

Moniker

Carbon Conscious and Waste Aware urban art mural

Case study report created by Tina Ziegler, Moniker Art Fair

The Purpose of this report is to offer a transparent documentation from the recent carbon conscious and waste aware mural produced in Leeds, UK. Our objective was to analyze the areas for improvement in regards to reducing waste, pollution and carbon emissions in the street art sector. The project was led by Tina Ziegler, director of Moniker Art Fair and contemporary artist INSA. In order to successfully cut down emissions, reduce waste and manage the environmental impact of the mural project the artist and curator conducted strict lifestyle changes and prepared in advanced to avoid temptations through convenience, while also opting for more sustainable paint and materials. The report highlights areas of success, while also showing areas for improvement, the goals is to continue to improve the work and process within street and urban art and approach public artworks with more considered and sustainable methods of production and lifestyle.

In areas where we were unable to calculate carbon emissions, we conducted an estimation. In areas where we found carbon emissions unavoidable we have off-set those emissions by paying an off-set amount to World Land Trust. Full report on carbon emissions can be found below.

Project: Mural in Leeds by Artist INSA
Size of Mural: 13 meters by 11 meters
Location: Wharf Chambers, Leeds, UK
Date: November 27 - December 5 2020

Steps taken to reduce emissions and waste:

Transportation

- Traveled by Train when necessary, avoided air and car transport
- Walked where possible

Lifestyle

- Accommodation in an apartment with controlled heating and washing rather than staying in a hotel
- Ability to cook at home, rather than eat out
- Lived a Vegetarian diet

- Reduced animal products and avoided dairy
- Ate local seafood 2 times over 7 days rather than imported
- Purchased only organic fruit and vegetables from local food markets
- Purchased unpackaged food, such as rice, cereal and grains from a local zero-waste store
- Carried reusable water bottles, coffee cups and cutlery to avoid take-away items and plastic
- Local beer supplied and delivered by Northern Monk Brewery

Production

- Purchased paint supplies such as buckets, paint trays, rollers all unpackaged where possible
- Purchased paint supplies and materials from a local hardware store rather than a corporate business
- Electric scissor lift, powered by renewable energy from a local charging point
- No plastic used to protect surfaces
- Paint sprayer brought from home

Paint

- 5L base white painted with Graphenstone Biosphere paint which absorbs a trees worth of carbon in 3 years, essentially making the complete project carbon positive by 2023.
- 15L various colours painted with non-toxic Graphenstone paint
- 8 cans of white water based spray paint used due to extremely wet weather
- 4 cans of black spray paint used due to bad drying conditions

End of use management

All waste was documented at end of project and can be seen in our photo report

- Unused and left over bucket paint was donated to Seagulls Paint Recycling centre in Leeds
- Reusable buckets and brushes were donated to Seagulls Paint Recycling centre
- Empty Spray cans were brought home to be stored rather than thrown away, until better recycling systems are in place
- All cardboard, beer cans, and paper items were recycled through Leeds waste management system.
- Food was composted rather than thrown away

Carbon Neutral report

- All emissions were calculated to the best of our ability and when unavoidable or incalculable we off-set our emissions by donating to World Land Trust the recommended amount.



Conclusion and findings

On completion of the project, we discovered weather had a huge part to play in our ability to use the materials we wanted to further reduce our emissions and impact. We were pressured to use 12 cans of spray paint in order to complete the mural on time due to extremely wet weather and bad drying conditions where bucket paint required warmer weather to dry successfully. This is no surprise due to the fact the mural was painted in December in Northern England. We would therefore look to better weather conditions in the future.

Due to Covid-19 and lock down restrictions in Tier3 of Leeds, we were often unable to find local shops that were open and therefore led us to order the 12 cans of spray paint we needed online, which then added transportation emissions to our project.

Further considerations in diet and lifestyle could of been taken to reduce our impact upon finding that our daily cup of coffee had the most impact.

Report resources | Links:

Carbon report for bucket paint:

<https://graphenstone.com/pdfs/publications/2020/Graphenstone-Catalogo-CERT-2021-ENG.pdf>

Carbon calculator for transport:

<https://www.worldlandtrust.org/carbon-calculator>

Energy use for accommodation:

<https://smarterbusiness.co.uk/blogs/average-gas-electricity-usage-uk/>

Carbon emissions for Coffee:

<https://theecoguide.org/examining-carbon-footprint-coffee#:~:text=So%20if%20we%20know%20that,for%20every%20cup%20we%20drink.>

Carbon emissions for wine:

<https://www.ipoint-systems.com/blog/getting-it-straight-exact-carbon-emissions-from-one-bottle-of-wine/>

Carbon emissions for food:

https://www.researchgate.net/publication/263353807_Dietary_greenhouse_gas_emissions_of_meat-eaters_fish-eaters_vegetarians_and_vegans_in_the_UK

Carbon Emissions Calculation:

Moniker Mural with INSA		
Transport	Carbon Emissions	Cost to Off Set
Artist / Filmer / Cuator Travel		
Train from Whistable to Leeds (2 people)	0.026 tonnes of CO2	0.39
Train from Leeds to Whistable (2 people)	0.026 tonnes of CO2	0.39
Train journeys from York to Leeds	0.001 tonnes of CO2	0.01
Train journeys from Leeds to York	0.001 tonnes of CO2	0.01
Train journeys from York to Leeds	0.001 tonnes of CO2	0.01
Train journeys from Leeds to York	0.001 tonnes of CO2	0.01
Production		
Scissor Lift drop off	0.002 tonnes of CO2	0.03
Scissor Lift Collection	0.002 tonnes of CO2	0.03
Electric Scissor Lift energy usage (charged 3 times full battery)	0.002 tonnes of CO2	0.03
Graphenstone Paint Delivery	0.038 tonnes of CO2	0.57
Spray paint delivery (10 cans of waterbased paint)	0.015 tonnes of CO2	0.22
York to Leeds return for collections of paint and drop off	0.014 tonnes of CO2	0.21
Accomodation		

Apartment with 2 bedrooms (Gas – 33 kWh per day Electricity: 8.5 kWh per day) Gas = 33 x 5 165kWh = Electricity 8.5kWH x 5 = 42.5)	0.030 tonnes of CO2 GAS 0.011 tonnes of CO2 Electric	0.62
Food (5 day vegetarian diet 8.4 pounds of CO2 a day) 0.0038 x 5	0.019 tonnes of CO2	0.22
Zero waste bulk buy shopping of rice, pasta and cereal unpackaged local Yorkshire produce from Local Farmers Market	X X	
Seafood of Cod Fish and Mussells from the UK	0.002 tonnes of CO2	0.03
Water (Tap) No plastic bottles	x	
Coffee (15 cups) 0.012 tonnes of CO2 per cup x 15 = 0.18	0.18 tonnes of CO2	3
White Wine	1.28kg CO2	0.28
Northern Monk Beer (25 cans) Local delivery, locally produced.		
Paint	x	
Graphenstone Biosphere Bucket Paint - White (5 L bucket)	x	
Montana Waterbased white - 8 cans	x	
Montana Black spray - 4 cans	x	
Production materials	x	
Hardware supplies purchased locally (Rollers, Tape) Remained un-used mostly and have will be reused for future projects Unpackaged brushes and buckets (Donated used buckets and brushes to Seagulls Paint Recycling centre in Leeds)		
Unavoidable Carbon Emissions and inability to calculate specific data - Estimation and Good Gesture	0.600 tonnes of CO2	9
	Total to Offset with World Land Trust	15.06

World Land Trust
Worldlandtrust.org

Carbon Balanced Reference payment: W0488970

NOTES ON CARBON OFFSETTING:

Carbon offsetting is a process whereby an individual or company takes action to prevent the release of emissions elsewhere, or secures the absorption of atmospheric carbon dioxide as part of a wider approach to measure, reduce and then offset emissions through impactful conservation projects.

Carbon Balanced offsetting focuses on taking a balanced approach to your emissions by following a three-step process to measure and reduce, before offsetting residual emissions.

All carbon balanced projects are carefully designed according to robust standards that ensure offsets are delivered at a portfolio of sites where they are measurable, verifiable and properly monitored and can achieve high-quality REDD+ outcomes.

Certification of Offsetting

World Land Trust Certificate to come from Final Report

World Land Trust's Carbon Balanced programme enables individuals and organisations to offset their residual greenhouse gas (GHG) emissions through the protection and restoration of carbon-rich wildlife habitats in the tropics.

Further information and questions:

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