An Investigation into Traditional Italian Leather & Glass Craft Techniques and their applications within a Contemporary (Jewellery) Design Context

Bobby Corica

Italian/Australian Foundation Fellowship, 2024

International Specialised Skills Institute

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The Italian Australian Foundation makes grants to funds, institutions and other entities to provide or facilitate educational, cultural and heritage services that advance the appreciation of Italian culture, language, skills and heritage for persons of Italian descent resident in Australia and the broader Australian community.

Fellows Acknowledements

The Fellow would firstly like to thank James Lemon for his ongoing support, and for the sharing of resources, information and industry knowledge that have been instrumental in the Fellow's career. The Fellow would also like to thank the team at Craft Victoria for their ongoing investment in his practice. The landscape and development of craft-based skills within Victoria is largely due to Craft Victoria's dedication and determination , and their ongoing support of craft practitioners.

The Fellow would like to thank the organisations and practitioners he visited and affiliated with while undertaking his Fellowship research. These organisations/people include:

- Gabriele Rorandelli and Roberta Masetti of ZeroLab
- Edoardo Pandolfo and Ilaria Zampieri of 6AM Glass
- Annette Otterdahl of Collelli & Otterdahl Glass Studio
- Nadiana Idriss and Rudy Faulkner of Berlin Glassworks
- Elisabetta Messini of Le Arte Orafi

Lastly, The Fellow would like to thank Katrina Jojkity, Kyle Palmer and Kay Schlesinger of the ISS Institute for their ongoing and unwavering support throughout his Fellowship.

Primary Facilitating Organisations:

ZeroLab, Firenze

ZeroLab is a leather reclaiming, upcycling and education facility operating out of Scandicci, Firenze.

6AM Glass, Milano

6AM Glass is a contemporary design studio operating from Milan with a focus on glass and its applications within the fields of art, design and architecture.

Collelli & Otterdahl, Murano

Collelli & Otterdahl is an artisanal glass workshop specialising in Lampworking techniques specific to the region of Murano, Venezia.

Berlin Glassworks, Berlin

Berlin Glassworks is a glass workshop and educational facility located in Berlin, Germany.

Additional Facilitating Organisations:

Le Arte Orafi, Firenze

Le Arte Orafi located in Firenze is a leading contemporary Jewellery school specialising in Full-term and short/summer courses related to fields of Gold and Silversmithing.

WAVE Glass, Murano

WAVE Glass located in Murano is a glass workshop that focuses on production and education in the fields of art and design.

Supporters:

- James Lemon, Artist, Melbourne
- Craft Victoria, Organisation, Melbourne
- Ella Saddington, Designer, Melbourne
- Luca Lettieri, Designer, Adelaide
- John Macliver, Melbourne

02
Executive summary

Background

The Fellowship provided an opportunity to conduct research into traditional Italian craft techniques and how they can be applied within a sustainable Australian design context. Focusing on the materials and industries of leather and glass, the Fellowship facilitated the learning of technical, practical and industry knowledge.

Australia has recently seen a resurgence of interest in craft-based practices such as glasswork, silversmithing and leatherwork. The cultural reinvestment of these practices within Australia coincides with the rise of awareness around production and sustainability, which has led to a cultural shift in demand for handmade and slow made objects.

The research methodology consisting of interviews and practical workshops offered an opportunity to connect with industry professionals, learn technical skills and facilitate the passing of knowledge between craft, art, and design cultures.

The primary objective of the Fellowship research is to raise awareness and knowledge of the sustainable applications of glass and leather within an Australian context and empower artists and designers to engage with sustainable design methodologies within their respective practices.

The Fellowship aims to help bridge the gap between sustainability and materiality through the learning of (largely) unavailable skills such as lampworking, glassblowing and leatherworking. Subsequently, the Fellowship aspires to facilitate and circulate knowledge of these technical processes within the Australian craft, art and design industries.

Fellowship Learnings

The Fellowship consisted largely of practical and theoretical research of Italian craft processes, their relationship to sustainability and how these can be translated within an Australian context.

Specifically, the Fellow:

- Learnt key techniques and processes relative to the fields of glasswork and leatherwork, and how they can be combined with the Fellow's specific Gold & Silversmithing practice.
- Acquired insight into the sustainability potential and limitations of glass and leather in relation to design methodologies and production.
- Gained technical skills in the fields of lampworking and glassblowing with a focus on ways of making within a small studio context.
- Obtained knowledge in the production of handmade leather goods centred on upcycling industry scrap (waste) materials into new products such as product packaging.
- Accumulated information on the cultural importance of glass, leather and jewellery techniques within an Italian context.
- Investigated the importance of education and training of the next generation of craftspeople in

these sectors as a response to industrialisation and mass production.

Glossary of Terms

1.0 Leatherworking

1.1 Chrome Tanned

A process that uses soluble chromium salts, primarily chromium sulfate, to tan leather. Commonly used for garments, footwear, and upholstery. (Sailrite, 2023)

1.2 Die, Cutting

A template, usually made from metal, used to cut out specific lengths or patterns from leather. (Sailrite, 2023)

1.3 Dye, Pigment

Coloured pigment used to change the colour of leather. (Sailrite, 2023)

1.4 Hand

Refers to the 'feel' of the leather in terms of thickness and other tactile qualities. (Sailrite, 2023)

1.4 Knife, Straight Utility

A straight-edged knife used for cutting leather, similar to a box-cutter or stanley knife. (Sailrite, 2023)

1.5 Lathe

A rotary machine used to sand, buff and polish leather-goods. (Sailrite, 2023)

1.6 Leather

A durable and flexible material created by tanning raw animal hides, mostly cattle hide. (Sailrite, 2023)

1.7 Leather Folder/Creaser

A hand-held tool used to fold and crease leather. (Sailrite, 2023)

1.8 Mallet

A hand-held tool, similar to a hammer, used to flatten and embellish leather. (Sailrite, 2023)

1.9 Sewing Machine, Industrial

Similar to a clothing sewing machine, with the inclusion of a thicker needle. Used to stitch and hem leather. (Sailrite, 2023)

1.10 Thread Burner

Used to burn the ends of threads off leather after sewing. (Sailrite, 2023)

1.11 Vegetable Tanned

Leather tanned with natural extracts made exclusively from vegetable or plant matter. (Sailrite, 2023)

2.0 Glass

2.1 Annealer

A machine or compartment that slowly cools glass material e.g. A kiln. (Sonoran Glass, 2023)

2.2 Bending

The process of heating and warping the shape of glass, usually using gravity or tools. (Sonoran Glass, 2023)

2.3 Cane

Thin lengths of glass that are made by stretching molten glass. Usually used for embellishment or other visual design elements. (Sonoran Glass, 2023)

2.4 Cutting

The process of cutting molten glass away from your piece using tools such as glass shears or scissors. (Sonoran Glass, 2023)

2.5 Flash(ing)

Returning glass to a heat source to reheat the material for further working. (Sonoran Glass, 2023)

2.6 Frit

A mixture of silica and flux, fused at high temperatures to make glass. Usually used for colouring and embellishing glass. (Sonoran Glass, 2023)

2.7 Glass, Borosilicate

A type of glass that is harder than Soda-Lime glass due to the presence of Boron Trioxide in its chemical composition. Can withstand greater thermal shock.

2.8 Glass, Soda-Lime

A type of glass that is softer than Borosilicate glass due to the absence of Boron Trioxide in its chemical composition.

2.9 Glassblowing

The process of creating large-scale solid or hollow glass vessels using blowpipes, a furnace and molten glass.

2.10 Gloryhole

A furnace used to reheat glass pieces while working on them, there is a circular hole at the front of the furnace large enough for a punty or blowpipe to fit through without the furnace losing too much heat.

2.11 Jacks

A tool used when working with glass, they look similar to scissors and can be used for a variety of purposes such as measuring, shaping and cutting into glass.

2.12 Lampworking (AKA Flameworking)

The process of creating small-scale solid or hollow glass vessels typically using a torch.

2.13 Marver

A surface used to shape molten glass, usually made from graphite. Can come in a range of sizes and styles. (Sonoran Glass, 2023)

2.14 Mashers

A hand-held tool used to flatten and shape molten glass. (Sonoran Glass, 2023)

2.15 Mold(s)

A vessel into which molten material is poured to produce highly detailed (re)productions of a design. Molds in Glasswork are typically made from iron, sand, ceramic or plaster.

2.16 Murrine

A glassworking technique founded in Murano. Used to create intricate mosaic-style effects in glass. (Sonoran Glass, 2023)

2.17 Punty

A solid steel rod used to attach to glass pieces while working on them. Allows for a glass piece to be worked on from multiple sides. (Sonoran Glass, 2023)

2.18 Sommerso

Meaning ‘Submerged’ in Italian, it is an optical effect achieved by layering colours of opaque glass of contrasting colours, usually finally coated in a clear, colourless glass, giving the piece a submerged effect. Typically used in bead making. (Sonoran Glass, 2023)

3.0 Jewellery

3.1 Casting

A process used in Jewellery (and other art/design mediums) that typically involves pouring molten material into a mold allowing for highly detailed productions of a design.

3.2 Electroplating

A process used in the Jewellery industry that allows for the depositing of material (in this case, metals such as silver or gold) using an electric current.

3.3 Engraving

The process of carving metal away from a surface in order to produce detailed visual designs.

3.4 Gemology

The study of gemstones.

3.5 Gold & Silversmithing

The artistic and technical process of working with metals such as gold, silver and other precious metals including copper, brass and bronze.

3.6 Intaglio

The process of carving into, or engraving onto, gemstones to produce a design suspended within the stones solid matrix.

3.7 Mold(s)

A vessel into which molten material is poured to produce highly detailed (re)productions of a design. Molds typical to Jewellery are plaster, sand or cuttlefish.

Fellow Biography

Bobby Corica, born in Naarm/ Melbourne 1994, lives and works from his Brunswick studio in Naarm / Melbourne.

Drawing from his Italian/Australian heritage and a background in biochemistry and molecular biology, Bobby embarked on his silversmithing journey in 2019, honing his craft in the art of chain making. Guided by a fusion of nostalgia, chaos, and boundless curiosity, Bobby's process is best described as "intuitive," as he delicately responds to the enchanting qualities of precious materials.

The culmination of this artistry manifests in highly textured and truly one-of-a-kind pieces that carry a distinctive allure. The National Gallery of Victoria recently commissioned Bobby for the 2022/2023 Alexander McQueen: Mind, Mythos, Muse.

His work has been exhibited as part of NGV Design Week, Oigall Projects, Jam Factory and Craft Victoria. Alongside his online store, his work can be found in design stores both nationally and internationally.

Exhibitions:

- New Assemblage, Melbourne Design Week, 2022
- Pearlescent, Jam Factory (Adelaide), 2022
- GLOAM, MiscObjet x Oigall Studios, 2022
- Makers in Residence, Craft Victoria, 2022
- Alexander McQueen: Mind, Mythos, Muse, NGV International, 2022
- It's Not Just Blue, Craft Victoria, 2022
- 01 Workshop, Melbourne Design Week, 2023
- Erik Yvon, Melbourne Fashion Week, 2023
- 'Fatto a Mano' Craft Satellite Program, Craft Victoria, 2023
- Everyone's Heard of a Dragon (Curator), Craft Victoria, 2023
- VITRINE programme, Craft Victoria, 2024

Fellowship Background

Fellow's Background and Context

Bobby Corica is a Silversmith, Designer and Artist based in Naarm (Melbourne), Australia. He has a passion for craftsmanship and fabrication, specifically when it comes to sustainable ways of making and using fabrication techniques. Having not studied his craft, the Fellow identifies as a self-taught and 'self-directed' artist working within his field. Due to not learning his craft through traditional methods such as TAFE or University, the Fellow has a passion for education outside of these institutions and aims to increase the calibre of education for practitioners who are unable to access these spaces.

After being awarded the Italian/Australian Fellowship in November 2022, the Fellow began his journey to investigate sustainable ways of making using traditional Italian Craft techniques. With a desire to expand the techniques and materials used within his own practice, the Fellow embarked on his studies into Leather and Glass. The Fellow's

research was conducted primarily via workshops and interviews where he learnt practical skills and techniques to aid him on his Fellowship journey and beyond.

Beginning the international portion of his research in July 2023, the Fellow travelled to Northern Italy (Florence, Milan and Venice) and Germany (Berlin) for 4 weeks where he met with design studios and institutions such as ZeroLab, 6AM Glass, Collelli & Otterdahl and Berlin Glassworks. The faculty at these institutions became mentors to the Fellow and his experiences there informed the foundations of his Fellowship research.

An element of personal development was important to the Fellow while on his travels. Having grown up in an Italian (Sicilian) family, and having close ties with his heritage, he studied Italian whilst at high-school and was able to participate in a month-long cultural exchange in 2010 where he attended an Italian school and stayed with a host family in Milan.

By the end of his Fellowship travels, the Fellow had honed his language skills, allowing him to conduct interviews, travel, translate and converse in Italian. The Fellow was also able to learn industry specific language when undertaking his workshops, providing him with the language skills to be able to work within the Italian design/art sector(s).

Fellowship Aim

For this Fellowship, the Fellow aims to research traditional Italian craft techniques, and how they can be applied within an Australian contemporary (jewellery) design context. Focusing specifically on the material properties, techniques and applications of leather and glass, the Fellow strives to synthesise ways these materials and techniques can be translated and adapted within a sustainable art/design practice.

The Fellowship aims to increase the calibre of education that surrounds sustainable ways of making within the Australian art/design sectors and, more specifically, within the Australian Contemporary Jewellery design community.

The Fellowship also strives to illuminate discourse around education within the Australian art/design sectors generally, and increase awareness of the lack of accessibility to education both within tertiary and independent institutions.

The Fellowship strives to provide a detailed account of the skills and techniques learned by the Fellow while conducting their research. Furthermore, the Fellowship will provide insight into why these skills are more available within an Italian (and broader, European) context.

Methodology

The methodology of this Fellowship involves a combination of interviews/meetings, workshops and visits to relevant institutions such educational facilities specialising in contemporary jewellery design.

The purpose of these different methodologies is to gain insight into the industries of leather, glass and silversmithing within an Italian, and broader European context. The interviews and meetings conducted with the organisations visited by the Fellow were to inquire into how these industries operate within Italy (Europe) and observe their industry-related applications, potentials and limitations.

The Fellow's workshop and training aspects of his Fellowship involved the practical applications of glass and leather within his own art/design practice. Specifically, the Fellow's involvement in the practical features of his research was to synthesise ways these practices can promote sustainable design methodologies within the Australian art/design sector.

The visits to Italian educational organisations such as Le Arti Orafe, served as a tool to contextualise the Fellow's inquisition into the role of education within a specific Italian context, and how it illustrates a lacking within the Australian educational sector.

03
Fellowship Learnings

ZeroLab, Firenze (Florence)

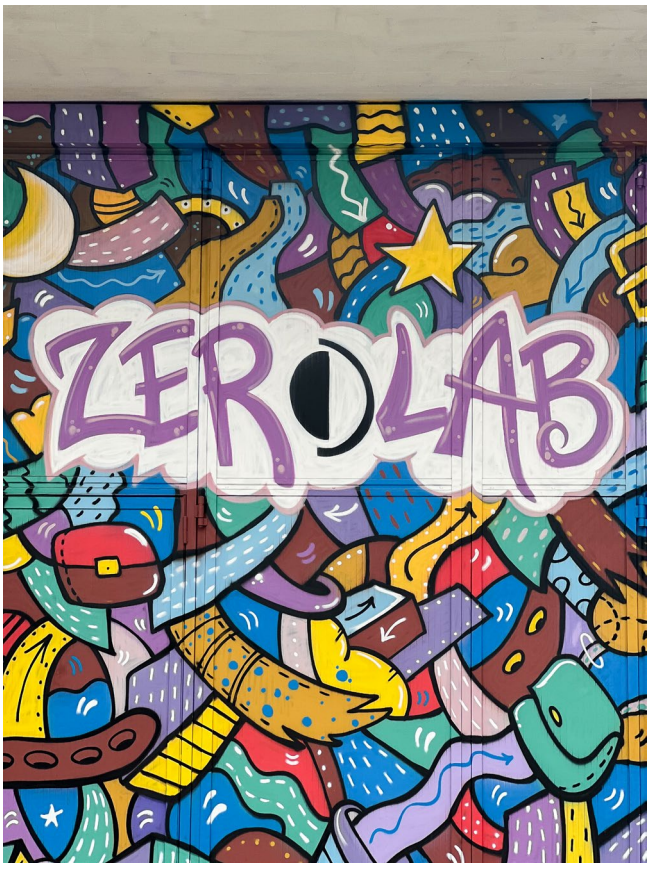


Figure 1 & 2 - The outside of the ZeroLab Facility in Scandicci, Firenze (Florence)

ZeroLab Studio in Scandicci, Firenze is a facility that is dedicated to the reclaiming, upcycling and repurposing of 'waste' leather materials from the fashion design industry. Having only been operating for two years, with only one of those years being open to the public after COVID-19 restrictions lifted, the founder, Gabriele Rorandelli has a vision of educating and upskilling the next generation of leather workers whilst reducing the environmental footprint left behind by the leather industry.

In conversation with Gabriele, he revealed that, within Tuscany there is at least 265,000 tonnes of leather waste produced alone each year (Korey,

2022). With this waste, Gabriele provides programs and a co-working space for designers and craftspeople to design leather goods, photograph their collections, supports independent leatherwork projects, and facilitates an education program and workshops for beginner and experienced leatherworkers, craftspeople and designers.

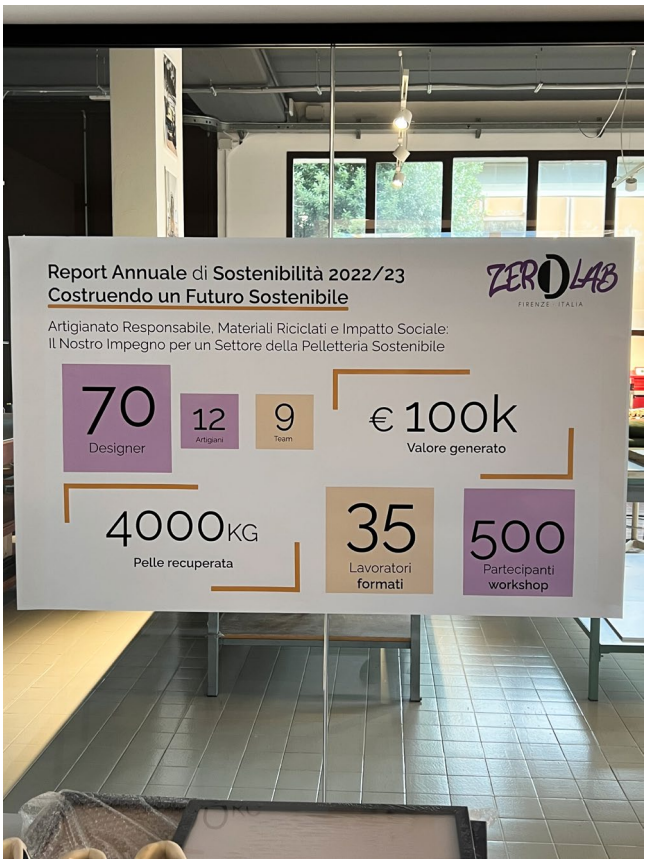


Figure 3 - An infographic on the Annual Sustainability Report with figures relating to sustainability within the Italian leather industry.

The reclaimed leather waste is divided into larger rolls of material and smaller pieces and off-cuts. The larger rolls are then used by the designers that work out of the co-working leather studio, whereas the smaller offcuts are utilised by the students of their workshop programs.

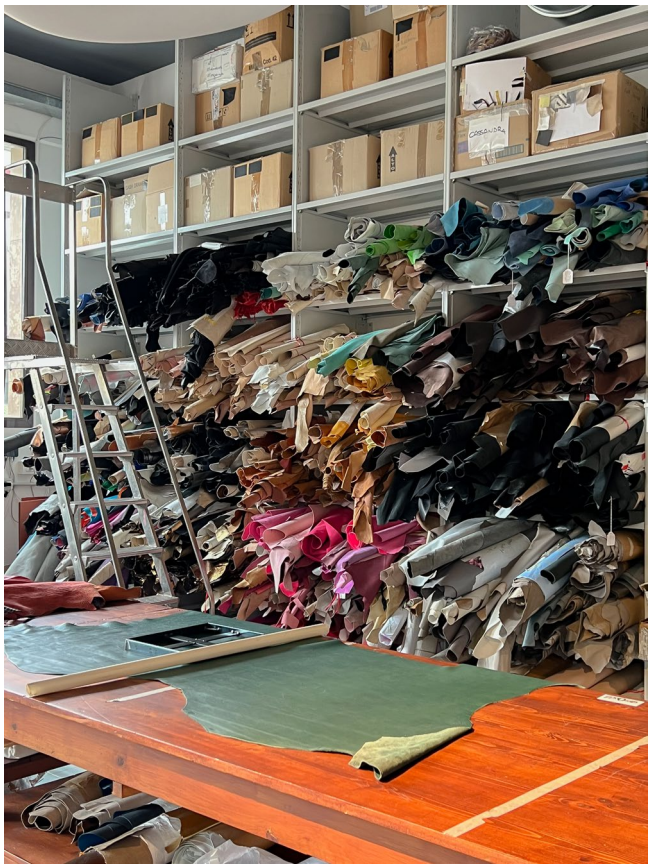


Figure 4 - An image of the rolls of reclaimed leather fabric on offer at ZeroLab

ZeroLab doesn't solely recycle and upcycle leather, but also has the facilities to reclaim excess skins and pelts from adjacent industries and treat them on site using both chromatic and vegetable curing processes. The importance of these facilities is pivotal when investigating sustainable ways of making, as these waste materials are often collected and dumped into landfill or simply incinerated. The repercussions of these 'traditional' methods of waste management are sadly always environmental, with atmospheric impacts due to the chemical treatments undergone in the curing processes.

Figure 5 - A series of images depicting the tanning process of leather hides.

The importance of a facility such as ZeroLab, particularly in Italy (where leatherwork is a common, yet a dying craft) is paramount, as most leatherworkers do not learn at schools dedicated to the craft, as not many exist. Most craftspeople learn this trade via apprenticeship and family businesses without any focus on waste management or sustainable design methodology. ZeroLab has carved out a space between the sectors of design, sustainability and education to teach the next generation of craftspeople ways of making with a strong focus on sustainability and environmentalism.

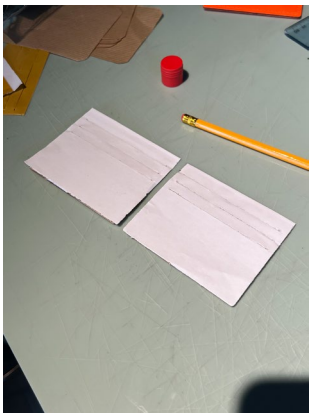
The Fellow's day-long workshop at ZeroLab focused on learning the basics of the leather craft. The Fellow's instructor, Roberta Masetti, is a second generation leatherworker and has been working in the trade for over 30 years. The opportunity to learn from a highly-skilled craftsperson was an invaluable experience. Roberta instructed the Fellow through the production process of leather goods from design to manufacturing using both manual and machine techniques, while using waste materials.

Paper Design

During the initial stages of design, the Fellow was instructed to create the design from paper first. The explanation for this was to ensure that the measurements of the paper patterns were correct before transferring the design to leather. This element of the design process was to reduce the margin of error for design and, subsequently, reduce the risk of wasting materials and resources.

Figure 6 - An image of the final design next to the paper template.

Constructing the paper design utilised the function of industry specific tools such as a straight utility knife, leather folders/creasers and glues.



Figures 7 & 8 - The paper templates used to create the final leather wallet design with the inside pockets for the wallet.

Following the paper design, the Fellow was then instructed to cut out a second pattern using the same method for its application onto leather material.

Leather Design

The secondary stage of design was to create a replica of the paper pattern using the leather waste material from ZeroLab's waste bins. The paper pattern used was for a wallet.

The first stage of this process was to select material from ZeroLab's selection of reclaimed samples. Roberta instructed the Fellow on choosing materials based on the hand of the leather. Then, Roberta demonstrated the use of a leather die cutter that would be used in order to cut out the appropriate panels of leather for the design.

Figure 9 - An image of the variety of leathers available to use when designing at ZeroLab.

Roberta explained that there were both manual and mechanical ways to cut out the design elements. She demonstrated the manual method using a straight utility knife, before showing the Fellow on how to use the mechanical die cutter machine.

Figure 10 - An image of cut leather with a hammer tool

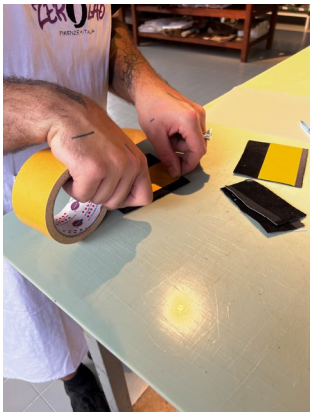
The die cutter machine consisted of a steel die that had one sharp side and one flat side. The purpose of this was to place the sharp side face down onto the leather, and then position the hydraulic press over the die before the mechanism slammed down on the die (using a foot pedal). The result was a leather copy of the die design cut out from the selected material.

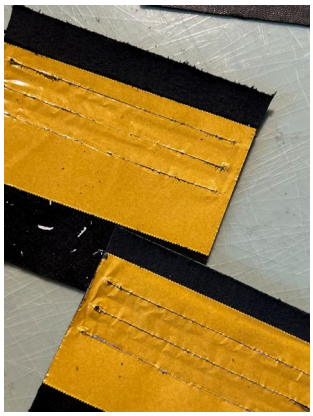
Figures 10, 11 & 12 - Images of die cutters and of the Fellow using a die cutter with the hydraulic press.

Next, a second cutting die was selected that housed the template for the internal slits of the wallet, where the cards slot inside.

Figures 13 & 14 - Images of the die cutters used for the internal templates of the wallet and of the hydraulic press used in tandem with the die cutters.

Before using the die on the internal surface of the leather pieces, the Fellow was instructed to use double-sided leather adhesive tape on the area where the leather would be cut into. Then, the die cutter and hydraulic press could be used again to form the slits.



Figures 15, 16, 17 & 18 - Images of using double-sided adhesive on the leather panels, placing the die cutter on the taped pieces, cutting the design using the hydraulic press, and the final result of the cutting process (in order).

Then, the Fellow selected an internal accent colour for the card pockets. The material was a wax paper, similar to the texture of baking paper and was cut out to the previously designed dimensions in order to fit the wallet design.

Figure 20 - An image of the cut panels for the leather design and the wax-paper inserts that form the card-holders for the wallet.

Once the paper pockets are cut, each piece's shortest side is placed in the middle of the adhesive tape. The parallel side of the paper is coated with leather adhesive, folded up and attached in line with the top of the adhesive strip. For this process, the Fellow begins at the lowest slit and works their way up doing this a total of 6 times, 3 for each card pocket.

Figure 21 - An image of the Fellow folding the paper inserts and placing them onto the double-sided adhesive.

Once each internal pocket is adhered to its relative position, a leather creaser is used to flatten the pocket and create a neat fold for the cards to sit comfortably.

Figure 22 - The Fellow using a leather creaser to flatten the folded inserts.

Next, the strip of leather at the top of the wallet design on each panel is coated with adhesive and, using a leather creaser, is folded onto itself to create a seamless join.

Figures 23 & 24 - The Fellow using leather adhesive and folding the leather onto itself using a ruler/measuring tool and a leather creaser.

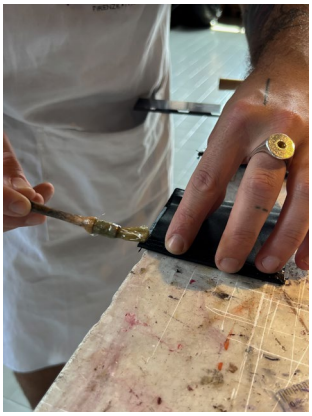
To ensure the join is adhered, a hammer or mallet is used to ensure contact with the adhesive is made before it dries and cures.

Figure 25 - An example of using a hammer/mallet tool to ensure the adhesive has made contact with each side of the fold.

After the adhesive has cured, an industrial sewing machine is used to follow the folded seam and create a stitched top. This ensures the fold remains secure and creates a refined professional look.

Figures 26 & 27 - The Fellow using an industrial sewing machine to create a hem on the top of each leather panel for the wallet design, and an example of the hem.

Once the top of each panel has been sewn, each panel must be joined together. The first stage of this is to use leather adhesive on the remaining internal edges of each panel.



Figures 28 & 29 - The Fellow using leather adhesive to adhere the two panels together.

The panels are then lined up and pressed onto each other by hand and then hammered to ensure the adhesive has bonded.

The next stage of this process is to sew each side of the joined panels together using the industrial sewing machine. This creates a singular, cohesive stitch that runs along the outside of the wallet

Figure 30 - The Fellow using an industrial sewing machine to sew the two panels together.

Once the sewing is complete, the excess thread is burnt away using a lighter or flame. The stitches are then hammered with a hammer or mallet to make them look neater.

After this process is complete, the joined piece is taken to a lathe machine, where each side except the top side is buffed to smooth the raw hem of the leather.

Figures 31, 32 & 33 - Images of the Lathe machine, the Fellow using the sanding wheel and then the buffing wheel (in order).

Once the desired finish is achieved, leather pigment of a matching colour to the leather is used along the outside of the design to match the colour of the buffed sides to the leather. The piece is then left for the pigment to dry before reapplied until the desired depth of colour is achieved.

Figures 34 & 35 - The Fellow applying leather pigment to colour the buffed edges of the wallet design, and rebuffing any inconsistencies.

Ultimately, it was pivotal to visit ZeroLab as part of the Fellow's research in order to investigate how the Italian leather industry is responding to prompts of sustainability and waste management. The skills learned by the Fellow are transferable to his desire to create sustainable packaging from waste leather created by the excessive amount of kangaroo roadkill that exists within an Australian context. These skills, once investigated and honed further, will be able to be taught to other designers, and allow them to create sustainable packaging from waste leather scraps. In order to facilitate this desire, the team at ZeroLab provided the Fellow with a selection of leather scraps from their collection in order to trial his designs.

Figure 36 - An image of the completed design showing how the card inserts work.

Le Arti Orafe, Firenze (Florence)

Figure 37 - An image of the sign outside Le Arti Orafe Jewellery School in Firenze (Florence)

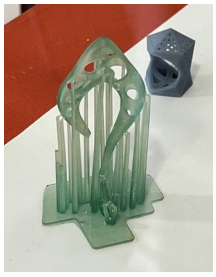
The Fellow's visit to Le Arti Orafe jewellery school in Firenze, Italy was to assist in the contextualisation of the role that jewellery and education plays within an Italian (and broader European) context.

The Fellow received a tour of the facility by Elisabetta Messini, who works in administration at Le Arti Orafe.

Le Arti Orafe was founded in 1985 by Gió Carbone and was the first Italian educational institution that dedicated itself to contemporary research and experimentation within the Gold and Silversmithing sectors. Le Arti Orafe was founded with the intention of sharing and disseminating knowledge of contemporary jewellery making. In the beginning, it offered a small selection of courses solely related to the Gold and Silversmithing trade, however, with its development and expansion, it now includes a plethora of additional courses related to Jewellery design from design inception such as CAD and digital design, to practical applications such as enamelling, stone-setting, electroplating, gemology and intaglio (gemstone engraving).

Figures 38 & 39 - Images of one of the practical workshops and the theory classrooms.

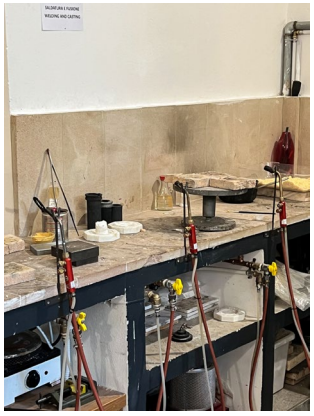
Le Arti Orafe offers a collaborative approach to learning within their educational facility, encouraging students to work with each other on both their theoretical and practical outcomes. Students are also encouraged to explore alternative materials within their jewellery designs. These materials range from other metals such as steel, to textiles and glass.

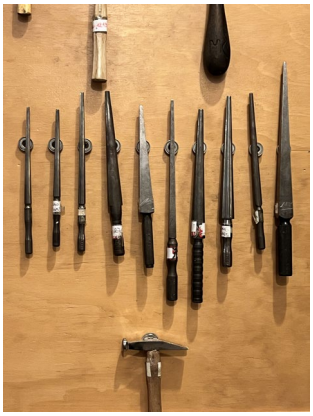


Figures 40, 41 & 42 - Images of student work displaying the different materials and techniques explored at Le Arti Orafe.

Le Arti Orafe offers both 2-year long courses, as well as short courses and summer programmes. These courses are taught by a combination of permanent instructors, as well as sessional and seasonal tutors to teach courses related to their specific skill sets in their fields.

In their traditional 2-year long course, students are required to engage in both theoretical research whilst learning practical traditional techniques. The first year of the programme sees students learn traditional Gold and Silversmithing techniques, whereas in their second year, they engage with their chosen research topic, applying their learnt skills within a contemporary research framework.

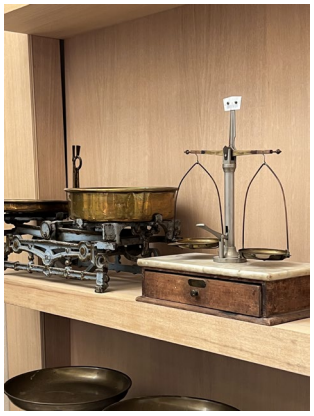




Figures 43, 44 & 45 - Images of a metal forming station, a soldering station and sizing tools (in order).

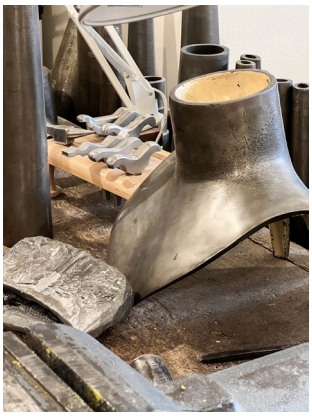
Le Arti Orafe has influence and presence within the Jewellery Design sectors both across Europe and globally, with a large proportion of students (around 60-70 percent) classifying as international students.

The Fellow's tour of the facility and discussion with the administrative team at Le Arti Orafe revealed the thriving educational community that exists within Firenze, which can be considered to be one of the leading European cities in contemporary Jewellery Design.



Figures 46, 47 & 48 - Examples of student work, the gemology classroom and weighing tools (in order).

The Fellow aims to return to Le Arti Orafe and enrol in one of their summer programs or short-courses, specifically to learn the art of intaglio and engraving. Attending Le Arti Orafe for these programs is imperative, as the level of craftsmanship and knowledge that the instructors provide is unparalleled anywhere else in the world. It is important to the Fellow to return and attend this facility particularly because no institutes within Australia offer courses relating to intaglio, and the few educational institutions specialising in Jewellery Design have very limited facilities to teach techniques such as engraving and electroplating.



Figures 49, 50 & 51 - Closeup images of metal forming tools.

Learning about how students are educated at Le Arti Orafe confirmed for the Fellow the lack of education that exists within the Australian Jewellery Design sector. Following this, the Fellow aims to theorise ways experimental research-based education can be introduced within Australian educational institutions, specific to Jewellery (and broader) design.

6AM Glass, Milano (Milan)

Figure 52 - An image of the Fellow outside the 6AM Glass facility in Milano (Milan).

6AM Glass studio located on Via Felice Romani in Milano, is a contemporary glass design studio by Edoardo Pandolfo and Francesco Palù. 6AM Glass creates a range of glass pieces ranging from large-scale installations to sculptural art pieces.

Edoardo, has a background in economics whereas Francesco has a background in architecture. The duo met while they were working in an art gallery, and eventually parted ways. Francesco went on to work at an architectural firm where a request for a custom chandelier from a client prompted Francesco to reach out to Edoardo. Edoardo, from Venice, was able to facilitate the fabrication of the custom work using his connections in Murano and his knowledge of the Venetian dialect. After the custom piece was complete, the duo acknowledged their ability to work together well and also realised there was a gap in the industry that connected designers to artisans; thus, the duo reunited and 6AM glass was founded in 2018.

Working mainly within the Art, Design and Architecture sectors, 6AM Glass have begun bridging the gap between designers and glass practitioners, resulting in an impressive body of work ranging from decorative pieces, experimental applications and functional wares.

Figures 53 & 54 - Examples of textures produced by 6AM Glass

While visiting Milan, the Fellow met with Ilaria from the 6AM Glass team to conduct an interview and visit their flagship studio in order to learn more about the studio as well as contemporary applications of glass within a contemporary Italian art/design context.

Ilaria provided profound insight into the applications of glass, the experimental nature of the studio and their role within the art, design and architecture sectors.

Figures 55 & 56 - Examples of a lighting design and glass sculptures produced by 6AM Glass (in order).

Ilaria explained to the Fellow that the gap between designers and glass artists within the art and design sectors is not insignificant, and that there is a great demand for highly skilled glassworkers to work alongside designers and produce bespoke, one-of-a-kind pieces.

The combination of technical design skills and practical glass skills is rare to find within a singular practitioner, thus, 6AM Glass works collaboratively with designers, glass artists and other studios in order to foster a community of makers that are becoming increasingly more connected with each other.

The Fellow's primary focus when speaking with Ilaria of 6AM Glass was to investigate the experimental nature of the studio, and the range of techniques and approaches they use when creating their pieces. Using a mixture of blown, cast and fused glass techniques, 6AM Glass' pieces are highly speculative, textured and firmly cemented in the contemporary design sphere.

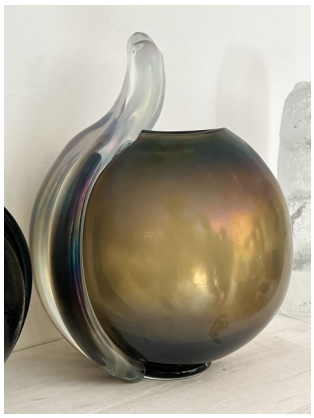
Figures 57, 58 & 59 - Images of functional and decorative wares produced by 6AM Glass.

What interested the Fellow particularly was 6AM Glass' experimentations with 3D printing glass. The benefits of 3D printing glass is something that is currently being explored by design studios around the world as a way to create glass designs in a more sustainable and less wasteful way. Using less energy, and creating less waste material, 3D printing glass is an interesting approach to sustainability within the glassworking sector, particularly as the costs of fuel such as gas and electricity are increasing annually. However, it is not without its limitations. Due to 3D printings recent applications to glass, the design aspects when printing are scarce. Design elements such as Sommerso and Murrine (to name a few) are unable to be achieved when 3D printing. This is due to the fact that most (affordable) 3D printers are only able to work along X, Y and Z axes and can only use a singular base material. This means that certain textures and colours are unable to be achieved using 3D printing. Ilaria stated that setting up a 3D printing studio is also quite expensive. Investing in the technology, materials and skills required to run such an operation is quite a substantial cost. Additionally, the setup requires a significant amount of space when wanting to create large-scale works.

Figures 60, 61 & 62 - Examples of a chandelier design, a closeup of the glass panels used, and decorative pieces produced by 6AM Glass (in order).

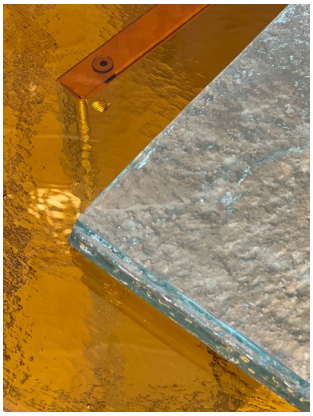
Ilaria spoke about 6AM Glass' experimentations with 3D printing glass, stating that it is an avenue that the studio would like to continue once they have become more established and have greater access to equipment and technology. Ilaria revealed that they had visited a glass studio in Northcote, Melbourne called Maple Glass, who are leading the charge in 3D glass printing within the Australian design industry.

Continuing the conversation around sustainability, Ilaria spoke about a glass studio located in London run by Lulu Harrison. Lulu Harrison is a glass artist and designer who is focused on the alchemy of glass, devising new recipes from waste materials in order to create more sustainable formulae for glass products. The types of waste materials that Lulu uses within their work comes from using ground oyster shells and experimenting with traditional glass composition in order to create new compositions of glass. This was particularly interesting to the Fellow, as he had previously wondered whether glass could be made from organic waste materials.



Figures 63, 64 & 65 - Examples of functional wares produced by 6AM Glass.

This discussion with 6AM Glass was invaluable to the Fellow and his continued research. The visit to their studio further informed his understanding of the role of studios such as 6AM Glass within the contemporary art, design and architecture sectors within Italy. The discussion also allowed the Fellow to draw parallels between the growing interest in sustainability that is present within the Australian sectors. Additionally, the visit with 6AM Glass increased his perception on the versatility of glass, and how different methods such as blown, fused, cast and printed glass each have their profound benefits and their limitations.



Figures 66, 67 & 68 - Examples of textures and experiments used in designs achieved by the 6AM Glass studio.

Finally, the discussion with Ilaria and 6AM glass has prompted the Fellow to research other studios working within the field locally and internationally. The interview has prompted the Fellow to contact Maple Glass in Northcote and organise a visit to further his research and reach out to Lulu Harrison in hopes to discuss their practice and what the implications of experimentation can yield for the future of sustainability and waste management within both the local (Australian) and global art and design sectors.

Collelli & Otterdahl, Murano (Venice)

Figure 69 - The outside of the Colleli & Otterdahl Studio in Murano (Venice).

Colleli & Otterdahl is a glass studio operating from the island of Murano in Venice. With a focus in lampworking and glass production, the studio was founded by Annette Otterdahl and her partner,Gino Collelli. Specialising in traditional Murano lampworking techniques, the studio has a tripartite function; as a production hub for ornamental design objects, as a design store, and as an educational facility.

Among the myriad of glass demonstrations and classes available in Murano, the aim of the Fellow's three day workshop was to develop practical approaches to the materiality of glass with a focus on the application of these techniques within their Silversmithing practice.

The three-day workshops are instructed differently for each student who comes to learn at the studio. For people like the Fellow, who have their own independent design and/or art practice, the workshops are typically informed by projects or outcomes that the student would like to pursue or achieve.

At Collelli & Otterdahl, their speciality lies within Lampworking and, more specifically, creating glass beads using traditional Italian techniques pioneered in Murano such as Murrine (Millefiori) and Sommerso. The Fellow was instructed by Annette on how to use these techniques and apply them, however, the Fellow's primary focus throughout the workshop experience was to create more abstract and sculptural forms using primarily clear or single coloured glass.

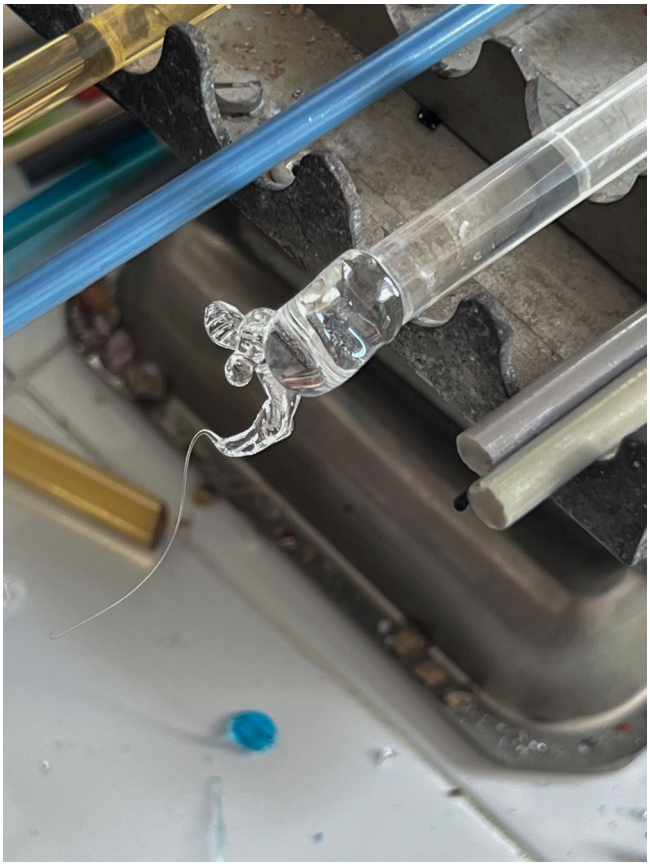


Figure 70 - An image of glass rods used in Lampworking and the abstract form the Fellow was exploring during his workshops.

The Fellow's reasoning for wanting to use predominantly clear glass was that clear glass, in a lampworking (and glassblowing) context, can be recycled and reused more easily than coloured glass. Glass that has had coloured added using frit is not recyclable within a studio environment due to health hazards that arise from the oxides and metals that give the frit their colours.

Figure 71 - Examples of coloured frit used when adding colour to clear glass.

Annette explained to the Fellow that the reason why clear glass is able to be recycled within a studio environment, is not only because it has not been contaminated by coloured frit, but also because clear glass has unique thermodynamic properties that make the recycling process easier to control. Annette also stated that some coloured glass, such as green or brown glass (typically used for bottles) can also be recycled.

The process of recycling glass within a studio environment does require specific equipment, most importantly, a kiln. After use, the 'waste material' glass is broken down into small pieces and placed in a mold. For Lampworking, this mold would be in the shape of a cylindrical rod. The mold is then

placed in the kiln and fired at the appropriate temperature. This method of recycling is easier to use with softer glass such as Soda-Lime glass rather than Borosilicate glass, as the melting temperature of Lime-Soda glass is lower than Borosilicate. However, if a kiln that has the capacity to reach higher temperatures is used, then the same process can be used with Borosilicate glass. There are considerations regarding the success of this method, one of them being dependent on the type of mold that is used. If a mold that absorbs too much heat is used, the material may not get hot enough to melt and cast completely.

On the first day of the workshop, the Fellow was introduced to basic Lampworking materials, tools and techniques. The Fellow was instructed to select his glass which, in Lampworking, predominantly comes in cylindrical rods known as 'Cane' of differing diameters dependent on the desired piece one would like to produce.

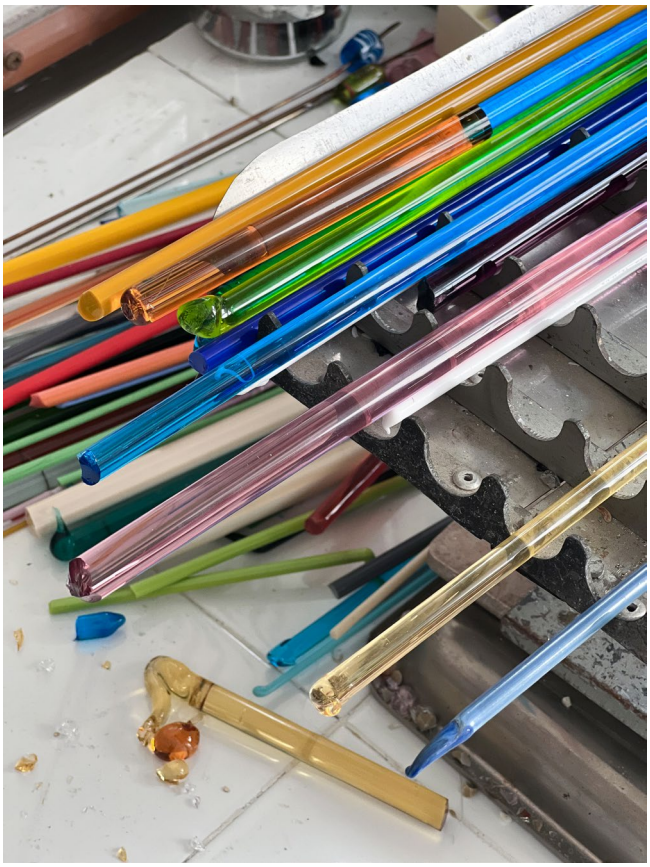
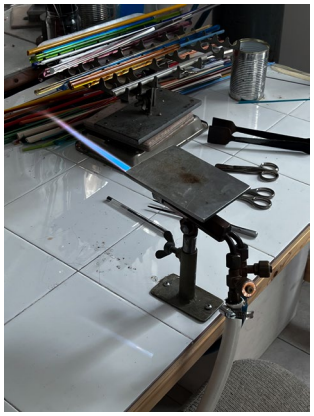
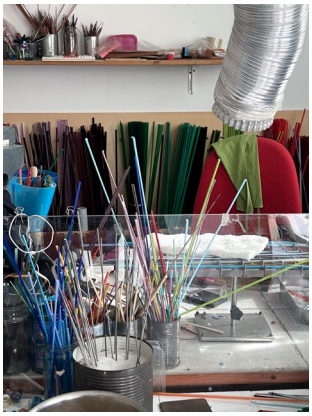


Figure 72 - The coloured glass rods (Cane) used when Lampworking.

Next, the Fellow was introduced to the tools that he would be using throughout his time at the studio. These tools consisted of Glass Shears, Punties, Marvers, Jacks, Tweezers, Mashers, Steel Rods and a torch that was secured to the bench and required both Oxygen and Propane gas as fuel. Additionally, safety equipment was outlined and provided for the Fellow including Sunglasses and an Apron. Annette's studio had fume extractors, so a fume mask was not necessary in this case.





Figures 73, 74 & 75 - Images of the Oxygen/Propane torch, the fume exhaust in the studio environment, and the shears and mashers used when Lampworking (in order).

Following the introduction to the tools, the Fellow was given a demonstration by Annette on how to prepare the materials before working with them. Firstly, the torch is lit using propane gas only, and then oxygen is added to the flame using a dial in order to achieve a hotter flame suitable for glasswork. After, the selected glass rods are placed on an elevated metal tray and placed close to the flame so they can warm. The reason for this is so that when the rods are placed in the flame, the amount of thermal shock is significantly reduced, and the chance of the glass shattering is much less.

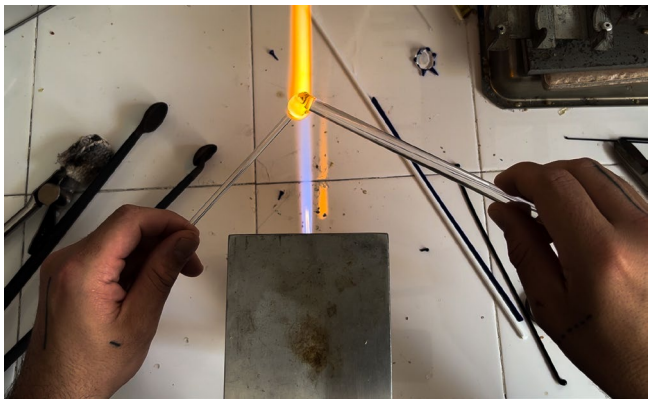
Next, the Fellow was instructed on how to begin forming with the glass. First, the Fellow placed the tip of the glass rod into the ‘soft’ section of the flame which denotes the section of the flame that is less hot. The reason for this is to allow the glass to become malleable more slowly, rather than overheating and falling off the glass rod.

With one end of the glass rod in the flame, and the other end in the Fellow’s hand, the Fellow was instructed to twist the rod using their hand while working with the glass. While hot glass is being handled and formed, it must be twisted or spun constantly by hand to keep the glass on centre and suitable for working. This process is similar to centring clay in ceramics.

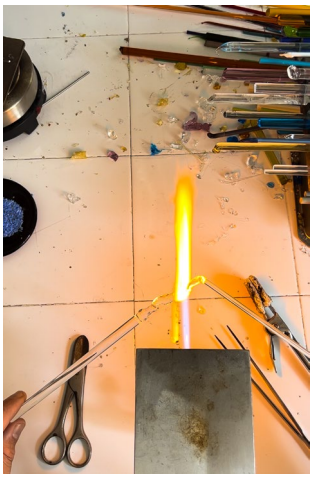
Figure 76 - The Fellow heating the end of a brown glass rod, preparing it for working.

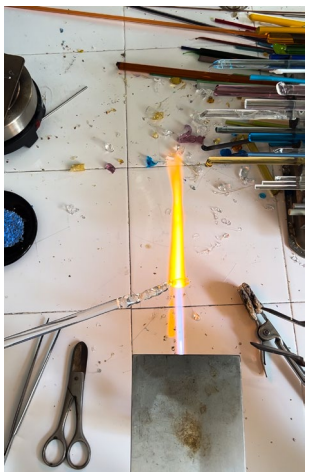
Once the glass is hot enough to work with, the Fellow began to use the tools provided in order to shape the abstract forms he desired to produce under the guidance of Annette Otterdahl.

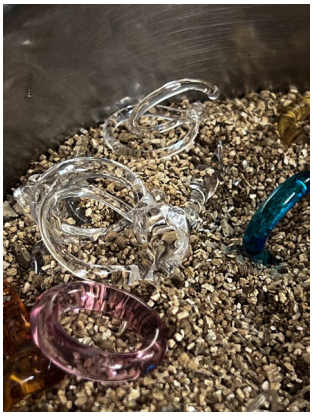
As the Fellow was primarily researching how glass can be used within his contemporary jewellery context, he was interested in applying his intuitive and responsive way of making to lampworking. This resulted in the creation of abstracted sculptural forms by using parallel mashers and tweezers to pull, flatten and twist the glass. After each piece was formed, the Fellow used insulated pliers to hold the hot piece of glass and place the section of the piece still secured to the glass rod back into the flame. With the section of the piece attached to the rod back in the flame, the Fellow began to pull and twist the rod away from the formed piece, causing the rod to completely separate from the piece. The reason for using insulated pliers is because the piece is too hot to handle by hand, and using steel tools will create too much thermal shock and cause the piece to crack. The Fellow then placed the finished piece into a metal tub of vermiculite which can be used to anneal small pieces of glass.



Figures 77 & 78 - Images of the Fellow heating and combining two rods of glass and then using mashers to shape and twist into an abstracted form (in order).







Figures 79, 80 & 81 - Images of the Fellow creating abstract forms using two rods of glass, flashing his piece to maintain a consistent temperature, and his crafted pieces annealing in vermiculite (in order).

Once he was familiar with the tools and techniques, the rest of the Fellow's time at Collelli & Otterdahl was spent transferring specific techniques from his silversmithing practice to his lampworking experience. This culminated in the desire to create chain elements from glass. In order to create these pieces, two glass rods were heated, one in each hand. The ends were joined by the Fellow by placing them in the flame while turning both rods in his hands to keep the molten glass centred. Once the glass was hot enough, the Fellow removed the hot glass from the flame and waited until the glass was slightly cooler. The Fellow then pulled each rod away from each other, resulting in a molten strand of glass joining the rods. The Fellow then slowly pulled the rods further apart to assist in creating a length of glass that was even and symmetrical.

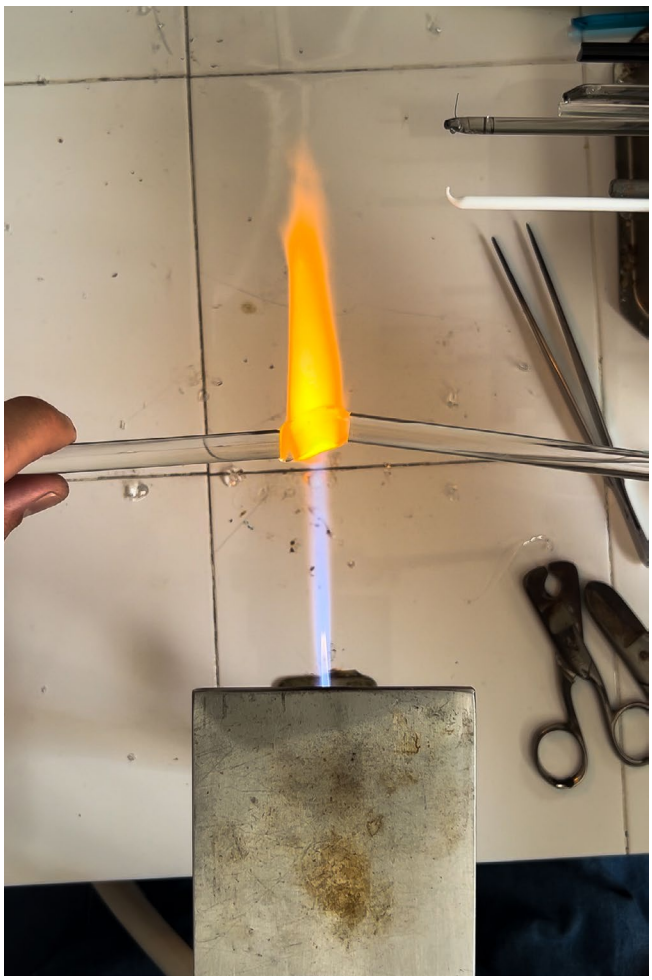


Figure 82 - An image of the Fellow preparing material for the formation of a circular glass link.

Next, the Fellow then quickly wrapped the strand of glass around a steel rod secured to the bench to create an oval link, making sure to connect the ends. Then, using a pair of insulated pliers, the Fellow carefully grasped the link and placed it back into the flame, getting it hot enough to pull the glass rod away from the formed piece. Once the rod had been separated from the finished glass link, the link was placed back into the flame in order to smooth any marks made from the tools and create a smooth, seamless join all around the piece. This process of reheating is called 'Flashing'. This entire process is a very delicate one, and is extremely time sensitive. One must work within a very small window of time to ensure the glass doesn't cool enough to create thermal shock and crack.

Figures 83, 84 & 85 - Images of the Fellow forming the link using a secured steel rod, inspecting the glass link and using insulated pliers to remove the glass rods from the formed link using heat (in order).

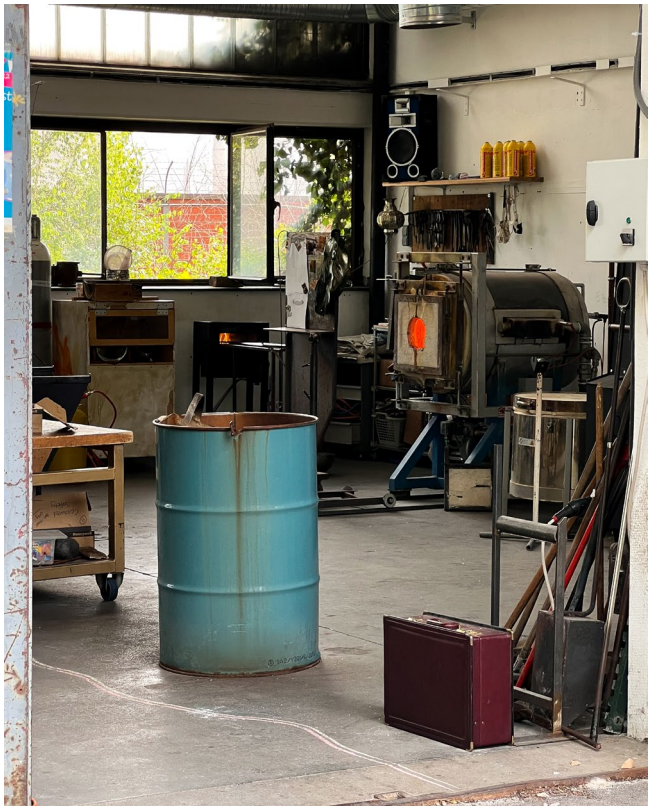
The Fellow's time spent at Collelli & Otterdahl was invaluable to his research surrounding the applications of glass within a sustainable contemporary jewellery context. He was shown techniques that he could use within his own practice and was given strong foundations which, after more practice, will enable him to teach others within his industry.

Figures 86, 87 & 88 - Examples of the work produced by the Fellow in his workshops.

It was imperative to the Fellow's research that he visited Murano in order to research Lampworking techniques. Although lampworkers do operate out of Australia, the community is disparate and sparse, and not many practitioners teach these skills. Additionally, the level of experience and mastery over the Lampworking craft that exists in Murano is unparalleled by anywhere else in the world, with skills that have been passed down for centuries.

Lastly, his experience at Collelli & Otterdahl showed the Fellow what he would need in order to continue his research within his own studio environment, particularly when it comes to recycling material within a small-scale Lampworking practice.

Berlin Glassworks, Berlin

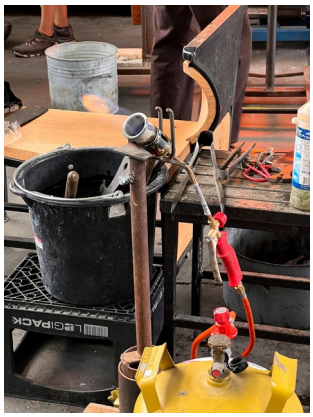


Figures 89 & 90 - Images of the outside of Berlin Glassworks and part of the interior of the hotshop.

Berlin Glassworks is a glass studio located in Provinzstraße, Berlin, Germany where the team is dedicated to bridging the gap between old traditional glassworking techniques and new glass technologies. Berlin Glassworks is a well-respected and renowned glass hotshop across Europe that has hosted and honed the skills of many leading glass artists/designers worldwide.

Berlin Glassworks' main function is a space for people to gather and learn in a community environment, and serves as a space for both emerging and established artists/designers to create work. Additionally, Berlin Glassworks serves as an educational facility for artists/designers of different skill levels, from people at the beginning of their glasswork journeys to well-seasoned practitioners within the industry. Furthermore, Berlin Glassworks offers a residency program for both local and international practitioners, allowing these artists/designers to synthesise bodies of work and test techniques while using the extensive facilities and knowledge available at Berlin Glassworks.

Figures 91 & 92 - Examples of pieces made by the artists working from Berlin Glassworks.

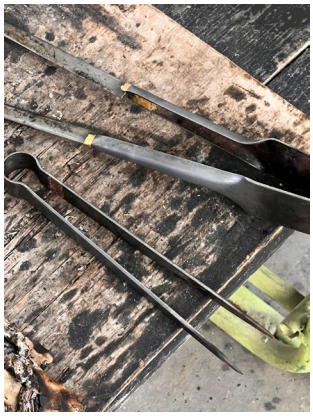


Figures 93 & 94 - Images of a quenching bucket used to cool tools and a blowtorch used when sculpting glass.

Prior to his overseas research, the Fellow enrolled himself in a day-long workshop at Berlin Glassworks in order to continue his exploration in the material properties and applications of glass. Unlike his time at Collelli & Otterdahl, the Fellow's primary focus while learning from Rudy Faulkner was to gain more experience in a glassblowing environment rather than lampworking. Another difference between the Fellow's experience with Collelli & Otterdahl and Berlin Glassworks, was the teaching methods that they employed.

As mentioned previously, Collelli & Otterdahl employed a project-based teaching style, where the student was able to learn skills based on projects or outcomes that they were trying to achieve. Conversely, at Berlin Glassworks, the teaching style was firmly based in facilitating technical knowledge and skills applicable to working with glass within a hotshop environment. It was Rudy's (very salient) reasoning that knowing and practising these techniques would assist the student in their work, regardless of what the application of the techniques are. Subsequently, the skills the Fellow learnt were technical, application-based, and furthered his knowledge in regards to blowing glass.

Firstly, the Fellow was reminded of the importance of preparing the tools required for blowing glass. Rudy showed the Fellow how to heat the punties and blowpipes in preparation for work, and gave him a walkthrough of the tools used for handling and shaping the molten glass after it had been gathered from the furnace. The tools used within this day-long workshop were Punties, Jacks, Blowpipes, Paddles and Marvers. Rudy also reminded the Fellow of the proper way to sit and work at the bench after the glass had been gathered, which is not only a helpful tool when properly working with glass, but also a safety requirement for all people working in the hotshop.



Figures 95 & 96 - Images of the small furnace used to warm the punties and blowtorches, and an example of the jacks and tweezers used in Glassblowing.

The main skills learnt during the Fellow's time at Berlin Glassworks were rudimentary, but nonetheless pivotal to expanding one's practice at the beginning of their journey when glassblowing. The Fellow was instructed on the correct way to gather molten glass from the furnace, holding the blowpipe downward into the furnace at a 45-degree angle while slowly rotating it (the blowpipe) in his hands. The role of slowly rotating the blowpipe is important when gathering material, as the slow centrifugal motion allows the material to adhere to the end of the pipe more effectively.

The Fellow was then instructed on how to release material back into the furnace if he had gathered too much. The Fellow was shown the most efficient way to do this by lifting the blowpipe or punty out of the molten material while still holding the blowpipe within the furnace at a 45-degree angle, while continuing to rotate the blowpipe in his hand, the molten material, submitting to both gravity and centrifugal force, would slowly drop off back into the molten glass at the bottom of the furnace.

Next, the Fellow was shown the best way to shape the molten material in order to prepare it for glassblowing. The Fellow was instructed to remove the gathered material from the furnace and (quickly) walk it over to the marver which, in this case, took the form of a polished steel surface attached to the top of a steel frame. The Fellow was aiming to achieve a conical shape when shaping the material, and was able to accomplish this by lightly rolling the molten glass forwards and backwards at a 45 degree angle against the marving surface. Holding the blowpipe at this angle caused the molten material to move downwards, while the rolling motion allowed for the material to be shaped simultaneously. The result of the combination of these techniques culminated in a smooth, conical shape at the end of the blowpipe. Rudy instructed the Fellow to do this at least 10-15 times, ensuring that the Fellow could achieve this result quickly and consistently before following onto the next stage. After each attempt at gathering and shaping the material, the Fellow would quench the hot material into a glass bucket, causing it to fracture and break off the blowpipe, so it could be recycled for future use.

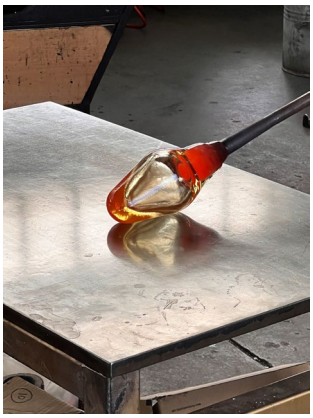
Figures 97, 98 & 99 - A drawn example of the desired shape, an image of the gathered material from the furnace, and the scrap waste bucket (in order).

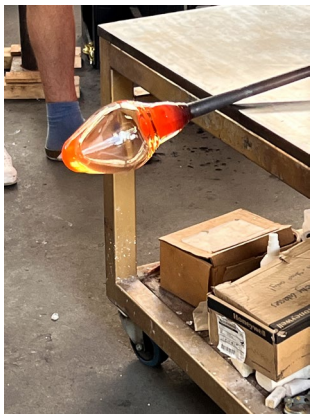
Following the gathering and shaping exercise, the Fellow was instructed on the best way to create the initial bubble of air within the molten glass. Rudy showed the Fellow the easiest way to do this by using a blowpipe that was blocked with cold glass at the opposite end from where the airflow enters the pipe. Rudy explained why this was important with a demonstration. While rotating the blowpipe and holding it at a downward angle, Rudy blew a strong and sharp gust of air into the pipe and then quickly covered it with his thumb. Rudy then lifted the blowpipe at an upwards angle while continuing to rotate it. Rudy held his thumb over the blowhole for 10 seconds and then released it, letting the trapped air escape out of the blowhole with a hissing sound.

Rudy explained it was important to be able to hear the air escape after this exercise so the Fellow could understand that the air was properly trapped with the tube. When applying this technique with molten glass on the other end of the blowpipe, the pressure of the trapped air within the tube would allow an initial bubble of air to expand within the molten material, making it easier to expand later.

The Fellow was instructed to practise this technique repetitively until he was able to hear the air escape 10 times in a row before he could attempt this with molten material on the other end of the blowpipe.

When the Fellow had completed this exercise, he was able to practise using molten material, combining the first gathering exercise with the second blowing exercise. The combination of these exercises resulted in a conical shaped length of molten material with a bubble of air encased in the middle of it.





Figures 100 & 101 - Examples of using the marver to shape the molten glass by rolling it backwards and forwards.

After this, the Fellow was instructed to reheat the material in the gloryhole to prepare it for more blowing and shaping, this process of reheating the material in the gloryhole is known as ‘flashing’.

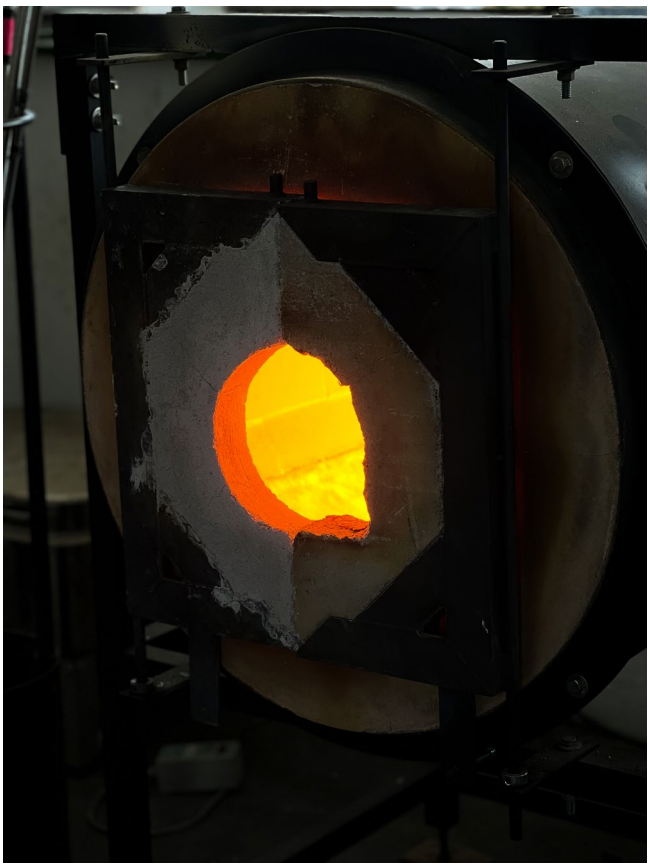


Figure 102 - An image of the Gloryhole at Berlin Glassworks.

Once the material was at a workable temperature, the Fellow was shown how to increase the size of the air bubble by holding the blowpipe on a downward angle and blowing more air into the blowpipe. The Fellow was not required to place his thumb over the mouthpiece this time, as the tension in the material was already broken by the formation of the first bubble, meaning the bubble was able to easily expand with the introduction of more air.

After the air bubble was at the desired size, the Fellow flashed the piece again, before removing it from the gloryhole and returning it to his bench to continue shaping with a cork paddle. The Fellow was instructed to hold the paddle at a 45 degree angle with the length of the paddle shielding his forearm from the heat of the glass. The Fellow then lightly pressed the paddle against the molten glass, while rotating the blowpipe to ensure the material stayed centred and was evenly shaped against the paddle.

Once the desired shape was achieved, the Fellow used jacks to create a line in the material by pressing the blades of the jacks into the glass. This line acts as a fracture point where the piece can be broken off from the blowpipe once the blowing process has been completed. The piece is then placed into the annealer so it can be slowly cooled down to avoid cracking.

Figures 103 & 104 - Images showing the expansion of glass when adding more air.

The Fellow’s time spent at Berlin Glassworks furthered and expanded his knowledge of introductory glassblowing techniques within a hotshop environment. Importantly, it showed the Fellow that it is possible to work independently

within a hotshop rather than working alongside assistants. The skills and techniques that the Fellow was shown how to use are applicable to his continued research into working with glass and was encouraged by Rudy to apply for the residency program once he had honed his skills further.

The importance of visiting Berlin Glassworks was not only to witness how such a well respected institution operates within the cultural and contemporary art capital of Europe (Berlin) but also to form and foster a relationship with the institution for future endeavours and continued research.

04

Personal, professional, and sectoral Impact

Personal Impact

The personal impact that the Fellowship had on the Fellow was substantial. The research that the Fellow conducted in (predominantly) Italy allowed him to gain confidence in his abilities to navigate, learn and educate within both a linguistic and cultural context. After his month-long stay in Italy, the Fellow was able to speak Italian at a proficient level within a working environment, and conduct interviews in Italian with greater ease and confidence.

The Fellow's time overseas connected him with like-minded individuals who, after showing sincere interest and appreciation for his field of work, began to ease the Fellow's constant feelings of imposter syndrome within his industry. The techniques they learned whilst conducting their research has provided the Fellow with a new understanding on the realities of sustainable production using new materials and practices. The Fellowship has also provided the Fellow with a strong base knowledge of the materialities of glass and leather, and has allowed him to realise the applicable possibilities of these materials within the craft, art and design sectors.

Additionally, the Fellowship has allowed the Fellow to fully realise his potential role as a facilitator of education within his industry, and his ability to contribute to Australia's sustainable design movement.

Professional Impact

The Fellowship has given the Fellow the skills and experience in order to pursue the direction that he desires to take with his own design practice. The knowledge regarding tools, processes and techniques relating to glasswork and leatherwork that the Fellow acquired will allow him to both work and educate within a jewellery and design industry level. Additionally, the Fellow will be able to apply his research into the material properties of glass and leather to the area of design sustainability by testing his own ideas regarding waste management and recycling.

The skills and knowledge that the Fellow has investigated during his research places him in the position to lead and reform the landscape of jewellery design within Australia utilising traditional Italian craft processes. Visiting and working with established design studios overseas has allowed the Fellow to implement these workplace models into his own professional and artistic practices. Simultaneously, working with these establishments has given him insight into the lack of education in industries such as glass and leatherwork in Australia, and his role as teacher and leader within the Australian design sector.

Broader Sectoral Impact

Succeeding the Fellowship, the Fellow has acquired skills in the fields of glass and leatherwork in a jewellery specific context. The Fellow is now positioned to lead contributions and education within his sector, and offer his skills and knowledge to relevant organisations within the Australian jewellery and design sectors. Before his research, the Fellow had limited experience and knowledge when working with glass and leather. Now, the Fellow has the ability to facilitate and disseminate his knowledge around lampworking production and basic leather repurposing within a sustainable design context.

The ability to galvanise, encourage and facilitate conversation within his industry is another sectoral impact of the Fellow's research. In Australia, practitioners in the jewellery and design industries are becoming increasingly protective of sharing knowledge and processes with others. This desire to gatekeep information has become detrimental to the success of the sector as a whole, and inhibits the communal flourishing of designers and artists working within the jewellery and design industries. The Fellow has now realised his role as coordinator and educator within his sector, allowing him to begin dismantling these barriers and promote a communal, shared goal for success.

Prior to commencing his research, the Fellow was always unsure of his role in his sector as someone who is self-taught in his craft. Following his research, the Fellow is inspired to become a mediator between the self-taught and 'traditionally' educated practitioners within the jewellery and design industry. Following his research, the Fellow has maintained relationships with studios such as ZeroLab and Collelli & Otterdahl. Fostering international ties between Australia and Italy with hopes of collaboration and education between cultural sectors is another sectoral impact.

05

Recommendations and Considerations

Following his research, the Fellow has a number of recommendations and considerations relating to his time in Italy. These subsequent considerations are applicable to the Australian art/design industries and are centred particularly on education, community and sustainability within these sectors.

1. The improvement of community within the Australian Contemporary Jewellery design sector:

Increasing the amount of communication, sharing and collaboration within the Australian Contemporary Jewellery design sector is instrumental to its ability to flourish. Particularly within the younger generations of designers, the sector has become increasingly cliquey, difficult to integrate into, and unwilling to share information with each other. These factors make the potential for the Australian Jewellery design sector remain unrealised. Contrasting this, Italian (and broader European) design communities are built on community and collaboration. During his time visiting facilities such as ZeroLab and Le Arte Orafi, the Fellow witnessed the benefits of community within a craft context. The result of spaces for craftspeople to commune and collaborate is formed in new ideas, new connections and new ways of making. These collaborative spaces allow for organic facilitation of both theoretical and practical information, culminating in sectoral innovation, prowess and success. In Australia, there is great need for more sharing of information, resources and skills between practitioners within the contemporary (jewellery) design industry in order to allow us all to succeed alongside one another, rather than struggle against each other.

The Fellow strives to act as a facilitator of knowledge within the Australian Contemporary Jewellery sector, beginning to unite the community by starting an organisation for jewellers to share, collaborate and connect within Australia. This organisation will aim to distribute knowledge throughout the community by hosting workshops and seminars that will include both theoretical and practical skills which will be led by Jewellers/ Designers who are leaders in their respective techniques.

2. The research of waste materials and their applications within Jewellery (and broader) design:

With an increased sectoral interest on the relationship between ways of making and materiality, experimentation with unconventional materials within design is at an all time high. This push toward unconventional materials in design has largely been prompted by an increased awareness of sustainability and material waste output from the art/design industry. During his visit to ZeroLab in Firenze (Florence), the Fellow witnessed how waste materials can be (re)utilised within the creative process. Being shown how to create functional design objects out of small amounts of waste material has allowed the Fellow to speculate on how waste materials from his own practice can be experimented with in similar ways. Additionally, the Fellow's discussion with 6AM

Glass in Milano (Milan) has furthered his curiosity into the potential of waste materials after being shown how other designers across the globe are responding to the prompt of waste and recycling within a creative practice.

The Fellow aims to continue his research and experimentation with materials within his own design practice. Through ongoing investigation, the Fellow will aim to synthesize materials that can be used within an art/design practice by examining the transformative properties of 'natural' organic waste materials. To begin, the Fellow aims to contact other designers already working within these fields such as Lulu Harrison who is making glass from organic materials such as Oyster shells and other organic materials.

3. Improving the quality of non-institutional based learning within the Australian Contemporary Jewellery design sector:

For many Jewellery designers (and by extension, designers working in other fields) the skills, techniques and knowledge available to them outside of institutional based learning such as universities or TAFE is sparse and largely inaccessible. There is not only a desire for these skills to be available outside of the aforementioned institutes, but also a need for these skills to be generally more accessible for the development of the (jewellery) design sector within Australia. Obviously, it is important for highly skilled educators to be operating within tertiary education environments, however, it can be argued that it is equally important for skilled educators to be facilitating knowledge outside of these institutions. Simply, this is due to the fact that tertiary education is not accessible to the majority of people wanting to study or learn these skills. During his time at Collelli & Otterdahl in Murano (Venice), the Fellow was able to experience how important the role of education is outside of an educational institution. The importance of studios such as Collelli & Otterdahl lies in their practical approach to learning and the accessibility of their education. In these studios, master craftspeople share their knowledge and skills with practitioners through intensive workshops focused on outcome-specific based teaching. Studios such as Collelli & Otterdahl, that allow students to selectively explore specific skills and outcomes, have created a diverse and skilled industry of craftspeople. This is something that the Fellow has realised is greatly lacking in Australia.

The Fellow strives to bridge the gap in knowledge between tertiary and other modes of education. After continuing his research in Australia and honing his skills, the Fellow will hold workshops in his own studio in order to disseminate, facilitate and pass on the skills he learnt while overseas researching glass and leather. This is pivotal to the development of the (jeweller) design sector within Australia as it creates a level of accessibility to those who do not qualify, or simply do not have the desire to embark on a 2-3 year journey to learn skills that can be taught outside of a tertiary education environment.

4. The breadth of subject-matter within Australian educational institutions must be improved:

Within Australia, the level of education available to students studying jewellery design is limited. Tertiary institutes offer courses with specific focus on basic skills required to work within the (jewellery) design industry. Techniques such as soldering, casting and enamelling are offered within courses available , however, if one has the desire to explore aspects of design using unconventional jewellery materials such as leather or glass, the options available are disparate, expensive and geographically sparse. For example, to learn to work with glass within a tertiary educational environment, one must travel to either Canberra or Adelaide to seriously pursue these studies. Although institutes in Melbourne have the facilities to teach these materials, they lack instructors to synthesise course programs and facilitate the teaching of these subjects within a university or TAFE context. During the Fellow's visit to Le Arti Orafe, he was overwhelmed by the breadth of subjects and courses offered within their educational programmes. Following this, the Fellow

speculates that offering a wide range of industry specific subjects to students has contributed to Italy's reputation as one of the leading countries in jewellery design and manufacturing. Furthermore, the lack of this breadth of education (and facilities) within Australian jewellery schools has not allowed the Australian contemporary jewellery design sector to flourish, causing practitioners to have to invest in travel in order to upskill.

The Fellow aims to increase awareness of this lacking within the educational institutes that exist within Australia. Initially, the Fellow will email and contact these institutions to better ascertain why this lacking exists. Additionally, the Fellow will encourage his peers within the industry to follow in his steps and make the desire for the teaching of these skills known to the leading educational facilities within Australia.

5. Continued research in the form of remote interviews:

Whilst conducting the travel portion of his research, the Fellow was unable to meet with all studios and faculties that he desired to due to timing and last minute schedule changes. The desire to further his research and include these studios in future theoretical work remains unchanged. One studio in particular is WAVE Murano, which held an open studio workshop for Murano Glass Week with a focus on practical sustainability in glass.

The Fellow aims to conduct an interview via zoom or email with WAVE Murano in response to not being able to meet with them whilst on the travel portion of his research. Having already commenced communications with this studio, the Fellow's questions are centred around the studio's sustainable practice specifically, and enquire about the role of sustainability within the broader Italian glass sector. Having access to this information is imperative to understanding the gap between the Australian and Italian glass sectors, and will provide insight into how the Fellow can begin to bridge this gap through sharing his research and educating practitioners within his field.

6. Initial presentations of Fellowship research:

Since returning from his travels, the Fellow has organised opportunities to present the initial findings of his research to the Australian (jewellery) design and art sectors. Some of these opportunities have already occurred, whereas others will be commencing at the beginning and middle of next year.

In September, shortly after returning back from the travel portion of his research, the Fellow was invited to attend Sydney Contemporary, which is a week-long art fair that showcases the talents, skills and techniques of practitioners that are working within the art industry. In collaboration with Arts Matters, the Fellow participated in a conversational presentation at Carriageworks where he spoke about his practice, his Fellowship research and his initial findings from his travels.

Additionally, the Fellow has organised a physical body of work showcasing the skills and techniques he learned while on his travels via Craft Victoria's VITRINE programme. The exhibition titled 'Cercare/ Trovare' will be held in Craft Victoria's Vitrine gallery from May 15th - June 15th 2024.

Alongside the physical exhibition, the Fellow has been invited to speak to the students at the University of South Australia in collaboration with JamFactory. This presentation/conversation will be centred around the Fellow's Fellowship research, his findings and their potential and limitations. This presentation will be recorded and adapted into a podcast episode for JamFactory's online platform.

Disseminating Research

Following his research, the Fellow strives to share his findings through three main channels.

1. Professional Development

The Fellow's investigation into glass and leather has already had a profound effect on both his creative and professional work. Since returning from his travels, the Fellow has developed his first body of work featuring the lampworking processes he investigated while in Murano. The Fellow created a collection of work combining his silversmithing process with his new lampworking techniques. This body of work was the Fellow's first exploration combining these two sets of skills within a contemporary jewellery context. The collection consisted of necklaces, bracelets, earrings, and rings, combining chain making techniques that feature a mixture of both silver and glass.

Since his return, the Fellow has invested in equipment to further his lampworking studies within his own studio, to practise and progress his skills. The result of this expansion in equipment continued research will explore and experiment with the intersection between lampworking and silversmithing. The future bodies of work that the Fellow aims to explore will traverse beyond the contemporary jewellery sector. The Fellow aims to create pieces that explore other areas of design such as lighting, while creating sculptural pieces for the Fellows visual art practice.

Additionally, the Fellow has begun further research into using leather as a packaging material for his pieces. The Fellow has begun prototyping a drawstring pouch using the scrap leather material provided by ZeroLab during his visit. In the future, the Fellow aims to alter the designs of these pouches based on the availability of waste leather materials.

2. Teaching & Community

Following his experience in Italy and Germany, the Fellow has considered the role that teaching, and education will play in sharing his findings.

The Fellow aims to hone and practise the skills learnt throughout his Fellowship research and present them within both theoretical and practical frameworks. Through hosting workshops at his studio, the Fellow will disseminate knowledge within his immediate network of peers, passing on his skills and techniques to encourage other designers to experiment with the materials and processes specific to glass (specifically, lampworking) and leather.

The Fellow also strives to create a collaborative learning environment from within his own studio, inviting designers, artists and makers to create work using processes and equipment otherwise inaccessible to them. The result of this is to combat the oppressive gate-keeping environment that is prevalent within the Naarm (Melbourne) design scene. By creating a collaborative and welcoming environment, the Fellow will not only be able to share his research findings in a practical way, but also create an element of community that is lacking within the local design sector. This community-based mode of sharing knowledge and resources is an ideal that is commonplace in the studios and organisations that the Fellow visited on his travels, from high-profile educational institutes such as Le Arti Orafe in Firenze (Florence), to practical studios and workplaces such as ZeroLab and Berlin Glassworks.

Furthermore, the Fellow has been invited to be interviewed on the SBS Italy radio programme and talk about his practice and his Fellowship research. This interview will be broadcasted to the wider Italian-Australian community allowing listeners to learn about the Fellow's research into glass and leather, and how these materials and their respective fabrication processes can be implemented within contemporary design. This opportunity will also allow the Fellow to connect further with the Italian community within Australia, and step forward as a representative of both the contemporary (jewellery) design sector, and the Italian cultural sector.

3. Industry/Sectoral

The dissemination of the Fellow's research into the broader art and design sectors has already begun to take place. Since returning from the travel portion of his research, the Fellow has applied and been accepted to present a physical body of work showcasing the skills, techniques and materials that he studied during his travels. The Fellow's showcase will take the form of a small-scale exhibition, exploring the potential and limitations of glass and leather within a contemporary (jewellery) design context. This body of work will be showcased by Craft Victoria, which is a leading institute in Australia for all craft-based practices, and will be on display for one month (May 2024 - June 2024) in their VITRINE gallery space. This exhibition will provide the Fellow with a chance to visually present his research to not only his immediate industry peers, but also to the wider craft community constantly visiting Craft Victoria.

Additionally, the Fellow has been invited by JamFactory (Adelaide) to present his findings to students at the University of South Australia as a guest speaker. This opportunity will allow the Fellow to circulate his research to the wider art and design community and pass on his findings to the next generation of practitioners entering the sector. This opportunity will be particularly impactful to the Fellow's role and position within the Australian contemporary (jewellery) design industry and assist the Fellow in being perceived as a leading practitioner within his sector.

Furthermore, the Fellow intends to create an organisation to promote the community of designers working within Australia. This organisation will act as a resource for designers (specifically working in jewellery) and will begin bridging the gap between established artists/ designers and emerging practitioners. The Fellow intends the organisation to host both physical and virtual workshops and discussions, focusing on a variety of aspects of the creative process. The organisation will facilitate upskilling workshops, creative business seminars and sustainability discussions with a strong focus on (but not limited to) jewellery design.

06
Conclusion

Proceeding his research, the Fellow aims to continue his research into the material applications of glass and leather within a contemporary (jewellery) design context within Australia. Specifically, the Fellow will continue to probe, experiment and explore how these materials and learnt techniques can be applied in regard to sustainable ways of making. The Fellow's initial goal will be to trial these skills within his own art and design pieces and study ways these materials can be combined within his existing Gold & Silversmithing practice. With an increased understanding of these traditional Italian craft techniques, the Fellow aims to create objects that reflect his own unique Italo-Australian cultural outlook. Additionally, the Fellow strives to assume the role of teacher and facilitator of knowledge within the design sector, specifically in Contemporary Jewellery Design, and explore ways knowledge can be increased both within tertiary curriculum as well as outside these educational faculties. Furthermore, the Fellow is pledged to highlighting the role of community and collaboration within his sectors, utilising craft as a way to connect to other practitioners through the dissemination of his Fellowship research.

07
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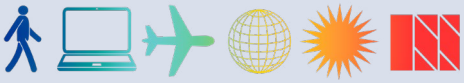

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