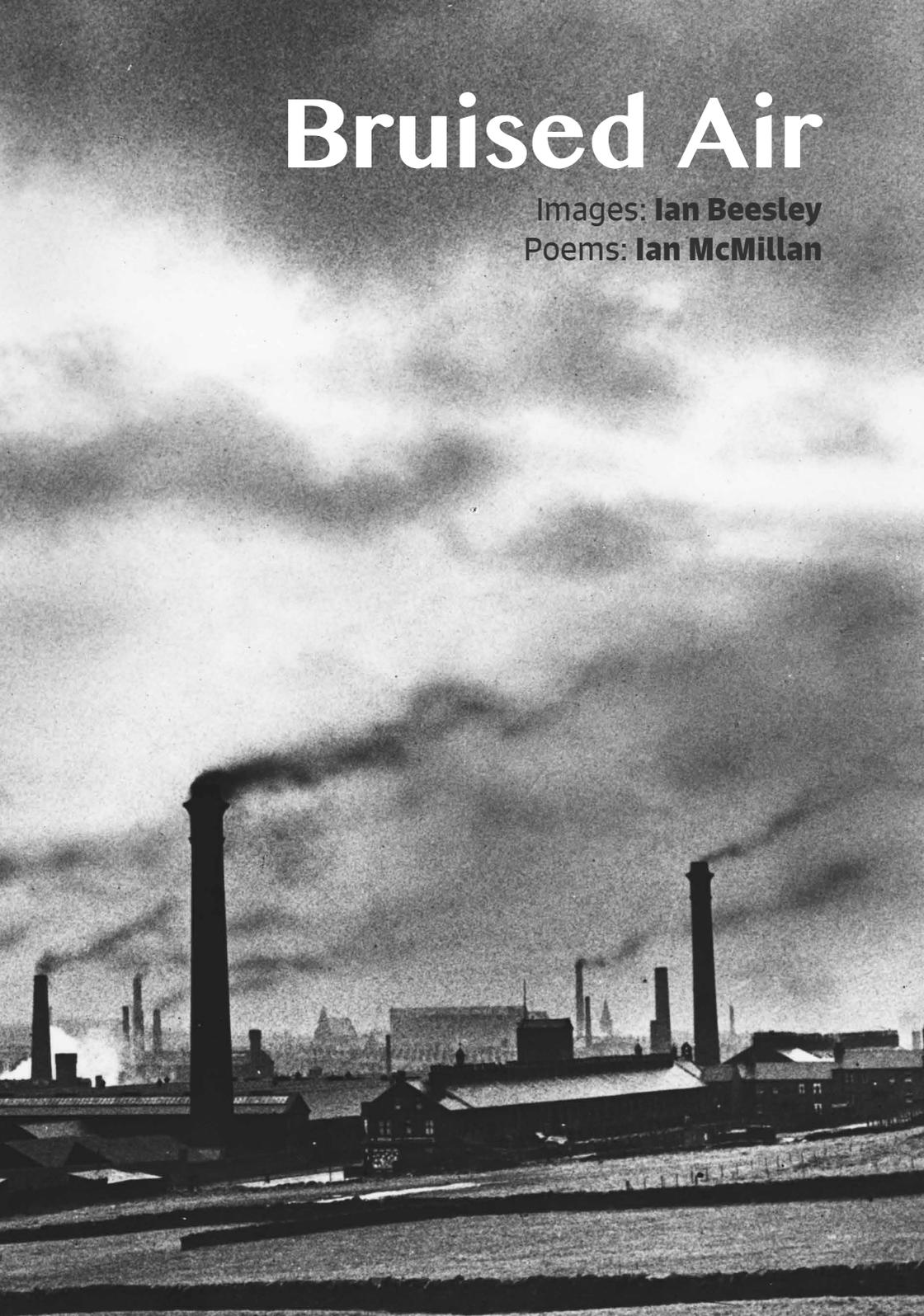


Bruised Air

Images: **Ian Beesley**

Poems: **Ian McMillan**



Bruised Air

Foreword

Over half of the world's population now lives in towns and cities and these are becoming increasingly polluted by harmful emissions from vehicles and industrial sources. Across Bradford and the UK, levels of pollutants such as Nitrogen Dioxide (NO₂) and Particulate Matter (PM) are continuously monitored to ensure that they don't exceed 'safe' levels defined by European Union guidelines. Bradford has four 'air quality management' areas within the city where levels of pollutants currently exceed EU guidelines.

Working with other similar studies across Europe, BiB researchers have shown that pollutants such as NO and PM are associated with having babies born at a low birth weight, even where the pollution is at levels well below those allowed in current EU air-quality rules. A low birth weight is serious because it is a predictor of other health problems in childhood and later life.

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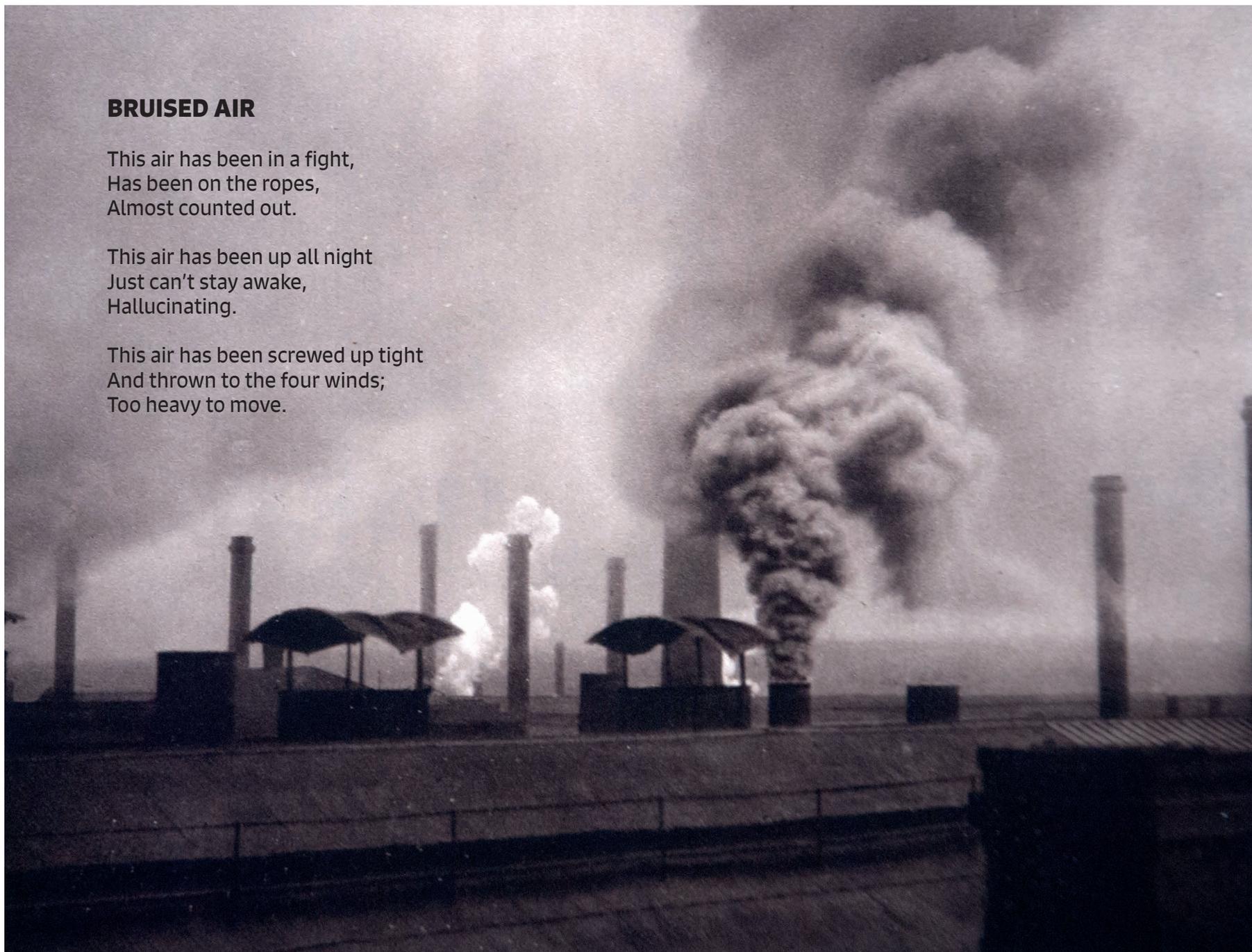
**Bruised air
From the visible to the invisible.**

BRUISED AIR

This air has been in a fight,
Has been on the ropes,
Almost counted out.

This air has been up all night
Just can't stay awake,
Hallucinating.

This air has been screwed up tight
And thrown to the four winds;
Too heavy to move.





**A LIGHT BREEZE
CARRIES THE STINK
INTO MY BACK YARD**

Smokescape, Chimneyscape,
Pitscape, Brickscape,
Snap-tin-in-the-darkscape
A light breeze

Windowscape, Machinescape,
Muckscape, Kidscape
Chair-by-the-doorscape
Carries the stink

Earlayscale, shiverscape,
Heatscape, latescape
Bike-down-the-streetscape
Into my back yard

Epicscape, scalescape,
Rainscape, mistscape
Tiny-figure-by-the-wallscape
And there is no escape.





This autumn dance
Begins with
Falling.
Ends here, in oil's
Ruthless, thoughtless
Embrace

Sump oil with leaves

The street's oleaginous corsage.
The morning's slick bouquet.



Sump oil with petals

Geo-medical landscapes

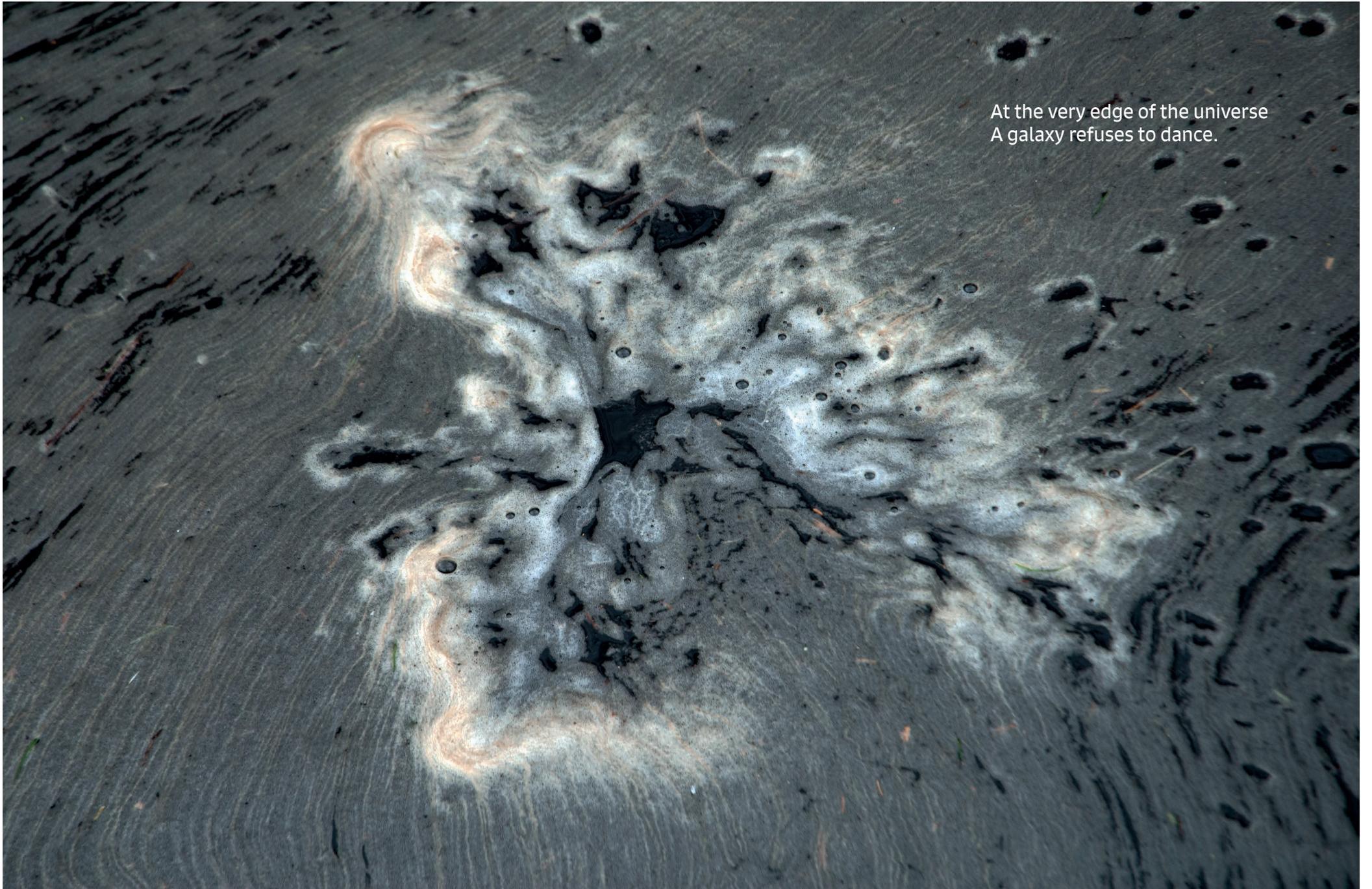
In 1966 the Russian epidemiologist Pavlovsky developed the theory of landscape epidemiology, which involves the identification of geographical areas where disease is transmitted.

He proposed that one could use the landscape to identify the spatial and temporal distribution of a disease by looking at the key factors such as temperature, elevation, rainfall, development and activity.

Since 1966 aerospace technologies have proved to be invaluable in the development of the understanding of the earth's landscape and its connections to the spread of disease. NASA has initiated these technologies into the areas of forestry, agriculture, geology and public health.

The Bradford Institute for Health Research's Born in Bradford project is investigating how our total environment shapes our health and well-being. It is measuring how air pollution, ultraviolet radiation, noise, green space and pollutants in our diet affect our early life development.

These photographs of pollutants found on waste ground in Bradford, reference landscape epidemiology, bio-medical scans and satellite photos of the earth.



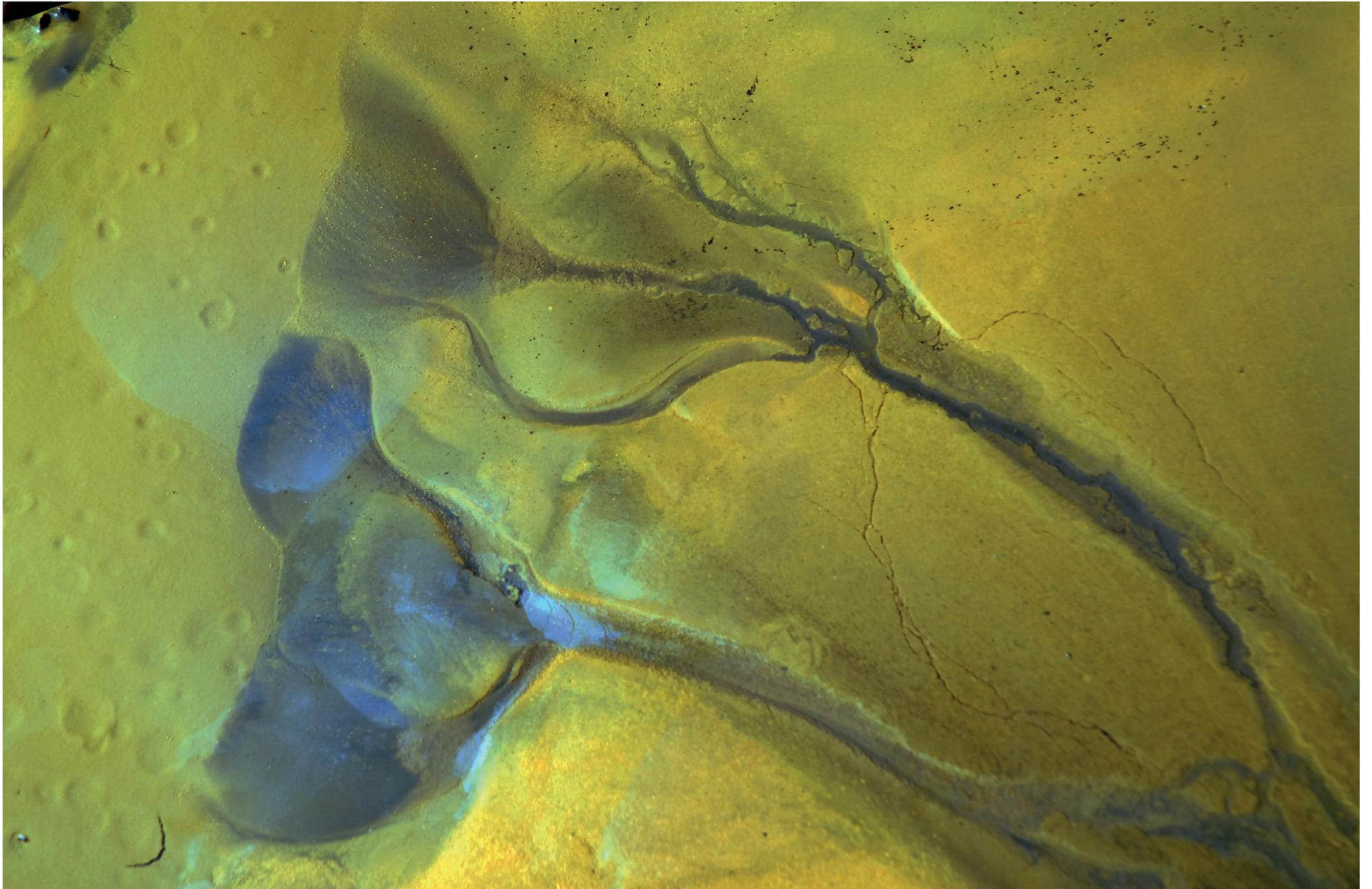
At the very edge of the universe
A galaxy refuses to dance.



Rusting shipping container



I glance at the sludge-clock.
It is late. Almost too late.



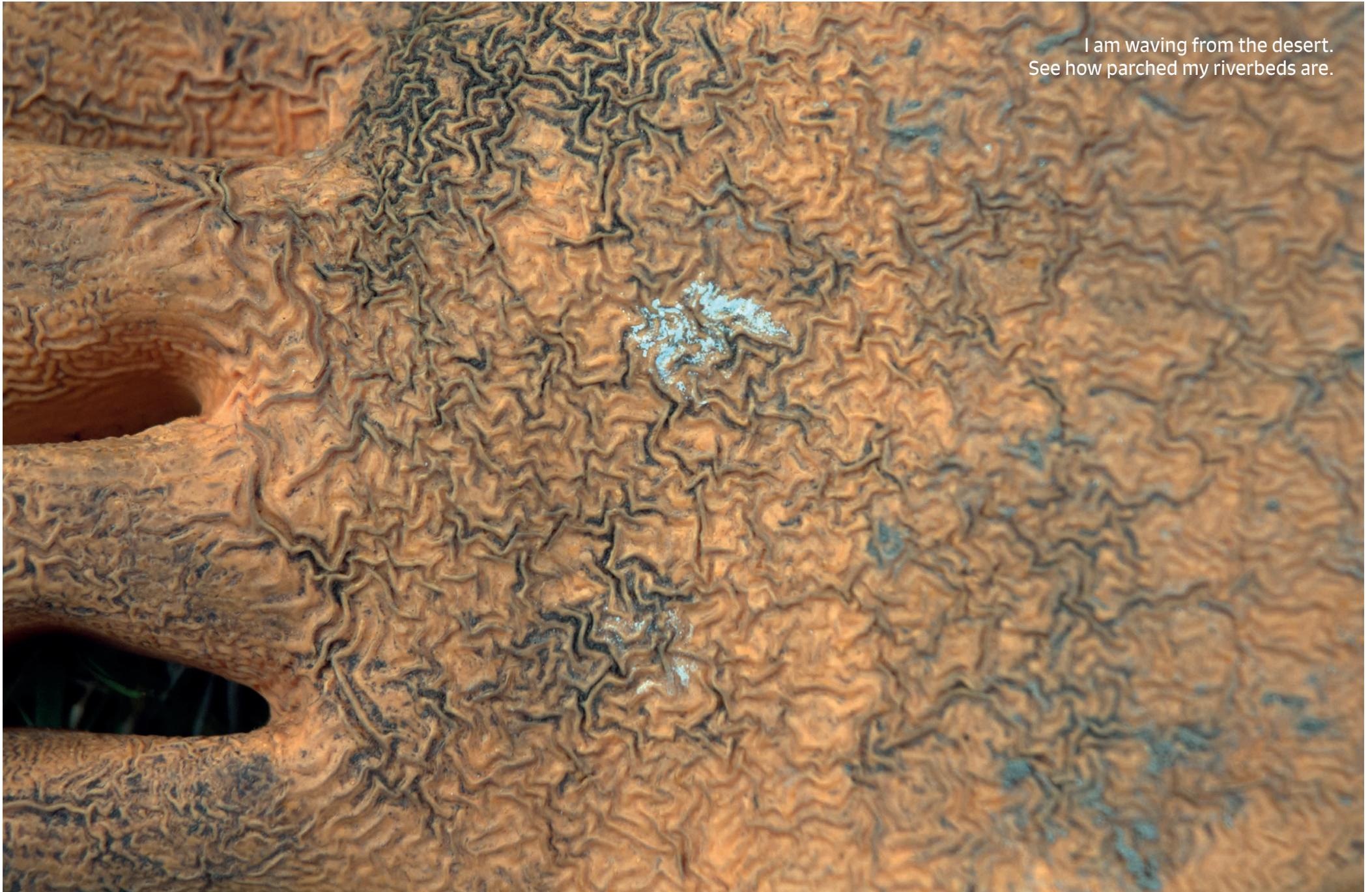
Emulsion paint and oil



Coal, mud and a rusting bolt



Scum Leeds Liverpool Canal



I am waving from the desert.
See how parched my riverbeds are.

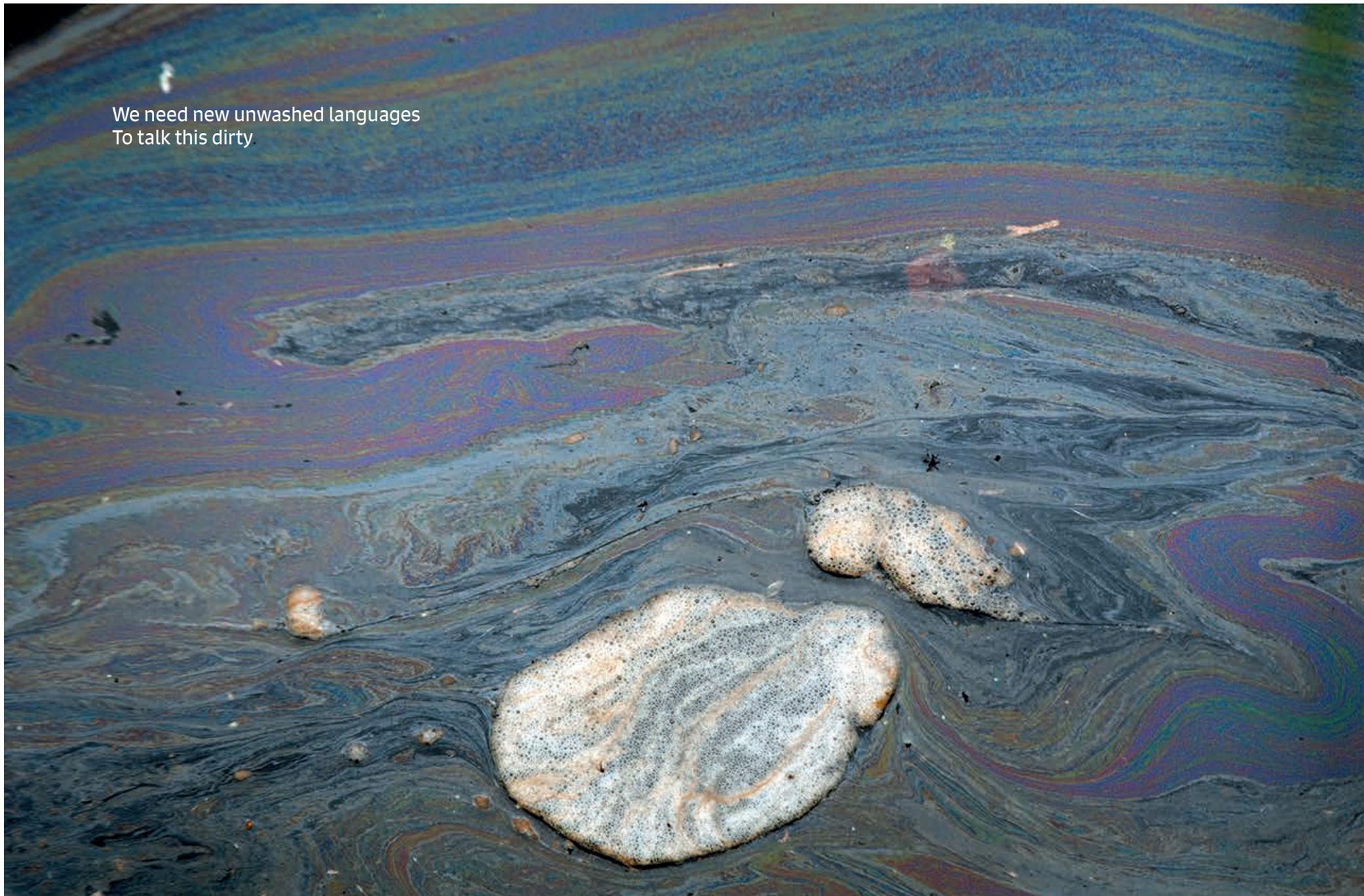
Industrial rubber glove



Dried mud

Study mud-history.
There are many volumes,
Masses of volumes.

We need new unwashed languages
To talk this dirty.



Petrol and water Leeds Liverpool Canal



At night the ghosts come out
To breathe in the fumes and weep
Emission tears.

SMOKY PLAYGROUND RHYMES TO MAKE YOU SPLUTTER

One, two
Can't see my shoe
Three four
Smoke through the door
Five, six
Smoke meter clicks
Seven, eight
Smoke blows straight
Nine ten
And back again.



In Bradford we can't see see see
Further than that tree tree tree
Cos all that we can see see see
Is choking the lives of you and me

The sky's grey like old tvs
Airs as thick as mushy peas
Killing off the bees bees bees
Sticks in my throat and makes me wheeze





Air, air,
Over there
Blowing on
My face and hair;
Air, air,
Over here
Can't see through it
It's not clear.
Air, air
On my coat,
In my pocket
Down my throat
Air, air
Coughing starts
Air we breathe
Can break our hearts.



SMOKE GETS IN OUR EYES

They asked us how we knew
That the sky was blue
We said we don't know
Cos the blue won't show
muck falls like black snow

Pollution's in the air
It gets everywhere;
In my eyes and nose
On my shoes and clothes
I don't smell like a rose

Don't want to live like this
Not my idea of bliss:
Comes as no surprise
Life and nature dies
As smoke gets in our eyes



Bruised Air

Afterword

We have found that having green spaces within our local environments has protective health effects, with babies born in greener areas having healthier birth-weights, and with mums in these areas less likely to report symptoms of depression.

We are working closely with partners in public health, planning, transport, air quality and the voluntary sector to make environmental improvements in Bradford and to measure the impact of these improvements on health.

For example, Bradford council were able to use our findings to secure government funding for a green makeover to some of the region's most polluting diesel buses and we are developing local projects to increase 'active travel' such as walking or cycling, and to reduce car use.

As part of Project HELIX (www.projecthelix.eu) we are continuing to explore the impact of a wide range of chemical and physical environment hazards on children's health and wellbeing as our children grow up.

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