



PROJECT

REFLECTIVE SPACES

THE UNIVERSITY OF TORONTO SCIENTIFIC INSTRUMENT COLLECTION

DATE

30 APRIL 2012

AUTHOR

ELEANOR LOUSON

COURSE

STS 6308

Table of Contents

Acknowledgements	2
Introduction	3
Meet UTSIC	4
Space 1: Display	11
Space 2: Website	22
Space 3: Storage	28
Peripheral Spaces	32
Afterword	37
References	38



UTSIC STORAGE ROOM. AT THE REQUEST OF UTSIC, ANY DETAILS REVEALING ITS WHEREABOUTS HAVE BEEN REDACTED.

Acknowledgements



INTERIOR DISPLAY CABINET DURING THE SETUP OF THE TRANSIT OF
VENUS EXHIBIT, VICTORIA COLLEGE, 24 APRIL 2012.

The University of Toronto Scientific
Instrument Collection; in particular Ari
Gross, Paul Greenham, and Erich
Weidenhammer

Work-study students Rebecca
Michaels, Jordan Kerr, and Natalie King

The IHPST, Victoria College, University
of Toronto

The HAPSAT Student Society

The 28 April 2012 *Transit of Venus*
Symposium organizers, participants,
and attendees

Introduction

THE UNIVERSITY OF TORONTO SCIENTIFIC INSTRUMENT COLLECTION (UTSIC) IS THE LATEST ITERATION OF ATTEMPTS BY GRADUATE STUDENTS TO PRESERVE, CATALOG, AND DISPLAY THE SCIENTIFIC MATERIAL CULTURE OF THE UNIVERSITY OF TORONTO. A GROUND-UP PROJECT LACKING PERMANENT INSTITUTIONAL SUPPORT, UTSIC OPERATES WITH HELP FROM A WORK-STUDY ARRANGEMENT WITH THE MUSEUM STUDIES DEPARTMENT FROM THE FACULTY OF INFORMATION, GRAD STUDENT VOLUNTEERS FROM THE INSTITUTE FOR THE HISTORY AND PHILOSOPHY OF SCIENCE, AND THE SCIENCE DEPARTMENTS WHO DONATE OR ALLOW UTSIC ACCESS TO THEIR INSTRUMENTS.

UTSIC, ALTHOUGH A GROUP EFFORT, APPEARS MAINLY TO BE THE WORK OF THREE GRAD STUDENTS AT THE INSTITUTE FOR THE HISTORY AND PHILOSOPHY OF SCIENCE AND TECHNOLOGY (IHPST): ARI GROSS, PAUL GREENHAM, AND ERICH WEIDENHAMMER. WHILE THEIR EFFORTS HAVE YIELDED IMPROVED RELATIONS WITH THE UNIVERSITY AND ITS SCIENCE DEPARTMENTS, AN IMPRESSIVE WEBSITE WITH A NEARLY-FUNCTIONING CATALOG, AND AN INTERDISCIPLINARY SYMPOSIUM, IT HAS ALSO INTERFERED WITH THEIR RESEARCH AND LEFT THEM EXHAUSTED. POTENTIAL SOLUTIONS INCLUDE INCREASED STUDENT PARTICIPATION IN UTSIC TO ALLOW MORE DELEGATION OF RESPONSIBILITIES, OR THE HIRING OF A PERMANENT CURATOR (WHICH U OF T SEEMS UNLIKELY TO DO).

THEIR WORK FOR UTSIC THIS YEAR HAS CULMINATED IN AN EXHIBITION OF HISTORICAL ASTRONOMICAL INSTRUMENTS RELATED TO THE TRANSIT OF VENUS, WHICH WAS SHOWCASED AT VICTORIA COLLEGE AS PART OF THE *TRANSIT OF VENUS* SYMPOSIUM AND EXHIBITION ON 28 APRIL 2012.

UTSIC EXISTS IN THREE MAJOR SPACES: **DISPLAY** INCLUDING ITS MAIN DISPLAY ON THE THIRD FLOOR OF VICTORIA COLLEGE, AND DEPARTMENTAL DISPLAYS THROUGHOUT THE UNIVERSITY, THE **WEBSITE** AND ONLINE CATALOG, AND ITS SECRET **STORAGE** SPACE. PERIPHERAL SPACES INCLUDE CONFERENCES, NETWORKS, PUBLICATIONS, AND A FEW SURPRISES. THIS GUIDE TO UTSIC, **REFLECTIVE SPACES**, OFFERS A BEHIND-THE-SCENES TOUR IN CELEBRATION OF THESE SPACES AND THEIR SELF-MADE CURATORS.

ELEANOR LOUSON



MEET UTSIC

CLOCKWISE FROM LEFT: ARI AND ERICH WITH THEIR 'ORDER OF THE FALLING APPLE' MEDALS FROM THE IHPST; ERICH AND TESS AT THE *TRANSIT OF VENUS* SYMPOSIUM, UTSIC FIELD TRIP TO GRANT'S ANATOMICAL MUSEUM, UNIVERSITY OF TORONTO; PAUL AND CORY ASSEMBLING THE TRANSIT OF VENUS EXHIBIT, VICTORIA COLLEGE.

Ari Gross

Co-founder and co-curator of UTSIC
5th year graduate student, IHPST

Favourite instruments:

“The cathode ray tubes on display at Vic, which make minerals glow. Why? We don’t really know [...] They clearly show beautiful and elegant effects, and walk the line between epistemic objects and *objets d’art*.”

“Our central challenge is manpower and succession. Erich and I will only be here for so long and we need someone to take the reins.”

“We’re not professional curators but we’re running a collection; not coders, but we’re making a website [...] It’s a ground-up approach that’s been referenced as the Toronto model at the Canadian Museum Conference.”



Erich Weidenhammer

Co-founder and co-curator of UTSIC
5th year graduate student, IHPST



“The whole thing started out with complaining about the crap in the hallway at the Institute. It was pretty low key... things just sort of came into focus as we started.”

“The problem with graduate students, of course, is that they graduate... Unless they spend all their time messing with historical instruments.” (talk for the *Transit of Venus* Symposium)

“No one has convinced the university that this material culture is part of their core mandate”

“We’re just a couple of dudes in a basement.” (quoted in Scott 2012, 16)

Paul Greenham

Co-curator of UTSIC

3rd year graduate student, IHPST

“I made the mistake of being general manager of the symposium, and then project manager of the exhibit, and then the main worker on the exhibit... What I need is another me.”

“We need to delegate more, to operate at a level where the average grad student can participate.”

“Unless I get paid for it, I can’t do what Ari and Erich did [...] This project was great but at a continuous level it would intrude too much.”

How did Paul decide what to include in the *Transit of Venus* exhibit? “We use the analogy of **instrument porn**... it can have a nice personality but its body has to make the cut. A ruler might be an important scientific instrument, but it’s just not sexy.”



“The exhibition curator’s function authorizes a measure of fame which eludes other colleagues” (Heinich and Pollak 1996, 237)



UTSIC ALSO INCLUDES GRAD STUDENT VOLUNTEERS WHO DISASSEMBLE AND SET UP DISPLAYS, RESEARCH INSTRUMENTS FOR THE WEBSITE AND EXHIBITS, AND PARTICIPATE AT CONFERENCES. ARI, ERICH, AND PAUL, THE PUBLIC FACES OF UTSIC, ARE QUICK TO SHARE CREDIT WITH THE STUDENT VOLUNTEERS THEY MANAGE, WHOSE CONTRIBUTION IS OTHERWISE UNSUNG.

ABOVE: CORY LEWIS AND CHRIS BELANGER INTERPRET PAUL'S DESIGN FOR THE TRANSIT OF VENUS EXHIBIT

CLOCKWISE FROM CENTRE TOP: KRISTEN SHRANZ, WITH HER HUSBAND SIGFRIED, RUN THE INFORMATION DESK AT THE *TRANSIT OF VENUS* SYMPOSIUM; TESS B. SMITH; CHRIS FILMS THE SYMPOSIUM PRESENTATIONS.

“While we understand that the **delicacy** and **skill** required to care for or conserve a fragile object may sometimes be comparable to that required to perform open heart surgery, the public does not necessarily acknowledge these to be equally matters of life and death.” (Weil 1990, 182)



UTSIC'S WORK-STUDY PROGRAM

9 (L-R) MUSEUM STUDIES STUDENTS JORDAN KERR AND NATALIE KING IN THE STORAGE ROOM



“THE WORK-STUDY STUDENTS ARE AMAZING [...] WE WOULD PAY THEM MORE BUT WE AREN’T IN CHARGE OF THAT.” -ARI
“THE ONTARIO GOVERNMENT JUST AXED THE WORK-STUDY PROGRAM 1 WEEK AGO... IT WAS A BIG SURPRISE TO EVERYONE.” -REBECCA

CLOCKWISE FROM LEFT: NATALIE WORKING IN STORAGE; REBECCA MICHAELS AT THE TRANSIT OF VENUS EXHIBIT; NATALIE RECORDING THE RETURN OF INSTRUMENTS FROM THE PREVIOUS EXHIBIT; PAUL AND REBECCA LOADING THE CAR WITH PACKING MATERIALS AFTER THE TRANSIT EXHIBIT ASSEMBLY.



“First we shape our buildings, then
they shape us, **then we shape
them again** - ad infinitum.
Function reforms form,
perpetually.”
(Brand quoted
in Rooney
2010, 173)

SPACE 1: DISPLAY

11 LOCATION: 3RD FLOOR HALLWAY, VICTORIA COLLEGE; VARIOUS U OF T SCIENCE DEPARTMENTS

“Exhibitions and anthologies are, by definition, selective and exclusive due to the biases of the organizers and the **actual or perceived constraints of space, finance and availability of works.**” (Greenberg, Ferguson, and Nairne 1996, 1)



DISPLAYS OF SCIENTIFIC INSTRUMENTS ON U OF T CAMPUS ARE UTSIC'S MAIN PUBLIC FACE.

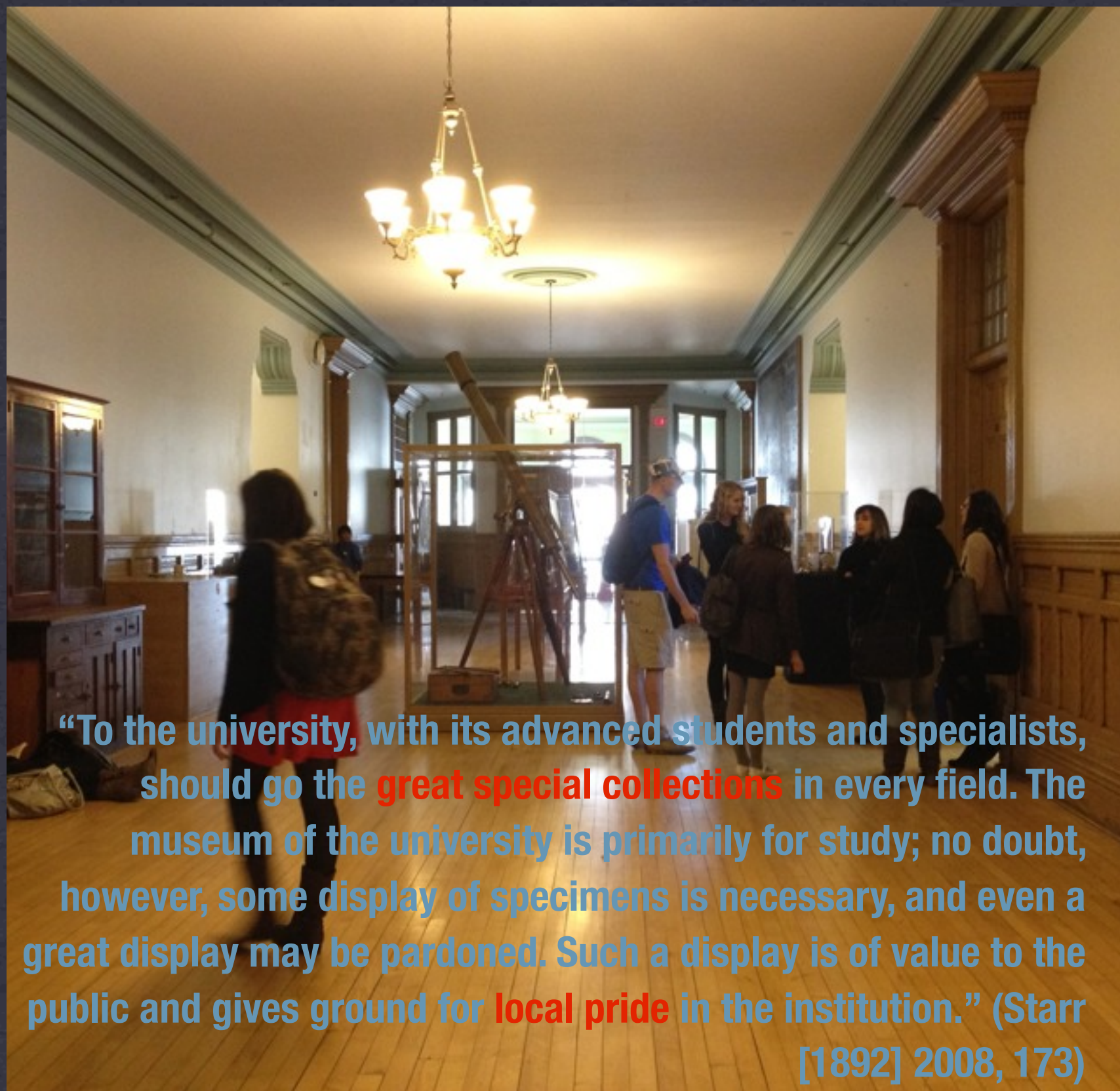
ABOVE: ERICH ADDING AN INSTRUMENT TO THE PSYCHOLOGY DEPARTMENT HALLWAY DISPLAY.

CLOCKWISE FROM CENTRE TOP: VARIABLE RESISTORS; CABINET OF CROOKES TUBES; WINE AND CHEESE RECEPTION; ALL FROM THE UTSIC ELECTRICAL EXHIBITION, IHPST, VICTORIA COLLEGE.



UTSIC DISPLAYS IMAGES TOO; THIS BOARD ACTS AS A PHYSICAL DISPLAY FOR UTSIC & ITS WEBSITE.

13 IMAGES OF INSTRUMENTS AND POSTERS FROM PREVIOUS EXHIBITS, VICTORIA COLLEGE.

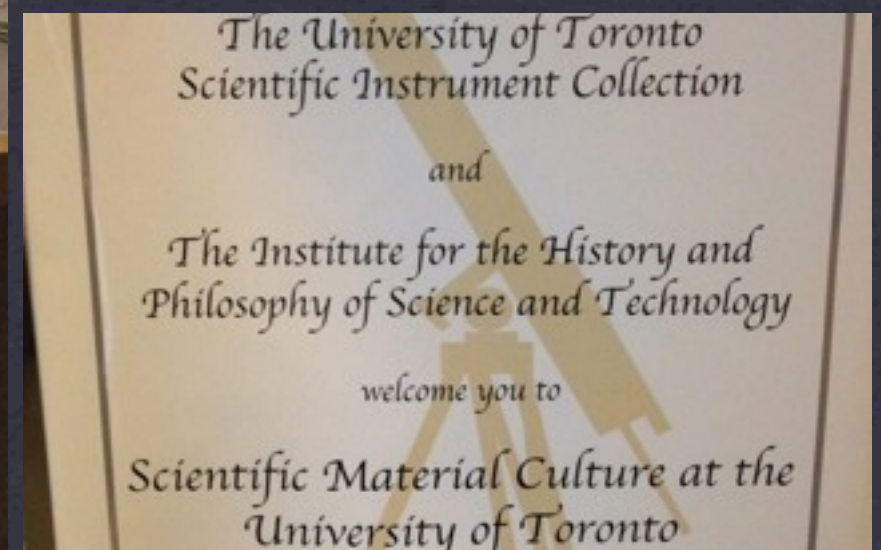
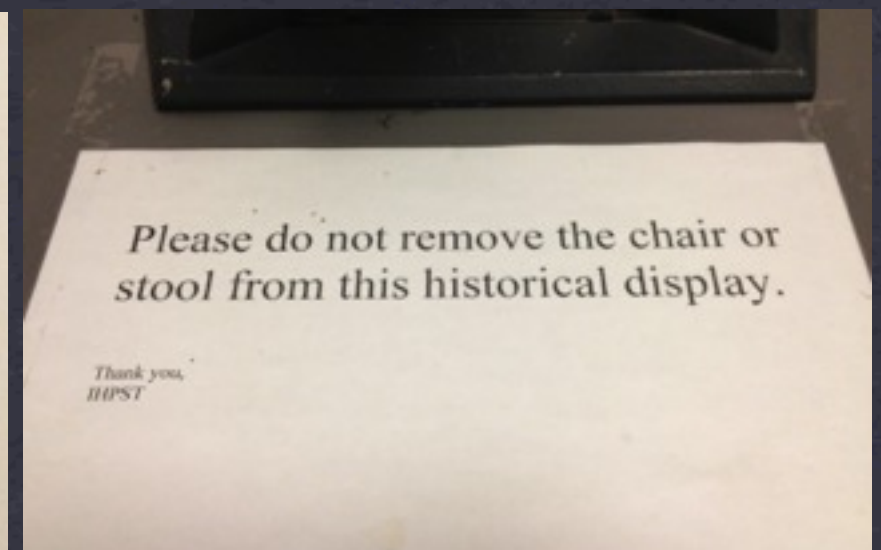


“To the university, with its advanced students and specialists, should go the **great special collections** in every field. The museum of the university is primarily for study; no doubt, however, some display of specimens is necessary, and even a great display may be pardoned. Such a display is of value to the public and gives ground for **local pride** in the institution.” (Starr [1892] 2008, 173)



THE DISPLAY SPACE AT VICTORIA COLLEGE IS PUBLIC UNIVERSITY SPACE, SERVING MULTIPLE CONSTITUENCIES. “WE’RE NOT REALLY FOR THE GENERAL PUBLIC” -ARI.

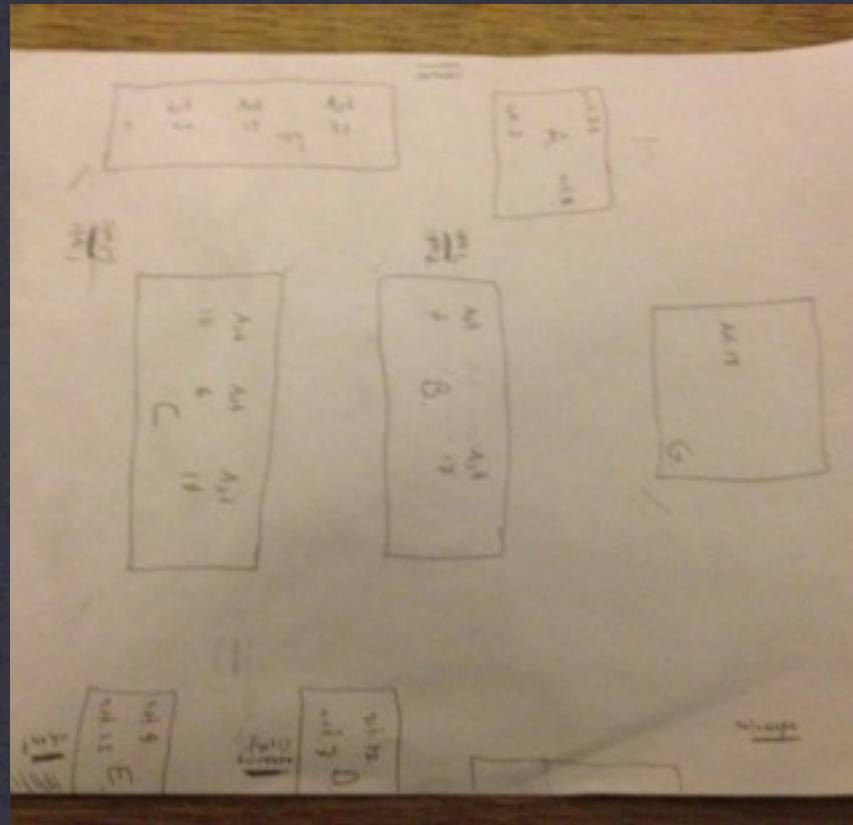
CLOCKWISE FROM LEFT: UNDERGRADUATE STUDENTS WAITING FOR A CLASS TO BEGIN; POST-COLLOQUIUM SNACKS IN THE HALLWAY; UNATTENDED DISHES; JANITORIAL EQUIPMENT.



THE DISPLAY HALLWAY CONTAINS LARGE, UNPROTECTED INSTRUMENTS, AS WELL AS SIGNS FOR PREVIOUS EVENTS. "I'D LIKE TO SEE MUSEUM STUDIES WORK WITH IT & TURN IT INTO A LEGITIMATE SPACE, WITH BETTER LIGHTING AND SIGNAGE." -ERICH

15 CLOCKWISE FROM LEFT: ELECTRON MICROSCOPE DISPLAY; DETAIL OF SIGN ON ELECTRON MICROSCOPE; HISTORICAL MEDICAL INSTRUMENTS; WELCOME SIGN FOR *SCIENTIFIC MATERIAL CULTURE AT THE UNIVERSITY OF TORONTO* (2009 EVENT).

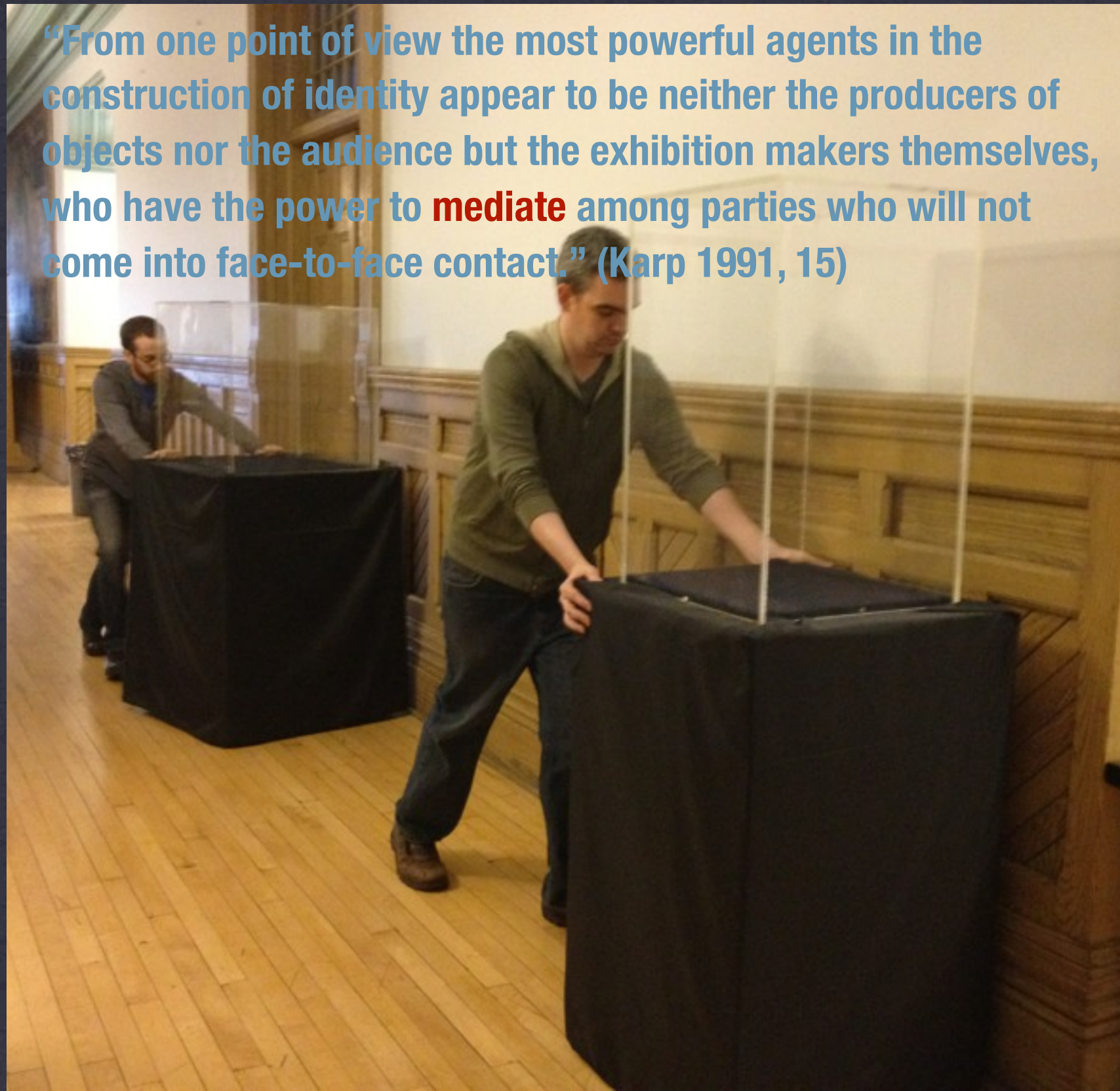
Transit of Venus Display



Left-right: Paul's diagram of the exhibit; Paul and Cory assembling displays; an instrument case during the exhibition.

“The exhibition offers an autonomous area, a margin of personal manoeuvring in comparison to other aspects of the profession; the curator can permit him or herself things that would be impossible in a museum, and the staging of an exhibition is a ‘privilege’, a ‘**delight**’.” (Heinich and Pollak 1996, 237)

“From one point of view the most powerful agents in the construction of identity appear to be neither the producers of objects nor the audience but the exhibition makers themselves, who have the power to **mediate** among parties who will not come into face-to-face contact.” (Karp 1991, 15)



“WE DON’T WANT PEOPLE TO SEE US PUTTING INSTRUMENTS INTO CASES BECAUSE IT BREAKS THE PSYCHOLOGICAL BARRIER THAT ‘INSTRUMENTS CAN’T BE REMOVED FROM CASES’.” -PAUL

The clocks were supposed to fit inside the Banting cabinets, but they were too tall.

“Should we bring them in for one day? Should we axe them? I have no idea what to do about the clocks [...] We’d have to buy a new display case.” -Paul

The next plan was to put them inside the large telescope case, but that proved too dangerous as the only way in was from the top, by ladder. A lively discussion ensued:

Rebecca: What if we got something to cordon them off with? People usually respect the cordon.

Paul: We need to find some stuff to cordon them off.

Rebecca: We were hoping to use the cordon from the electron microscope for that.

Ellie: It’s not there anymore.

Rebecca: What do you mean? There was a cordon there!

Ellie: There wasn’t one when I photographed it last week...

Paul: What about putting them on top of this shelf?

Rebecca: They might tip over.

Paul: And they could be vandalized.

Luckily, a cordon was obtained for the weekend and the clocks could be displayed during the *Transit of Venus Symposium*.

“The clocks were the most logistically hard part of the exhibit [...] The faculty of information lent us the rope barrier, which means we have to take the clocks back on Monday; we don’t have anywhere else to put them.” -Rebecca

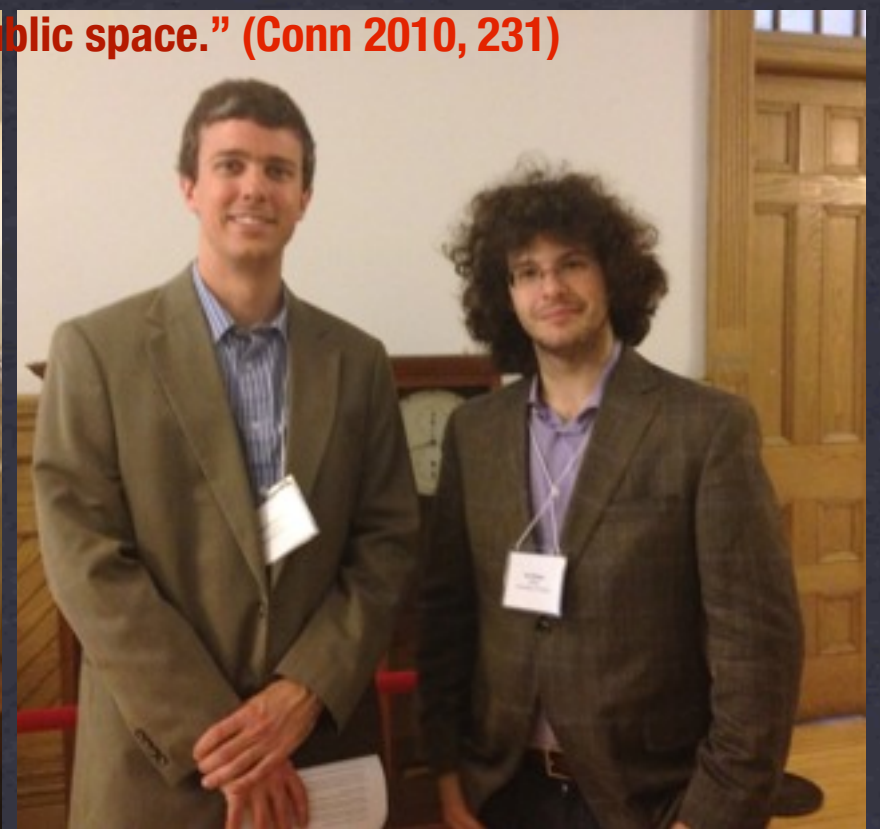


PRE-EXHIBIT CRISIS: UNCOOPERATIVE CHRONOMETERS.

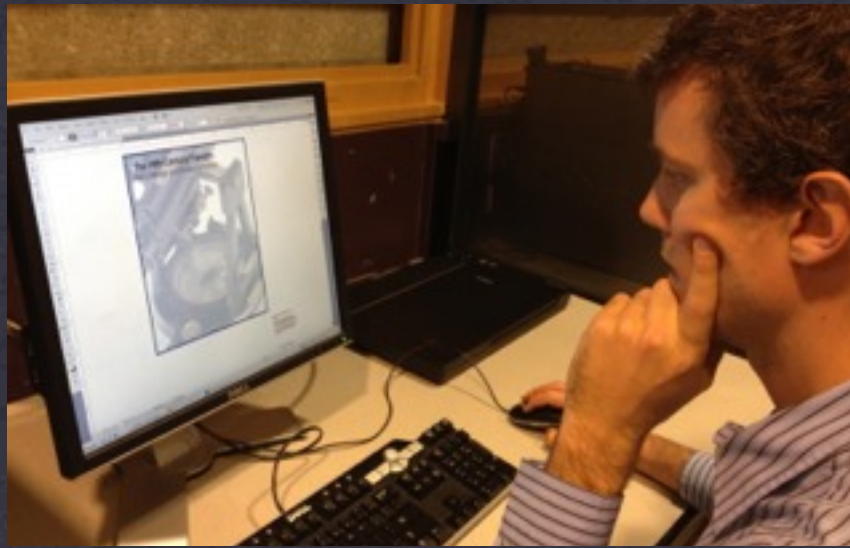
TOP: “THE CASE ONLY OPENS FROM THE TOP” -ALEX, THE VICTORIA COLLEGE JANITOR, DASHING UTSIC’S HOPES OF DISPLAYING THE CHRONOMETERS INSIDE THE TELESCOPE CASE. BOTTOM: CHRONOMETERS ON TEMPORARY DISPLAY BEHIND A BORROWED CORDON.



"In an era grown suspicious of the public realm, and with whatever didactic authority museums may once have had, museums continue to be viewed as acceptable, enjoyable, satisfying public space." (Conn 2010, 231)



***TRANSIT OF VENUS* OPENING, 28 APRIL 2012.**



“If the museum attempts to transmit a large quantity of information through lengthy labels, the label itself gradually becomes the exhibit and the object becomes an illustration for the label [...] Failure threatens an exhibition with long labels because a museum is not the right device for the transmission of the written word. **A museum is not a book.**” (Neal 1976, 4)



“[Paul and I] are doing these posters but neither of us is a graphic designer. The people who wrote the text are well-meaning, but they wrote it like a conference paper... Display text needs to be **short** and **snappy**. The average human being gets bored if they have to read more than 300 words.” -Rebecca



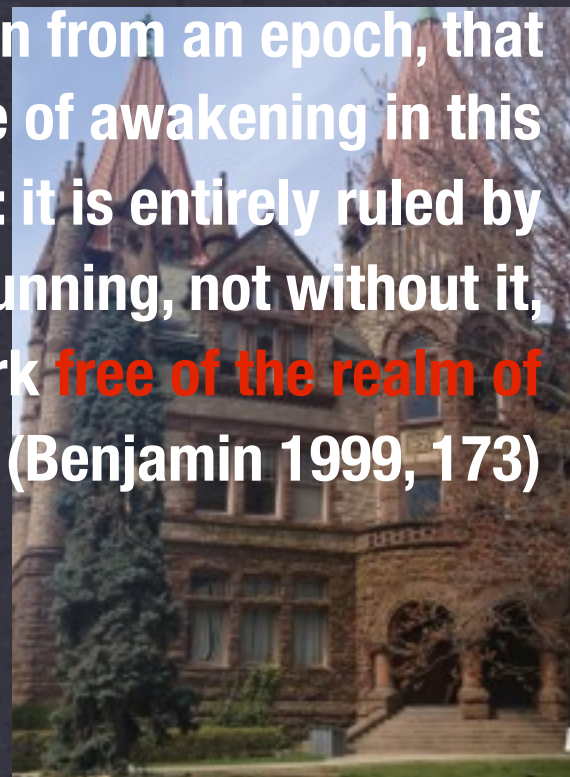
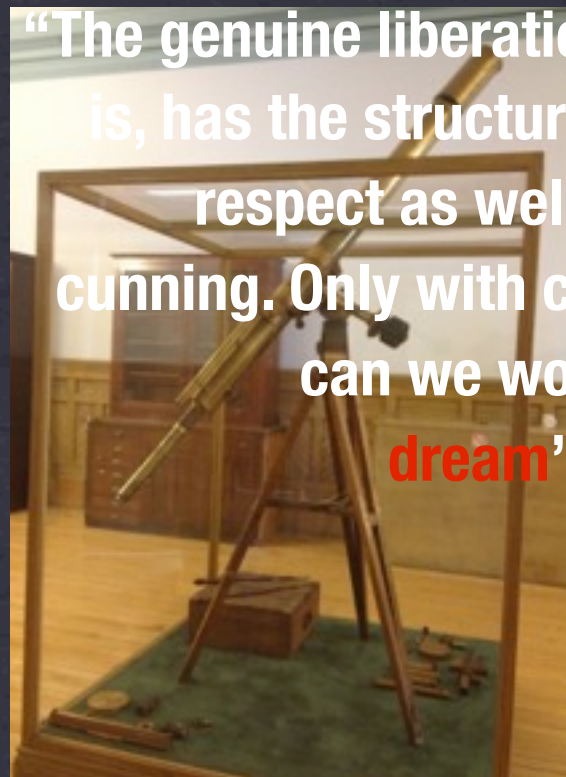
“The average viewing time for most exhibits is no more than *forty-five seconds*.” (Neal 1976, 122)

“It’s nice to see people interacting with something you’ve worked on.” -Rebecca

SIGNAGE FOR THE TRANSIT OF VENUS EXHIBIT

TOP TO BOTTOM: PAUL WORKING ON A POSTER; DETAIL OF TRANSIT OF VENUS POSTER; A VISITOR PHOTOGRAPHING A POSTER DURING THE TRANSIT OF VENUS EXHIBIT.

“The genuine liberation from an epoch, that is, has the structure of awakening in this respect as well: it is entirely ruled by cunning. Only with cunning, not without it, can we work **free of the realm of dream**” (Benjamin 1999, 173)

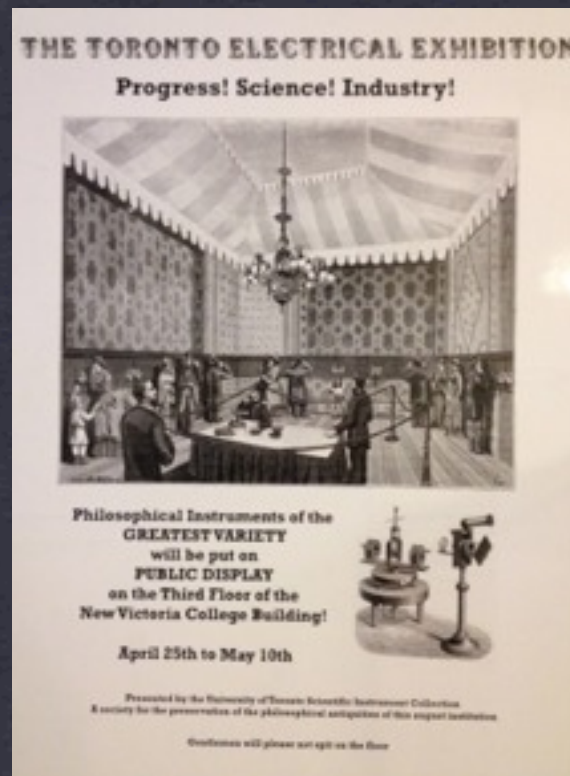


“The transit of Venus is highly significant for the UTSIC collection, as the Victoria College telescope, featured on the UTSIC symbol, was the instrument used for one of the main observations of the 1882 transit of Venus in Canada.” -Paul’s 17 April 2012 entry on the UTSIC website.

Mike Thicke, IHPST student, used the outline of the telescope as his design for the UTSIC logo in 2009. UTSIC’s main display site is in Victoria college, and past UTSIC signage plays up this connection to the Victorian era.

The telescope represents UTSIC’s departmental beginnings at the IHPST as well as its physical display space at Victoria College (it is permanently on display whether they like it or not). In addition, it promotes its association with U of T’s scientific heritage. It also contributes to UTSIC’s self-fashioned antiquarianism, which should not be surprising from a group of graduate student historians.

“Good posters exist... only in the domain of **trifles**, of **industry**, of **revolution**” (Talmeyr in Benjamin 1999, 173)



TOP, LEFT TO RIGHT: VICTORIA COLLEGE TELESCOPE; EXTERIOR OF VICTORIA COLLEGE. BOTTOM, LEFT TO RIGHT: THE UTSIC LOGO; A VICTORIAN UTSIC POSTER; PAUL, ERICH, AND ARI IN FRONT OF AN IMAGE OF THEMSELVES WITH THE VICTORIA COLLEGE TELESCOPE. “IT WAS THE ONLY PHOTO WE HAD OF THE TELESCOPE” JOKED PAUL DURING HIS PRESENTATION.



University of Toronto Scientific Instruments Collection

[Home](#)[About the UTSIC](#)[Contact](#)[Collections Policy](#)[Browse Collection](#)

“For a museum curator used to producing large, time-consuming, and expensive exhibitions, a foray onto the Web can be **liberating**.”
(Gradwohl and Feldman 1998, 187)

WEDNESDAY, FEBRUARY 15, 2012

The Foucault Switch

by Nicolas Sanchez-Guerrero

When researching the history of scientific instruments, scholars hope to complement the physical description of objects with insights on personal, institutional, and experimental histories. These insights result from studying an instrument's construction and its acquisition, operators, and uses at an institution. Commonly, historical research provides facts and well-founded intuitions, but it also suggests research questions that may remain unanswered. These open questions are gaps in our knowledge about the material culture of an institution, but they can be used to illustrate parts of the process of writing an instrument's history.

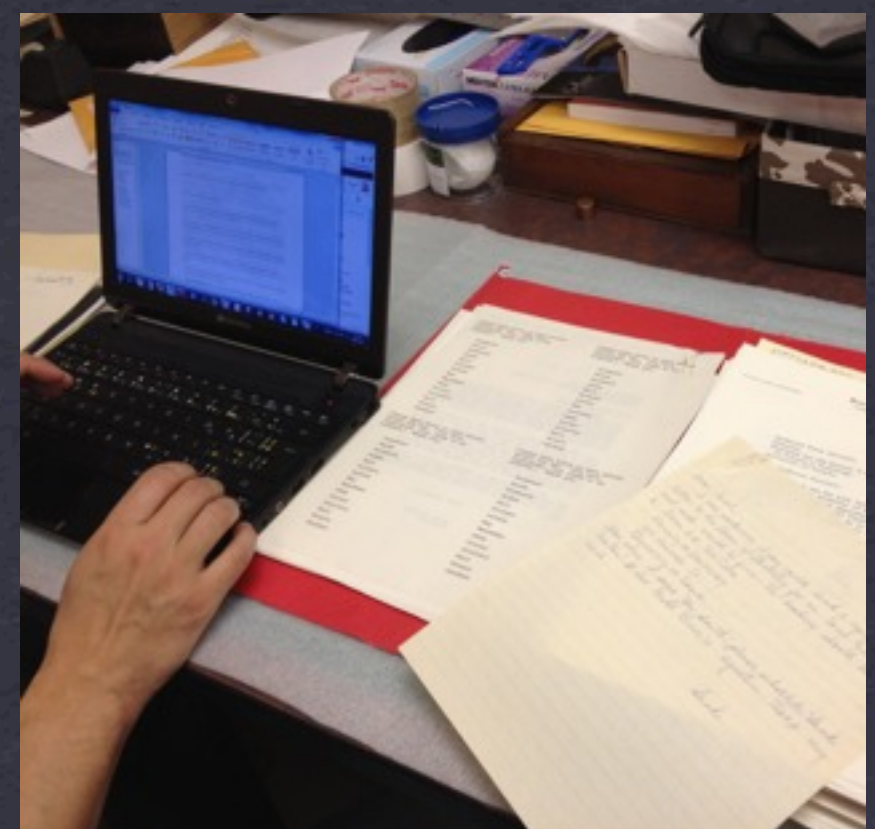
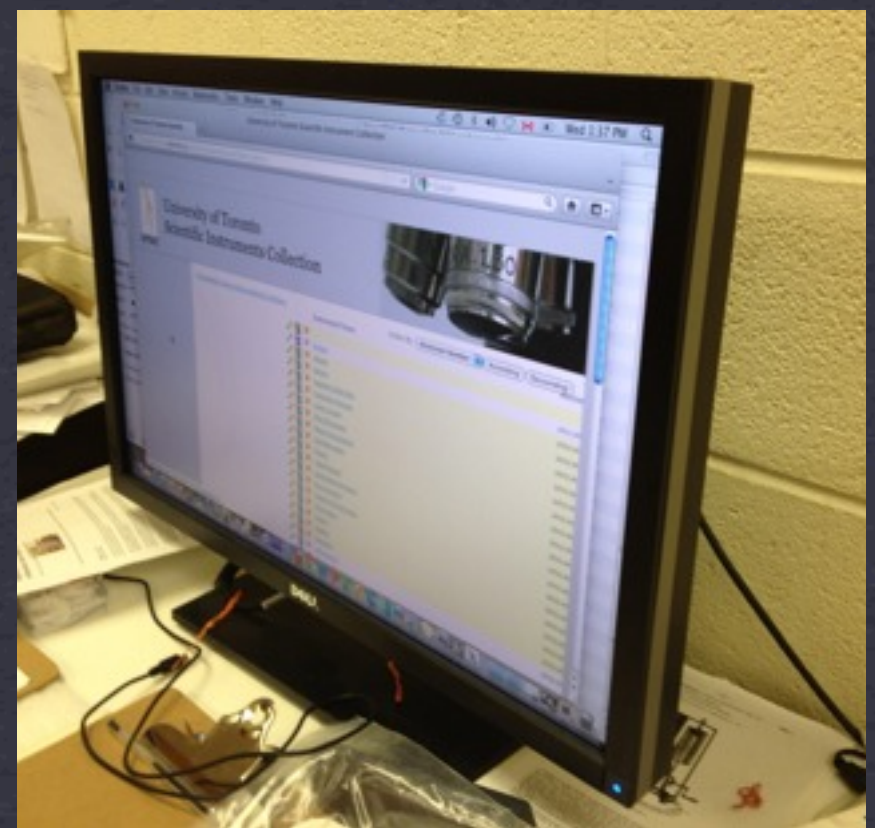
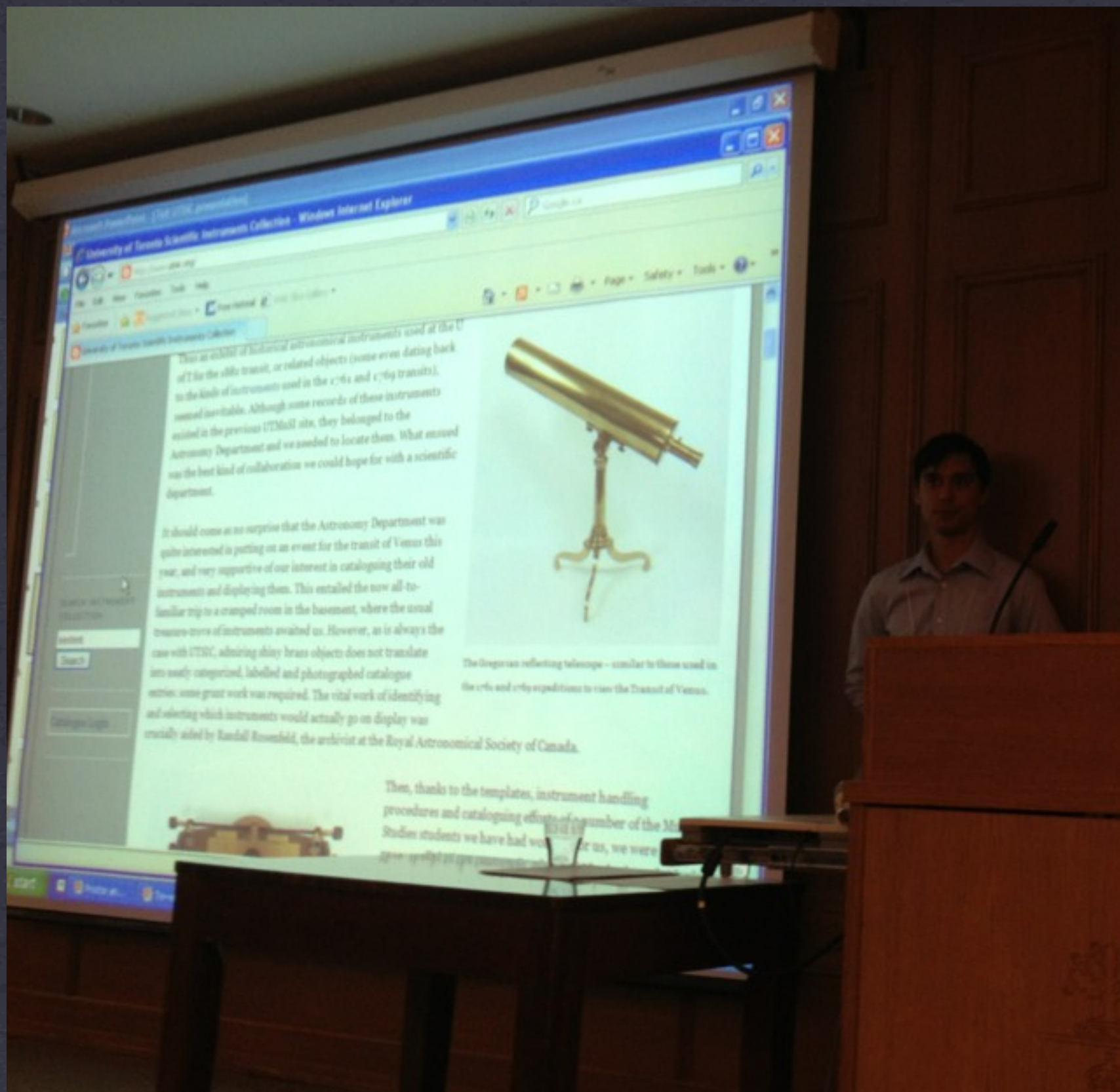
Recently, I started researching an aesthetically interesting and puzzling instrument from the collection of the Department of Physics. Basic notions about the possible workings of this instrument led me to consult online resources for scientific instruments (one of them is the “[Physics Museum of Sardinia](#)”) and physics textbooks from the construction period of our instrument. I found that the instrument displayed is a *Foucault Switch*, a type of automatic circuit interrupter used widely in the late 19th century and invented by the French physicist [Jean Bernard Léon Foucault](#) (1819-1868). During that century, scientists and engineers created new uses for electricity and developed increasingly sophisticated circuit elements to control instruments and electric phenomena. Among these elements were interrupters—basic components that open or close an electric circuit to regulate conduction.

“Developing material for the Web is like producing a landscape of information and helping users find **trails** of interest.” (Gradwohl and Feldman 1998, 189)



SPACE 2: WEBSITE

LOCATION: CYBERSPACE. WWW.UTSIC.ORG



THE UTSIC WEBSITE SERVES SEVERAL FUNCTIONS: IT'S AN ONLINE CATALOG, A VENUE TO FEATURE STUDENT RESEARCH ON INSTRUMENTS IN A NARRATIVE, LINK-FILLED OVERLAY, AND A SHOWCASE FOR BEAUTIFUL PHOTOGRAPHS OF INSTRUMENTS.

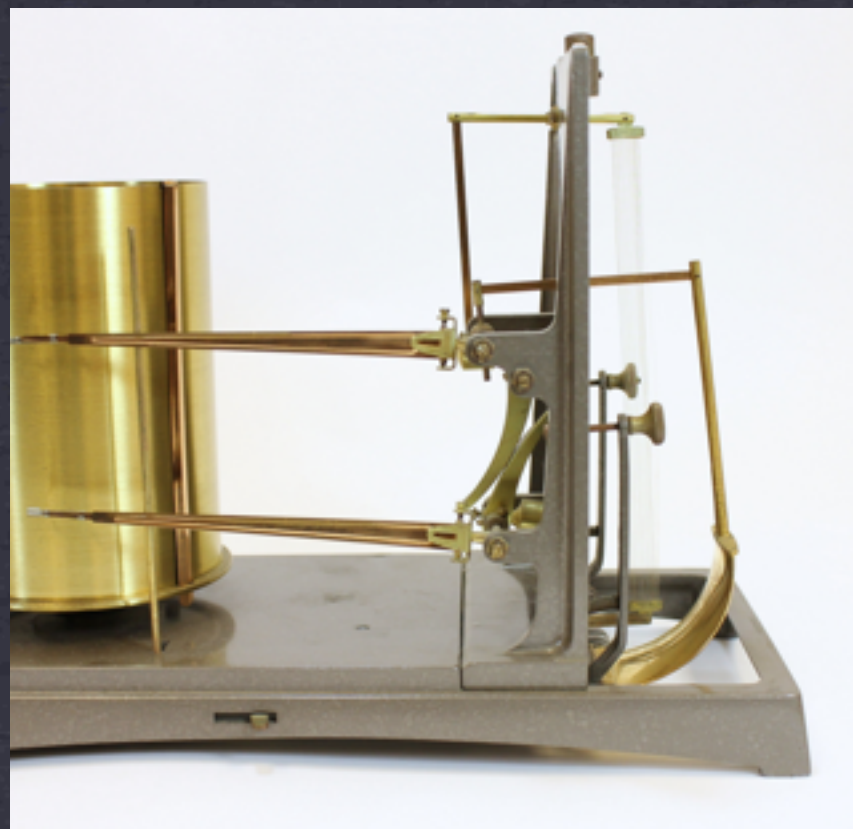
23 CLOCKWISE FROM LEFT: PROJECTED WEBSITE AND ERICH AT THE *TRANSIT OF VENUS SYMPOSIUM* DURING ARI'S UNSUCCESSFUL DEMONSTRATION OF A CATALOG SEARCH FOR "SEXTANT"; THE ONLINE CATALOG ON A STORAGE ROOM COMPUTER; JORDAN ADDING TO THE CATALOG IN THE STORAGE ROOM.



“Digital imaging is ‘hot.’
[...] the quality of
digital image
products can
be spectacular”
(Conway 2010,
366)

“WE CAN TAKE SEXY PICTURES FOR THE WEBSITE!” -ARI

DETAIL OF MICROSCOPE (2009.UC.31). IMAGE FROM WWW.UTSIC.COM COLLECTION.



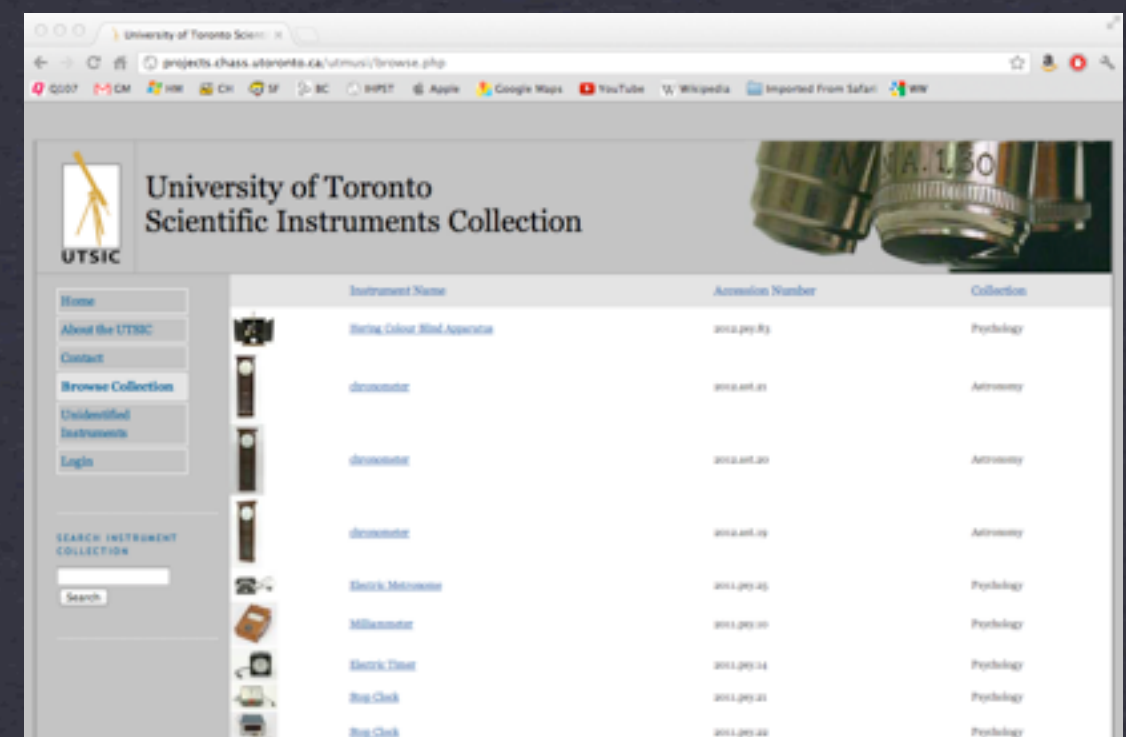
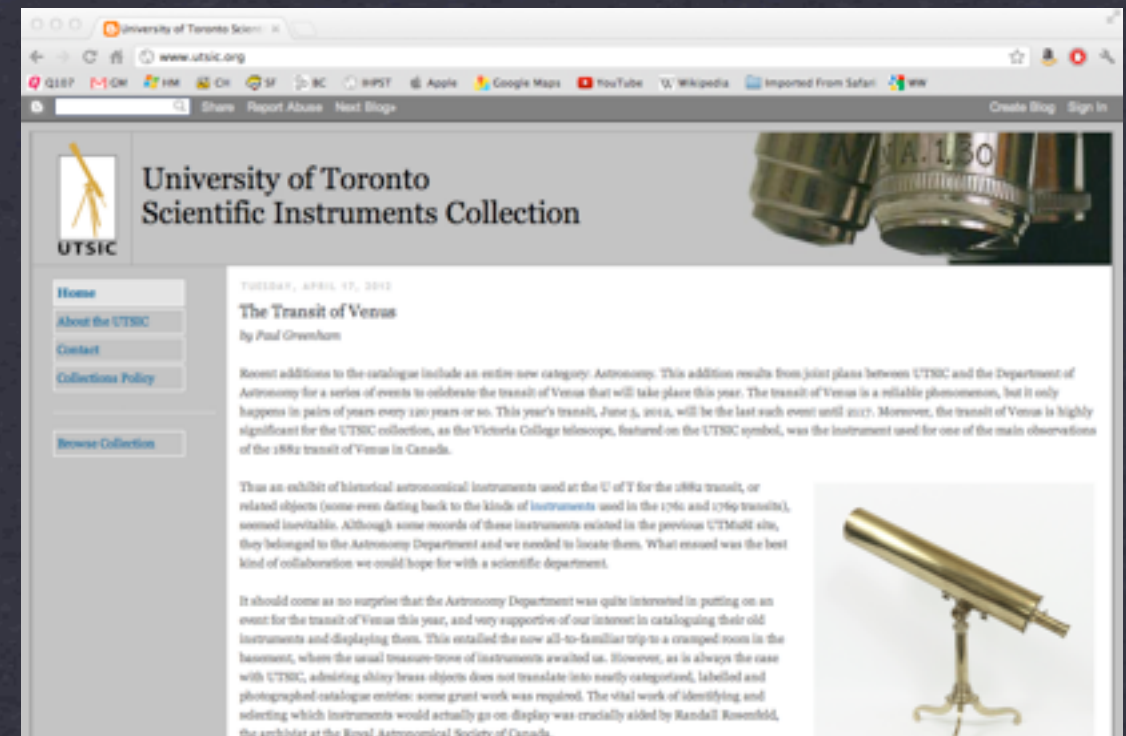
“THEY’RE BASICALLY INSTRUMENT PORN.” -PAUL

Website Space

“ONE OF OUR BREAKTHROUGHS WAS TO ABANDON THE IDEA OF A MUSEUM, AND START FOCUSING ON ORGANIZING THE COLLECTION AROUND THE WEBSITE. THE WEBSITE AS IT EXISTS NOW IS KIND OF A KLUDGE; IT’S TWO WEBSITES ROPED TOGETHER. THERE’S THE CATALOG, AND A BLOGGER NARRATIVE HOMEPAGE THAT LOOKS SIMILAR TO THE CATALOG BUT ISN’T THE CATALOG. WE’RE TRYING TO INTEGRATE THIS NARRATIVE COMPONENT TO THE CATALOG, TO APPEAL TO A BROAD ACADEMIC PUBLIC [...] WE DON’T REALLY PUBLICIZE THE WEBSITE BECAUSE IT’S A WORK-IN-PROGRESS, BUT MAYBE BEFORE WE GRADUATE...”-ERICH

“THE ‘USER’ OF A NARRATIVE IS **TRAVERSING** A DATABASE, FOLLOWING LINKS BETWEEN ITS RECORDS AS ESTABLISHED BY THE DATABASE’S CREATOR.” (MANOVICH 2010, 69)

“WE INTEND TO REMAKE THE ENTIRE WEBSITE AS A WORDPRESS SITE. ONE OF THE ADVANTAGES OF CHANGING THE WEBSITE WILL BE THAT IT’S SEAMLESS; IT’S ALL ON ONE SYSTEM. IF WE WANT TO BE AROUND FOR A LONG TIME THEN IT’S WORTH DOING THIS RIGHT.” -ARI



DESPITE THEIR NEAR-IDENTICAL APPEARANCE, THE ABOVE TWO WEBSITES RUN ON ENTIRELY DIFFERENT ARCHITECTURES. THE HOMEPAGE (TOP) IS A BLOG RUN BY BLOGGER; THE CATALOG (BOTTOM) IS PROPRIETARY CODE, DESIGNED BY IHPST STUDENT MIKE THICKE, HOSTED ON A U OF T SERVER. THIS DISTINCTION IS NOT EVIDENT TO THE PUBLIC, BUT IRRITATES UTSIC ENOUGH TO MOTIVATE A REDESIGN. THEY INTEND TO RELAUNCH THE WEBSITE ON WORDPRESS IN TIME FOR THE ACTUAL TRANSIT OF VENUS (5 JUNE 2012). THEY ANTICIPATE THAT THE NEW WEBSITE WILL PERMIT THEM TO HOST ONLINE EXHIBITIONS.

Objects in Contextual Spaces

“There is undoubtedly no replacement for the **experience** of viewing an object in its original form and setting. However, digital representations, while they provide an inferior viewing experience in some ways, have their own advantages unique to digital information formats [...] The two formats need not compete with each other.” (Frost 2010, 244)



LEFT TO RIGHT: SUNDIAL IN THE UTSIC CATALOG [PHOTO TAKEN AGAINST SEAMLESS BACKDROP; OBJECT APPEARS AS THOUGH IN A VOID]; DETAIL OF SUNDIAL PROJECTED DURING THE *TRANSIT OF VENUS* SYMPOSIUM [OBJECT IN A PEDAGOGICAL CONTEXT; SPECIFICALLY, PAUL POINTING OUT THE BEAUTY AND ATTENTION TO DETAIL ON THE PIECE, AND WHAT IT TELLS US ABOUT THE HISTORICAL RELATION BETWEEN SCIENCE AND CULTURE]; THE SUNDIAL ON DISPLAY AT THE *TRANSIT OF VENUS* EXHIBITION [PRESENT IN A CASE WITH OTHER HISTORICAL TRANSIT INSTRUMENTS AND A POSTER DESCRIBING ITS CHARACTERISTICS; VIEWERS SEE THE REAL OBJECT IN ITS THREE DIMENSIONS, BUT MUST CONTEND WITH THE GLASS CASE AND OTHER VISITORS AS BARRIERS].



REDACTED

SPACE 3: STORAGE

LOCATION:

REDACTED

Storage Space

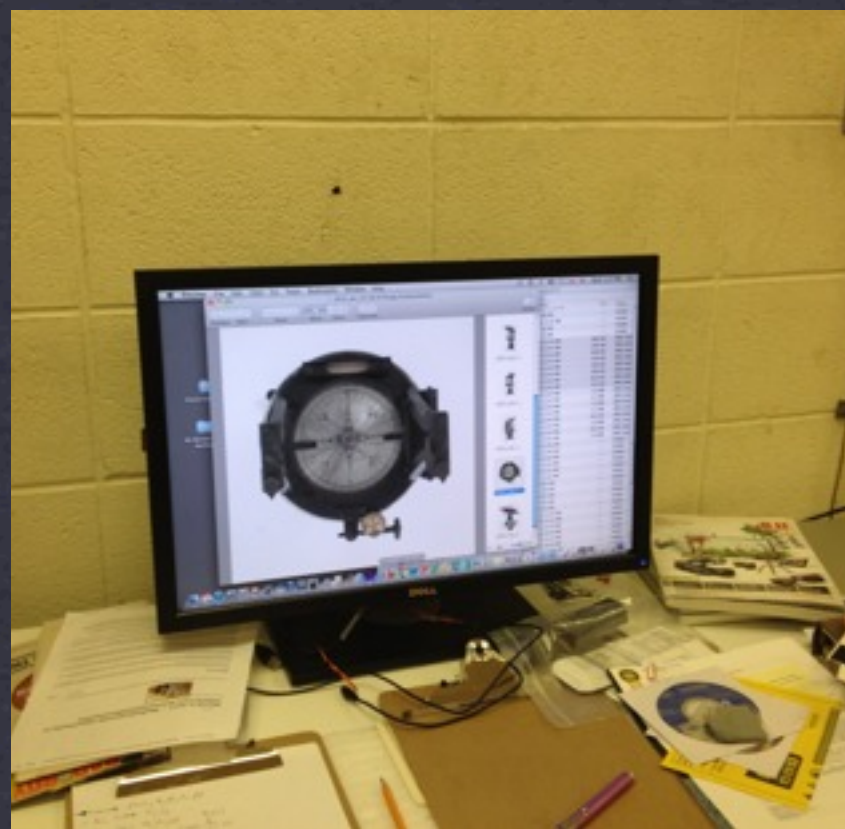
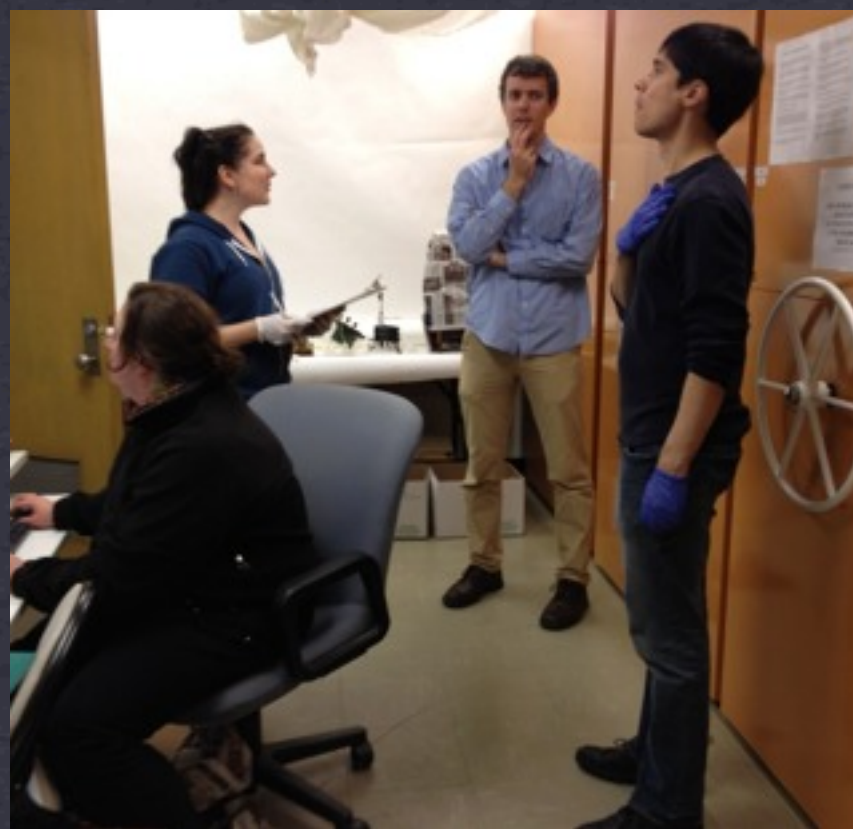
“Any fact, specimen, or record left out of order is lost. It had, perhaps, better not exist, for it is taking space somewhere, and space is the chief cost initially and currently in any museum.” (Star and Griesemer 37)

“Muna [Salloum, IHPST business manager] contacted someone at Infrastructure Planning to get us shelves here. That was the lynchpin; we could do a lot more with dedicated space.” -Erich

“The first time we entered this room, we saw a cockroach run out.” -Ari (talk for the *Transit of Venus* Symposium)

“Different people use the space now; they traipse in and out. For a collection this valuable, to have people you don't know coming in and out... it's not a great security policy for a curator.” -Erich



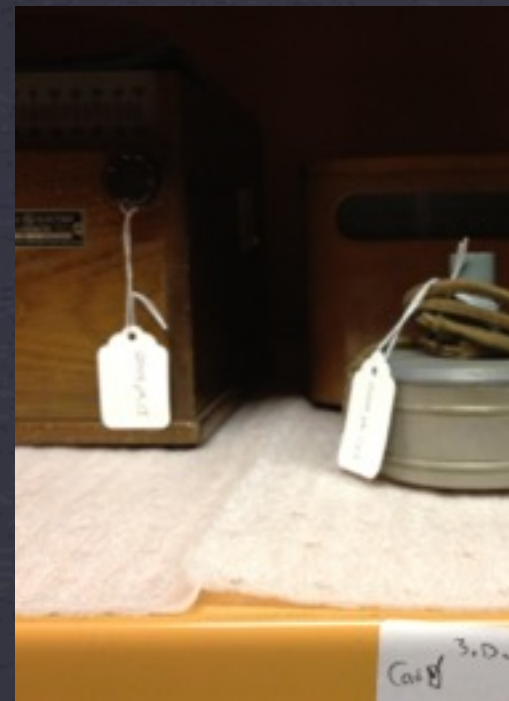


THE UTCIC STORAGE ROOM CONTAINS SCIENTIFIC INSTRUMENTS (CATALOGUED AND UNCATALOGUED), COMPUTER WORKSTATIONS, A PHOTOGRAPHY STUDIO, AND UTCIC'S SUPPLIES (CLEANING, PACKING, CATALOGING). IT'S A SITE FOR PLANNING, MANAGEMENT, AND MUCH OF THE OPERATION AND MAINTENANCE OF THE COLLECTION. UTCIC DISLIKES ADVERTISING THE LOCATION OF THE STORAGE ROOM TO THE PUBLIC DUE TO SECURITY CONCERNS.

CLOCKWISE FROM TOP LEFT: MICROSCOPES; THE SEAMLESS BACKDROP FOR INSTRUMENT PHOTOGRAPHY; (L-R) ARI, ERICH, AND JORDAN; MISCELLANEOUS SUPPLIES; COMPUTER TERMINAL DISPLAYING THE ONLINE CATALOG;(L-R) REBECCA, NATALIE, PAUL, AND ERICH DISCUSSING THE TRANSPORT OF INSTRUMENTS.

UTSIC Safety and Instrument Handling & Shelving Rules

1. Always communicate your movements and intentions to your partner before moving objects. This is especially true when moving high or heavy objects.
2. Remember to conceptualize the item from being an item to being an artefact. This may help to place greater care on the handling of the items
3. Can be easily used to protect glass and other objects. Wrapping or building nests for object to rest in
4. For fragile items the item can be carefully placed upon tissue paper for moving and storage
5. Make sure to use nitrile gloves and dispose of them at the end of the day or if a previously handled instrument was particularly dirty
6. Always use two hands to move instruments.
7. Never move the instrument by its handle
8. Before moving object inspect it for the weak points and where the most appropriate place on the would be to pick it up and handle it. Look for damaged, weakest, or breaking points and handle the object in a way to avoid handling the weak areas. This is to avoid damage.
9. When handling or inspecting an object always do so over a table.
10. When handling an object focus only on the object until it is safely down upon ethofoam on a table



CATALOGING TEMPLATE

Anatomical Model of the Ear

Use this as a template for cataloging instruments. Pay attention to labeling. Format & punctuation to ensure standardization throughout the catalog.

Accession Number: 2010.11.11.1
Permanent Location: 33.8.2
Alternate Names: Anatomical Model of the Ear
Collection: Physics
Description: Large detailed replica of an ear made from paper-mâché. Surface detail includes blood vessels and circulation patterns. Each component of the ear is discretely labelled, often with numbers.
Full Smallest: Lists separately tagged items
Consists of five components, tagged as 2010-ph.311 a-h & d, some of which include additional divisions. Pictures of components are shown in order in which they are described.

Component a: This piece is the outer ear portion of the Paper-mâché model of the ear. It has no further divisions. It provides a detail of the ear lobe, including blood vessels and blood circulation areas. There are two metal pins on the relative 'back' of the piece to facilitate its attachment to component b.

Component b: This piece is the largest single component of the paper-mâché ear model, consisting of an enclosure of the inner ear. It attaches directly to component a via two pin holes located on the 'outside' of this piece. Raised blood vessels make up the surface detail, and red paint indicates areas of blood flow.

Component c: This piece is a smaller 'cap' that attaches to the largest component (b). Together they form the total enclosure of the smaller inner ear pieces of the Paper-mâché model of the ear. This piece can be secured to the largest part with two small metal pins that protrude from either end of it, as well as a pivoting latch that is near one of the pins. As per the rest of the model, surface details include raised blood vessels as well as blood circulation patterns. This piece is largely hollow on the inside, allowing the smaller parts of the ear to be nestled inside when closed.

Component d: This piece is an interior component of the Paper-mâché ear model. It consists of three smaller pieces that fit together to form a cohesive whole. The largest piece is a large pencil-shaped twist. One side of the 'pencil' is cut away to reveal the interior. In this cavity, a removable ring fits into the loop. The ring appears brittle and in poor condition. This piece slots into another piece, that along with the twist and final piece form a round shell shape. These pieces have less raised surface detail than the other parts of the model, but somewhat more vivid and preserved colours.

Primary Materials

Paper-mâché

Markings

There are a number of labels and markings on all components of the model. While many of these labels are merely numbers, there are some non-numeric labels as well, written in French. Many of the labels have been scratched away and are obscured. - See other items for punctuation for verification markings

Dimensions (cm)

Length = 40 cm, Width = 22 cm, Height = 20 cm ← punctuation & full wording

Function

This model was used by the Physics department as part of its acoustical program. It was used to demonstrate the manner by which the human ear functions.

Condition

Good to excellent. Much of the paint is cracked and peeling. Many of the labels have peeled off or are otherwise obscured. The ring in component d appears brittle and is in poor condition. The tympanic membrane's thin, translucent paper is torn and frayed, and is somewhat detached from the outer ring that supports it.

Manufacturer

Auzoux, Paris, France

Date of Manufacture

Late 19th century

Provenance

Acquired from the Physics Department, University of Toronto.

Owner

UTSIC

Current Status

In storage

Examined By

Art Gross

Degree of Completion

3 ← 3 means item is visible for user

Date Last Examined

2010-11-11

Date Last Updated

2012-03-12

“WE’VE STARTED WORKING WITH MUSEUM STUDIES TO BRING THE COLLECTION UP TO A PROFESSIONAL STANDARD THROUGH PROPER PAPERWORK AND MONITORING THE STORAGE ENVIRONMENT.” -ERICH (TALK FOR THE TRANSIT OF VENUS SYMPOSIUM)

PERIPHERAL SPACES

LOCATION: LITERALLY AND FIGURATIVELY ALL OVER THE MAP.

-Conferences and workshops. UTSIC members present on a variety of topics, from collecting to teaching with instruments, and are warmly received. They benefit from alumni ties to other institutions, including David Pantalony, curator of Physical Sciences and Medicine, Canadian Science and Technology Museum.

-Publications (both academic and popular) about the history of the effort to preserve the U of T's scientific instruments and the current work of UTSIC. The latter publications emphasize the work of the UTSIC co-curators and downplay the other volunteers; one describes the group's efforts thusly: "Two students have collected hundreds of the university's 19th- and early 20th-century scientific instruments" (Scott 2012, 16). I see this as a confirming example of Heinich and Pollak (1996, 237)'s cult of the curator.

-An interdepartmental network of collaboration with the U of T's science departments. The success and growth of this network is essential if UTSIC intends to expand their collection beyond its current holdings.

-Interinstitutional relations with other universities, such as York, interested in following UTSIC's example for the preservation of their own scientific material culture.

All of the UTSIC co-curators described the group's essential relationship with the IHPST's business manager, Muna Salloum.

“Muna has done nothing but good for this project. She got us the space; as the business manager she has us as a line item on the budget.” -Ari

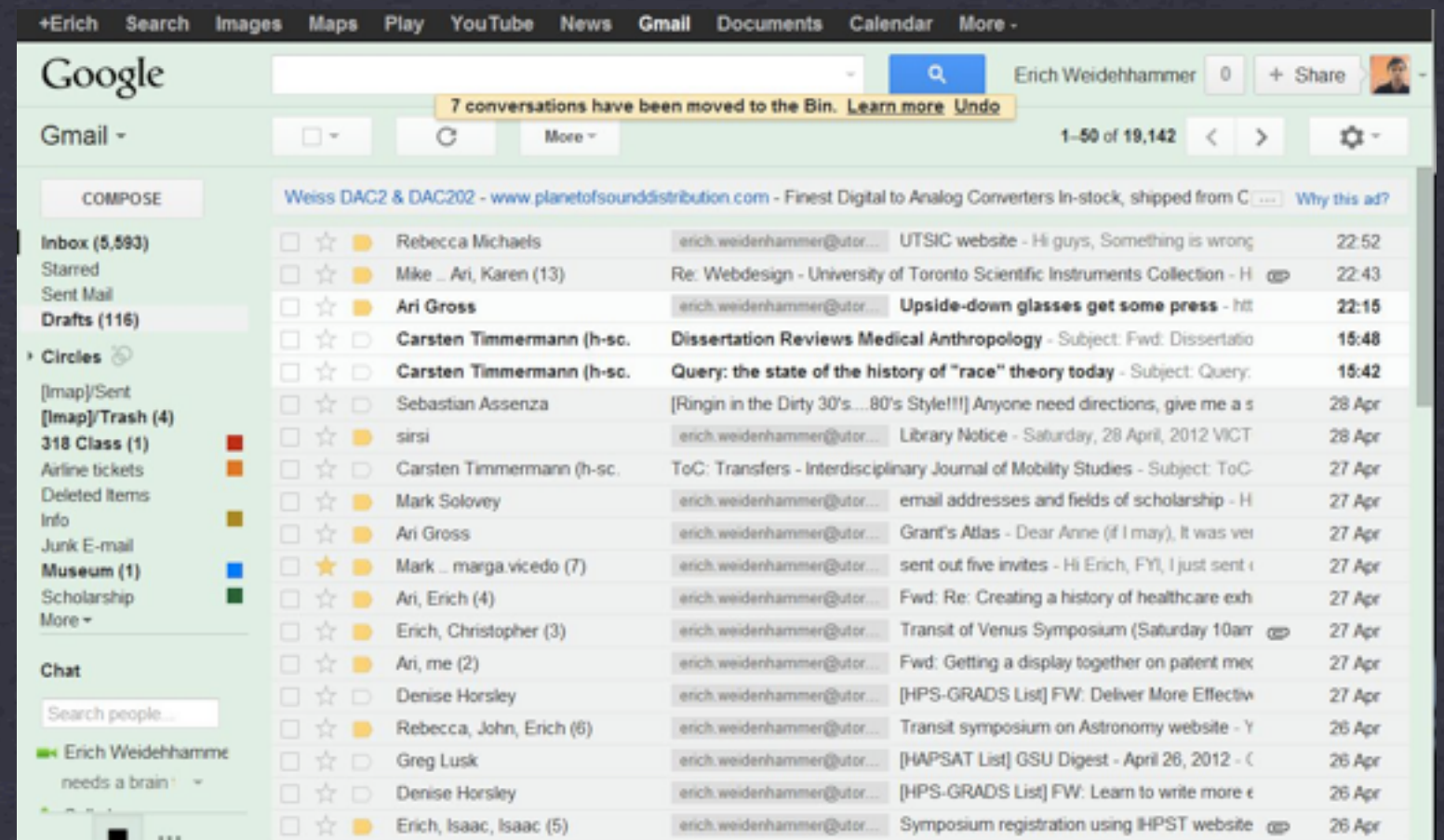
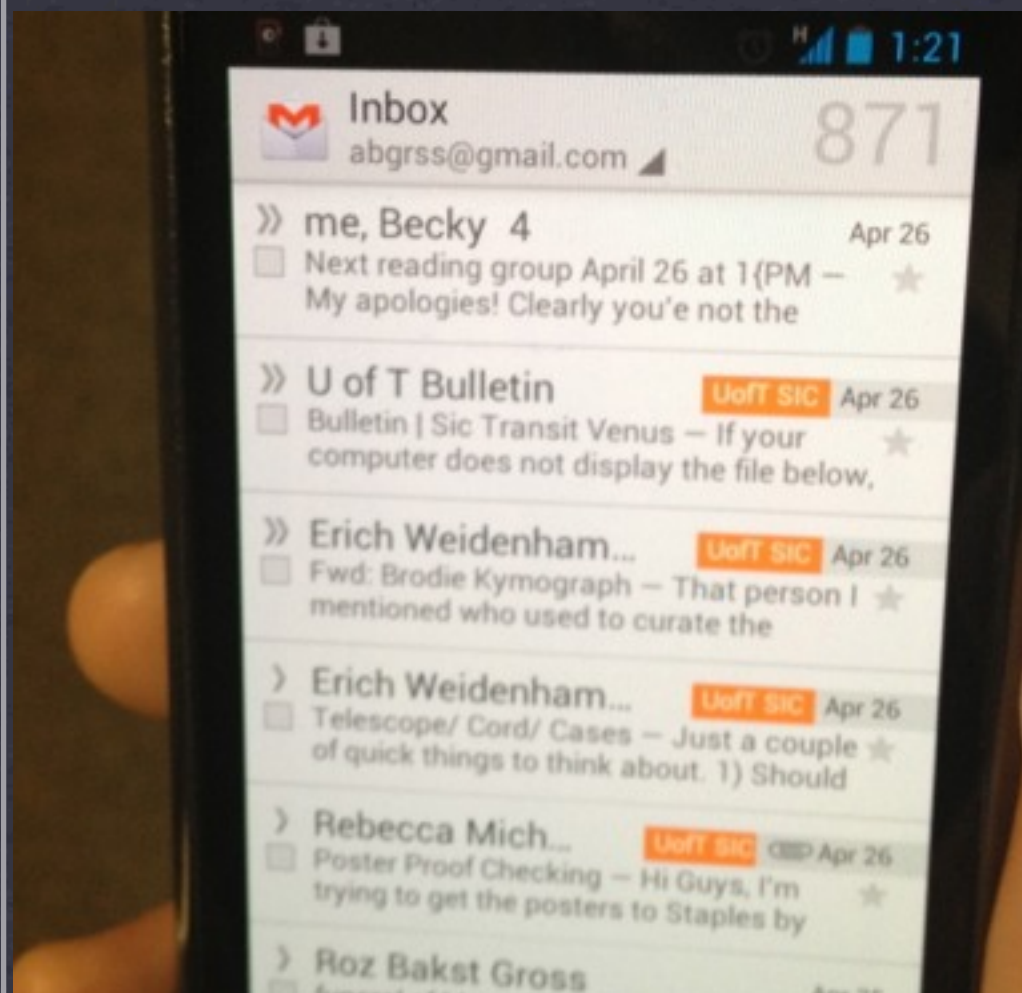
“It's always important to keep Muna happy.” -Paul

“She's been the guardian of the institutional memory for the project; she's kept all the records and gave out the tax receipts.” -Erich

Top: Paul describing to Muna the impossibility of moving the clocks into the telescope cabinet. Bottom: Muna admiring the newly-installed display.



**UTSIC IS EMBEDDED IN THE IHPST'S ADMINISTRATIVE DOMAIN &
33 CULTIVATES RELATIONSHIPS NECESSARY FOR ITS FUNCTIONING.**



UTSIC'S CO-CURATORS SEEM TO OPERATE AND COMMUNICATE PRIMARILY BY EMAIL; UTSIC EMAILS FILL THEIR INBOXES, A FACT WHICH ARI OFTEN REMARKS.

STUDENTS AT THE INSTITUTE ARE KEPT UP-TO-DATE ON UTSIC'S ACTIVITIES. THERE ARE PERIODIC EMAILS REQUESTING VOLUNTEERS OR ADVERTISING EVENTS.

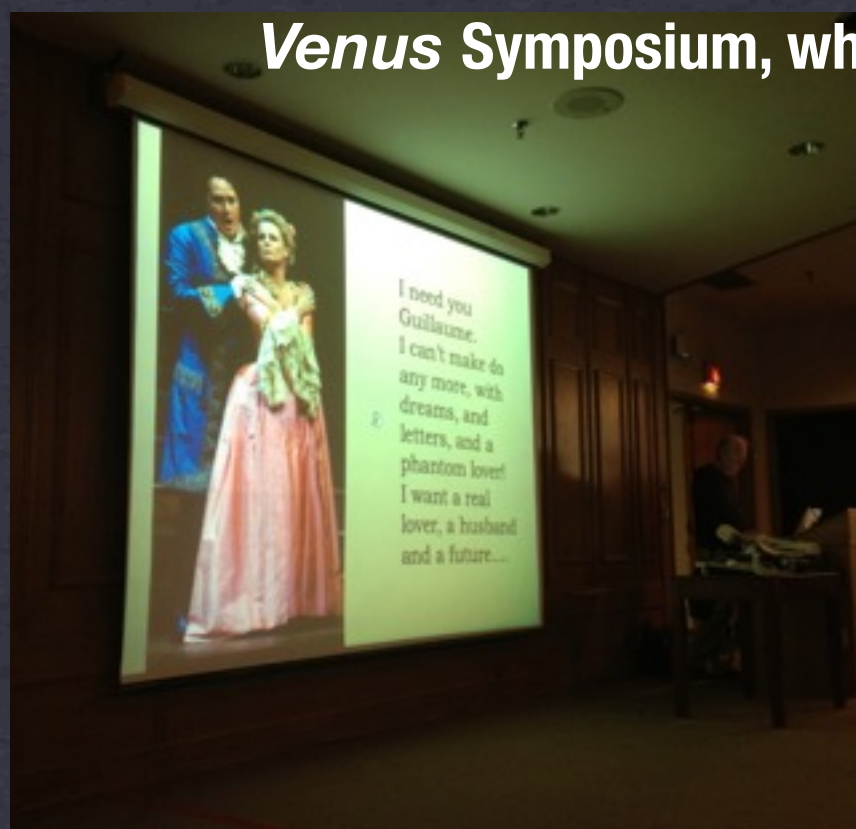
IN ADDITION, THE IHPST PROMOTES UTSIC'S SUCCESS INTERNALLY VIA EMAIL; FOR INSTANCE, WHEN ARI, ERICH, AND PAUL WERE INDUCTED INTO THE INSTITUTE'S QUASI-MYSTICAL "ORDER OF THE FALLING APPLE."

UTSIC IS IN EVERYONE'S INBOXES

CLOCKWISE FROM BOTTOM LEFT: ARI'S MOBILE INBOX; ERICH'S INVITATION TO THE SYMPOSIUM SENT TO ALL IHPST STUDENTS; ERICH'S INBOX FULL OF UTSIC EMAIL.



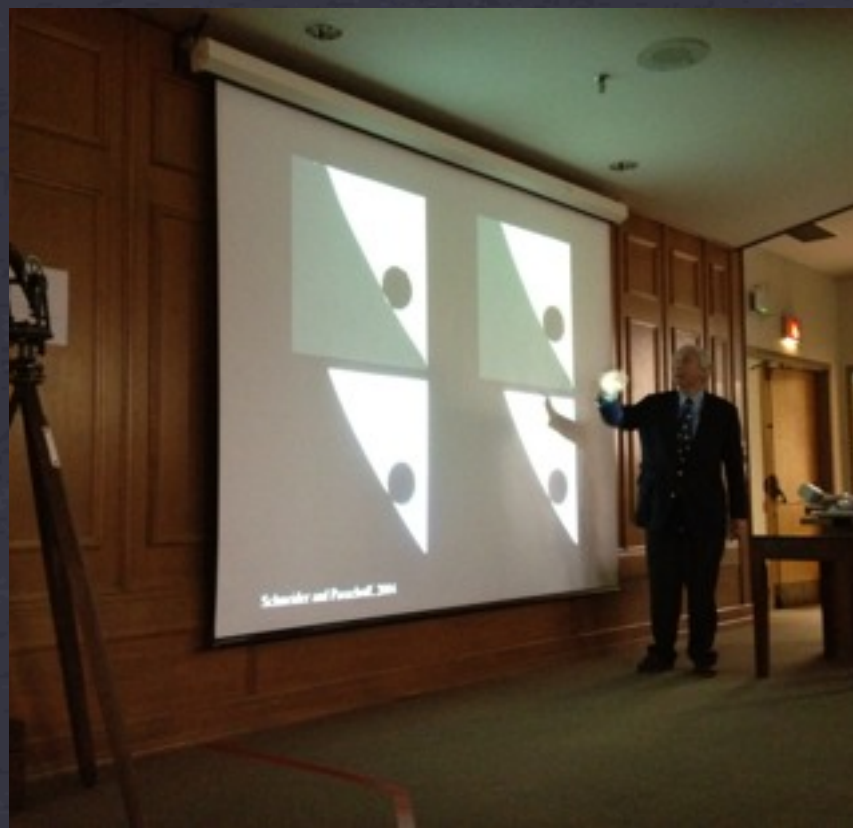
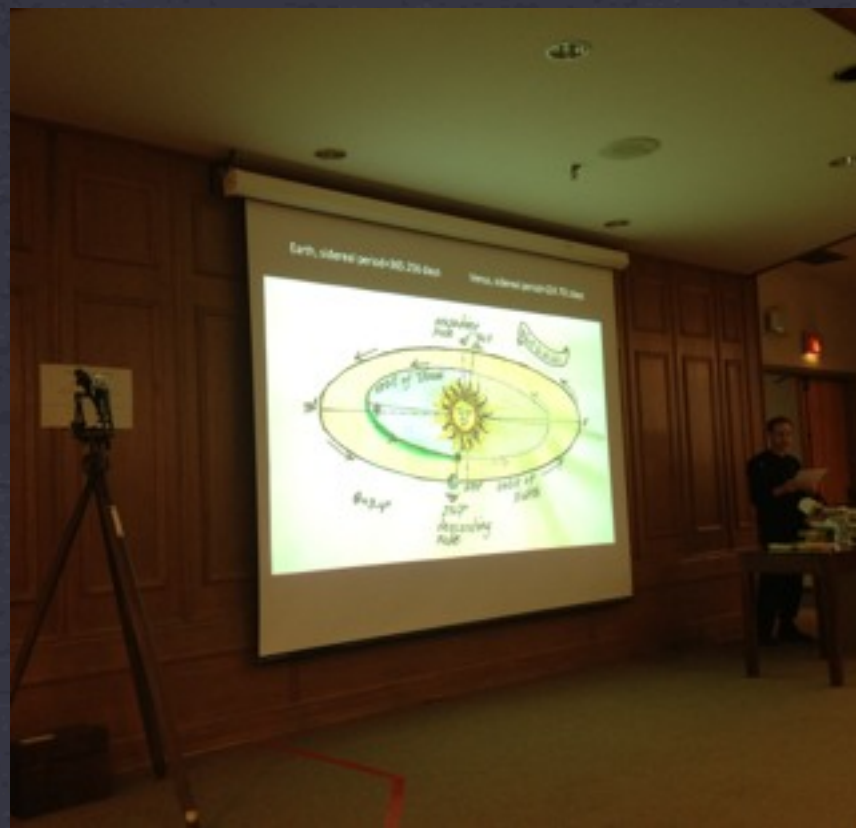
The most important peripheral space for UTSIC in 2012 was the *Transit of Venus* Symposium, which was the occasion for its astronomy exhibition.



THE *TRANSIT OF VENUS* SYMPOSIUM

35

CLOCKWISE FROM TOP LEFT: THE UTSIC CO-CURATORS' PRESENTATION; PARTICIPANTS NOT RESPECTING THE "CORDON"; A FULL HOUSE; BERNIE LIGHTMAN'S TALK ON "PROCTOR, AIRY, AND THE TRANSIT OF VENUS 1874; BREAKFAST; STILL IMAGE AND LIBRETTO EXERT FROM *TRANSIT OF VENUS* OPERA DURING VICTOR DAVIES' TALK.



“A PRETTY BIG TURNOUT FOR A DOT”

CLOCKWISE FROM TOP LEFT: RANDALL ROSENFELD’S OWN SKETCHES OF A HISTORICAL TRANSIT DIAGRAM; ARI HAS A QUESTION; JAY M. PASACHOFF DESCRIBING IMAGES OF VENUS IN TRANSIT; JAMES GRAHAM WITH AN ORRERY OF KEPLER POTENTIAL EXOPLANETS; MICHAEL REID’S PEDAGOGICAL TRANSIT TOOLS; RALPH CHOU’S RETINAL BURN PATIENT PROFILE.

Afterword

ONE OF THE SUPPOSED BENEFITS OF ETHNOGRAPHIC RESEARCH IS THAT THE RESEARCHER, AS A QUASI-OUTSIDER, HAS ACCESS TO INSIGHTS ABOUT HER SUBJECTS THAT REMAIN OPAQUE TO THOSE BEING STUDIED. UTSIC, HOWEVER, IS A SELF-REFLEXIVE GROUP OF HISTORIANS WHO HAVE THOUGHT A GREAT DEAL ABOUT THEIR SELF-APPOINTED ROLE AS CURATORS. DESPITE THIS, I BELIEVE THERE IS ONE AREA WHERE I MAY BE ABLE TO OFFER SOME SMALL BUT USEFUL INSIGHT.

“WE’RE SELLING OURSELVES, WE’RE SELLING THE PROJECT. TRUST IS SO IMPORTANT” ARI TOLD ME ON THE DAY OF THE SYMPOSIUM. AND THEN IT HIT ME: THE VERY PUBLIC IMAGE OF UTSIC DISPLAYED BY ARI, ERICH, AND PAUL, THE HANDSOME, QUIPPY, AND ERUDITE TRIO, IS DESIGNED TO PROMOTE TRUST IN THEIR PROJECT AND IN THEMSELVES. SCIENCE DEPARTMENTS ARE MEANT TO TRUST THAT THIS GROUP WILL TAKE CARE OF THEIR VALUABLE INSTRUMENTS. THE UNIVERSITY IS MEANT TO TRUST THAT UTSIC IS A GOOD INVESTMENT. THIS ROLE REQUIRES CHARISMATIC, WELL-DRESSED (AND EVEN GLOVE-WEARING, SHOULD THE OCCASION CALL FOR IT) PHOTOGENIC CURATORS; NOT LAZY, SLOVENLY, OVERWHELMED GRAD STUDENTS. GOOD CURATORS EXPRESS GRATITUDE TO THOSE IN THEIR NETWORK WHO HAVE BEEN INSTRUMENTAL IN THEIR TRAJECTORY, THEY FALL OVER EACH OTHER TRYING TO SHARE CREDIT, AND, AS I OBSERVED, THEY WORK THEMSELVES TO NEAR-EXHAUSTION TO BE READY FOR THEIR SYMPOSIUM ON TIME.

UTSIC IS A FASCINATING GROUP OF DEDICATED PEOPLE. THEY FOUND MY RESEARCHING THEM TO BE CURIOUS, CONFUSING, AND MOST LIKELY IN THE WAY MORE THAN ONCE; HOWEVER, I SEEMED TO ENJOY TOTAL COOPERATION, IN PART (I SUSPECT) BECAUSE THEY WERE INTERESTED IN HOW MY FINDINGS WOULD REFLECT THEIR IMAGE.

THE MANY SPACES INHABITED BY UTSIC ARE EACH CAREFULLY-CRAFTED REFLECTIONS OF ITS CURATORS, DESIGNED TO CULTIVATE PROSPECTIVE AND PROFITABLE RELATIONSHIPS, TO EXPAND THEIR NETWORK OF COLLEAGUES AND SUPPORTERS, AND TO CELEBRATE THE SURPRISINGLY SEXY INSTRUMENTS UNDER THEIR CARE. THIS IS WHY, FOR THE COVER OF THIS PROJECT, I SELECTED A CLUSTER OF DIFFERENT MIRRORS FROM A STORAGE SHELF. UTSIC’S CURATORS PRODUCE REFLECTIONS OF THEMSELVES IN THE MANY SPACES OF THEIR PROJECT; THEIR HIGH STANDARDS AND SUBSEQUENT EXHAUSTION ARE THE CONSEQUENCES OF THAT SELF-REFLECTION, THANKS TO THEIR HAVING TAKEN UP THE ROLE OF CURATOR.

References

Benjamin, Walter. 1999. Convolute G: Exhibitions, Advertising, Grandville. In *The Arcades Project*. Cambridge, MA: Belknap Press of Harvard University Press.

Conn, Steven. 2010. *Do Museums Still Need Objects?* Philadelphia: University of Pennsylvania Press.

Conway, Paul. 2010. Rationale for Digitization and Preservation. In *Museums in a Digital Age*, ed. Ross Parry, 365-78. New York: Routledge.

Filippopoliti, Anastasia, ed. 2010. *Science Exhibitions: Curation and Design*. Edinburgh: MuseumsEtc.

Frost, Olivia C. 2010. When the Object is Digital: properties of digital surrogate objects and implications for learning. In *Museums in a Digital Age*, ed. Ross Parry, 237-46. New York: Routledge.

Gradwohl, Judith, and Gene Feldman. 1998. Going Electronic: A Case Study of "Ocean Planet" and Its On-line Counterpart. In *The Virtual and the Real: Media in the Museum*, eds. Selma Thomas and Ann Mintz, 173-90. Washington: American Association of Museums.

Greenberg, Reesa, Bruce W. Ferguson, and Sandy Nairne. 1996. Introduction. In *Thinking about Exhibitions*, eds. Reesa Greenberg, Bruce W. Ferguson, and Sandy Nairne, 1-4. New York: Routledge.

Heinich, Nathalie, and Michael Pollack. 1996. From Museum Curator to Exhibition *Auteur*: inventing a singular position. In *Thinking about Exhibitions*, eds. Reesa Greenberg, Bruce W. Ferguson, and Sandy Nairne, 231-50. New York: Routledge.

Karp, Ivan. 1991. Culture and Representation. In *Exhibiting Cultures: The Poetics and Politics of Museum Display*, eds. Ivan Karp and Steven D. Lavine, 11-24. Washington: Smithsonian Institution.

Manovich, Lev. 2010. Database as Symbolic Form. In *Museums in a Digital Age*, ed. Ross Parry, 64-71. New York: Routledge.

Neal, Arminta. 1976. *Exhibits for the Small Museum: A Handbook*. Nashville: American Association for State and Local History.

Rooney, David. 2010. 'A Worthy and Suitable House': The Science Museum Buildings and the Temporality of Space. In *Science for the Nation: Perspectives on the History of the Science Museum*, ed. Peter J.T. Morris, 157-175. Palgrave Macmillan.

Scott, Graham F. 2012 U of T's Scientific Heritage. *U of T Magazine* 39(2): 16

Star, Susan Leigh, and James R. Griesemer. 1989. Institutional Ecology, 'Translations,' and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39. *Social Studies of Science* 19: 387-420.

Starr, Frederick. [1892] 2008. The Museum in Educational Work. In *Museum Origins: Readings in Early Museum History & Philosophy*, eds. Hugh H. Genoways and Mary Anne Andrei, 171-74. Walnut Creek, CA: Left Coast Press.

UTSIC Website. Available www.utsic.org. Accessed 15 April 2012.

Weil, Steven E. 1990. In Pursuit of a Profession: The Status of Museum Work in America. In *Museums and Universities: New Paths for Continuing Education*, ed. Janet W. Solinger, 171-74. New York: American Council on Education/Macmillan.



SCIENTIFIC REFERENCE BOOKS AND EQUIPMENT
CATALOGS, UTSIC STORAGE ROOM.



CAUTION: CONTAINS SEXY INSTRUMENTS