
Andrea Williams, Ryan Reyes, and Jake Garcia, designers, Westone Laboratories, Inc.
American, 2016
Clear silicone earmold with green, red, blue, purple, and orange swirls
Donated by Westone Laboratories, Inc., transmitted by Central Michigan University, KSUM L2016.86.37

**Team Westone**
Lab 5 designers, Westone Laboratories, Inc.
American, 2016
US Flag silicone earmold
Donated by Westone Laboratories, Inc., transmitted by Central Michigan University, KSUM L2016.86.30

**Stars and Stripes**
Crystal Parker, Grace Kingston, Tess Osborn, and Jake Garcia, designers, Westone Laboratories, Inc.
American, 2016
Silicone earmold with American flag and sparkles
Donated by Westone Laboratories, Inc., transmitted by Central Michigan University, KSUM L2016.86.22

**Freedom is Not Free**
Grace Kingston, Tess Osborn, and Jake Garcia, designers, Westone Laboratories, Inc.
American, 2016
Clear silicone earmold with American Flag, red star, and glitter
Donated by Westone Laboratories, Inc., transmitted by KSUM L2016.86.39

**Welcome Home**
Crystal Parker, Grace Kingston, Tess Osborn, and Jake Garcia, designers, Westone Laboratories, Inc.
American, 2016
Clear silicone earmold with American Flag, red star, and glitter
Donated by Westone Laboratories, Inc., transmitted by KSUM L2016.86.38
Contemporary Hearing Aids

SkyQ Behind-the-Ear Hearing Aid
Phonak, manufacturer Swiss, 2014
Royal purple case, red-orange tone hook, internal circuitry, microphones
Donated by Phonak, transmitted by Central Michigan University, KSUM L2016.86.4

SkyQ Behind-the-Ear Hearing Aid
Phonak, manufacturer Swiss, 2014
Green plastic case, green tone hook, internal circuitry, microphones
On loan from Central Michigan University

SkyQ Behind-the-Ear Hearing Aid
Phonak, manufacturer Swiss, 2014
Giraffe print plastic case, internal circuitry, microphones
On loan from Central Michigan University, KSUM L2016.86.12a

This hearing aid was designed for children with moderately severe to profound hearing loss.

Bling
Alex Rodriguez, designer, Westone Laboratories, Inc.
American, 2016
Acrylic, rhinestones
Donated by Westone Laboratories, Inc., transmitted by Central Michigan University, KSUM L2016.86.4

Naida SP Jr
Phonak, manufacturer Swiss, 2008
Giraffe print plastic case, internal circuitry, microphones
On loan from Central Michigan University, KSUM L2016.86.12a

Flick Me Light Up
Liz Gardner, designer, Westone Laboratories, Inc.
American, 2016
Green silicone earmold, LED lights
Donated by Westone Laboratories, Inc., transmitted by Central Michigan University, KSUM L2016.86.3b

This earmold contains LED lights, which flash when the wearer flicks the side of the earmold.

Comet Hawk
Labs 3 & 4, designers, Westone Laboratories, Inc.
American, 2016
Acrylic earmold with copper flakes and silver glitter
Donated by Westone Laboratories, Inc., transmitted by Central Michigan University, KSUM L2016.86.12b

Summer Breeze
Alex Rodriguez, designer, Westone Laboratories, Inc.
American, 2016
Silicone earmold with rhinestones
Donated by Westone Laboratories, Inc., transmitted by Central Michigan University, KSUM L2016.86.6

Stride P Behind-the-Ear Hearing Aid
Unitron, manufacturer Canadian, 2015
Platinum tone plastic case, circuitry, microphones
Donated by Unitron, transmitted by Central Michigan University, KSUM L2016.86.15

Donated by Phonak, transmitted by Central Michigan University, KSUM L2016.86.4

Donated by Phonak, transmitted by Central Michigan University, KSUM L2016.86.12b

Donated by Phonak, transmitted by Central Michigan University, KSUM L2016.86.3a
**Fusion RIC/RITE Hearing Aid**

Widex, manufacturer
Danish, 2015

Shocking pink plastic case, internal circuitry, microphones

Donated by Widex, transmitted by Central Michigan University, KSUM L2016.86.5

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**Delta Hearing Aid**

Oticon, manufacturer
Danish, 2006

Silver and black plastic case, circuitry, microphones

On loan from Central Michigan University, KSUM L2016.86.10

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**Delta Hearing Aid**

Oticon, manufacturer
Danish, 2006

Hawaiian Print plastic case, circuitry, microphones

On loan from Central Michigan University, KSUM L2016.86.8

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**Delta Hearing Aid**

Oticon, manufacturer
Danish, 2006

Zebra stripe plastic case, circuitry, microphones

On loan from Central Michigan University, KSUM L2016.86.9

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**Pearlescent Star**

Dave Miller, designer, Westone Laboratories, Inc.
American, 2016

Acrylic blue and gray sparkle earmold

Donated by Westone Laboratories, Inc., transmitted by Central Michigan University, KSUM L2016.86.28

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**Marbles**

Dave Miller, designer, Westone Laboratories, Inc.
American, 2016

Acrylic and silver earmold

Donated by Westone Laboratories, Inc., transmitted by Central Michigan University, KSUM L2016.34

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**Marbles**

Dave Miller, Michelle Pelletier & Mike Kling, designers, Westone Laboratories, Inc.
American, 2016

Acrylic turquoise and white sparkle earmold

Donated by by Westone Laboratories, Inc., transmitted by Central Michigan University, KSUM L2016.86.33

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**Key to My Heart**

Dave Miller, Michelle Pelletier & Mike Kling, designers, Westone Laboratories, Inc.
American, 2016

Acrylic hot pink earmold with silvertone accents

Donated by Westone Laboratories, Inc., transmitted by Central Michigan University, KSUM L2016.86.54
Contemporary Hearing Aids

**Fusion RIC/RITE Hearing Aid**

Widex, manufacturer  
Danish, 2015  
Tan Silk plastic case, internal circuitry, microphones  
Donated by Widex, transmitted by Central Michigan University, KSUM L2016.86.6

**Marbles**

Dave Miller, Michelle Pelletier & Mike Kling, designers, Westone Laboratories, Inc.  
American, 2016  
Acrylic earmold in orange, gray, and black  
Donated by Westone Laboratories, Inc., transmitted by Central Michigan University, KSUM L2016.86.35

**Universal Hear-Ring**

Pearson Lloyd, designer  
British, 2005  
Prototype hearing aid device with interchangeable covers.  
Plastic, metal  
Loan Courtesy of Pearson Lloyd, KSUM L2016.52.1  
The Hear-Ring was designed in partnership with the Royal National Institute for the Deaf in London. The piece is a modernized take on the conventional hearing aid.
Artisan Hearing Aids

Hearing aids do not always need to be plain and boring. Some designers, as well as hearing aid users, have been working to promote a change in the current stigma of hearing loss. These individuals have turned these devices into wearable, unique pieces of art. Instead of being viewed as just a necessity, these hearing aids are transformed into fashion accessories and art that one can imagine coming down a runway.

--Dr. Stacey R. Lim

Prototype Hearing Aid
Ashley Temudo, designer
British, 2016
Wood and silver
Loan courtesy of the designer Ashley Temudo, KSUM L2016.84.1

I Can’t Hear You, I Have a Banana in My Ear
Mimi Shulman, Tokens of Gilt Jewelry, designer
Canadian, 1991
Injection mold plastic, elastic
Donated by Mimi Shulman, transmitted by Central Michigan University, KSUM L2016.86.19

Said the Big Bad Wolf
Mimi Shulman, Tokens of Gilt Jewelry, designer
Canadian, 1991
Injection mold plastic, elastic
Donated by Mimi Shulman, transmitted by Central Michigan University, KSUM L2016.86.20

Trionic Steampunk Ear Wearable Hearing Aid
Builder's Studio, designer
American, date unknown
Wood, paint, finishes, metal
Courtesy of Stacey Lim, KSUM L2016.73.2

Mimi Shulman is a jeweler and film prop designer with hearing loss. To break down negative stereotypes of hearing aids, she developed EarWear, which can be attached to behind-the-ear hearing aids.
Cochlear implants are a relatively new technology compared to hearing aids. Single-channel cochlear implant devices were introduced in 1972. Multichannel cochlear implants were FDA approved for adults in 1984, and for children in 1989. Cochlear implants consist of an internal device that is surgically implanted into the cochlea and an external component, which collects sound that is sent to the speech processor. The speech processor converts sound into electrical information that is sent to the electrode array inside the cochlea, directly stimulating the auditory nerve. The signal is interpreted by the brain, allowing the wearer to hear sounds and speech. Although cochlear implants are an option for people with significant hearing loss, members of the culturally Deaf community hold conflicting views. While some members of the Deaf community use cochlear implants, others choose not to, because they consider deafness a cultural identity that does not need to be “fixed”. Those choosing cochlear implants have greater access to the sounds surrounding them.

--Kay Caprez, Undergraduate Student in Speech and Language Pathology and Audiology

Cochlear™ Nucleus® Spectra headpiece
Cochlear Ltd, manufacturer
Australian, 1994
Wire, plastic, magnet
Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives KSUM L2016.74.38a

The Spectra headpiece was attached to the Nucleus® Spectra body worn device.

House/3M Speech Processor
American, 1985
Plastic, metal, electronic components
Loan Courtesy of The Kenneth Berger Hearing Aid Museum and Archives KSUM L2016.74.38b
The House/3M was a single-electrode cochlear implant and was the first to be commercially marketed.

CII Behind-the-Ear Processor
Advanced Bionics, LLC, manufacturer
American, 2000
Beige outer plastic case with volume and program lever. Processor and headpiece microphones.
On loan from Advanced Bionics, LLC, transmitted by Central Michigan University, L2016.86.52c
Clarion Platinum Series

Advanced Bionics, LLC, manufacturer
American, 2000

Brushed aluminum body with upper case volume, sensitivity, and program dials. External LED.

On loan from Advanced Bionics, LLC, transmitted by Central Michigan University, L2016.86.52b

Clarion S-Series

Advanced Bionics, LLC, manufacturer
American, 1997

Brushed aluminum body with upper case volume, sensitivity, and program dials. External LED.

On loan from Advanced Bionics, LLC, transmitted by Central Michigan University, L2016.86.52a
Unlike other cochlear implant devices currently available on the market, the RONDO is a single-unit piece that is worn on the head, without the need of any external wires or a behind-the-ear unit. The Fine Tuner is a remote control that can be paired with the external MED-EL cochlear implant devices. The user can change the volume or program settings, using the Fine Tuner.
Harmony™ HiResolution™
Bionic Ear System with T-Mic™ Microphone

Advanced Bionics, LLC, manufacturer
American, 2006

Dark sienna metallic plastic outer case with volume wheel, program toggle switch, and external LED. Multi-microphone configuration with T-Mic™ and processor microphones.

On loan from Advanced Bionics, LLC, transmitted by Central Michigan University, L2016.86.52d

Naida CI Q Series Processor
with T—Mic™ Microphone

Advanced Bionics, LLC, manufacturer
American, 2003

Silver metallic plastic outer case with digital volume and program buttons. External LED. Lightweight T-Mic™ microphone. Four-microphone input configuration.

On loan from Advanced Bionics, LLC, transmitted by Central Michigan University, L2016.86.52f
Clothing Inspired by People with Hearing Loss

**CI Wear™ Shirt**

Eric Sherman, designer  

80% Nylon and 20% Lycra. Treated with KoreDry™

Loan courtesy of CI Wear™, KSUM L2016.54.1

This high-performance shirt was designed to be worn as a rashguard, swim shirt, or an exercise shirt. The sleeve pockets and special collar loops keep the wearer’s cochlear implant processor, such as the Advanced Bionics Neptune or AquaCase, in a comfortable position while protecting the device. The designer of the CI Wear™ shirt is a Kent State University alum, who designed this shirt for his son.

**Flutter**

Halley Profita, Nicholas Farrow, and Nikolaus Correll, creators  
American, 2012

Cotton, Spandex, Polyester, PCBs, Microphones, Vibration Motors, Wire

Lent by the creators, Halley Profita, Nicholas Farrow, and Nikolaus Correll, KSUM L2016.2.1

Inspired to aid individuals with hearing loss, this dress gives vibro-tactile feedback in the direction of a loud sound or alarm to help those with hearing loss respond more intuitively to their external environment. Flutter received the 1st place award at the International Symposium on Wearable Computer’s Design Exhibition in Newcastle, England in 2012.
Dress

Lexine Schumm, designer
American, 2016

Black canvas, shoulder and hip pieces of copper wire attached to plastic mesh, hearing aid batteries (sizes 10, 312, 13)

Loan Courtesy of Lexine Schumm, KSUM L2016.95

Lexine Schumm is a fashion design student at The University of Minnesota. She has had single-sided deafness since the age of four, and uses a Baha® auditory osseointegrated hearing system to help her hear.
Adaptive clothing today come in a variety of fashionable styles. The adaptive clothing on the market years ago were more concerned with function and form than fashion; now customers can take advantage of all these elements. Izzy Camilleri’s IZ collection is leading the market for fashionable adaptive clothing. Her pieces have signature cuts and styles to comfortably fit a seated body shape and to avoid interference with wheelchair mechanics. The adaptive clothing allows for wheelchair users to have access to the same styles and trends as everyone else, without compromising comfort. The designs also include discrete functionality details that allow ease in dressing and undressing.

-- Kay Caprez, Undergraduate Student in Speech and Language Pathology and Audiology and Dr. Tameka N. Ellington

Regular Bottoms vs. Adaptive Bottoms
designed for people who use wheelchairs

- Low waistline susceptible to gapping and exposure
- Bulky back pockets
- Functioning zipper fly
- Higher waistline with back elastic preventing gapping and exposure
- No pockets, dart added to help conform shape to body
- Faux or functioning zipper fly
- Side zipper for ease in dressing
Pencil Skirt

IZ Collection, Izzy Camilleri, designer
Canadian, 2015

72% polyester, 22% rayon, 6% spandex

Loan Courtesy of Izzy Incorporated, KSUM L2016.53.7

This item, designed for the seated wearer, features a curved zipper and a discreet elasticized panel at the back waist for comfort. The back of the skirt has a dart at each hip to accommodate the sitting position and allow for more comfort.

Wrap Dress

IZ Collection, Izzy Camilleri, designer
Canadian, 2015

95% rayon, 5% spandex

Loan Courtesy of Izzy Incorporated, KSUM L2016.53.6

This item was designed as a traditional wrap dress created for the seated working woman. This dress features extra fullness in the back panel controlled by pleats at the side of each hip. The dress skirt is longer in the back to accommodate the sitting position.
Adaptive Clothing by IZ Collection

**Leather Moto Easy Zip Back**
IZ Collection, Izzy Camilleri, designer
Canadian, 2015

100% leather

Loan Courtesy of Izzy Incorporated, KSUM L2016.53.3

This high fashion piece was designed for ease in dressing the wearer. Assisted dressing becomes a more pleasant and autonomous experience because the zippers down the back and front allow the jacket to be put on as two separate pieces.

**Fashion IZ Freedom Tee**
IZ Collection, Izzy Camilleri, designer
Canadian, 2015

50% polyester, 25% cotton, 25% rayon

Loan Courtesy of Izzy Incorporated, KSUM L2016.53.10

This cool graphic t-shirt has a philanthropic purpose with 100% of the proceeds from the shirt going to fund accessibility construction throughout North America. Those living with the need for a wheelchair are often faced with inaccessible facilities that restrict where they can go without assistance.

**Faux Leather & Ponte Legging**
IZ Collection, Izzy Camilleri, designer
Canadian, 2015

Front: 100% polyester, Back: 73% rayon, 23% nylon, 4% spandex

Loan Courtesy of Izzy Incorporated, KSUM L2016.53.5

This item was designed for the trendy, fashionable wearer with an extended back crotch and elastic waist.
**Women’s Easy-Zip Back Parka**

IZ Collection, Izzy Camilleri, designer
Canadian, 2015

Shell: 100% nylon, Fill: Thinsulate, Lining: 52% acetate, 48% cotton, coyote fur trim

Loan Courtesy of Izzy Incorporated, KSUM L2016.53.9

This stylish coat makes assisted dressing a more pleasant and autonomous experience. The zipper down the hood onto the back and the zipper separating front allows for the jacket to be put on as two separate pieces. The high cut back panels and the longer front prevents bunching in the back and allows a smooth drape on the front.

**Women’s Slim Leg Chino with IZ Panel**

IZ Collection, Izzy Camilleri, designer
Canadian, 2015

97% cotton, 3% spandex

Loan Courtesy of Izzy Incorporated, KSUM L2016.53.4

This item has an extended back crotch and elastic waist specially designed for a seated wearer. The IZ elastic panel adds extra comfort and more tailored fit.
Adaptive Clothing by IZ Collection

Rain Coat
IZ Collection, Izzy Camilleri, designer
Canadian, 2015

65% polyester, 35% cotton

Loan Courtesy of Izzy Incorporated, KSUM L2016.53.8

This item is utilitarian and fashionable with a removable back flap that is meant to drape over the back of the wheelchair to prevent rainwater puddling in the seat of the wearer.

Men’s Peacoat
IZ Collection, Izzy Camilleri, designer
Canadian, 2015

100% wool, lining 52% acetate 48% cotton

Loan Courtesy of Izzy Incorporated, KSUM L2016.53.2

This coat is not your traditional peacoat. It has special features such as a slight A-line shape and longer angled front panels to cover the thigh area of a seated wearer. The minimum bulk back panel also enhances comfort for the wearer.
**Women’s Slim Leg Jeans**

IZ Collection, Izzy Camilleri, designer
Canadian, 2015

70% cotton, 28% polyester, 2% spandex

Loan Courtesy of Izzy Incorporated, KSUM L2016.53.1

This jeans feature the elasticized IZ panel and signature high-cut waistband to prevent wheelchair users from worrying about gapping, bunching or riding down. There are and no rear pockets to sit on; shown with a grey installation T-shirt.

**Vintage Adaptable Jeans**

Alter Ur Ego, designer
American, ca. 2004

89% cotton, 8% polyester, 3% spandex

Loan Courtesy of Alter Ur Ego, KSUM L2016.80.1

These jeans have a variety of features designed for those in a wheelchair. Accessible pockets and catheter opening make these jeans unique. Founder Heidi McKenzie was paralyzed in a car accident in 2007. She saw a need in the market and began her company to provide fashion and functionality to others needing a wheelchair.
Adaptive Denim and Bottoms

**Slim Leg Women’s A-Jeans**

ABL Denim, Stephanie Alves, designer
American, ca. 2015

Premium Stretch Denim in 92% cotton, 7% polyester, and 3% Spandex

ABL Denim, KSUM L2016.87.2

These jeans have replaced pockets and back yoke seams with stylish stitch lines to prevent pressure sores for people with disabilities, i.e. spinal cord injuries, MS, and Spinal bifida. At the waist there are side zips as well as a center from zip. The founder and designer, Stephanie Alves provides designer denim with high functionality.

**Men’s seated WCH denim**

ABL Denim, Stephanie Alves, designer
American, ca. 2015

100% Cotton denim and jersey

ABL Denim, KSUM L2016.87.1

These jeans are made with a higher back rise, extra-long center front zipper with rubber string lasso pull for easier opening and closing, and accessible pockets. What makes this jean special is the back seat being made of denim like jersey for ultimate comfort without sacrificing style. The founder and designer, Stephanie Alves provides designer denim with high functionality.
Jacob Dip Down Jeans

Downs Designs Dreams, manufacturer American, 2015

100% Cotton

DOWNS DESIGNS DREAMS (Downs Designs & NBZ Jeans), KSUM L2016.100.2

These jeans are made with a low front rise and high back rise, full elastic waistband and faux zipper fly.

Lori Dress Pants

Downs Designs Dreams, manufacturer American, 2016

100% Polyester

DOWNS DESIGNS DREAMS (Downs Designs & NBZ Jeans), KSUM L2016.100.1

These pants are made with a full elastic waistband and faux zipper fly. Downs Designs® brand provides people with Downs Syndrome with proper fitting clothing that are comfortable and easy to don and doff with extra width added to the waist, hips and knees.
MagnaReady® and Runway of Dreams are changing the world of fashion with their adaptive clothing. They have gotten press via CNN, People Magazine, and the Wall Street Journal, just to name a few.

-- Dr. Tameka N. Ellington

**MagnaReady® Shirt**

American, 2015

Magnetic closures, stain resistant, and wrinkle free cotton oxford cloth

Loan Courtesy of The Kent State University Fashion School, KSUM L2016.90.1

This shirt was designed by MagnaReady CEO, Maura Horton, for her husband. Parkinsons disease left him with limited dexterity mobility and the inability to button his shirt. Mrs. Horton wanted to find a way to give her husband back his autonomy and a front magnetic closure was the perfect solution.

**Tommy Hilfiger Ivy Polo Shirt and Academic Chino**

Runway of Dreams
American, 2016

100% cotton with MagnaReady® closures and Velcro fly

Loan Courtesy of Runway of Dreams, KSUM L2016.99.2ab

These items have magnetic closure plackets which makes donning and doffing easier for someone with limited mobility and dexterity.
Tommy Hilfiger Pique Dress

Runway of Dreams
American, 2016

100% cotton with MagnaReady® closures

Loan Courtesy of Runway of Dreams, KSUM L2016.99.1

This dress has a magnetic closure placket that makes donning and doffing easier for someone with limited mobility and dexterity. Runway of Dreams is a nonprofit organization working with the fashion industry to adapt mainstream clothing for the differently-abled community. Partnering with top brands and retailers, Runway of Dreams works to integrate wearable technology and design modifications into clothing, to make it adaptive and wearable for all.
Custom Adaptive Clothing

PlayskinLift as imagined by Emma, Exoskeleton

Martha Hall, artist
American, 2016

Polyester blend knit, vinyl channels and removable wires

Loan Courtesy of the artist, KSUM L2016.5.1

This item was designed for a toddler with limited mobility and upper body strength. To wear the exoskeleton, the child is dressed in the garment, and then a caregiver slides the inserts under each arm into the vinyl casing. These inserts support the weight of the arm and allow the child to play, feed herself and interact with the environment. Families are provided with 3 sets of wires, each with different thicknesses. This way as the child gets stronger they use lighter weight inserts.

Man’s Sweater

American, 2016

Acrylic and wool yarn

Anonymous loan, KSUM L2016.112.1

This sweater was based on a knitting pattern for wounded soldiers in World War II and was adapted for a man needing a wheelchair. Off-set front and back separating zipper closures and button neckline make assisted dressing easier.
Custom Arm Slings

Listening Tour Arm Sling

J.R. Campbell, Linda Ohrn-McDaniel, Kim Hahn, and Prerna Suri, designers and fabricators
American, 2015

Cotton with digital embroidery threads

Loan Courtesy of Dr. Beverly Warren, President, Kent State University, KSUM L2016.98.1

This sling was designed and created by the Kent State University Fashion School for the university’s 12th President after she injured her arm. The embroidered phrases are recordings from the Listening Tour where she took the time to learn about the culture of the campuses.

Gray Squirrel Arm Sling

J.R. Campbell, Linda Ohrn-McDaniel, Kim Hahn, and Prerna Suri, designers and fabricators
American, 2015

Cotton with digital embroidery threads

Loan Courtesy of Dr. Beverly Warren, President, Kent State University, KSUM L2016.98.2

This sling was adorned with the famous Kent city black squirrel.
Contemporary Canes and Walking Sticks

Canes and walking sticks have been in existence since the beginning of mankind. One of the oldest stories referencing walking sticks is the staff of Moses which transformed into a snake at the Pharaoh’s feet. Canes and walking sticks help individuals maintain balance in everyday functional activities while also being uniquely whimsical. Fanciful canes and walking sticks feature hand painted, hand carved, gem embellished, and metalsmithed designs displaying its users personality. These unique designs are not only pieces one can be proud to utilize, but can also serve as interesting conversation starters.

– Kay Caprez, Undergraduate Student in Speech and Language Pathology and Audiology and Dr. Tameka N. Ellington

Proud Peacock Walking Stick

Design Toscano, manufacturer American, ca. 2016
Chrome, barley-twist hardwood shaft, rubber ferrule tip and chrome metal collar
Loan Courtesy of The Kent State University Fashion School, KSUM L2016.90.15

Lime Chord Lute

Incredible Canes, manufacturer American, ca. 2016
Hand painted solid wood derby handle and shaft
Loan Courtesy of The Kent State University Fashion School, KSUM L2016.90.17

Brass Mermaid Walking Stick

Design Toscano, manufacturer American, ca. 2016
Brass handle on a blue ash wood shaft, rubber tip
Loan Courtesy of The Kent State University Fashion School, KSUM L2016.90.16
Four Leaf Clover Faberge-Style Premium Enameled Walking Stick

Design Toscano, manufacturer
American, ca. 2016

Cast metal alloy, enamel and faux gem handle with hardwood shaft and ferrule and rubber tip

Loan Courtesy of The Kent State University Fashion School, KSUM L2016.90.8

Xeti Cane with Haptic Feedback

Rodrigo Guadarrama Murrieta, designer
American, 2016

Maple and walnut wood, Plexiglas rod, steel tubing, plastic.

Loan courtesy of Rodrigo Guadarrama Murrieta. KSUM L2016.109.1

Xeti is a smart white cane for people with visual disabilities that uses ultrasonic sensors to alert the user about objects and obstacles on their path, both on the ground and overhead. This cane alerts users through haptic feedback and learns its user’s habits over time. Xeti challenges our preconceptions of what a medical device should look like by elevating the forms and materials used to a level closer to a high-fashion accessory, therefore dignifying its use and exposure.

‘Crown of Laurel’ Fabergé-Style Enameled Walking Stick

Design Toscano, manufacturer
American, ca. 2016

Metal alloy, enamel and faux gem handle with hardwood shaft and rubber tip

Loan Courtesy of The Kent State University Fashion School, KSUM L2016.90.10

This cane was designed to evoke the 19th-century style made famous by Carl Fabergé.
House Replica Cane with Flames
Royal Canes, manufacturer American, ca. 2016
Mesh carbon fibers
Loan Courtesy of The Kent State University Fashion School, KSUM L2016.90.9

This derby style cane was inspired by the cane used by the famous Dr. Gregory House on the hit television series House M.D on Fox.

The Chatfield Cane
Top & Derby Limited, Ben Grynom and Matt Kroeker, designers Canadian, 2013

Aluminum and silicone handle, solid walnut shaft and thermoplastic rubber SHOETM
Loan Courtesy of Top and Derby, KSUM L2016.56.1

This cane is a modern and fun rendition of a traditional derby cane. Ben Grynom and Matt Kroeker wanted to inspire the self-confidence of cane users with this product. The designers trademarked a cane tip which they call a SHOETM, inspired by the treads of a sneaker. This piece won the 2014 IDEA Award from the Industrial Designers Society of America.

Trig Compression Socks
Top & Derby Limited, Ben Grynom and Matt Kroeker, designers Canadian, 2015

75% Nylon, 25% LYCRA®
Loan Courtesy of Top and Derby, KSUM L2016.56.2ab

Modern compression socks by Ben Grynom and Matt Kroeker are fashionable and functional with 15-20mmHg (moderate) compression support. These are not your grandpa’s compression socks.
Historic Canes and Walking Sticks

Cane
Unknown Culture, ca. 1800-1930
Ornate silver handle with solid wood shaft
Gift of Ralph and Terry Kovel, KSUM 2009.13.5

Cane
Romania, 1900-1999
Solid wood shaft with twenty metal togs
Popescu-Judetz Collection, KSUM 1991.030.0042

Cane
Romania, 1900-1999
Solid wood shaft with geometric carvings
Popescu-Judetz Collection, KSUM 1991.030.0041
Historic Canes and Walking Sticks

Cane

American, 1867

Solid wood with gold handle, engraved

Transferred from the Allen Memorial Art Museum, Oberlin College, Oberlin, Ohio, gift of Gladys Sellew, Helen Ward Memorial Costume Collection, 1958. KSUM 1995.017.1711

The engraving states: Presented to Mr. Sellew by his employees, Cincinnati, Ohio, Jan 1st, 1867

Cane

Unknown Culture, ca. 1800-1930

Striated horn and ivory

Gift of Ralph and Terry Kovel, KSUM 2009.13.2
Cane

Unknown Culture, ca. 1800-1930
Slit metal hook handle and solid wood shaft
Gift of Ralph and Terry Kovel, KSUM 2009.13.3

This cane has a dual purpose as it is used for balance while walking but also provides a temporary resting seat for its user.

Cane

Unknown Culture, ca. 1800-1930
Metal shaft wrapped in bull penis
Gift of Ralph and Terry Kovel, KSUM 2009.13.7
Artisan Walking Devices

Peg Leg
Robert Katkowsky, Kanemaker Studios, artist
American, 1979 and modified in 2016
African padauk, hand dyed ash, white ash, Macassar ebony, black palm, maple, gabon (or gaboon) ebony, copper, steel, brass, and leather.

Courtesy of the artist, KSUM L2016.72.1

This beautiful piece is not only functional but a piece of art. With its beautiful leather, copper and turquoise details this peg leg is reminiscent of Spanish/Caribbean culture. The artist can be contacted at kanemaker@gmail.com.

Crutch
Robert Katkowsky, Kanemaker Studios, artist
American, 2016
African padauk, Macassar ebony, hand dyed ash, white ash, black palm, steel, copper, brass, leather, and recycled metal.

Courtesy of the artist, KSUM L2016.72.2

This beautiful crutch is a work of art designed for someone who needs support. The lovely inlaid woods and leather details make this crutch into a fashionable accessory as well as an assistive device. The artist can be contacted at kanemaker@gmail.com.
Afro-Historical Family Tree Walking Stick

Fredrick Shortridge, artist
American, date ca. 2015

Solid maple and wood stains

Courtesy of Fredrick Shortridge, KSUM L2016.110.1

This walking stick tells the story of the ancestral African American lineage. At the lower base Africa, the Mother Land, is the root of the lineage. As the images spiral around the shaft, similar to the natural growth pattern of a tree, powerful African and African America forefathers and mothers are represented: Queen Nefertiti, Harriet Tubman, Marcus Garvey and the Obamas. This cane won the 2015 Akron Art Prize.
Wheelchair Devices

Toothless Wheelchair Surround
Magic Wheelchair, Ryan and Lana Weimer, creators

American, 2015

Sculpted foam, heat set plastic, metal and wood mounts and metal retractable hinges

Loan Courtesy of Magic Wheelchair, KSUM L2016.89.1

This surround was inspired by the fantasy DreamWorks film How to Train Your Dragon. Magic Wheelchair is a non-profit organization developing fun wheelchair costumes for children. Ryan & Lana Weimer, the founders, have been featured in newspapers, on television, and were recipients of funds from a very successful Kickstarter campaign in order to continue to create imaginative covers for other children.
Top End Eliminator OSR Racing Wheelchair

Invacare, manufacturer
American, ca. 2015

Aluminum and rubber tires

Loan Courtesy of Invacare Corporation, Elyria, Ohio KSUM L.2016.96.1

This dynamic racing wheelchair is the top choice for athletes. The relaxed head tube angle and the super-stiff, roll-formed horizontal main tube provide exceptional stability and aerodynamics. In 1992, 1996, 2000, 2004, 2008 and 2012 Paralympics athletes have won a variety of metals with the use of the Top End Eliminator OSR Racing Wheelchair.
Adaptive Shoes

The FLYEASE are the first shoes made with a full zipper closure opening from the side to back making the shoe easy to slip on or off and close or open. The shoe design was inspired by a young man named Matthew Walzer who lives with Cerebral Palsy. He wrote to Nike’s CEO, Mark Parker, via a social media letter which went viral. The letter explained that he will be going off to college soon and he expressed his anxiety, frustration and embarrassment about not being able to tie his own shoes. Walzer loved LeBron James therefore, Nike created this shoe in the LeBron Soldier style.

--Dr. Tameka N. Ellington
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Further Reading


“What kind of fashion are disabled people into? The thing is, is that disability is not a genre.”

--Bell Owen, Social Media Manager at IZ Collection Adaptive Clothing