

# Visual Arts Production Facilities 2023-2024

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Fees are applicable to all artists enrolled in programs at Banff Centre for Arts and Creativity.

All fees are charged in Canadian dollars and are subject to change without notice.

Last update: January 10, 2023

## **Facilities and Fees**

This booklet outlines materials, equipment, and fees for production facilities at Banff Centre.

Before arrival at Banff Centre, please contact your assigned facilitator. Contact information for your facilitator can be found in your acceptance letter and the table below.

Facility fees apply to all artists and are not charged in the artist's tuition (program fees); facility fees are paid directly to the studio facilitator upon commencement of production work or return of the equipment.

## **Facilitator Contact Information**

Ceramics	Ed Bamiling	403-762-6211 ed_bamiling@banffcentre.ca
Digital Media Lab	Tyler Jordan	403-762-6606 tyler_jordan@banffcentre.ca
Photography	Chelsea Yang-Smith	403-762-6487 Chelsea_Yang-Smith@banffcentre.ca
Photographic Services	Rita Taylor	403-762-6612 Photo_Services@banffcentre.ca
Printmaking / Papermaking	W endy Tokaryk	403-762-6402 wendy_tokaryk@banffcentre.ca
Sculpture	Johnathan Onyschuk	403-762-6393 johnathan_onyschuk@banffcentre.ca

## Making Art in Banff National Park at Banff Centre

Banff National Park is a UNESCO World Heritage Site and, therefore, a protected environment. It is illegal (and punishable by fines) to collect and use organic materials found within Banff National Park. Plant matter should not be transported inside the Banff National Park; disease, pests, and invasive plants affect native plant populations. Hazardous and toxic materials are discouraged and restricted for environmental reasons.

Resources are limited in the town of Banff, and artists are encouraged to bring or ship supplies for their projects. Supplies may be obtained in Calgary, approximately 140 km east of Banff (about an hour and a half drive). Artists may ship supplies from home, personally transport items, or ship supplies from Calgary to Banff Centre, please contact your facilitator for shipping instructions.

#### **Natural Environment**

Banff Centre is located in Banff National Park, established in 1885, and is Canada's oldest national park. Parks Canada sets guidelines to preserve the natural beauty and ecological history of this region; it is illegal to collect or take anything out of the park, such as rocks, flowers, bark, grasses, bones or historical artifacts. The Town of Banff is a municipality that lies within Banff National Park, and residents and visitors are required to abide by these guidelines. The Town of Banff strives to be a model community in low-impact living, and we pride ourselves on making sure that Canada's first national park will stay pristine for generations to come. Banff has a rich and vibrant cultural and natural history, recognized globally by the United Nations, which designated the area of the Canadian Rockies as a UNESCO World Heritage Site in 1984.

## **Shared Facilities Environment**

As an artist-in-residence, you will be part of a community of like-minded people working alongside your peers. Specialized production facilities in ceramics, sculpture, digital media, printmaking, paper making, digital imaging, and photography are available for all to share. In addition, artists exploring mediums such as painting, drawing, performance, video, and digital technologies, make use of these production facilities. A diversity of mediums and approaches to art-making are present at any given time, and the facility's working environment is communal and respectful.

#### Studio Environment and Architecture

Artists participating in Visual Arts residencies are allocated individual studio spaces within Glyde Hall. Studios contain tables, chairs, and a desk lamp. The architecture of Glyde Hall may not offer complete privacy because some studio walls do not reach the ceiling. Odours, dust, and particulate may travel into adjacent studios. Artists have access to specialized production facilities such as the sculpture shop for sanding, grinding, and cutting (hand tools provided). A ventilated spray booth for sprays and particulate use is also available in the sculpture shop. Painters are asked to use odourless mineral spirits and avoid the use of toxic products (like dammar). Artistic practice, as it normally occurs in your private studio, may not be appropriate for the open studio environment.

## **Health and Safety**

Before submitting a residency application, artists with allergies and/or sensitivities should inquire about risks to their safety regarding the artist studios and production facilities. Artists should bring personal safety equipment for their art projects. Items such as gloves, smocks, respirators, dust masks, eye & ear protection, and appropriate footwear are important considerations in your practice. The specialized production facilities provide some personal protective equipment, but please consider your needs prior to application to ensure a safe and healthy work environment.

## **Shipping**

If you are shipping items or buying materials while in Banff, please plan to send them home at the end of your residency. In this way, your materials will return to your home rather than be disposed of in the local landfill. The Town of Banff is a rural township. The cost of building and shipping crates, boxes, or heavy materials can be financially limiting. When planning your project, it is advisable to consider how you will ship items home at the end of your residency. Working modularly, eliminating stretchers, armatures, using collapsible structures, and considering scale is advised. Staff is unavailable to build crates or shipping structures; artists are expected to build containers at their costs and plan in advance.

#### **Materials**

Please carefully consider the materials and chemicals you will bring into the National Park and the material you will use in your project; toxic, carcinogenic, and non-biodegradable materials should be avoided. Artists are required to provide Safety Data Sheets (SDS) for hazardous products brought to Banff Centre.

## **Orientations**

All participants are required to undertake an orientation for each production facility they wish to access during a residency. Orientations are mandatory for access to all of the production facilities described in this booklet. Orientations can only be provided by the relevant Facilitator.

## PRINTMAKING FACILITIES AND FEES

- Printmaking studio fees are based on weekly usage.
- Printmaking fees cover expenses for exhaustible materials, equipment rental, personal protective equipment, and rag service.
- Artists have full-time access to the print studio 24 hours a day, seven days a week.
- Artists requesting access to printmaking facilities must have a fundamental knowledge of the techniques and equipment with which they will work to ensure safe working conditions.
- A mandatory orientation is led by the Print & Paper Facilitator, providing an overview of studio equipment.
- Artists are expected to bring a respirator for use with hazardous materials and any additional Personal Protective Equipment they will require.

## Etching (Intaglio) and Relief Printing Facility - Weekly rate of \$30.00 includes:

- Charles Brand Etching Press press rental (36" x 60")
- Charles Brand Etching Press press rental (26" x 48")
- ABM Rosin Box for copper plates up to 18" x 24"
- Darkroom and Acid room access
- Ferric Chloride for use with copper plates
- Varsol & Isopropyl Alcohol
- Non-toxic cleaners (Soy-Solv)
- Rags
- Brayers & Hand Inking Rollers
- Paint scrapers and ink spatulas
- Some materials such as copper plates, Fine Art papers, and newsprint are available for purchase from the Printmaking Studio.
- Artists are responsible for providing their own plates, papers, inks, tools, and other materials not listed.
- See page 20 in this booklet for information about the CNC router and the Epilog Helix Laser Cutter/Engraver.

## Screen Printing Facility (water-based inks only) – Weekly rate of \$30.00 includes:

- Equipment rental: silkscreens, squeegees, scoop-coater, screen printing tables, and drying rack
- Darkroom access for NuArc UV exposure unit
- Pressure washer and spray out booth
- Photo-emulsion
- Emulsion remover
- Rags
- Artists are responsible for providing their own papers and water-based screen printing inks.
- Screen printing inks provided by artists must be non-toxic and water-based.
- The print studio stocks some inks, paper, mylar and materials for purchase.
- Artists have access to the Digital Imaging for output onto Clear Film for the creation of photo positives.

## Stone or Plate Lithography - Weekly rate of \$30.00 includes:

- Bavarian Limestone rental
- Griffin press rental and drying rack
- 1000lbs lift for moving stones
- Leather rollers
- Levigator grits (and graining sink)
- Rosin and Talc
- Gum Arabic, solvents, asphaltum, nitric acid
- Rags
- Ball-grained litho plates for traditional lithography are available for purchase from the print facility
- Artists are responsible for providing their own printing papers, lithography ink, litho drawing crayons and pencils.
- Materials and tools (like acetone and heat gun) are provided for waterless lithography.
- Artists must bring steel-toed boots to wear when moving litho stones, and a respirator for use with hazardous materials.

## Letterpress - Weekly rate of \$30.00 includes:

- Vandercook 4T Letterpress (14" X 17" maximum paper/cylinder drum size)
- Photopolymer Platemaker (10" x 13" maximum plate size)
- Standard Boxcar Grid Base (13" x 19" non-magnetic metal base)
- Metal and Wood Hand-set Type
- Varsol
- Rags
- The Standard Boxcar base (used with adhesive film) is the mount for printing Photopolymer plates.
- Photopolymer plates may be provided by the artist or purchased from the print studio.
- Artists are expected to bring a respirator for use with solvents.
- See page 20 in this booklet for information about the CNC router and the Epilog Helix Laser Cutter/Engraver.

#### **CONTACT:**

Print & Paper Facilitator – Wendy Tokaryk (403) 762-6402 wendy\_tokaryk@banffcentre.ca Monday – Friday, 9:00 am – 5:30 pm MST

## PAPERMAKING STUDIO FACILITIES AND FEES

- Papermaking Studio fees are based on weekly usage.
- The paper studio fee covers expenses for exhaustible materials and equipment rental.
- Artists have full-time access to the paper studio 24 hours a day, seven days a week.
- Artists participating in Visual Arts Residencies may access the papermaking facilities provided they have fundamental knowledge in the techniques and production area(s) they will use.
- A mandatory orientation is led by the Print & Paper Facilitator, providing an overview of studio equipment.
- Artists should bring rubber boots or appropriate protective footwear.
- See page 20 in this booklet for information about the CNC router and the Epilog Helix Laser Cutter/Engraver.

## Paper Studio - Weekly rate of \$30.00 includes:

- 24-hours, seven days a week access to the Paper Studio
- Ventilated Dye Room with natural gas burners
- Access to the 1lb David Reina Hollander Beater
- Access to the 2lb David Reina Hollander Beater
- Access to 4ft x 6ft Vacuum Table (1hp wet vacuum pump with polyethylene tabletop)
- · Rental of vats, moulds and deckles
- Howard Clark 20T Hydraulic Press (22" x30")
- Dake 25T Hydraulic Press (32"x42")
- Lee S. McDonald Santa Ana Professional Paper Dryer
- Pulp Sprayer
- Stainless Steel Pots
- Measuring cups, spoons and blender
- Safety Equipment dust masks, gloves, eye protection, and aprons

## PAINTING AND DRAWING FACILITIES AND FEES

- Artists working in painting/drawing are provided with an individual studio space as their primary place of work.
- It is encouraged that artists staple the canvas to the studio walls and forego the need to build stretchers/panels.
- Fabrication of stretchers, panels, or crates by staff or practicums is unavailable.
- Access to the sculpture facility (woodshop) for building stretchers or panels is available; additional fees may apply (please read the Sculpture Facility Fees section).
- Artists are responsible for constructing stretchers, panels, or crates. Wood is available for purchase locally.
- Please consider your shipping options in advance. Rolling your canvas is an option, and shipping tubes are available for purchase.
- Odourless mineral spirits, walnut oil, and non-toxic cleaners are acceptable in the studio.
- If you require solvents, waxes, or toxic products for project completion, <u>please consult your facilitator prior to arrival to</u> approve your products.
- Overhead fume extraction and direct local exhaust ventilation is not provided in artist studios.

## **CONTACT:**

Print & Paper Facilitator – Wendy Tokaryk (403) 762-6402 wendy\_tokaryk@banffcentre.ca Monday – Friday, 9:00 am – 5:30 pm MST

## DIGITAL PRINTING FACILITIES AND FEES

- Visual Arts Digital Printing facilities provide a calibrated environment to produce archival pigment-based prints.
- The facility is available to skilled artists to independently scan and edit images for output on archival paper.
- Scheduling and printing are overseen by a facilitator.
- Digital Printing offers two workstations available for morning or afternoon sessions, Monday through Friday.

#### **Station 1** provides the following equipment:

- Epson Stylus Pro 9900 archival inkjet printer with UltraChrome® HDR inks
- Maximum roll width is up to 44 inches wide (and accommodates smaller roll widths)
- Epson Perfection V750-M Pro flatbed scanner (4800dpi, 8.5x11.75")
- Mac Computer Station
- Adobe Creative Suite Software

#### **Station 2** provides the following equipment:

- Epson Surecolor P9000, Standard Edition, Epson UltraChrome® HDX pigmented inks
- Maximum roll width is up to 44 inches wide (and accommodates smaller roll widths)
- Epson Expression 10000XL photo flatbed scanner (2400dpi, large format 12" x17")
- Nikon Super Coolscan 9000ED multi-format film scanner (4000dpi)
- Mac Computer Station
- Adobe Creative Suite Software

## Providing your own paper:

- Artists may supply their own paper (approved for use with Epson brand inkjet printers, rated for pigment-based inks, and compatible with Epson media profiles).
- If a third-party brand paper is provided by the artist, an **Ink only fee will be charged** for prints. Testing is mandatory to achieve accurate paper /colour calibration (ink only fees apply).
- If printing errors occur, Artists will not be reimbursed for the paper they provided.
- Third-party manufacturers provide ICC colour profiles for their inkjet papers. Please check their website and provide the Facilitator with the current ICC profile information before you arrive in Banff.

## **CONTACT:**

Print & Paper Facilitator – Wendy Tokaryk (403) 762-6402 wendy\_tokaryk@banffcentre.ca Monday – Friday, 9:00 am – 5:30 pm MST

Photography Facilitator – Chelsea Yang-Smith (403) 762 - 6487 Chelsea\_Yang-Smith@banffcentre.ca Monday – Friday, 9:00 am – 5:30 pm MST

## PHOTOGRAPHY DARKROOM FACILITIES AND FEES

- Chemistry fees apply to all artists working in the darkrooms.
- Artists are responsible for providing their own film and paper. A limited supply of 35mm and 120mm black and white film and Ilford Paper sheets are available for purchase from the Photography Facilitator.
- Artists have full-time access to a private darkroom 24 hours a day, seven days a week.
- A mandatory orientation is led by the Photography Facilitator, providing an overview of studio equipment and safe chemical handling practices.
- Artists are expected to bring a respirator for mixing darkroom chemistry and any additional Personal Protective Equipment they may require. Aprons, disposable gloves, and safety glasses are available for use.

Each darkroom includes a Devere 504 enlarger capable of handling film formats from 35mm to 4" x5". Enlargers are equipped with dichroic colour heads or Varicon multi-contrast heads. Cold light and condenser heads are also available. Lenses are exclusively Rodenstock Rodagon.

#### **Black & White Darkrooms**

There are three individual darkrooms available for printing up to 20" x 24". An adjacent shared print-washing area is equipped with archival print washers, drying racks and a dryer for Resin-coated papers.

For **B&W processing**, the following chemistry is supplied and included in the Darkroom Fee: Dektol, D76, Stop Bath, Ilford Universal Fixer and Hypo-Clearing Agent. Other chemistry must be special ordered and paid for by the artist.

## Standard Black & White - \$60 chemistry fee

- Includes a full set of chemistry for film and paper processing
- Additional chemistry is available at an additional cost.

## **Large Format Darkroom**

This darkroom is custom designed for large-scale printing and has the capacity for horizontal projection. It is equipped with a freestanding Devere 504 (4" x 5") enlarger with a dropping baseboard and wide-angle lenses. This darkroom also has an 8" x 10" Durst CLS 2000 colour enlarger.

Other features include a roll-paper safe with a rotary cutter and large working surface; stainless steel processing sinks with built-in ventilation; large wash sink (46" x 120") and drying racks.

## Large Format Black & White - \$100 chemistry fee

- Includes a full set of chemistry for film and paper processing (Chemistry set scaled for large printing)
- Additional chemistry is available at an additional cost.

#### **Alternative Processes Darkroom**

This darkroom includes a Devere 4"x 5" enlarger and a NuArc 23" x 27" UV exposure unit. This space is meant for Cyanotype chemistry processes or other alternative printing processes such as Van Dyke, Palladium, Liquid Light, etc. An SDS sheet must be provided for any alternative processes chemistry an artist will be working with and discussed with the Photography Facilitator prior to usage.

\*\*Please contact Photography Facilitator for current pricing and information on chemistry for alternative processes.

#### Colour Darkrooms - Weekly rate of \$100

Colour printing from negatives is supported by a Colex (32") Colour Print Processor (RA4 chemistry). There are three individual darkrooms available: two darkrooms have the capacity for printing up to 30" x 40" and one darkroom has the capacity for printing up to 20" x 24".

## DIGITAL PHOTOGRAPHY FACILITIES AND FEES

## **Lighting Studio + Documentation Suite**

The Lighting Studio is available to all artists for art documentation, studio photography/video, and as a blackout space.

All artists must complete an orientation led by a facilitator before they access the Lighting Studio. Artists requiring strobe use or additional support must arrange for a one-on-one session with the Photography Facilitator during office hours (Monday – Friday, 9:00 am – 5:30 pm MST).

The lighting studio must be booked ahead of time through the Photography Facilitator. Sessions are available in half-day and full-day blocks. Approval for consecutive day bookings is at the discretion of the Photography facilitator and current volume requests.

#### Access includes:

- Two large banks of north-facing windows for natural light capability
- 6 Bowen electronic strobes (750w) with softboxes, reflectors, snoots, umbrellas, and grid spots.
- Polarizing filters + coloured gels
- 8' Green screen, white, neutral grey seamless paper backdrop
- Rotolight Kit Anova Pro 2 with modifiers
- Tripod
- Nikon D3s DSLR
- 15' Tether Cable
- Reflectors
- Light Tent
- 4 LED Lights
- Boom Stand

#### **Photo Imaging**

Artists are provided 24-hour access to colour-calibrated computers, scanners, and a B&W laser printer. Four workstations are available with Adobe Creative suite software, Wacom tablets and a local area server for image storage and access.

#### Artists are expected to bring their own usb drive, or external hard drive for storing files.

- Imacon Flexscan X5
- Epson V750 Pro Flatbed Scanner
- Epson V600 Photo Flatbed scanner
- Nikon 4000ED film scanner
- Nikon 8000ED film scanner

#### **Print Finishing Area**

- Large light box, compressed air, 2 Seal dry-mount presses (16" x 20" and 30" x 40")
- Dry-mounting tissue is available

## **Photography Equipment, Lighting and Accessories:**

We offer a variety of photography equipment available for loan to artists participating in a program on campus. Artists are solely responsible for the care and proper use of the equipment and will forfeit a \$250 deposit if any damage, such as theft, loss, or otherwise, outside of normal wear and tear, takes place.

Pentax K1000 35mm Kit #1
Pentax K1000 35mm Kit #2
Nikon F3 Auto 35mm Film Camera
Mamiya RZ67 Professional Medium Format Film Camera
Hasselblad 503CW Medium Format Film Camera
4"x 5" Cambo Film Camera

Nikon D800 Full Frame DSLR (36.3 MP) Nikon D3S Full Frame DSLR (12.1 MP) Nikon D300 Crop Sensor DSLR (12.3 MP) Ricoh Theta S 360 Camera

Nikon SB800 Speedlight Sekonic Light Meter Nikkor AF-S 70-200mm f2.8 Lens Nikkor AF-S 105mm f2.8 Macro Lens Canon Af-S 70-200mm f.28 Lens SHAPE Steadicam Grip Variety of Photo+Video Tripods

#### Nikon Z6 Mirrorless

- FTZ Adapter mounts Nikon F lenses
- Atomos Ninja V 5" 4K60P ProRes Recorder
- MOZA Air 2 3-Axis Gimbal
- VideoMic Pro Plus On-Camera Shotgun Microphone

Canon C100 Video Camera Kit #1
Canon C100 Mark II Video Camera Kit #2

Litra LED Lighting Kit Bowens Explorer Strobe Kit Arri Hot Light Lighting Kit

#### CONTACT:

Photography Facilitator – Chelsea Yang-Smith (403) 762 - 6487 Chelsea\_Yang-Smith@banffcentre.ca Monday – Friday, 9:00 am – 5:30 pm MST

## PHOTOGRAPHIC SERVICES

Photographic Services offers extensive support to Banff Centre and clients, including artists and conference guests. The department can handle both traditional and digital photographic requests through its full-service in-house lab, studio and imaging facilities. Photographic Services is open 9 am to 5 pm, Monday to Friday.

Please note: Photographic Services fees are applicable to all artists.

## **Digital output**

Digital output is available through Photographic Services.

While the Digital Imaging area is set up for the artist to be involved in the print process, Photo Services asks for artists to meet with our staff to review the files, and then we take care of the output at no additional cost.

All output is done on one of our Epson Stylus Pro Large Format Archival Inkjet Printers. This is a pigment-based large format printer capable of printing up to 44" wide prints on roll paper.

#### **Paper and Ink Prices**

Pricing is based on average photographic images that cover 80% - 100% of the page with an image. Prints that are text or vector-based will be pro-rated based on ink and paper. Images that only use a smaller percentage of the paper will also be pro-rated.

## Roll Printing - Cost per linear ft.

	Enhanced Matte	Premium Lustre	Adhesive	Backlit
16" roll	N/A	\$5.50	N/A	N/A
24" roll	\$7.00		\$8.50	\$10.0
44" roll	\$13.00			\$14.50
	Cold/Hot Press Bright		Photo Tex	
24" roll	\$12.75		\$8.00	
44" roll	\$23.50		-	

#### **Sheet Printing**

	<b>Enhanced Matte</b>	Premium Lustre	<b>Exhibition Fibre</b>	Velvet Fine Art
8.5"x11"	\$4.00	\$4.00	\$6.50	\$6.50
13"x19"	\$8.50	\$8.50	\$17.25	\$17.25
17"x22"	N/A	N/A	N/A	\$26.00
24"x30"	N/A	N/A	N/A	N/A

Ink Only - \$2.00 per square foot, \$4.00 per square ft. for rag type papers, or \$8.00 per square ft. for Fabric

#### **Operational Guidelines for Digital Printing**

Due to the print times for large-scale prints, all printing **must be booked ahead of time**. Bookings are taken on a first-come, first-serve basis.

Test prints are recommended to ensure print quality and colour fidelity if the client is unfamiliar with the substrate.

Please allow 24hrs for the inks to dry for an accurate colour assessment. There will be a charge for all testing, as noted above under Ink & Paper Prices.

If you provide your own paper:

- It must be Epson Inkjet compatible and rated for pigment-based inks. Media with ICC profiles are recommended.
- Artists bringing their own paper should check with Photo Services prior to purchase
- There will be no compensation for media lost due to printing problems.

Images should be print ready and may be delivered over the network or via portable storage Images destined for large-scale prints can be scaled at Photo Services just before printing.

## Payment for a print is due upon delivery.

Photographic Services Prices	celist		
	Banff Centre Participant Rat	te	Banff Centre Participant Rate
Digital photographic prints from or files			
5x7	\$ 6.00	Portraits	
8x10	\$9.00	sitting fee	\$75.00
11x14	\$16.00	extra images	\$1 each
16x20	\$28.00		
20x24	\$48.00		
contact sheet	\$12.00	General	
		during office	\$80.00/hr+ image processing
		Image processing	\$1/image
Digital Files		min charge	\$40.00 + image processing
1024x1520 or smaller	\$4.00	Weekdays after 5	\$120.00/hr+ image
5x7@300 dpi	\$7.00		\$160.00 min
8x10@300 dpi	\$10.50	Weekends	\$120.00/hr+ image
Full resolution files	\$18.00		\$300.00 min
Disc	\$5.00		
Disc with index page	\$17.00		
Digital Imaging	\$80.00/hr \$40 min		

Only individuals enrolled as participants at Banff Centre qualify for this rate. Please present an artist card when requesting services.

#### **CONTACT:**

Photographer – Rita Taylor (403) 762-6612 Photo\_Services@banffcentre.ca Monday – Friday, 9:00 am – 5:00 pm MST

## **CERAMICS FACILITIES AND FEES**

Each studio has a sink, worktables, ware carts, and additional furniture. Studio access is 24/7. It is recommended that artists bring their own hand tools for personal use. Most equipment use is included in the program fee, but artists do pay for kiln firings, clay and some raw materials.

## **Clay Mixing and Storage Room**

- Estrin mixer
- Bailey mixer/pugmill
- Hammer mill
- Clay storage
- Scrap clay bin free

## **Glaze Room**

- Spray booth
- Lightning glaze mixer
- Air brush
- complete range of raw materials

## Other Facilities and Equipment

- Wheels
- Sandblaster
- Extruders 3 (one hydraulic)
- Ball Mills 2
- Slab roller
- 3D Potter Bot
- Variety of hand tools
- Plaster room for mold making
- Lounge
- Outdoor balcony

## Kilns

Glaze materials are generally included in the cost of kiln firings, except in situations where larger quantities of expensive materials or specialty glazes are used, in which case separate charges may apply at the discretion of the Ceramics Facilitator.

ELECTRIC KILN FEES			
	LowTemp. / HighTemp.		
Test Kilns - 2	\$10/14		
• 17"x22"- 2	\$25 / \$35		
• 23"x27"-3	\$40 / \$55		
<ul> <li>Oval kilns - 2 (16 cu. ft.)</li> </ul>	\$60 / \$75		
• Front-loader (14 cu. ft.)	\$60 / 75		
• Glass kiln (22" x 18") – fusing, slumping	\$70		

	GAS KILN FEES			
	•	Downdraft car kiln (36 cu. ft.)	\$200	
Γ	•	Bailey downdraft - front loader (18 cu. ft.)	\$120	

OUTDOOR KILN FEES			
•	2-chambered wood kiln (90 cu. ft.)	\$300	
•	Wood fire Train kiln (45 cu. ft.)	\$200	
•	Salt / Soda kiln (14 cu. ft., propane)	\$175	
•	Raku	\$15	

(Note: artists also pay the cost of wood for the wood kilns)

## **CONTACT:**

Ceramics Facilitator - Ed Bamiling 403-762-6211 ed\_bamiling@banffcentre.ca Monday - Friday, 9:00 am - 5:30 pm MST

## SCULPTURE STUDIO FACILITIES AND FEES

All visual artists have access to the sculpture studio; however, if a project demands extensive use of the Sculpture Studio facilities, a \$30 weekly fee may be charged at the discretion of the Sculpture Facilitator.

## **Materials Purchase & Availability**

The Sculpture Studio does not typically stock materials such as wood, plastic, metal, stone, wax, mold making silicones or rubber, paints and stains. Most of these materials can be obtained in Calgary. To ensure that all required materials are available upon arrival at Banff Centre, artists should contact the Sculpture Facilitator at least two weeks prior to the residency start date in order to determine what should be ordered in advance.

#### **Sculpture Studio Equipment**

Although most equipment can be applied to numerous processes, the following list is organized in categories of traditional usage for ease of identification:

## **Wood Working Tools**

## **Stationary Power Tools:**

- Two 10" table saws (each with 48" + tables)
- 16" General band saw
- 20" Felder band saws
- 12" Bosch miter saw
- 22" General drill press
- 12" General Disk sander
- 6" x 18" General upright belt sander
- 20" General 7.5hp thickness planer
- 6" Rockwell iointer
- 10" Radial arm saw
- Oscillating spindle sander
- 19" Supermax Drum Sander (with flattening brush)
- 20" Dewalt scroll saw
- 8" Tradesman Twin Bench Grinder (with Cuttermaster 100 & 180 Grit CBM type wheels, standard tool rests, and the Wolverine Grinding Jig system for sharpening lathe gouges)
- Vicmarc VL175 lathe, 180mm centre height (with wood-buffing system)

## **Portable Power Tools:**

- Hand drills (corded and cordless)
- Jig saws (corded and cordless)
- Belt sanders
- Orbital and random orbital palm sanders
- Electric and pneumatic angle grinders for shaping and sanding (4"-8")
- Pneumatic die grinder
- Dremel
- Foredom rotary tool
- Pneumatic nailer, pin nailer and stapler
- Various Routers (trim, 2-1/2 hp and 3-1/2 hp) for handheld and table-top applications
- Skill saw
- Biscuit jointer

- Sawzall
- Electric chain saw
- 3" power planer
- Heat guns
- Glue guns

#### **Hand Tools:**

The Sculpture Studio has a full complement of hand tools, including, but not limited to: hand planes, chisels and gouges, pipe and bar clamps, hammers, screwdrivers, knives, marking and measuring tools, taps, dies, rivet guns, anvils, vices, clamps, cold chisels and punches.

## **Metal-Working Tools**

## **Stationary Tools:**

- 7" x 12" horizontal band saw
- 14" chop saw
- Drill press
- Sheet metal break
- Sheet metal roller
- 2 grinding and sharpening bench grinders
- Access to Hossfeld bender
- Beverly sheer

## **Portable Power Tools:**

- Miller Spectrum 375 Xtreme Plasma Cutting System
- Electric and pneumatic angle grinders (4" and 5")
- Pneumatic die grinder
- 8 gauge sheet metal "nibbler" shears
- Foredom rotary tool

## Welding equipment:

- Lincoln power MIG 255
- Lincoln precision TIG 225
- Oxy-Acetylene torch
- Miller MSW-41 110 Spot Welder

## **Digital Fabrication**

• CNC Router – C.R. Onsrud, 2x3 Tablemate with a 2x3 foot cutting bed.

This tool is used in conjunction with the Digital Media Lab. Users should be experienced in CNC and proficient in Autodesk's Fusion 360 3D software or Vetric's V-Carve software. Please contact the Digital Media Facilitator for all software-related questions.

The CNC is equipped with a wide variety of tooling capable of milling foam, wood, plastics, and aluminium. It can also support engraving projects. Please consult with the Sculpture Facilitator for a full list of available tooling. Fees for the CNC router are calculated based on cutting time. The current base fee is \$5 an hour. Please contact the Sculpture Facilitator regarding substrate options and resulting cutting times.

## **Mold Making and Casting**

Mold making and casting in many mediums is possible in the studio. Found objects or objects prepared by artists can be molded in rubbers, plastics, plasters, etc. and cast in a material of the artists choosing. The studio contains a Vacuum Degasser, which is capable of degassing up to a 5-gallon bucket of rubber. The studio also has a ventilated wax working station with wax tools and a water jacket wax melting pot capable of holding approximately 60 pounds of wax. This station supports the Sculpture Studio foundry and may also be used by artists wanting to prepare bronzes for casting at another facility.

#### **Tools include:**

- Vacuum Degasser capable of degassing up to a 2.5-gallon bucket of silicone
- 5-gallon pressure chamber for casting transparent resins
- Toaster oven for post-curing small scale resin casts
- Ventilated wax working station with wax tools
- Water jacket wax melting pot capable of holding approximately 60 pounds of wax
- Rotocasting machine with a 24" x24" frame for mounting molds to cast hollow sculptures
- Centroform EZFORM LV 1827 110V Tabletop Vacuum Forming Machine.
  - Plastic sheet size: 21-1/4" x 30-1/4"
  - Forming area: 18" x 27"
  - Max. depth of draw: 9 -11 inches depending on mold geometry.

#### **Metal Casting**

The metal shop houses a small propane furnace capable of casting Bronze or Aluminum. It uses a #16 crucible which will accommodate castings of 45 pounds of bronze or 16 pounds of aluminium. The lost wax or organic burnout technique is used for casting. Our 14 "burnout kiln can accommodate small scale molds, and our refractory mold making process can accommodate solid metal castings. Costs for these consumable materials are subject to change depending on market value. For more detailed information on our metal casting process, limitations, cost, or to discuss the metal casting project you wish to apply with, please contact the Sculpture Facilitator via email.

#### **Metal Working Fees**

Metal Working Fees for welding rods and wire, welding gas, electrodes and grinding/cutting wheels, as well as for refractory mold materials, bronze, aluminium, and patina chemicals are charged on a cost-recovery/replacement basis and are calculated based on the amounts used. Costs for these consumable materials are subject to change depending on market value. Please consult with the Sculpture Facilitator for current rates.

## **Spray Painting and Staining**

The sculpture studio has a spray booth with a paint gun and a fresh air helmet. The studio stocks all related safety equipment e.g. respirators, gloves, coveralls and splash aprons, and has environmentally sound chemical disposal.

Due to the nature of the equipment in the studio, all artists must complete a safety orientation led by the Sculpture Facilitator before they may operate the power tools in the sculpture studio.

Please contact the Sculpture Facilitator if you have any questions about available tools of facilities fees.

#### **CONTACT:**

Sculpture Facilitator – Johnathan Onyschuk 403-762-6393 johnathan\_onyschuk@banffcentre.ca Monday – Friday, 9:00 am – 5:30 pm MST

## DIGITAL MEDIA LAB FACILITIES AND FEES

Due to the nature of the equipment, all artists must complete an individual orientation led by the Digital Media Facilitator before they may use the Digital Media Lab or Digital Fabrication Spaces.

Work Stations are available for 24-hour self-directed access. Artists requiring support can arrange one-on-one assistance through the Digital Media Facilitator from 9:30 am – 5 pm, Monday through Friday.

A \$30 weekly fee may be charged at the discretion of the Digital Media Facilitator if a project demands extensive or exclusive use of the facilities or equipment.

## **Computer Workstations:**

- 2 x Apple Mac Pro 3.0ghz 8core CPU, 64gb ram, Dual AMD D500 GPU
- 4 x Apple Mac Mini (late 2014 model) 2.8 GHz 2core i5, 8 to 16gb ram
- Windows Custom PC 1 3.3GHz 6core i7-5820K CPU, 48gb ram, Nvidia GTX 1080 GPU
- Windows Custom PC 2 3.5GHz 6core i7-5930K CPU, 48gb ram, Dual SLI Nvidia GTX 980Ti GPU
- Windows Custom PC 3 3.2GHz 8core i7-6900K CPU, 96gb ram, Nvidia GTX 1080 GPU
- Windows Laptop 15.6" 6core i7-8750H CPU, 32gb ram, Nvidia Quadro P4200 GPU

## **Computer Software:**

Free & open source titles are not listed below.

- Adobe Creative Cloud
- Autodesk Suite (All Titles Available on request)
- Final Cut 7
- Final Cut X
- DragonFrame (Stop Motion)
- Touch Designer v88 EDU

- MadMapper
- MaxMSP
- Ableton LIVE Studio
- Cinema 4D R17
- ZBrush
- Rhino 5

#### **3D Printing:**

## MakerBot - Replicator 2 (FDM)

- Build: 28.5cm L x 15.5cm W x 15.5cm H
- Filament Types: PLA, PVB, Wax-like Castable

#### Makerbot – Z18 (FDM)

- Build: H 30cm L x 30.5cm W x 45.7cm H
- Filament Types: PLA, PVB, Wax-Like Castable

#### FormLabs – Form 3 (SLA)

- Build: 14.5 cm L x 14.5cm W x 18.5cm H
- Material: SLA Resin, Castable Wax Resin

#### 3D Potter - Potterbot 7

- Build: 42cm L x 36cm W x 48cm H
- Material Type: Clay

#### **Accessories**

- Formlabs Form Wash
- Formlabs Form Cure
- Polymaker Polysher
- 3D ReTouch

Artists requiring specific colours, speciality filaments, or anticipate high volumes of printing are encouraged to discuss purchasing options with the Facilitator before arrival.

Fees for filament and resin 3D printing are calculated based on the weight of the printed object and machine wear. For specific pricing, please contact the Digital Media Facilitator. Clay 3D printing is a collaborative process with Digital Media and Ceramics. The Digital Media Facilitator supports the modelling process and preparation of files for printing. Clay preparation as well as glazing and firing processes are overseen by the Ceramics Facilitator. Clay to be used with the 3D Potterbot can be purchased through the Ceramics Facilitator. Clay to be used with the 3D Potterbot can be purchased through the Ceramics Facilitator.

#### **3D Scanning**

The Digital Media Facilitator will provide orientation on the scanners and provide assistance as required with the scanning process, software, and model cleanup.

Creaform Go!SCAN 50 - Ideal for medium to large objects and high levels of accuracy

- Scan Accuracy: Accuracy up to 0.05mm, resolution up to 0.5mm
- Object size: Ideal for objects from 0.3 to 3 metres
- Scanner Type: Handheld

Creaform Go!SCAN 20 - Ideal for small objects and very high levels of detail

- Scan Accuracy: Accuracy up to 0.1mm, resolution up to 0.2mm
- Object size: Ideal for objects 0.05 0.5 metres
- Scanner Type: Handheld

**Matter and Form V1** – Ideal for artists new to 3D looking for simple economical workflow and don't require the highest levels of accuracy.

- Maximum object size: 25 cm high x 18 cm diameter
- Maximum object weight: 3kg
- Scanner Type: turntable

## **CNC Router (located in Sculpture Facilities)**

The Digital Media Lab supports the modelling process and preparation of files for CNC fabrication. Final file exporting, Tool Path prep, and operation of the machine is overseen by the Sculpture Facilitator.

#### C.R. Onsurud – 2x3 Tablemate

This CNC machine has a 2'x3' cutting bed. Users should be experienced in CNC and proficient in Autodesk's Fusion 360 3D software. The CNC is equipped with a wide variety of tooling capable of milling foam, wood, plastics, and aluminium. It can also support engraving projects. Please consult with the Sculpture Facilitator for a full list of available tooling.

Fees for the CNC router are calculated based on cutting time. Please contact the Sculpture Facilitator regarding rates, substrate options, and resulting cutting times.

#### Laser Engraving & Cutting

Hours of operation are 9:30 am to 5 pm, Monday through Friday.

The **Epilog Helix 24** is equipped with a 60 Watt Co2 Laser, allowing cuts and etching s into paper, wood, acrylics, plastics, fabrics, and much more. For a full list of compatible materials, please contact the Digital Media Facilitator. The Facilitator is able assist with file preparation where required.

Maximum Engraving Area: 24" x 18"

Maximum Material Thickness: 8" (this is the object thickness. Cut depth varies by material)

Artists may bring their own materials; however, an SDS sheet must be provided and all materials discussed with the Facilitator prior to usage. The Facilitator can also assist with ordering materials from nearby vendors. A small selection of common materials are kept in the facility and available for purchase from the Facilitator.

Fees for printing are calculated based on cutting time. The current fee is 25¢ per minute (\$15 per hour), minimum fee of \$5.

## **Electronics / Soldering**

The facilitator has a small supply of common electronics components, wire, solder, and prototyping boards available. Please contact the Digital Media Facilitator for info on nearby electronic vendors for any specialty items.

- 2 x Weller 50W Soldering Stations
- Benchtop Smoke Absorbers
- DC Power Supply w Voltage Adjustment
- Small tools, multimeters, clamps, etc

- Raspberry Pi 3 B Kits
- Various Phidgets Sensors
- Breadboard

## Digital Media Accessories and Equipment

We provide an array of supplemental equipment to enhance the personal studio workspaces.

If a required accessory or piece of equipment is not listed below, please contact the Digital Media Facilitator to discuss possible availability of equipment from other areas on campus.

Variety of Video + Audio Cables PC + Mac Keyboards, Mice 6x WD Media Players

3x Wacom Tablet: Intuos Pro Pen+Touch

Bluray+DVD Writer/Reader 2x Matrox DVI Dualhead2Go

Wacom Cintig 22HD

2x Matrox DisplayPort Triplehead2Go

Go Pro Hero 4-Black 3x Microsoft Kinect v2 3x Microsoft Kinect v1 Leap Motion Controller 2x logitech HD Webcam

5x Computer Display: 27" 2K Apple Thunderbolt

3x Computer Display: 27" 4K Computer Display: 27" 2K 7x Computer Display: 24" HD

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2x Projector: Christie 555-GS HD, 5.5K Lumen Projector: Christie 555-GS WUXGA, 5.5K Lumen 2x Projector: Optoma GT1080 HD, 3K Lumen 4x Projector: NEC M300 XGA, 3K Lumen Projector: Christie D-12HD 11K Lumen

Projector: Epson PowerLite Pro HD 10K Lumen

Audio Mixer: 6 Channel Yamaha MG06
Audio Mixer: 10 Channel Yamaha MG10XU

2x Audio Interface: Focusrite 2i2o
Audio Interface: Focusrite 18ix20o V1
Audio Interface: RME Fireface UCX 18i18o

2x Studio Monitor: Yamaha MSP7 6x Studio Monitor: Genelec 8030

Genelec 7040 Subwoofer

VR Headset: HTC VIVE
VR Headset: Oculus Rift
VR Headset: Oculus Rift DK2

CONTACT:

Digital Media Facilitator - Tyler Jordan (403) 762-6606

Tyler Jordan@banffcentre.ca

Monday - Friday, 9:00 am - 5:30 pm MST