



Research Respond Create

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You're Worth Your Weight in Plastic

If you had to carry all the waste plastic you encounter every day, would you be more conscious of your plastic consumption? Ireland is the EU's largest per capita producer of plastic waste at 73 kg per year. This is more than twice the EU average and data has shown that Ireland faces a stagnation when it comes to the percentage of the population who are recycling. In the next decade, Ireland's last three landfills will have reached their rubbish capacity and so we must face issues regarding our ever-growing waste problem. Our work seeks to focus viewers on their own consumption as well as to visualise what life could be if we lose the privilege of neglecting our waste problem.

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Artist Profile



Chloe graduated from NCAD in 2020 with a BA in Illustration and a Certificate Psychology from ICHAS. Her work involves a variety of mediums including illustration, oil painting, watercolours, sewing, embroidery, and knitting. Since graduating from NCAD she runs her own business (imanirishillustrator.com) and has commissioned several pieces of artwork. She contributes to numerous community initiatives. Her work she discusses themes of religious oppression, media censorship, women's and LGBTQ+ rights, nature and history.



Before undertaking the Professional Master of Education at NCAD, Maria completed her BA in Visual Art in SETU. Her work to date has focused on life, love and loss - where the art endeavours to translate the relationship between balance and confusion, testing autobiographical ideas allowing for honest reflections. The organic nature of Maria's process creates an expressive honesty which suggest the many highs, lows and in-betweens of life.



Ian Morrison is a ceramic artist who graduated from NCAD in 2023 with a BA in Applied Art with Critical Cultures. Ian's work is concerned with ideas of temporality and the fleeting, exploring ideas of impermanence and the irreversible, as well as a strong interest in visual culture. Oftentimes forms are inspired by organic coastal material, with a specific focus on seaweed, molluscs and anthozoa.

Responding to the brief



The starting point for our groups initially revolved around the work undertaken in the creation of our photo books. On reflection of the 'Space, Place, Time' photo book responses, we found a commonality between our interests in the relationship between the being and its surrounding environment. This lead us towards focusing on how the Sustainable Development Goals could be actualised in an artistic response that highlighted the connection between humans and nature. We selected the above Sustainable Development Goals as one's that would could be most pertinent towards the areas of interest we observed in our photo books. Our initial question that we sought to develop and respond to through our research included, 'How can we visualise Ireland's consumption of environmentally damaging materials', 'What links exist between the production and consumption of material goods in Ireland and the populations general health', and finally 'Why has prevailing attitudes towards consumption and excess permeated through Irish society and how can that negligence be challenged'.

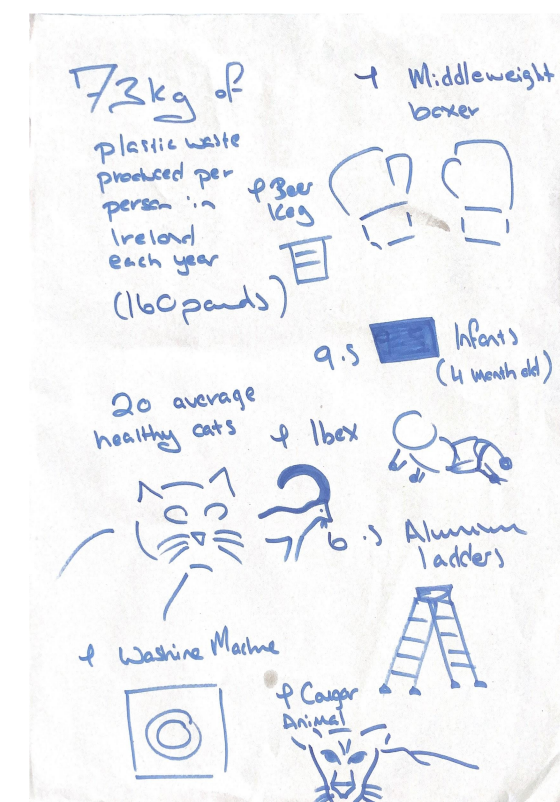
Research

Initially our focus revolve around consumption in Ireland specifically focusing on plastic waste in Ireland. We saw plastic waste as an ongoing and impactful issue throughout Ireland and one that seemed to be met with cultural negligence. When we discussed our reflection on plastic waste in Ireland, we found the cultural indifference to recycling and the proper disposal of waste materials to be particularly forthcoming. Examples of negligence that we highlighted included the burning of waste materials/rubbish in rural areas throughout Ireland, the contamination of waste in public collection bins and the public dumping of waste materials in cities and rural areas. Through our initial research focused on statistical information regarding plastic waste, the figures regarding Ireland's per capita consumption struck us most. Ireland's most recent figure of 73 kg of plastic waste was over twice the amount of the European Union's average and Ireland's recycling rate had stagnated in recent years. From here we sought to reflect on how Ireland's waste issues could develop within the next decade with the closure of the last three landfills in Ireland as well as to visualise life in Ireland if we couldn't absolve ourselves of our environmental responsibilities.

Plastic poll
Plastic waste has become a global menace.
• producing plastic involves releasing greenhouse gas emissions.
• Plastic industry accounts for 5% of Global Carbon Emissions, which could grow to 20% by 2050.
• On track to triple by 2060
• Most virgin plastic is derived from petroleum.
• Activists pleading for a 75% cut in plastic production by 2040 are at odds with oil-producing nations and the plastics.
Recycling, banning or innovation

Over 8.3 billion tons of plastic has been produced in the last 70 years, yet only 8% is recycled.

globalcitizens



Research

Following on from our initial research that heavily focused on the relationship between human consumption and the environment, we wanted to focus on how our bodies are affected by what we consume as well as the relationship with the environment. We felt that a more holistic approach towards our research would factor in a greater understanding of how issues related to our Sustainable Development Goals emanate in Ireland. We felt that the connection made between the human body, consumption and the environment could be understood through a focus on microplastics. Microplastics as outlined by the United Nations Development Program, are tiny particles of plastic less than 5 millimeters in size. Microplastics over the past decades have become abundant in our surrounding environments, being present in our oceans, soil and the air that we breathe. Our research focus revolved around microplastics and their relationship with the human body. Although research into microplastics is still unfolding, the ACS one of the foremost sources of scientific research, has published work stating that experiments have shown that exposure to microplastics can result in 'oxidative stress, metabolic disorders, neurotoxicity as well as reproductive and developmental toxicity'. This research outlined to our group the mass of the issue regarding microplastics and the unknown effects we may callously neglect.

People from low-income communities often live close to landfills. It's estimated that between 400,000 and a million people die every year from health issues connected to living near plastic pollution.



Artist Research



Ana Mendieta was a Cuban American performance artist, sculptor and video artist most known for her Silhueta Series. Mendieta's work explored the boundaries of connection between the body (specifically the female body) and nature. Mendieta explored her sense of severance between her being and her longing for her native Cuban homeland. As seen in the above photographs, Mendieta sought to explore the immersion of oneself into the natural world as well as to highlight the absence felt when removed from it. Mendieta's work informed our group regarding how artists have used their physical bodies to carve out symbolic imagery that resonates a sense of emotive desire.



El Anatsui is a Ghanaian born sculptor whose practice has been largely based in Nigeria. Anatsui is perhaps most known for his use of generally discarded materials to create ornate and intricate sculptural work. Anatsui uses generally discarded materials such as liquor bottle caps, cassava graters and newspaper print plates. The work speaks to ideas of consumption and waste, but also of value. The discarded materials are innately transformed into a visual tapestry underpinned by Anatsui's connection to both his culture and his environment. Anatsui's work has informed our group regarding a holistic approach to visualizing an environmental issues as well as explorations of materiality.

Artist Research



Anthony Gormley is an English Sculptor most known for his distinct sculptural work that transforms the human body into metaphorical vessels. Gormley's work seeks to explore the dialogue between our external existence and our internal being. Gormley's work seeks to not identify a specific held emotion or quality that is possessed only by himself, instead he seeks to capture the commonalities of human existences. In essence Gormley's work highlights the relationship between the space and body. Our group resonated with the fragmentation of the body in Gormley's work, focused on how the sum of the physical presences can resonate with a large group of people when viewed in a space that reinforces the meaning.



Karen La Monte is an American sculptor working across a variety of mediums. Although La Monte has exhibited work in ceramic, metal and stone, her work in glass perhaps is the most known. La Monte's work has largely been inspired by ideas of clothing, culture and identity. La Monte creates large scale, hollow glass sculptures of draped clothing on an absent human figure. The absence of the human figures leads to a reflection on how the external aspects of our curated image impose themselves on our true selves. La Monte's work informed us of the disparity felt between our own nature and the image we construct for ourselves as well as how the absence of being can be symbolised.

Research-Respond

Our initial responses derived from our research focused on visualizing the mass of plastic and micro plastic consumption in Ireland. Focusing on the figure regarding Ireland's per capita consumption of plastic waste, we focused on showing the mass and scale of the plastic waste accumulated in a year. To do this we explored ideas of creating an interactive piece where a person would try move around shopping bags weighed down with sand that would weigh the same as the 73kkg of plastic waste produced annually per person in Ireland. We also explored the idea of confronting Ireland's waste and consumption issues from a humorous viewpoint. We created small macetes of the game 'Operation' which would have been altered where the viewer would remove plastic waste from the figures body through cut out holes shaped in a way that's reminiscent of the plastic waste items. Another idea stemming from the research on microplastics focused on creating an abstracted human torso out of a plaster material, which would then have plastic spilling out of the stomach to represent both the accumulation of microplastics in the human body and the unknown damage to the body. We found the last idea to be the most generative in terms of further exploration and so we continued with this focused on creating the body casts.



Create-Experiment

Moving forward we focused on creating a body of work that responded to the untold effects of microplastic on the human body. At the beginning of our experimentation we decided to create plaster casts of the human torso in response to the research focused on areas in which microplastics are being found. The explorations of casting the human figure proved a learning experience for the group as only Ian had worked with the material before and he was the one being cast so Maria and Chloe brought a sense of exploration to the process. Before the casting took place the body was coated in vaseline and wrapped in cling film to protect the skin from the plaster bandages. Once that was completed, the plaster bandages were soaked in water and then placed over the cling film until a shell like coating was formed over the torso. This was left to cure and harden and eventually removed. The first mold taken was flimsy as we didn't reinforce the casting with an outer material like plaster. The cast gave a good impression of the torsos general shape but the lack of detail left us wanting more. We tried once more this time having repeated the steps of the first one, layering a coat of plaster over the plaster bandage to further structure the torso shape. This mold was more successful and it's rigid armor like form interested the group, but again the lack of detail proved a barrier to its usage. Although the plaster forms were not explored further they proved a source that would drive on our future work as we resounded that the human form exploration were pertinent to our outcomes.



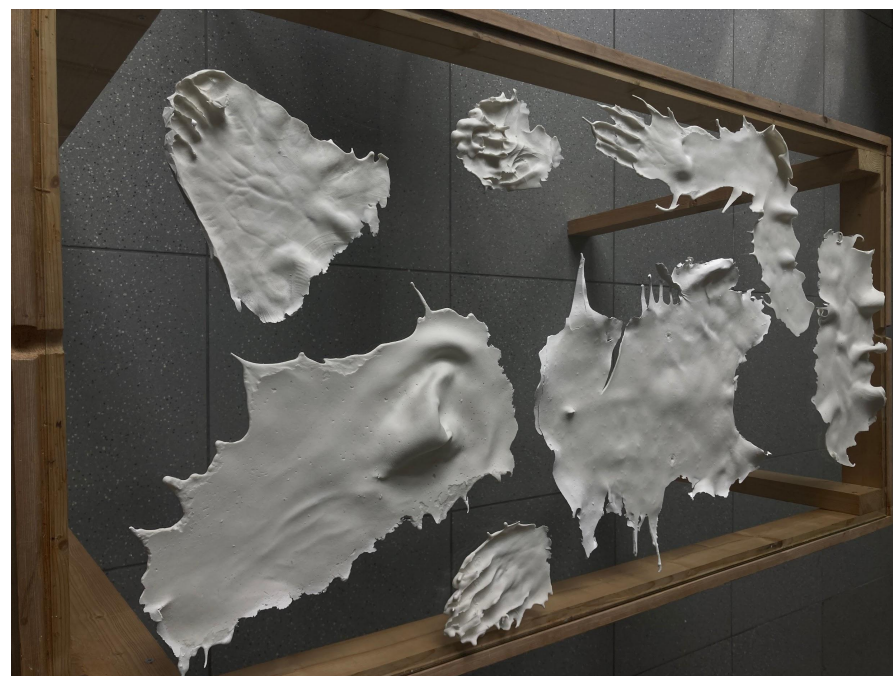
Create-Identify

Following on from the exploration of the human figure with the plaster bandages we focused on finding a material that would allow us to capture the detail we wanted while also emanating the fragility we desired. This brought the group towards working with alginate as a material. Alginate comes from alginic acid which is a naturally occurring polysaccharide found in brown algae. The group was drawn to alginate as it required little safety preparation to the body, as it cured quickly and released gently from the body. Again only Ian had used the material before so Maria and Chloe's responses to the material were focused on understanding and pushing the limitations of the material. For the first cast, the alginate was mixed in a 1:1 ratio with water and then mixed to remove large lumps, the material was then poured on the torso and left to cure for a few minutes. Alginate is a fast setting medium and will shrink away from the body making the release easy. The group found that alginate afforded us that delicate yet detailed cast we wanted. We liked how the material would run and drip in an uncontrolled manner that gave a look akin to plastic particles. Also the tactile nature of the material, resounded to us that this would be the material we moved forward with.



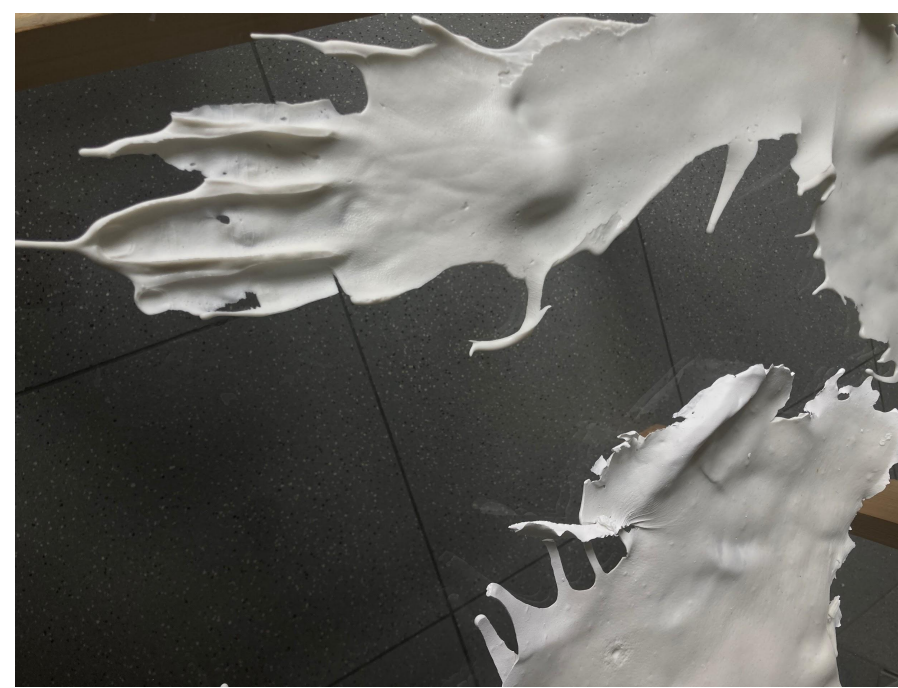
Consolidation of motivations

Our focus for our project has resolved itself into an exploration of the pervasion of plastic into our bodies. Plastic has become a synonymous material with waste and excess and we see the issues of microplastics to be one that requires highlighting. Microplastics are a byproduct of the qualities of plastic that we so desperately desire, those being that they are light, pliable and designed to last. Plastic, by design is a long lasting material, one that can take centuries to decompose. However plastic will break down into smaller and smaller fragments thus creating microplastics. As previously mentioned the effects of microplastics are not fully understood, but studies have found that neurotoxicity and oxidative damage are a long term concern. For our project we sought to explore how a human body might look in 50 years time, focusing on deconstructing body parts to emanate the microplastic forms and tactile qualities. We've found abstracting the human figures successfully brings back our message towards microplastics as the fragmentation of the body mimics the breakdown of microplastics. We see microplastics as a constant elements of everyday life in the 21st century, as microplastics are present in our food, water, ecosystems and the air we breathe. In conclusion we sought to highlight the unknown potential microplastics have to alter, affect and damage our bodies as a result of our culture of material excess.



Respond to materiality

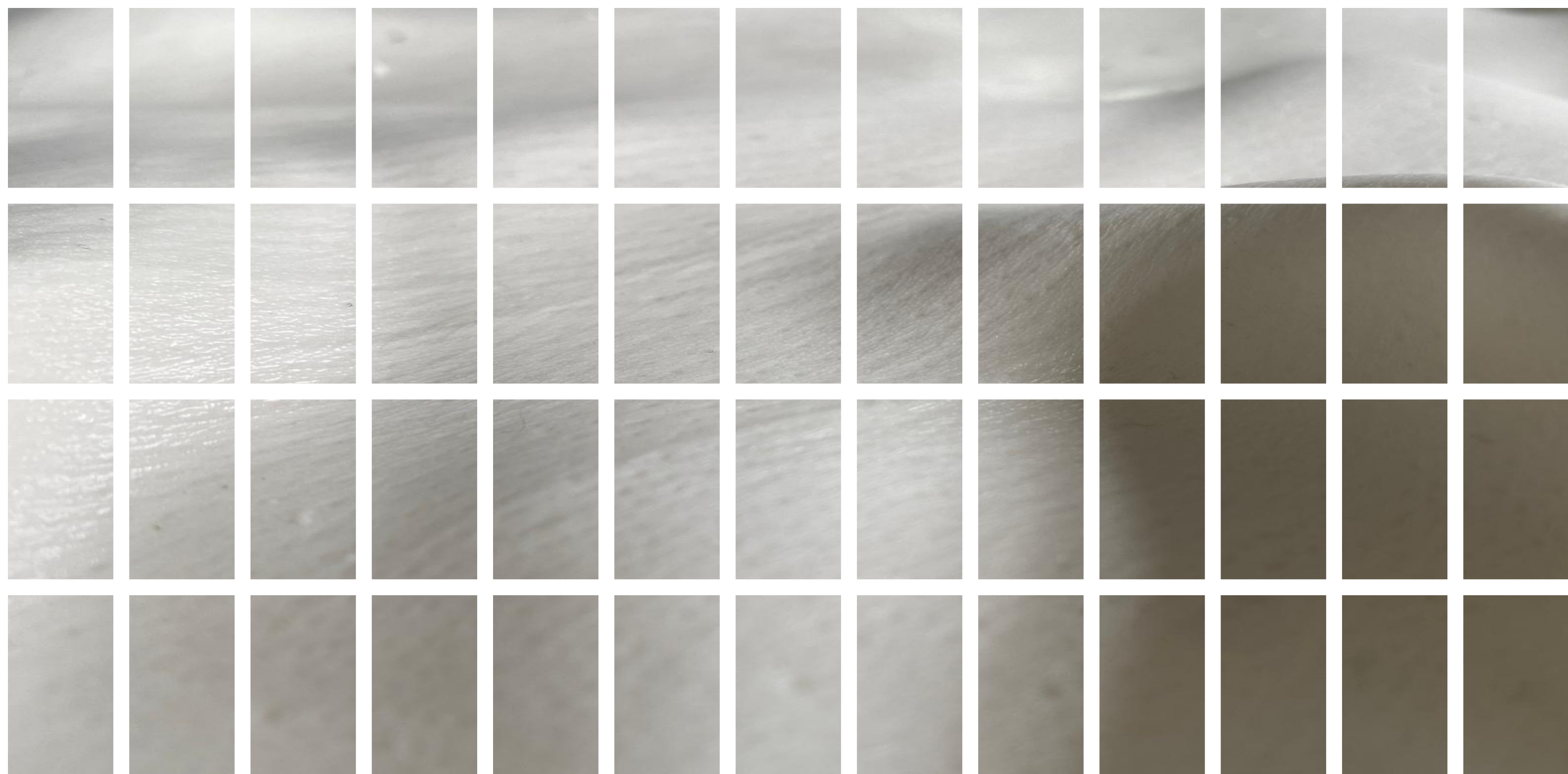
Over the course of the Change Lab project, we found ourselves looking towards the material that we would use to further our symbolic message. Alginate when used as a casting material gave us the material qualities focused on tactile and visual elements we desired. Moving forward from our initial focus on casting the human body, we sought to explore creating casts that would interact with how microplastics accumulate in our internal bodily structures. To achieve this we began casting animal organs as they mimicked the size, form and textural qualities of our own organs. When casting the animal organs we found that because the organs had no heat source, the alginate didn't cure as easily when compared to casting on a person's body. In general the alginate wouldn't cure quick enough for a thick enough layer to form on the surface of the organ, the success we had casting from the organs was when we layered multiple coats of alginate on top of each other. Following this exploration of the material, we concluded that casting from the body was more successful due to the more abstracted forms we could capture as well as the ease of use.



Create-Resolutions



The above photographs document specific textural qualities captured in our alginate work. The material afforded us a means of creating a reflection of our physical body and to highlight the abstraction of the being. With our alginate work we sought to highlight to viewers the possible alienation of our notions of bodily autonomy. The effects of microplastics over the lifetime of a person are still being understood but recent studies have found that the existence of microplastics in major bodily organs poses untold threats to our physical and mental wellbeing.



The above 52 cells represent the possible ingestion of microplastics. Studies have found that human are ingesting roughly 5 grams of microplastics weekly, which is equivalent to the weight of a credit card. We found this to be a straltling figure and found the graphic image of 52 credit card shaped acetate prints of our alginate work, would best represent the yearly consumption of microplastics. For our instillation the 52 credit card acetate prints would be of various of our acetate prints and located above our physical casts.

