



Photographing Your Artwork

Art Rental Programme

INTRODUCTION

Adjudicating art exhibitions, like many other activities, is increasingly moving into the online, digital world. Artists are becoming accustomed to submitting photographs of their work for consideration by art juries. Particularly now, under the restrictions imposed by the pandemic, North Van Arts is moving to a fully digital jury process for this year's Art Rental intake. Since this is the first time we have attempted an online jury, it's also the first time for many of our artists to submit photographs of their artwork. In order to assist artists to present their work to best advantage, we have put together some notes that we hope will help artists.

In the following outline we discuss the basic equipment you will need – camera, lighting, and software for post processing; recommended camera settings to ensure accurate colours and sharpness; optimal positioning of the artwork, lights and camera angle; and an image processing 'workflow' that will result in a correctly colour balanced, sized and formatted photograph for submission to the Art Rental jury.



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I. CAMERA EQUIPMENT

Digital camera, Mobile Phone camera

Most types of digital cameras including DSLR, mirrorless, point and shoot cameras, and recent models of smartphone cameras made over the past decade provide at least 8 Megapixel sensors and are capable of taking high resolution photographs of two dimensional artworks. A digital camera is generally preferred over mobile phone cameras because, ideally, the equipment you choose should allow you to adjust various settings to get the best results. If possible, it's best to turn off automatic functions and manually set these camera functions that affect focus, exposure, colour accuracy and image resolution.

Recommended camera settings

- JPEG resolution ('High' or 'Fine') or use RAW mode if available;
- sRGB colour space (on). Standard colour palette best suited for computer monitors;
- White Balance (set according to light source temperature – Daylight, Tungsten, Fluorescent, etc.). Use Custom white balance setting if also using a WB card or Colour target;
- ISO (use lowest available). Faster 'film speeds' introduce noise;
- Auto-focus (off). Focus manually on centre of artwork surface;
- Auto-exposure (off). Set shutter speed manually using centre-weighted in-camera metering;
- Aperture priority (on). Set aperture 2-3 f/stops from the widest lens aperture;
- On-camera flash (off). Direct flash usually results in 'hot spot' reflections and too much contrast;
- HDR/high dynamic range (off). Auto HDR can 'misrepresent' your artwork;
- Image Stabilization/anti-shake (off). When using a tripod IS can actually cause image blur;
- Noise reduction (off). Reduces image detail by 'averaging' pixels;
- Digital Zoom (off). Use optical zoom — note that mobile phones use digital zoom only.

Use a self-timer (10 second delay) or remote shutter device when taking photos to minimize vibration that reduces image sharpness.

Use a 'normal' (not wide angle) lens or a moderate length 'zoom' lens in a midrange position (50 – 70 mm) to avoid perspective distortion or 'warped' images.

Tripod

A low ISO 'film speed' combined with the low-light conditions of artificial lighting often results in slow shutter speeds (below 1/30th of a second) that preclude hand-held shooting. A tripod or monopod is essential if you are to avoid even slight shaking that will lead to blurry photos. If a tripod is not available, the camera or mobile phone should be rested on a very stable platform such as a large piece of furniture.

Optional equipment:

- Neutral / 18% Grey card to set a reference exposure of your images;
- White balance card (to set a Custom white balance);
- Colour reference target (e.g. X-Rite Color Checker or similar) to verify colour balance.



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II. LIGHTING EQUIPMENT

Professional photographers use a variety of specialized lighting equipment such as studio flash ('strobos') or floodlights and spotlights with reflective 'umbrellas' or 'soft boxes' to disperse the light to prevent glare or harsh shadows. This is particularly useful for low texture artwork, such as collage, drawings, photographs and anything framed with glass. It is, however, a quite expensive and impractical solution for artists unless they also intend to sideline as studio photographers.

While this equipment can be rented, a 'budget' solution is to use relatively inexpensive clamping floodlights – receptacles with light shades, equipped with high lumen, high wattage, daylight-balanced LED bulbs (5,000° – 6,500° Kelvins) available online and at hardware stores. A minimum of two bulbs will be needed to provide balanced light from both sides of the artwork. Larger pieces may require four bulbs (two bulbs on each side at top and bottom) or even an array of bulbs for full coverage and brighter lighting of large pieces.

The light should be 'softened' by aiming lamps through a thin layer of translucent paper or scrim material, or by turning the lamps around to 'bounce' the light off reflector boards made from large sheets of white foam core, poster board, backdrop paper or cloth. The purpose of softening the light is to avoid distracting 'hotspots', glare, or shadows on the surface of the artwork.



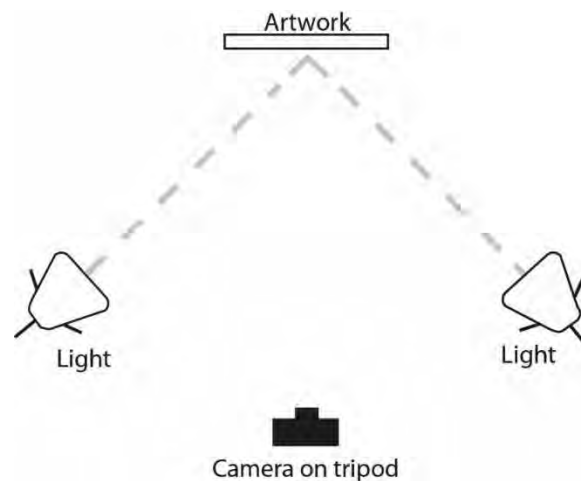
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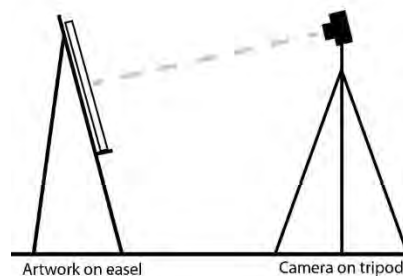
III. ARTWORK, CAMERA, and LIGHTING PLACEMENT

The artwork being photographed should be hung flat on a white or neutral-coloured wall at 90° to the camera which is aimed squarely at the artwork — directly at the horizontal and vertical midpoint of the piece. If the top of the piece hangs out from the wall, place shims at the bottom to ensure that the artwork surface is parallel to the camera's 'image plane' (i.e. the camera back). This will avoid perspective problems that later must be corrected in editing.

Fill the frame as much as possible with your artwork to best use your camera's available pixels. Position the camera horizontally or vertically to correspond to the orientation of your artwork. Keep the horizon level (to avoid having to crop and straighten in post-production). Use only optical zoom (not digital zoom). If you can't get close enough with optical zoom, move the tripod closer to the artwork.



Smaller pieces can be placed on an easel so long as the camera is aimed at the horizontal and vertical midpoint and the 'image plane' is parallel to the surface of the artwork.



Set up 2 lights (or 4 for larger pieces) aimed at approximately 45° angles to the artwork at a distance that gives equal lighting strength and even surface coverage from side to side and top to bottom. The distance from the artwork and the aim and angle of the lights will require some experimentation and adjustment. The goal is to ensure that there are no dark areas on the artwork (too far away, need more/stronger lights, or at a bad angle) nor unwanted surface reflections, glare or 'hotspots' (too close, too much light, or at a bad angle).

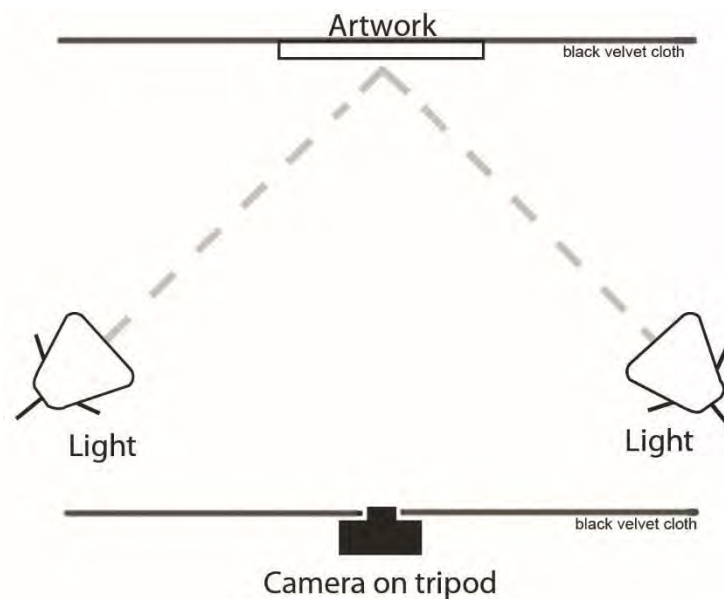


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Photographing artwork that is framed under glass or has a highly reflective gloss surface coating is made difficult because of surface reflections. There are several solutions to this problem that include:

- Mount the artwork in the frame but without the glass;
- Photograph the artwork from a side angle with a black cloth or matt black foam core positioned on the opposite side to absorb reflections. This requires cropping with perspective correction and possible resizing to restore the original proportions in post-processing;
- Hang a large light-absorbing black cloth (velvet, felt or similar) or matt black foam core in front of the camera and photographing the artwork through a hole for the lens. A black cloth hung on the wall behind the artwork will also help to reduce stray reflections.



The purpose of this setup is to reflect the black surface of the cloth or foam core onto the picture frame glass or the reflective gloss coating on the artwork. The reflection of the black cloth or foam core is in effect 'invisible' to the camera.



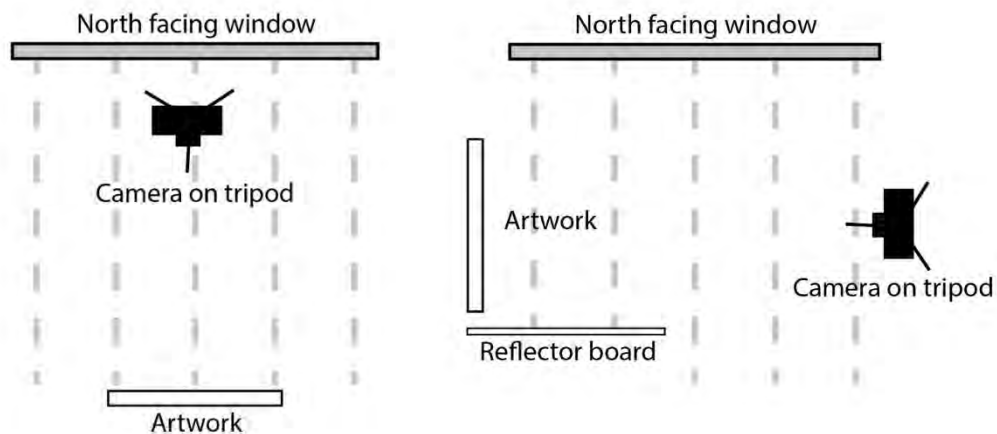
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IV. NATURAL LIGHTING

Daylight is often a good source of strong-yet-soft light with a pleasing colour temperature, however, it is a less easily controlled method of lighting. As light intensity and colour change quickly and dramatically with weather, seasons, and time of day. It is hard to maintain consistent lighting conditions over even a short timeframe throughout the day.

- Use a north facing window as your light source. Shoot on a cloudy or overcast day for a softer, more dispersed light;
- On non-reflective artwork surfaces, hang the artwork toward a north-facing window with the camera and tripod positioned between the window and artwork;
- For reflective surfaces, avoid glare by hanging artwork at a 90° angle to the window with a reflector board on the opposite side of the artwork to bounce fill light back, so it's lit from both sides.





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V. POST-PROCESSING

Photo Editing Software

Most photographs straight from the camera require at least some level of post-processing to correct, modify or optimize the exposure, colour balance, sharpness, cropping and sizing of images. This is done using software products such as Adobe Photoshop, Lightroom or Elements, or Phase One Capture One, ACDSee Ultimate, Corel Paint Shop Pro, CyberLink Director, Pixelmator, Affinity Photo, or the freeware GIMP. If the above photo-editing software packages are not available, minor corrections can often be made using various free applications available through your computer operating systems or mobile phones.

Post-Processing Workflow

1. After downloading your photographs from the camera to your computer, open a photograph into your photo editing software;
2. Before editing the original .jpg (or RAW) photograph that came directly from the camera, make a 'reference' version of the file. Use 'Save As' to create a copy of the original as a .tif file type. Archive this .tif reference file and do not make any changes to it directly. Work only on copies of the reference file. Unlike the .jpg format, .tif files are saved without compression. Every time a .jpg file is saved, the compression process degrades the image quality. After modifying a .jpg file several times (e.g. to produce different resolutions, sizes, cropping, etc.) the image becomes blurry and dull – like too many photocopies of photocopies. The .tif file reference file remains untouched as the source of a new 'clean' .jpg copies every time a new version of the image is required;
3. As the first step in editing, each image should be cropped to remove most of the extraneous background surrounding the artwork. Using the cropping tool, select a rectangle containing the artwork (leaving a small amount of background surrounding the canvas or frame – just enough to show the frame or artwork edges) and delete the unwanted area surrounding the image;
4. The next step is to adjust the basic tones of the image to ensure that the black point, white point and mid-tones are in balance. Most images look best when they use the full range dark to light of a screen display. Images which don't fill the entire tonal range often look washed out and can lack impact. Blacks should appear black, whites should be white but both should retain some of detail such that neither tonal areas are opaque. Next, adjusting the mid-tones allows you to manage the overall brightness or darkness within an image. How these adjustments are achieved depends on the photo editing software you are using. If you are unfamiliar with the tools, some products have an 'auto-correct' function that should provide an acceptable result. Otherwise, your image may require more specific editing functions to make detailed adjustments of exposure, highlights, shadows, colours, hue, saturation, etc.;



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5. Next, use the sharpening tool to enhance the image just enough to improve the appearance of the edge details, but be careful not to over sharpen (too much sharpening results in halos and other artifacts). View a detailed area of the image at full size while adjusting sharpness;
6. At this point, the image could be saved as a .jpg at 100% or 'Maximum' - i.e. no compression to ensure the highest quality .jpg image with all the cropping, corrections, sharpening and other adjustments that have been applied. Images may also be saved as .png-24 filetype particularly if transparency in the image is to be preserved;
7. Finally, make adjustments to the resolution, pixel dimensions and colour profile to prepare the file for submission to the Art Rental Call for Artists. The image size settings should be revised to 72ppi document resolution with pixel dimensions of 2048px at the longest dimension. Finally, apply the sRGB colour profile for display on standard computer monitors. After making these changes, save the file under a new filename using the format

Lastname-Firstname_Artwork-Title.filetype (.jpg, .jpeg or .png-24)

It may be necessary to adjust the level of JPEG compression to reduce the file size to within the maximum allowed (Art Rental submissions target is between 500KB to 3MB file size). This can usually be accomplished using your photo editing software or by visiting <https://resizefile.com/> or similar on line services.

Since the JPEG compression process discards image data to achieve a smaller file size (which unavoidably reduces image quality), the compression->quality adjustment should be applied carefully and gradually until the file size is reduced just enough to meet the maximum file size of 3MB.

VI. CONCLUSION

Artwork photography can be a challenging task that requires at least some camera and lighting equipment and specialized photo editing software. It also may seem a daunting, complex exercise in technical camera settings and editing for those not accustomed to this kind of photography.

For artists who find this too much of a challenge, the easiest and most practical solution may be to hire a professional or a friend with art photography or studio experience. If the problem is a lack of equipment, there are several local companies that will rent professional-grade camera and lighting equipment for the day, week or longer.

For artists that spend the time and effort to make or acquire high quality photographic images of their artwork, the value of their investment may be realized when showcasing their work for clients, galleries and in publications.