## The Dark Lit Up

## **Ecosystemic Writing as a New Multi-Modality for the Climate Crisis**

Section 1 (of 2)

Creative Enquiry

Logan Scott

Doctor of Philosophy

Creative Writing Research

Literature, Drama and Creative Writing

University of East Anglia

31 January 2025

This copy of the thesis has been supplied on condition that anyone who consults it is understood to recognise that its copyright rests with the author and that use of any information derived there-from must be in accordance with current UK Copyright Law. In addition, any quotation or extract must include full attribution.

This project presented in two sections. Section 1 is an original work of fiction, a graphic novel entitled *The Dark Lit Up*. Section 2 is a critical enquiry, which sits in conversation with the novel. Together they present a new hybrid, multi-modal narrative form called *ecosystemic writing*.

Special note: Please ensure that reading the creative enquiry you have your .pdf software set to two-page view. This is essential as in some instances the pages are designed to be read as a double-page spread.

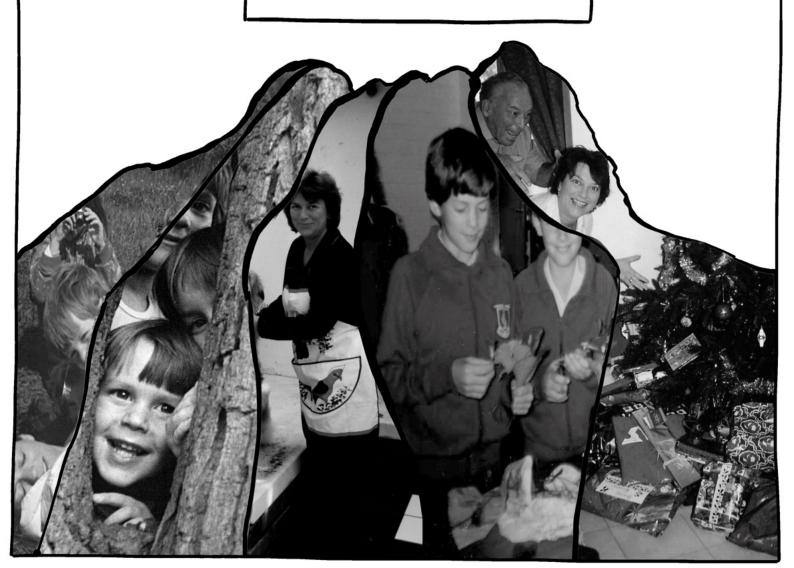
## **Access Condition and Agreement**

Each deposit in UEA Digital Repository is protected by copyright and other intellectual property rights, and duplication or sale of all or part of any of the Data Collections is not permitted, except that material may be duplicated by you for your research use or for educational purposes in electronic or print form. You must obtain permission from the copyright holder, usually the author, for any other use. Exceptions only apply where a deposit may be explicitly provided under a stated licence, such as a Creative Commons licence or Open Government licence.

Electronic or print copies may not be offered, whether for sale or otherwise to anyone, unless explicitly stated under a Creative Commons or Open Government license. Unauthorised reproduction, editing or reformatting for resale purposes is explicitly prohibited (except where approved by the copyright holder themselves) and UEA reserves the right to take immediate 'take down' action on behalf of the copyright and/or rights holder if this Access condition of the UEA Digital Repository is breached. Any material in this database has been supplied on the understanding that it is copyright material and that no quotation from the material may be published without proper acknowledgement.

## CHAPTERS

CHAPTER
CHAPTER 2 21
CHAPTER 3 39
CHAPTER 4 59
CHAPTER 5 79
CHAPTER 6 93
CHAPTER 7 107
CHAPTER 8    17
CHAPTER 9 133
CHAPTER 10153
CHAPTER    171
CHAPTER 12 185

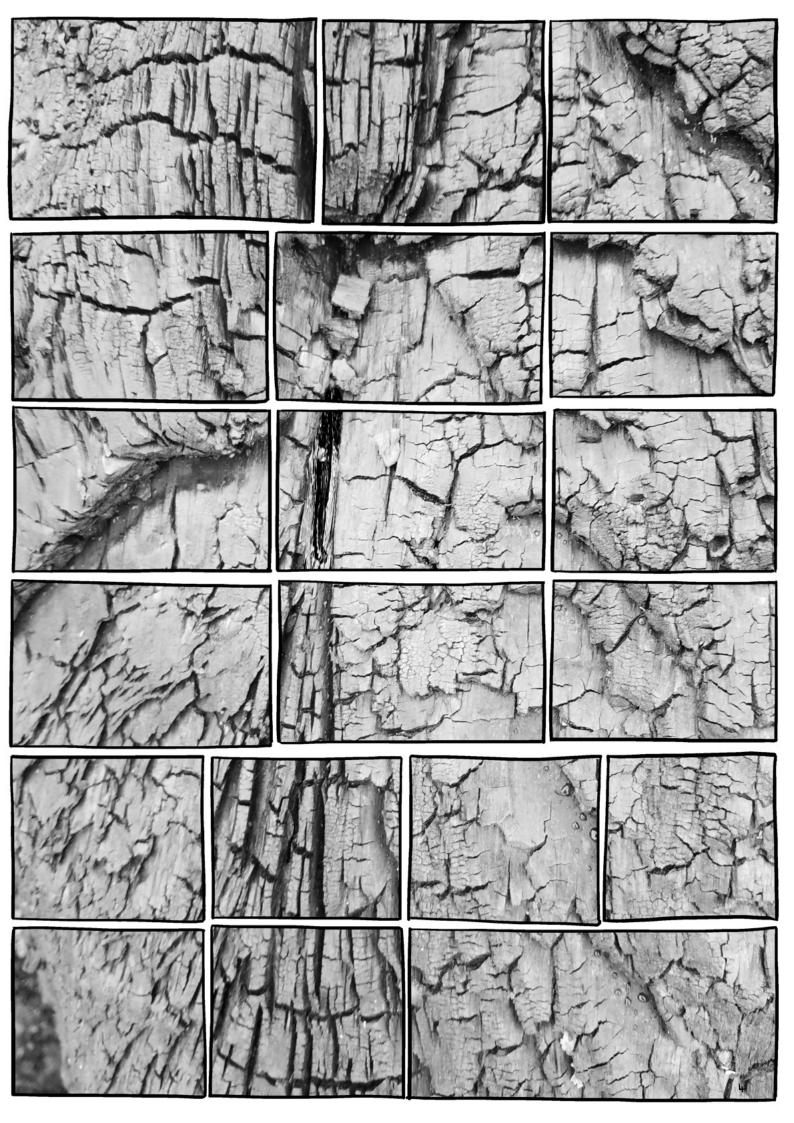


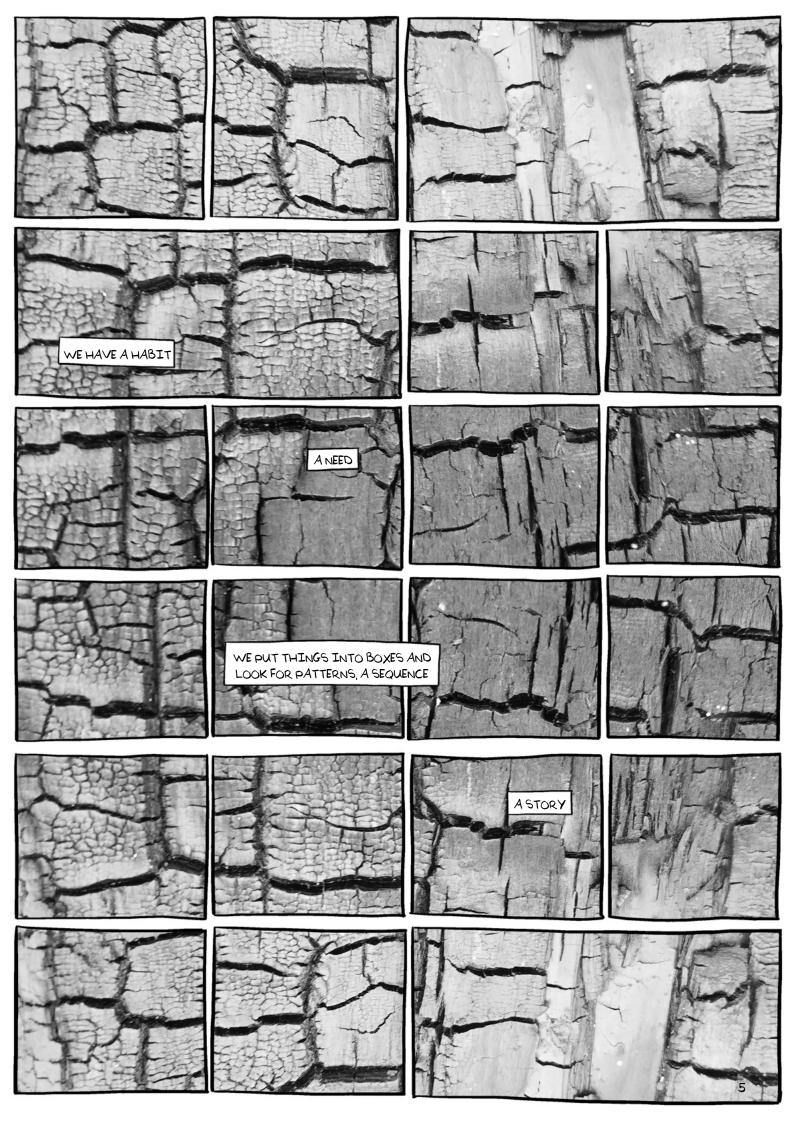


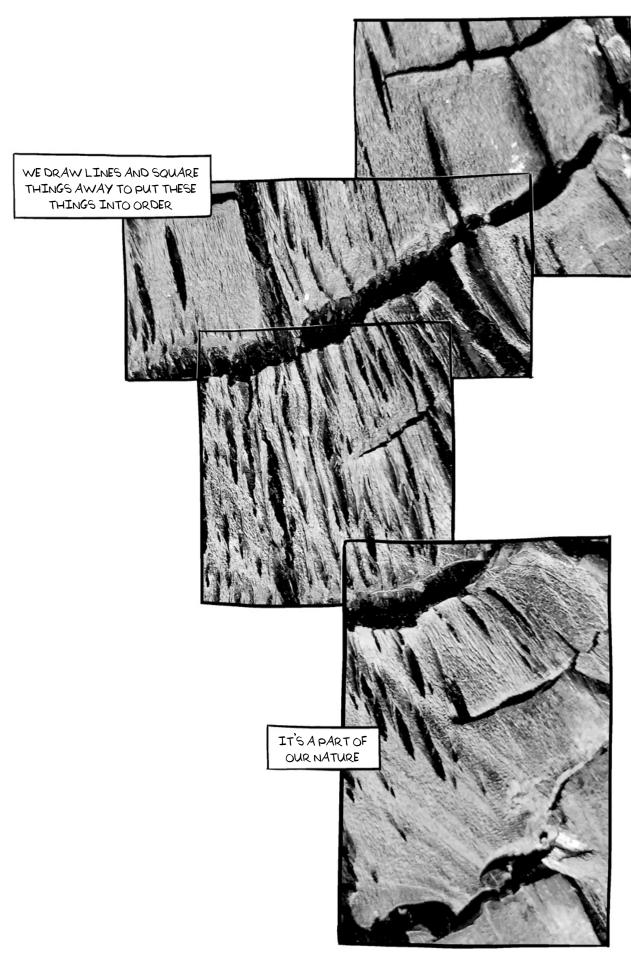




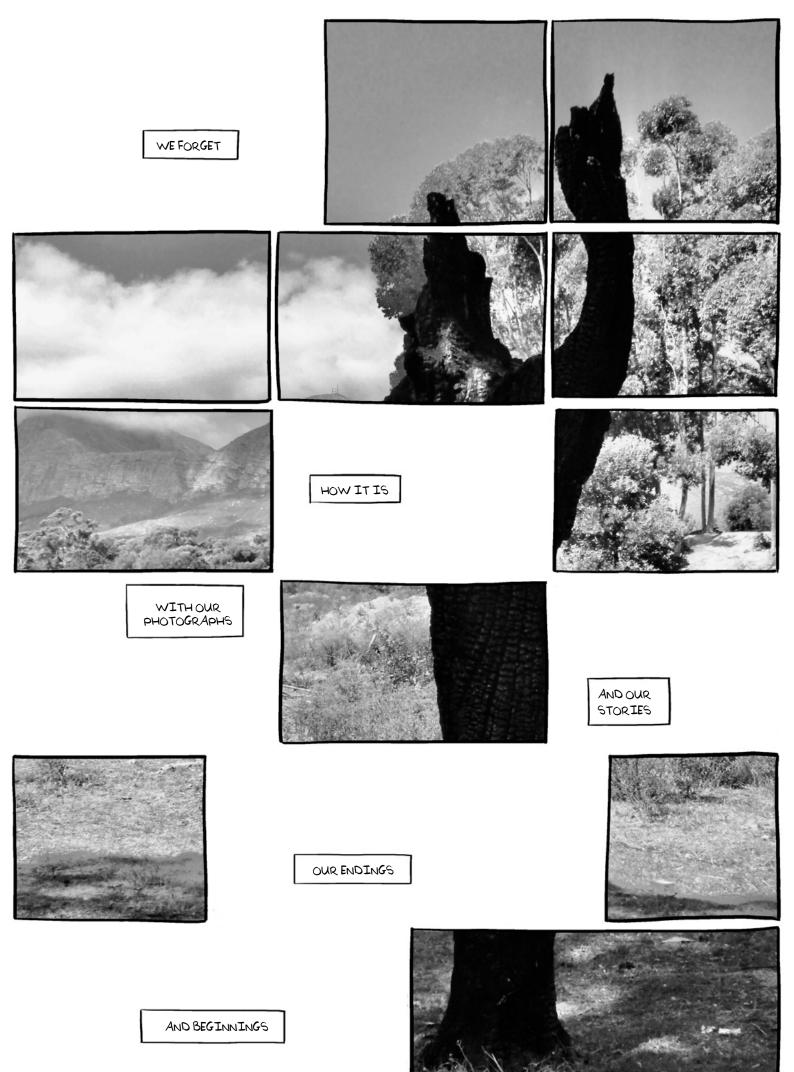


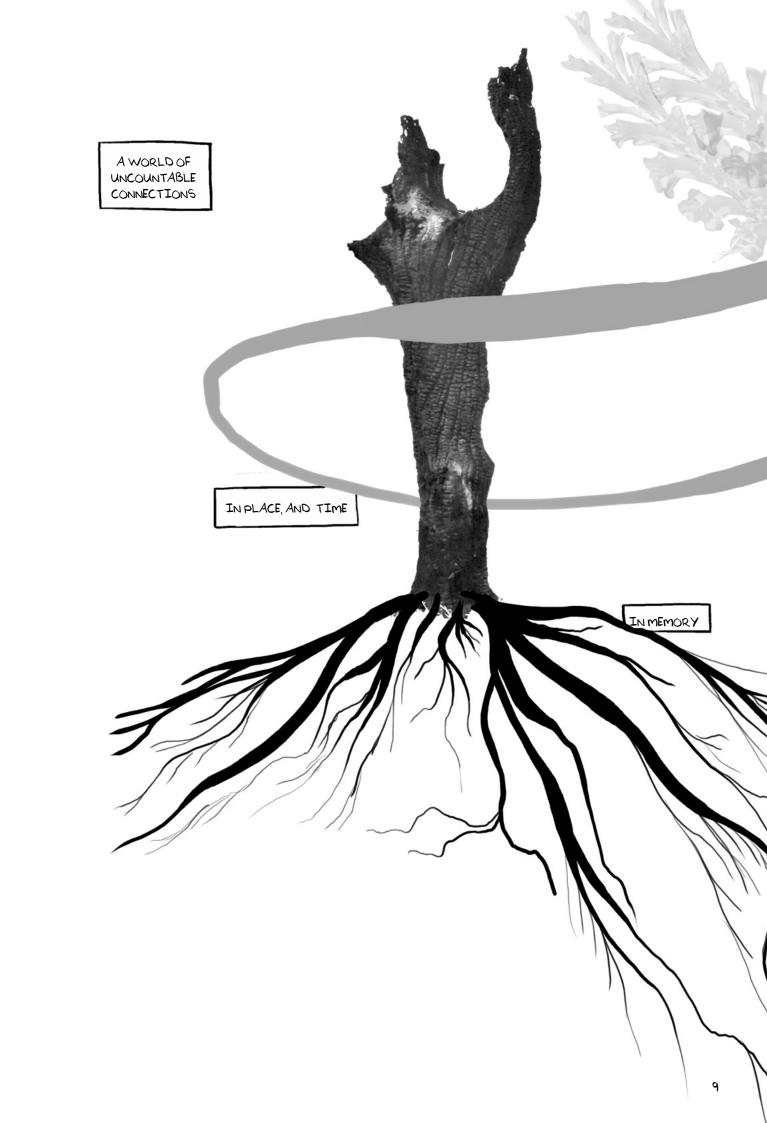






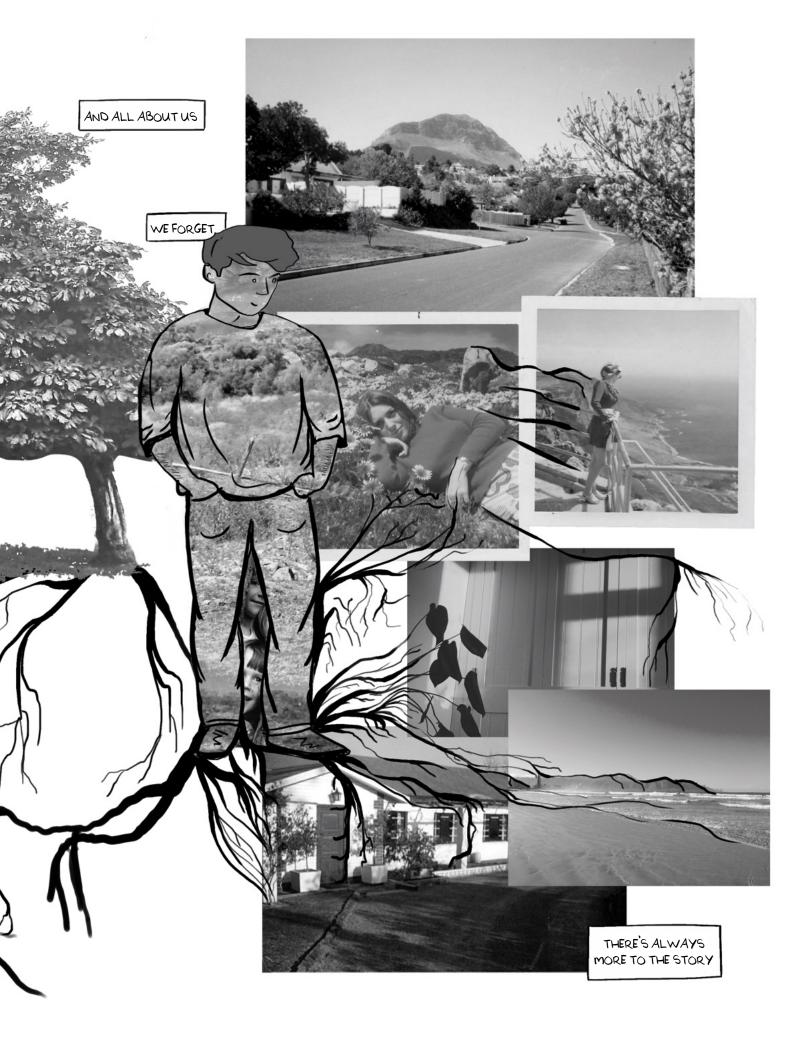












LONDONELEVEN HOURS AND SIX WEEKS

CAPE TOWN

WHAT'S YOUR STORY? YOU HAVE FOLLOWED THE SWALLOWS HERE. SOUTH OUT OF AN UNSEASONABLY WARM WINTER, INTO AN UNSEASONABLY WARM SUMMER, SOUTH TO THE TIP OF AFRICA. FLYING ON MEMORY AND A CONSIDERABLE AMOUNT OF MONEY.

THESE HILLS ARE MEMORIES. LIKE PANCAKE STACKS. LIKE BRUISES. LIKE SOMETHING STUCK IN YOUR TEETH. IT'S HARD TO FIND THE WORDS THESE DAYS. NOTHING SEEMS TO FIT. YOU'RE GLAD FOR THIS WALK. IT HAD BEEN A LONG FLIGHT. THE PILOT HAD

APOLOGISED FOR THE POOR VISIBILITY, FOR NOT BEING ABLE TO SHOW OFF THE FAMOUS TABLE MOUNTAIN. STILL YOU WERE SURPRISED TO DRIVE THROUGH FIRE SMOKE ON THE N2 OUT FROM THE AIRPORT. NO VISIBLE FLAMES, THOUGH. NO FIRE TRUCKS EITHER. NO LIGHT BUT WHAT SUN COULD FILTER THROUGH. IT WAS SLOW GOING. NINETY MINUTES FOR A JOURNEY THAT SHOULD BE FIFTY. LIGHTS ON BUT FOR NOTHING. ALL OF YOU ON THE ROAD HUGGING THE WHITE LINES. TAIL

LIGHTS FLASHING AS MEN CROSSED AND JUMPED THE CONCRETE DIVIDE TO JOIN THE OTHERS WAITING ON THE SIDE ROADS FOR WORK. YOU WERE SURPRISED THEY WERE NOT SURPRISED, LIKE THE SMOKE WAS AN ORDINARY THING. LIKE STANDING ON SIDE ROADS, SLOUCHED, BELLY EMPTY, BROKEN LIKE BULLRUSHES, LIKE IT WAS AN ORDINARY THING. YOU WERE GLAD WHEN IT WAS YOUR EXIT. YOU HAD HALF A MIND TO RIGHT AROUND AND GO BACK TO THE AIRPORT BUT THEN YOU STARTED TO CLIMB AND LEFT THE SMOKE BEHIND. FIRST BROADWAY

PAST THE MALL, RIGHT THEN LEFT ONTO HELDERBERG COLLEGE ROAD, A DIRECT LINE UPWARDS, PAST ELECTRIC GATED HOUSES WITH ARMED RESPONSE, GENERATORS AND BOREHOLES. HOW LONG'S IT BEEN SINCE YOU WERE BACK IN YOUR HOME TOWN? THE PLACE YOU TELL PEOPLE ABOUT THAT NOBODY REALLY UNDERSTANDS. SOMERSET WEST, THIS MONEY-SPILLING GATEWAY TOWN TO THE ROLLING HILLS OF CAPE DUTCH WINE COUNTRY WHERE FIRES COST MORE THAN LIVES. IT WASN'T THE DUTCH WHO BUILT THE PASS THAT LEAD CARTS OUT OF THE HELDERBERG BASIN AND INTO THE FRUIT AND WHEAT FARMING COUNTRY BEYOND. THAT WAS THE BRITISH. CARS STILL FOLLOW

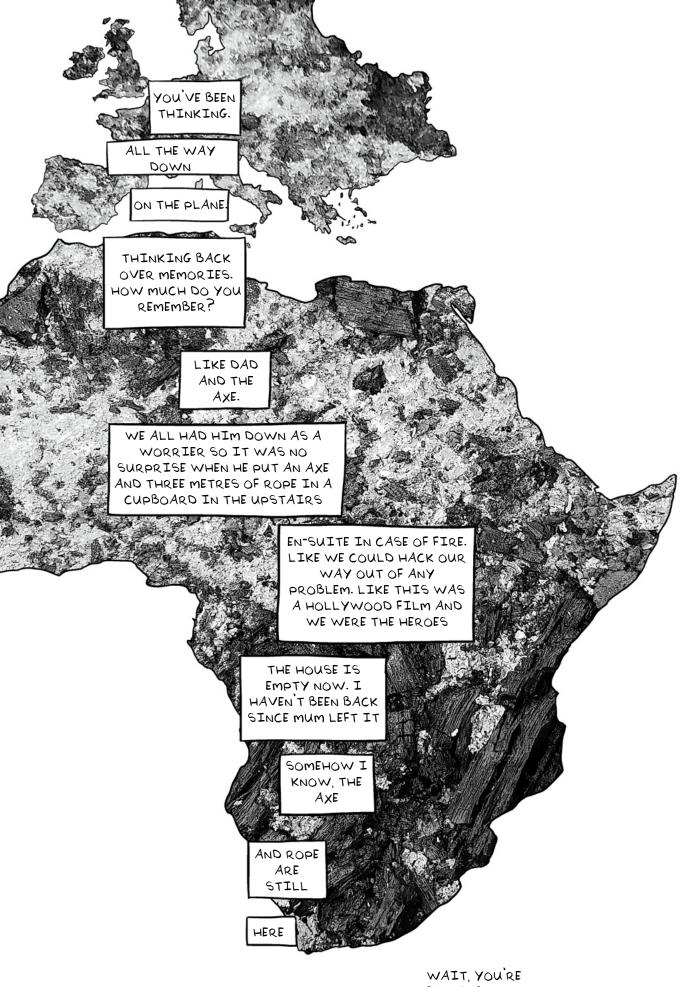
THAT SAME ROUTE, THOUGH THE ROAD HAS BEEN WIDENED AND TARMACKED. YOU NOTICE THAT WHEN YOU LOOK ACROSS AT THOSE BLUE, DISTANT MOUNTAINS YOUR EYES ALWAYS FOLLOW THE SUNLIT STRING OF CARS ON THAT PASS. LIKE MARBLES RUNNING ALONG A RUT IN THE EARTH.

WE ARE LIKE THOSE MARBLES.

WE FOLLOW THE LINES, ROUTES, AND PATHS WE CUT INTO THE EARTH

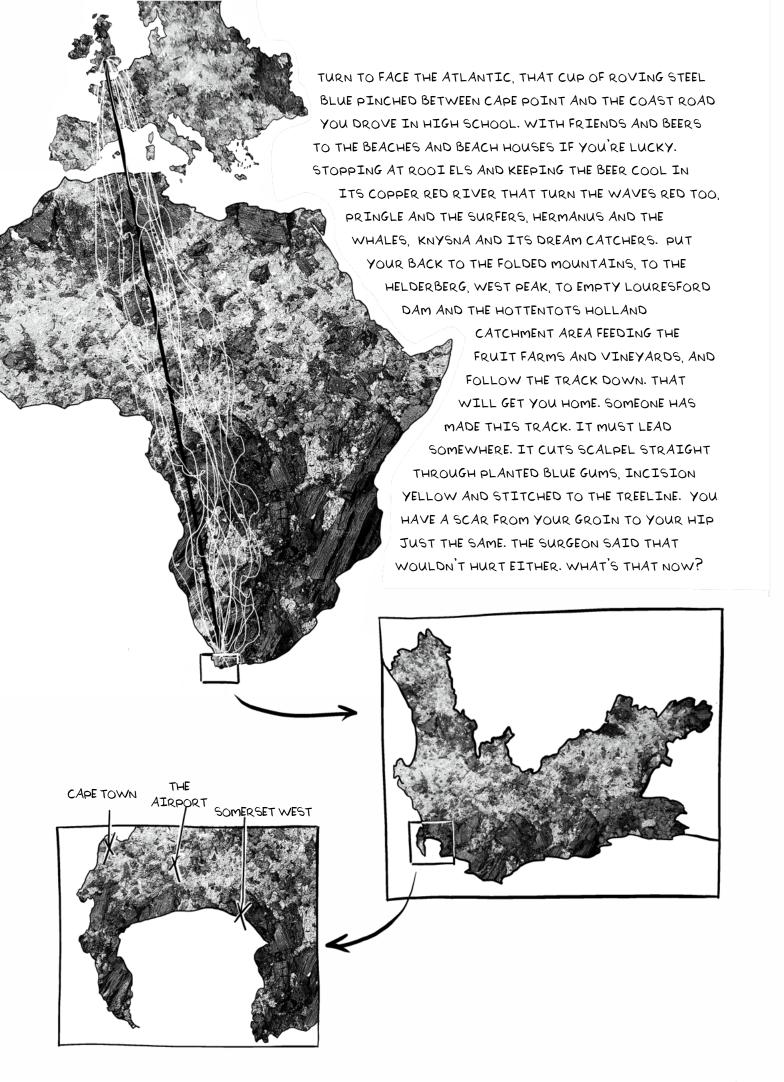
UNTIL

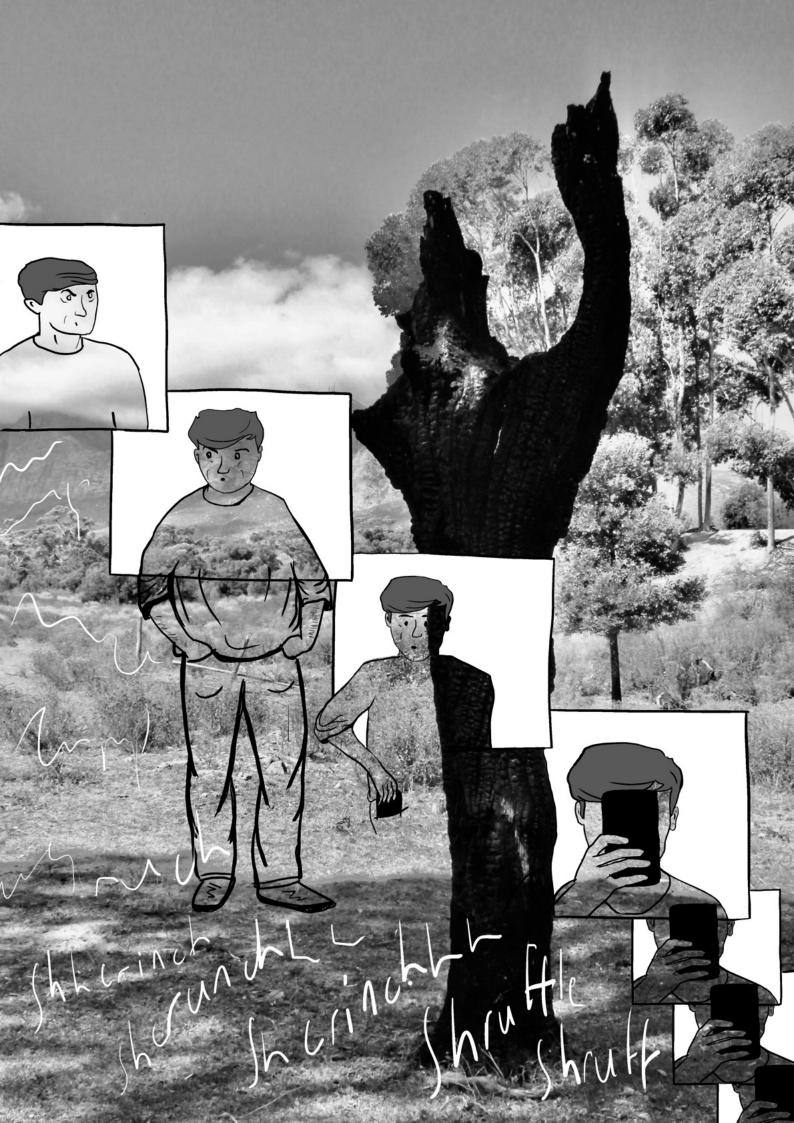
WE KNOW NOTHING ELSE.

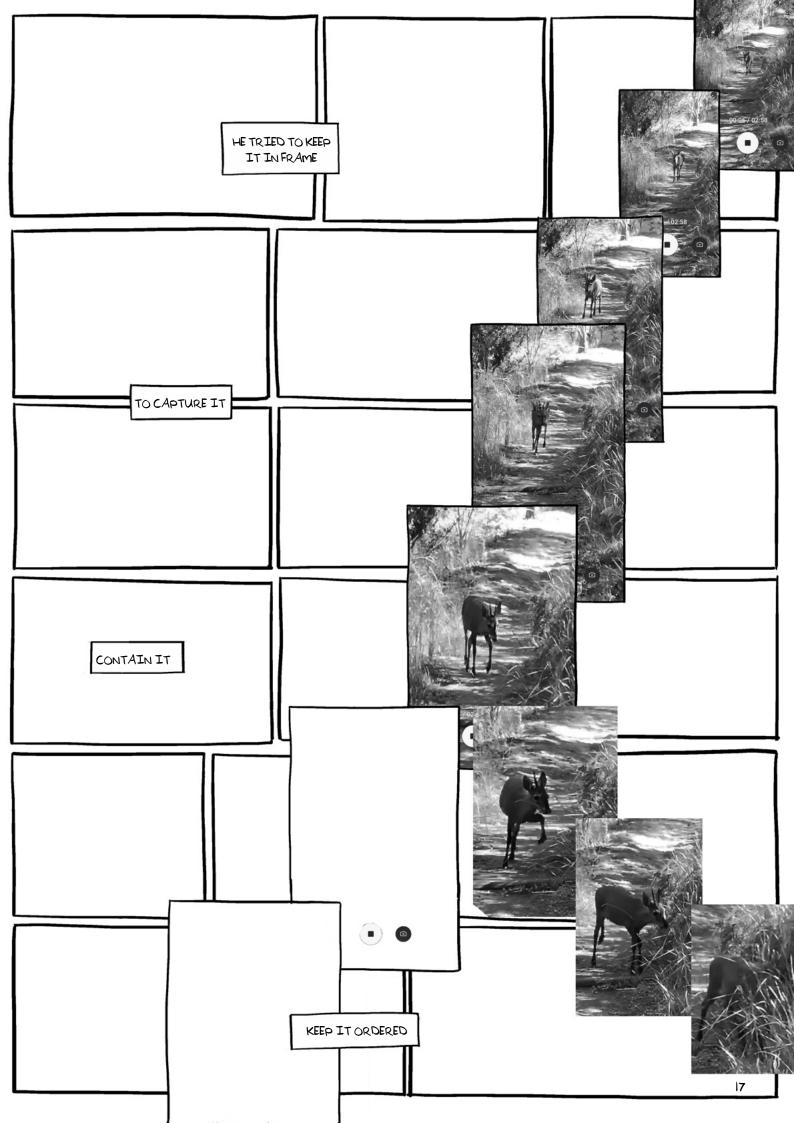


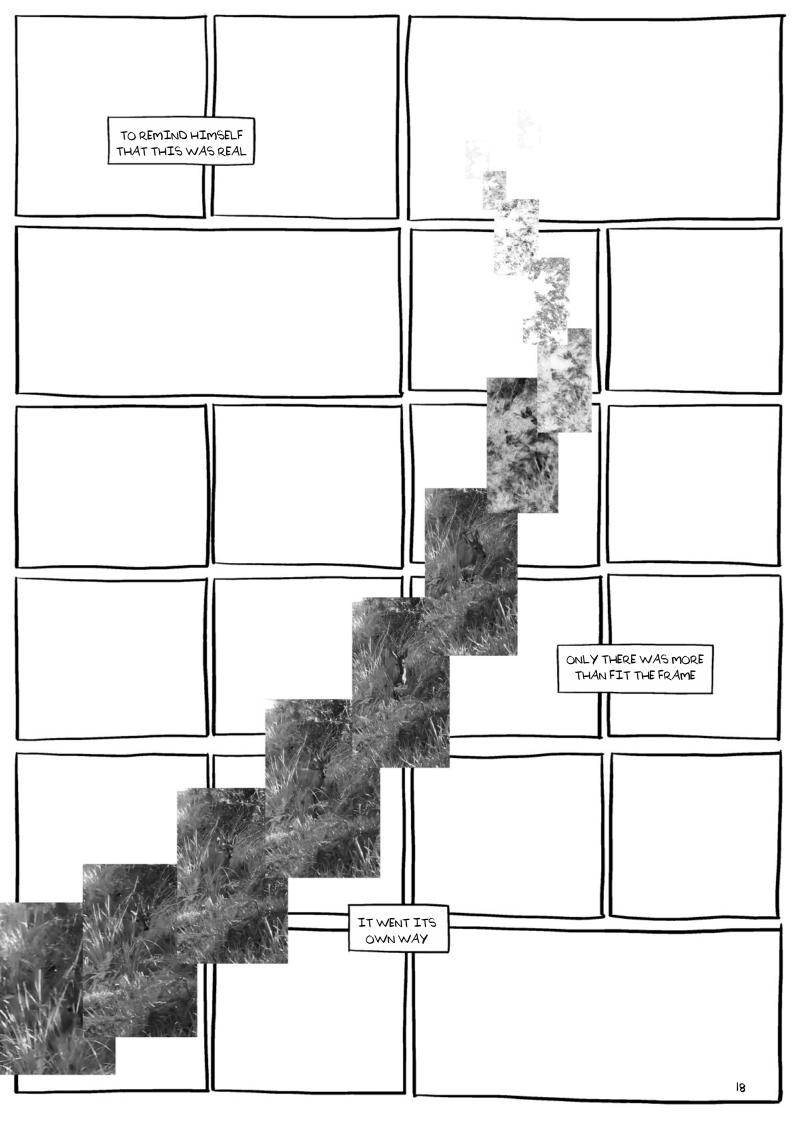
GETTING LOST.

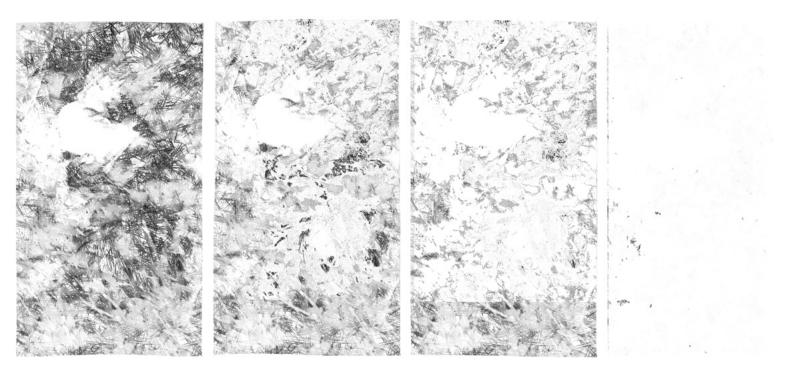
WHICH WAY IS IT NOW?





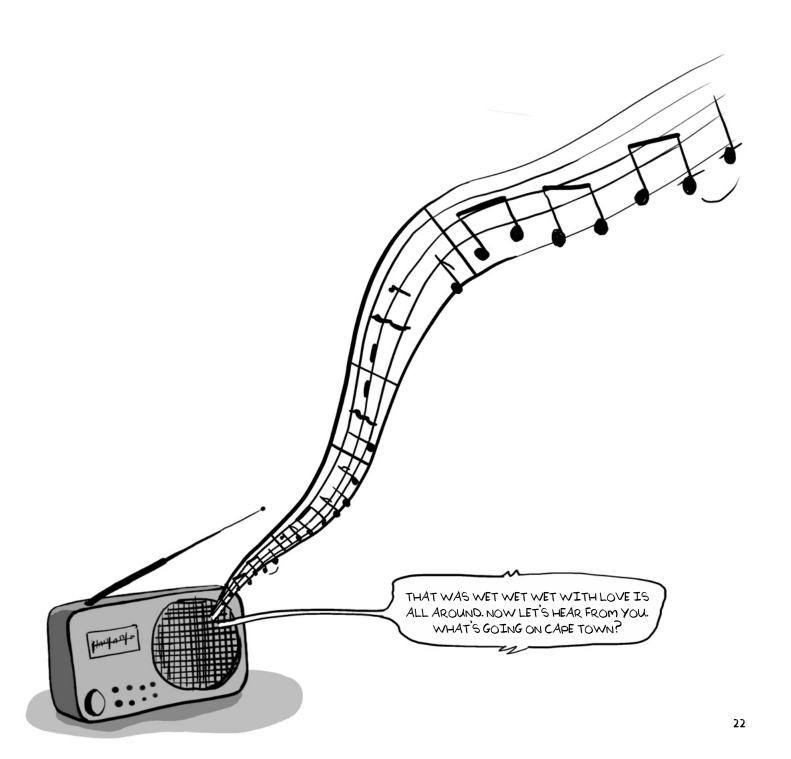


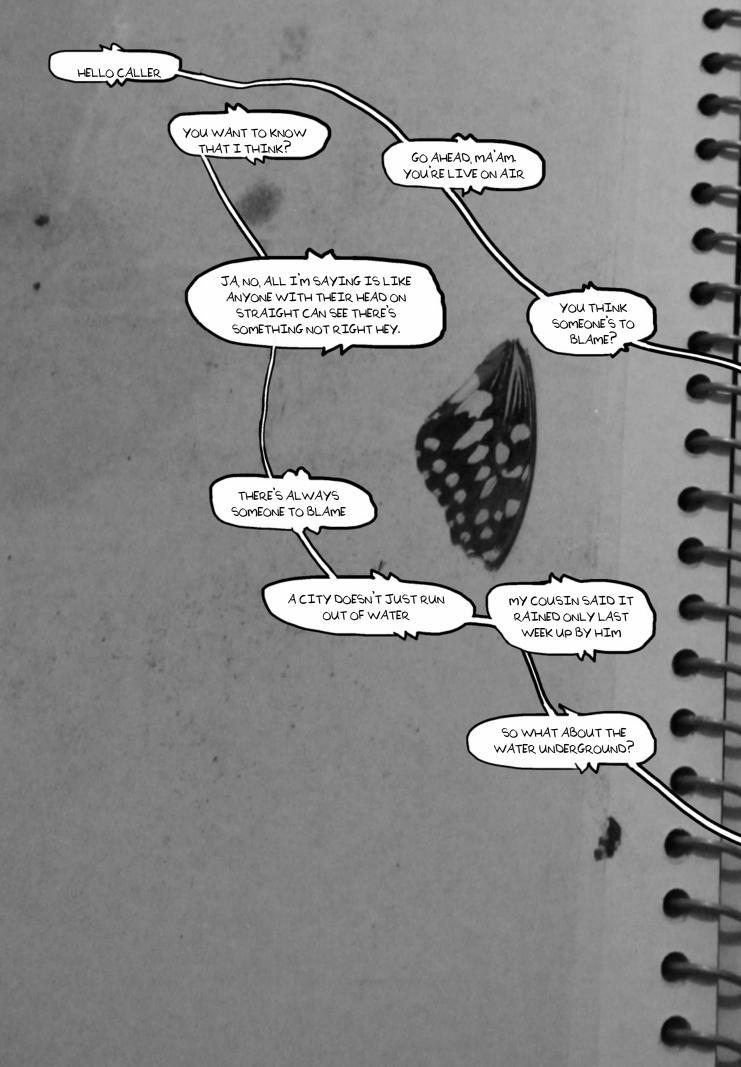


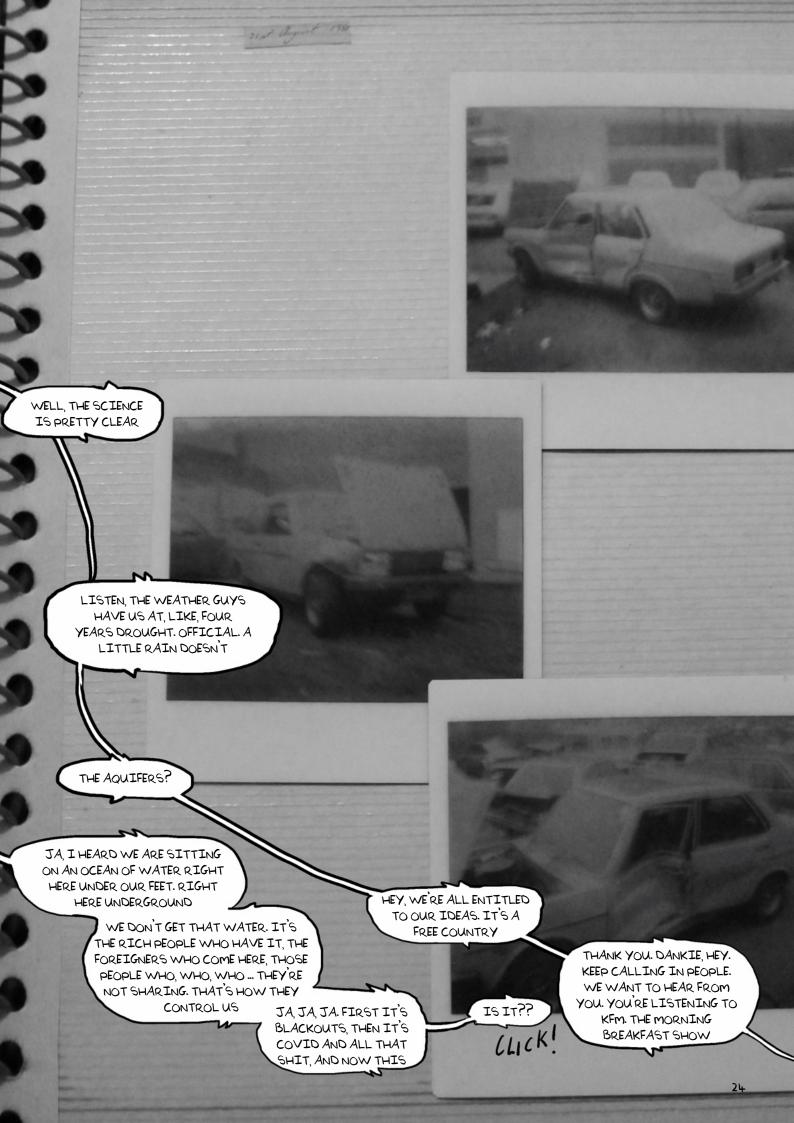


AND ... INTO MEMORY

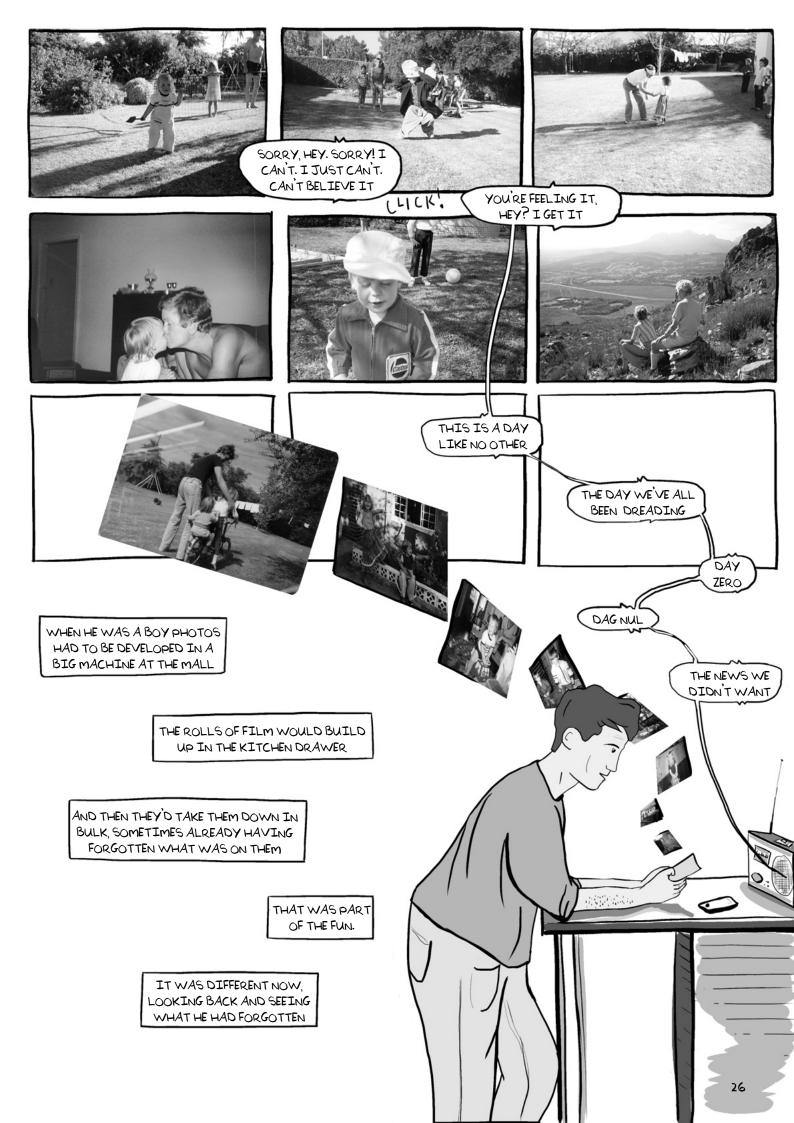


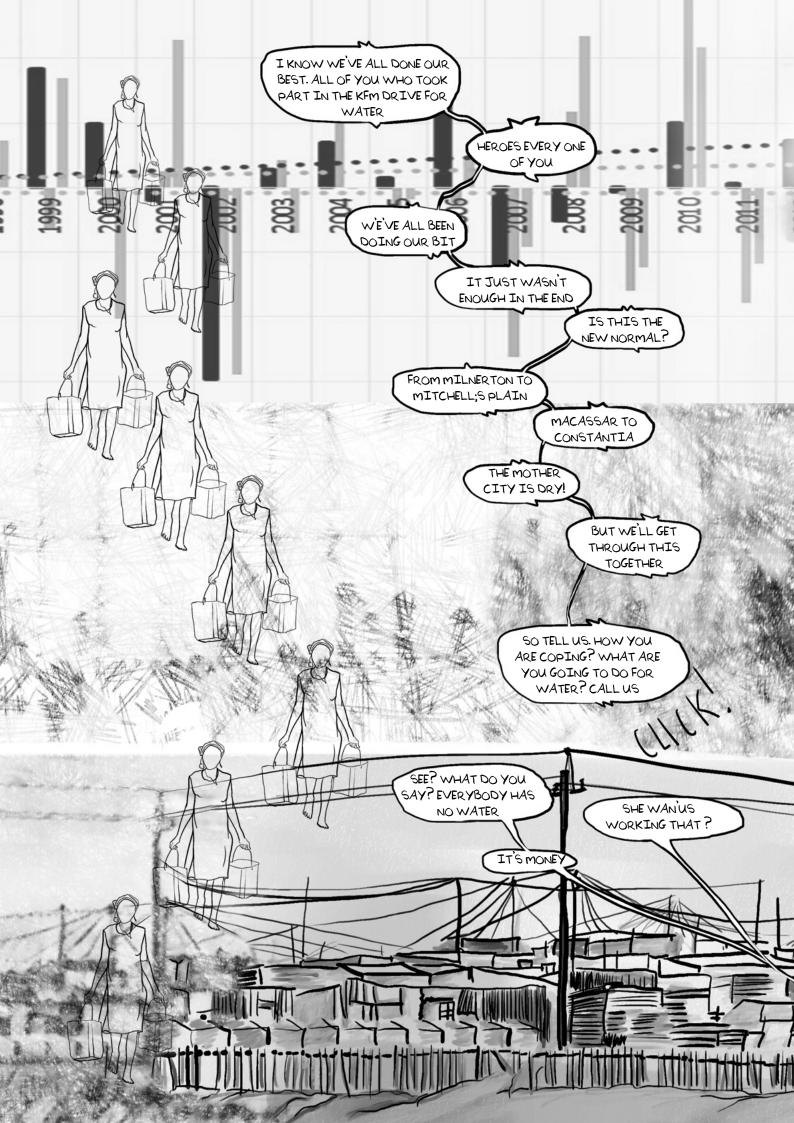










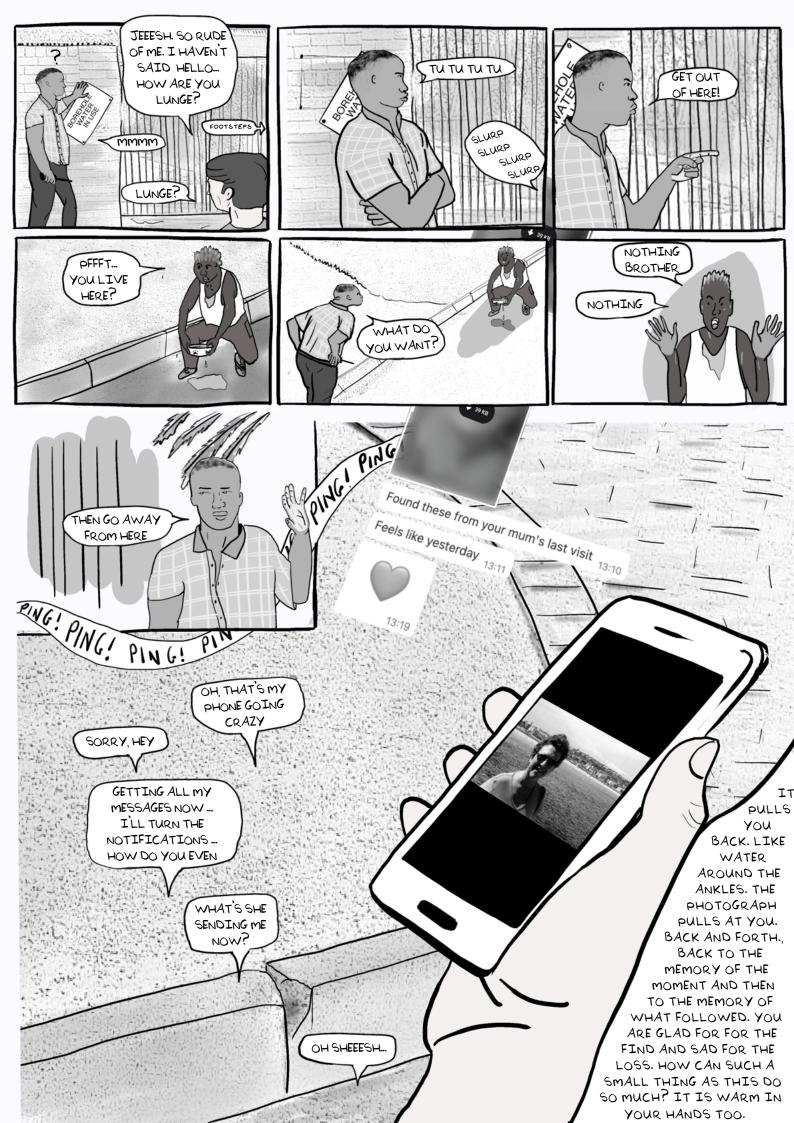










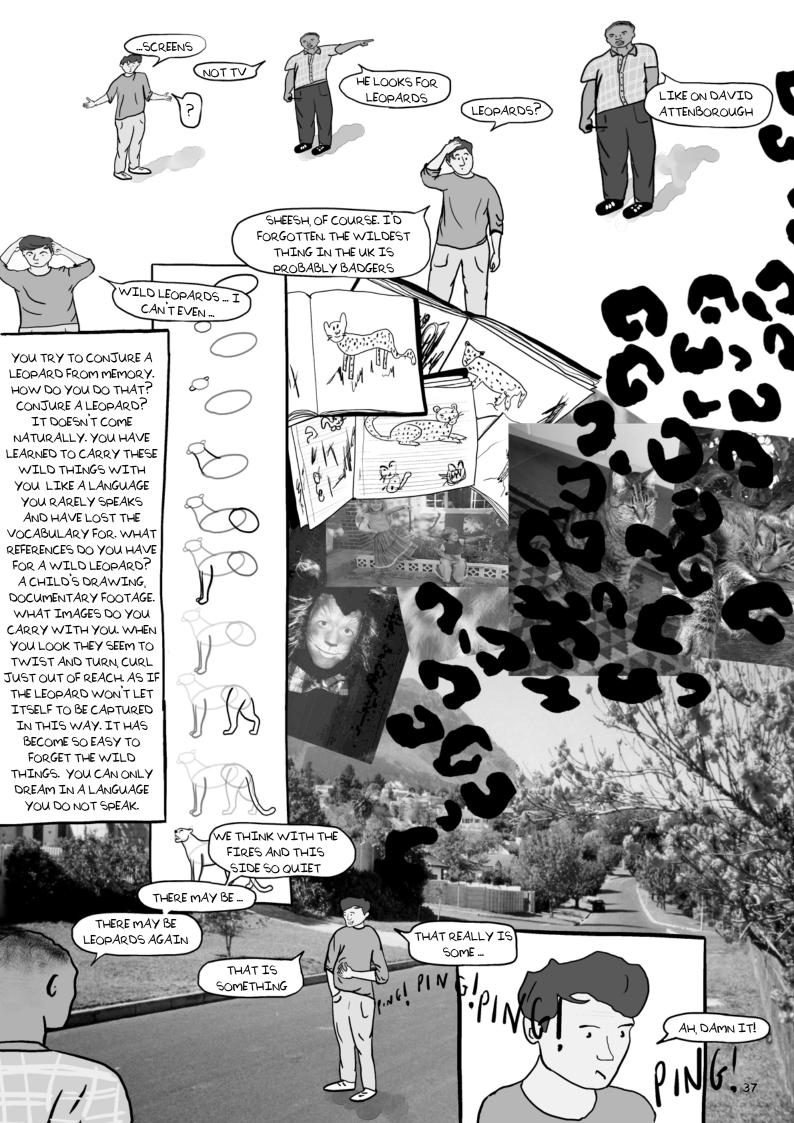




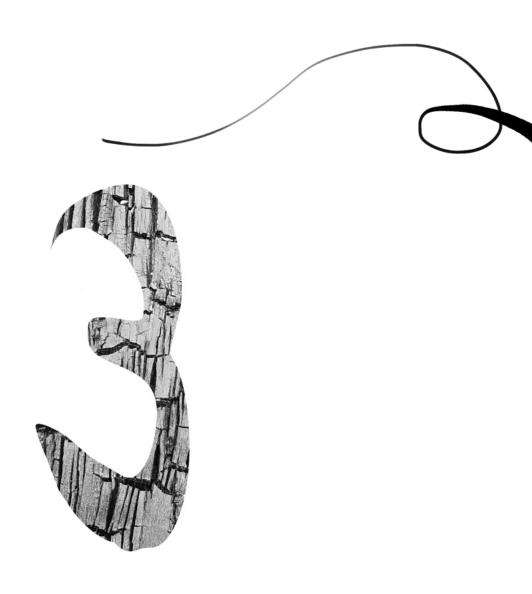


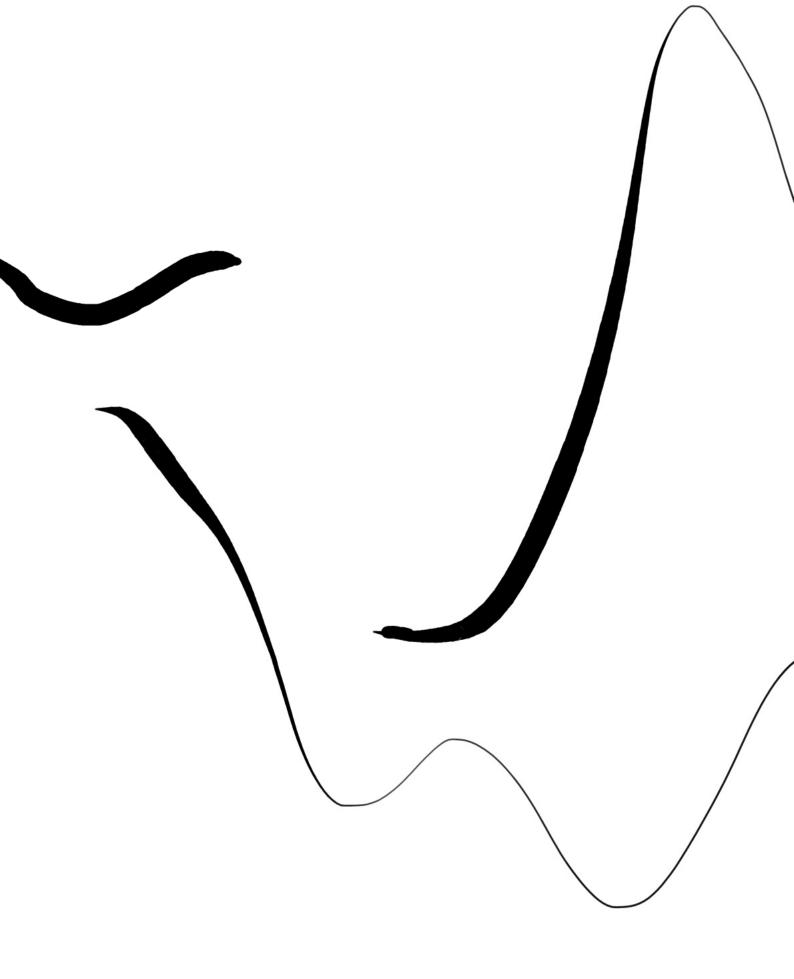




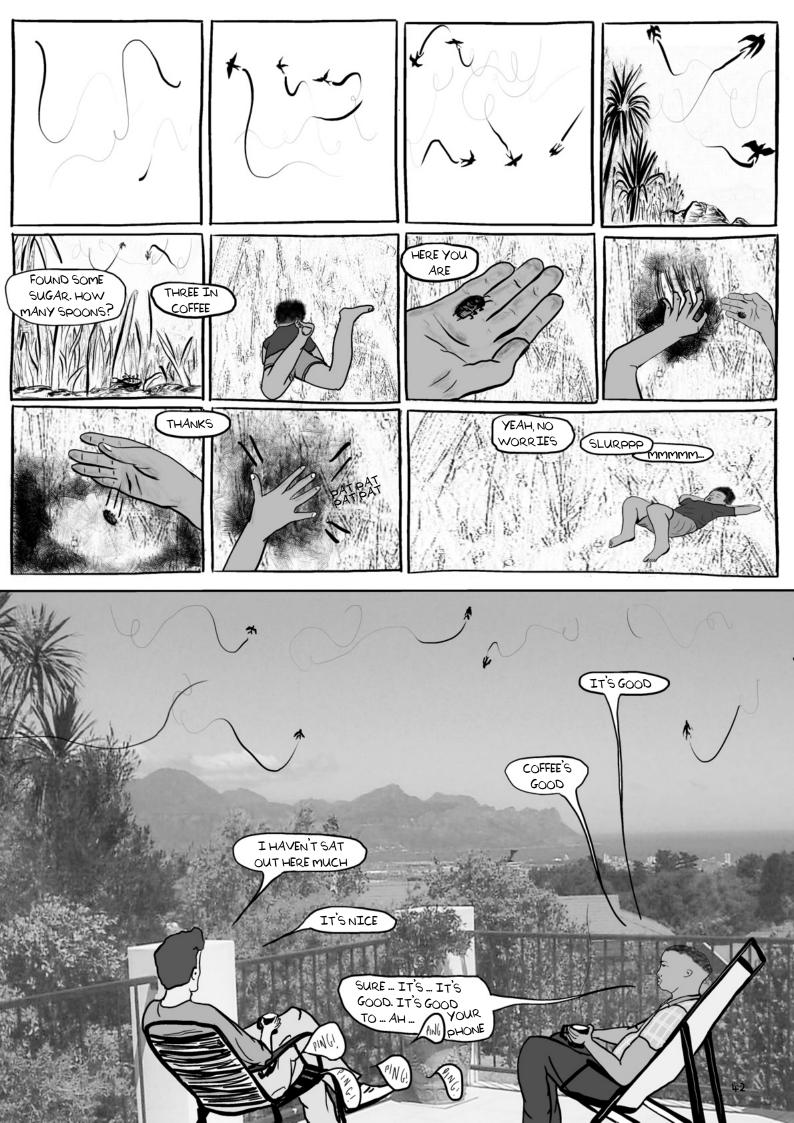
















All these photos are still on the hard drive
15:26

We should print them out or something
15:26

It's kind of a shock seeing them again.
You know?

These things are not always hiw you

remember

god look at us!

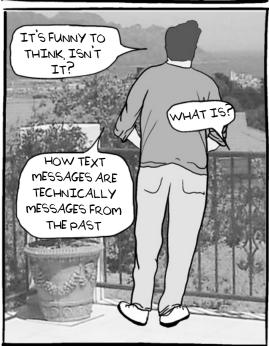




We're all there wide eyed like IN HER WAY smiling and wide eyed like time, we're not we're not there You know?

Sorry I'm philosophising again





And you know how I get when it rains

Only just got the laptop back up and running

Think you've just got ALL my messages

I sound like a crazy person!

Love you

Sorry

THAT'S LIKE

EVERYTHING







WHAT DO YOU REMEMBER? WHAT DO YOU ACTUALLY REMEMBER? YOU CARRY THESE THINGS LIKE A PICKED-UP BIRD'S NEST. THE IMPRINT OF WHAT HAS BEEN, THE EFFORT, THE PROMISE, THE MESS, THE BROKEN SHELL, THERE'S NO GETTING AWAY FROM IT. MEMORY CLIMBS LIKE BRAMBLE. YOU TURN AWAY FROM THE VIEW. IT CARRIES TOO MUCH FOR YOU. MEMORIES COMES CUPPED IN YOUR HANDS LIKE WATER, NO, LIKE SMOKE. LOOK AT THE SMOKE IN THE BASIN BELOW, FOLDED INTO THE FOLDED MOUNTAINS. HOME FIRES AND SETTLED IN SHRUB FIRES, DIESEL FUMES AND FACTORY EMISSIONS. WITHOUT THE CAPE DOCTOR, THE SOUTHEASTER, THE JAUNDICED CURVE OF BAY AND THE PEAKING BLUE MOUNTAINS IS ALL YOU HAVE OF THE VIEW YOU AND MUM SHARED UNTIL... WELL, UNTIL YOU LEFT.

LUNJE IS QUIET AND HIS BOY TOO. WHAT HAS GOT HIS ATTENTION? HE IS POINTING. THERE'S A SWALLOW SWOOPING AND DIVING AFTER INSECTS.

LOOK, HE SAYS. SEE. AND YOU TRY. YOU TRY TO SEE WHAT HE SEES, YOU TRY TO FOLLOW THE SWALLOW'S TRAIL, BUT IT'S NO GOOD.

YOU CANNOT SEE IT IN ISOLATION. YOU CANNOT SEE THE SINGLE, SWOOPING



SWALLOW WITHOUT SEEING THE TENS OR HUNDREDS OF SWALLOWS THAT ARE NOT THERE. THERE'S SOMETHING BROKEN. YOU SEE MORE OF WHAT'S MISSING THAN WHAT'S NOT. YOU WISH YOU COULD SEE WITH THE BOY'S CLEAR, INNOCENT EYES. YOUR EYES ARE CLOUDED WITH MEMORY,

A CATARACT OF YOUR LOSSES THICKENED BY OTHERS THAT CAME BEFORE. YOU CANNOT FORGET IT WAS NOT ALWAYS LIKE THIS.
YOU CANNOT SEE THE BIRD WITHOUT SEEING THE NEGATIVE SPACE.
THE BOY IS DIFFERENT, IT SEEMS. HE DOES NOT SEE ONLY THAT IT WAS BETTER BEFORE,

HE HAS KNOWN NOTHING BUT THIS.

A SWALLOW NAVIGATES ON INHERITANCE. THIS BOY FLIES FREE. YOURS IS A BROKEN WING. LUNJE REMINDS YOU HE MOVED DOWN TO

LUNJE REMINDS YOU HE MOVED DOWN TO
SPILL

THE BAY WITH HIS WIFE AFTER AN OIL SPILL

THE BAY WITH HIS OF THE EASTERN CAPE.

ON THE BEACHES OF THE EASTERN WILD COAST.

YOU THINK SARDINE RUN. WILD COAST.

BACKPACKERS. THE INDIAN OCEAN LIKE WARM
BUTTERED ONIONS. COWS GRAZING ON SEAWEED.
HE SAYS THERE WAS OIL IN EVERYTHING. SAYS HE
COULD SMELL IT ON HIS CLOTHES AND SKIN FOR

MONTHS. SAYS IF HE EVER WANTED TO GO BACK HE COULD FOLLOW HIS OWN BLACK OIL PRINTS.

YOU TALK AND DRINK COFFEE SO YOUR HANDS SHAKE.

YOUR FEET ARE THE COLOUR OF WHISKEY ICE CUBES. LUNJE TELLS YOU MORE YOU SHOULD HAVE REMEMBERED. HE'S BEEN MUM'S NEIGHBOUR FOR II YEARS,

THE DAY PEELS INTO EVENING AND THE LAST OF THE HEAT SLOPES INTO THE POOL WATER WHERE YOU ARE SOAKING.

MOVED IN A YEAR BEFORE YOU LEFT THE COUNTRY. AS HE TALKS YOU DRAW A LIST OF FACTS IN YOUR HEAD AND TELL YOURSELF TO REMEMBER. THIS, NO DOUBT, YOU WILL

FORGET. WHY THIS AND NOT EVERYTHING ELSE?

LUNJE SITS WITH HIS SWEET COFFEE COOLING AND HIS FEET BARE.

HE NODS AS HIS BOY CALLS UP TO HIM.

THEY TALK WITH ROUND FAMILIARITY. LIKE
STONES IN A RIVER. THE BOY IS EVERYTHING
WE THINK OUR CHILDREN WILL BE FOR US. HE IS
TIMEKEEPER, BAROMETER, WEATHER VANE,
NAVIGATOR, FORTUNE.

THE FATHER IS PROUD. YOU WANT TO TELL HIM HE SHOULD BE.

THE BOY IS COMING TO SEE YOU.

HE WALKS AS IF HE'S PLAYING A GAME AND THE RULES ARE IN SONG. SON: ONAKO, ELEVEN WIFE? PARTNER? SEPARATED. JOB: UNEMPLOYED? HE LOOKS AFTER THE HOUSE. JOB: UNEMPLOYEU! HE LOUKS AFTER WHO LEFT AND SOMETHING ABOUT A BUSINESS PARTNER WHO LEFT IN ICE NAME: ? PRETENDED I KNEW IT SOMETHING ABOUT A BUSINESS PARTNER OWNS THE HOUSE MOVED TO THE UK. BUSINESS PARTNER OWNS THE HOUSE TIME SINCE BUSINESS PARTNER LEFT: TWO OR THREE AND THEY LIVED HERE TOGETHER NUMBER OF TIMES LUNTE SHOWED ME HIS PHOTO AS WE YEARS OF DECLARED DROUGHT BEFORE THE BUSINESS YEARS. ONAKO'S SCHOOL: SOMERSET HOUSE PREPARATORY TALKED: EIGHT PARTNER LEFT: THREE OR FOUR NUMBER OF BLACK KIDS AT ONAKO'S SCHOOL THAT ARE SCHOOL NOT ONAKO: ZERO











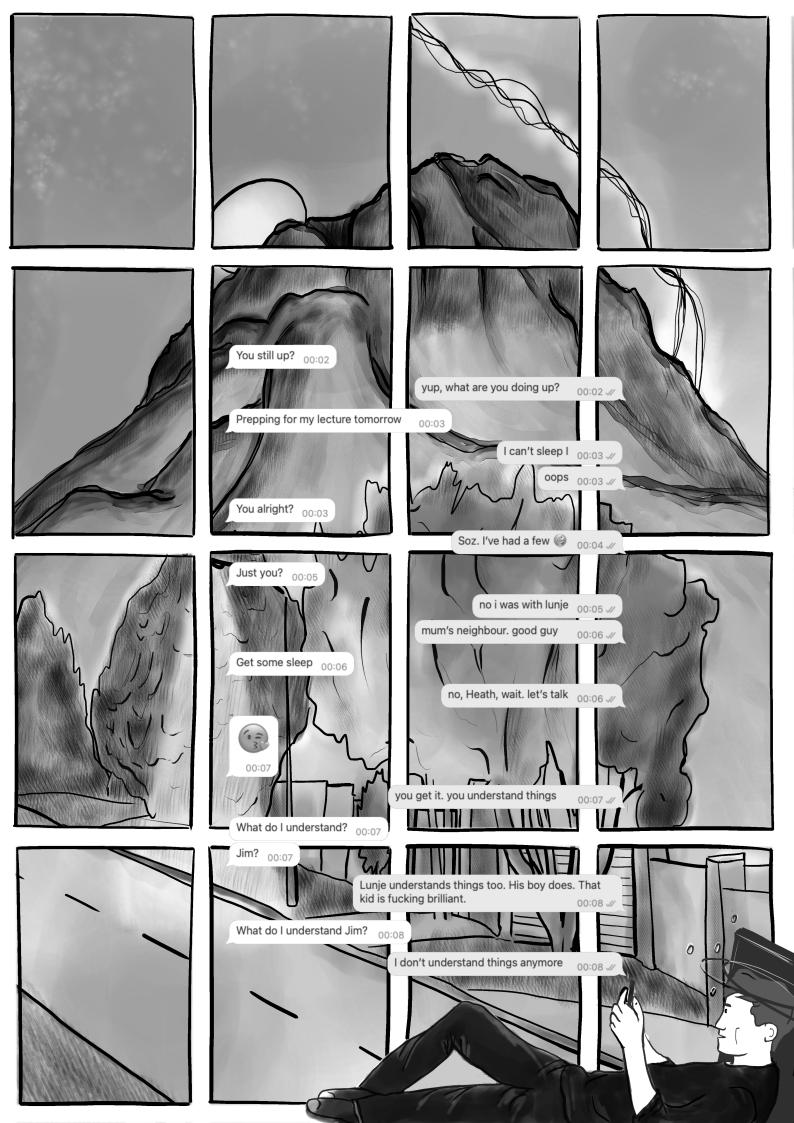


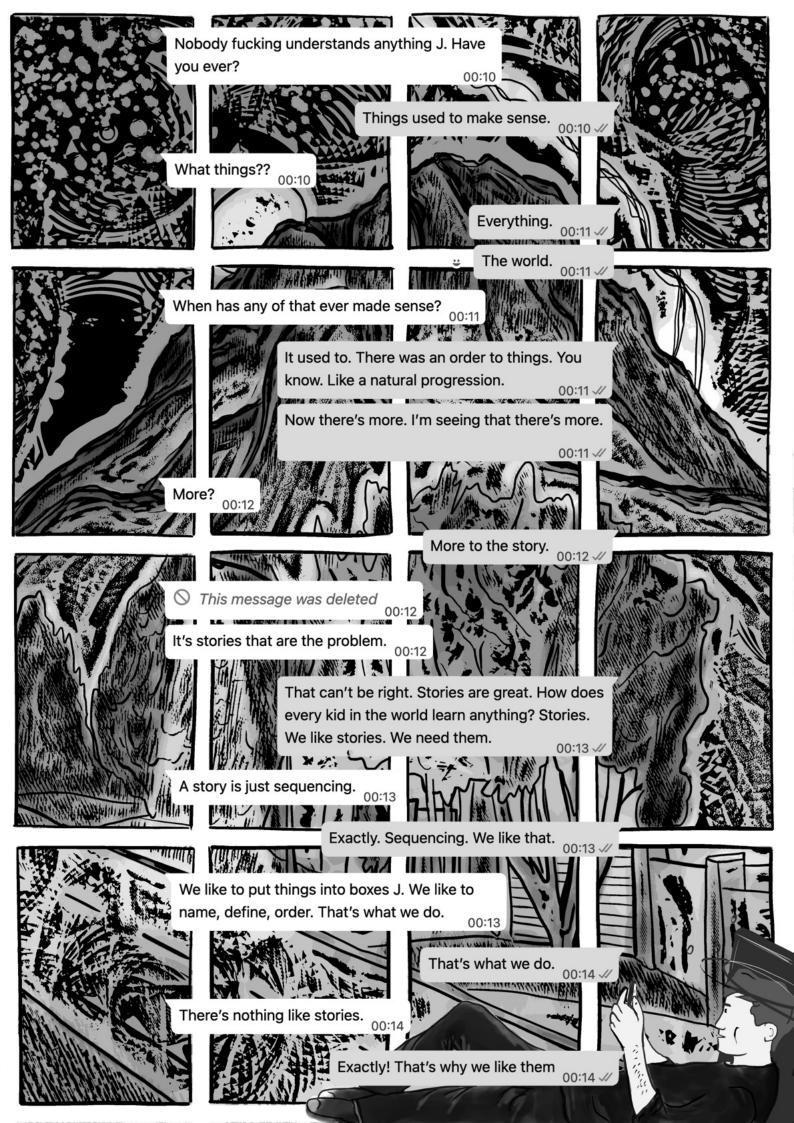


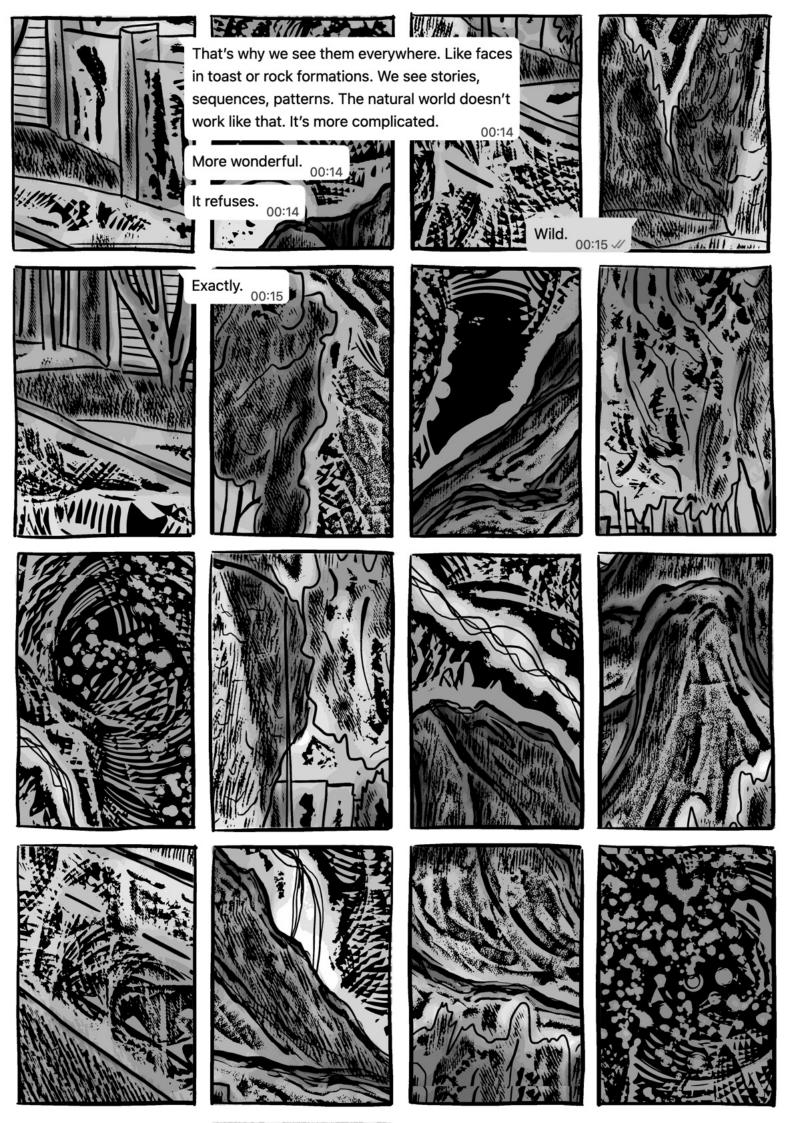


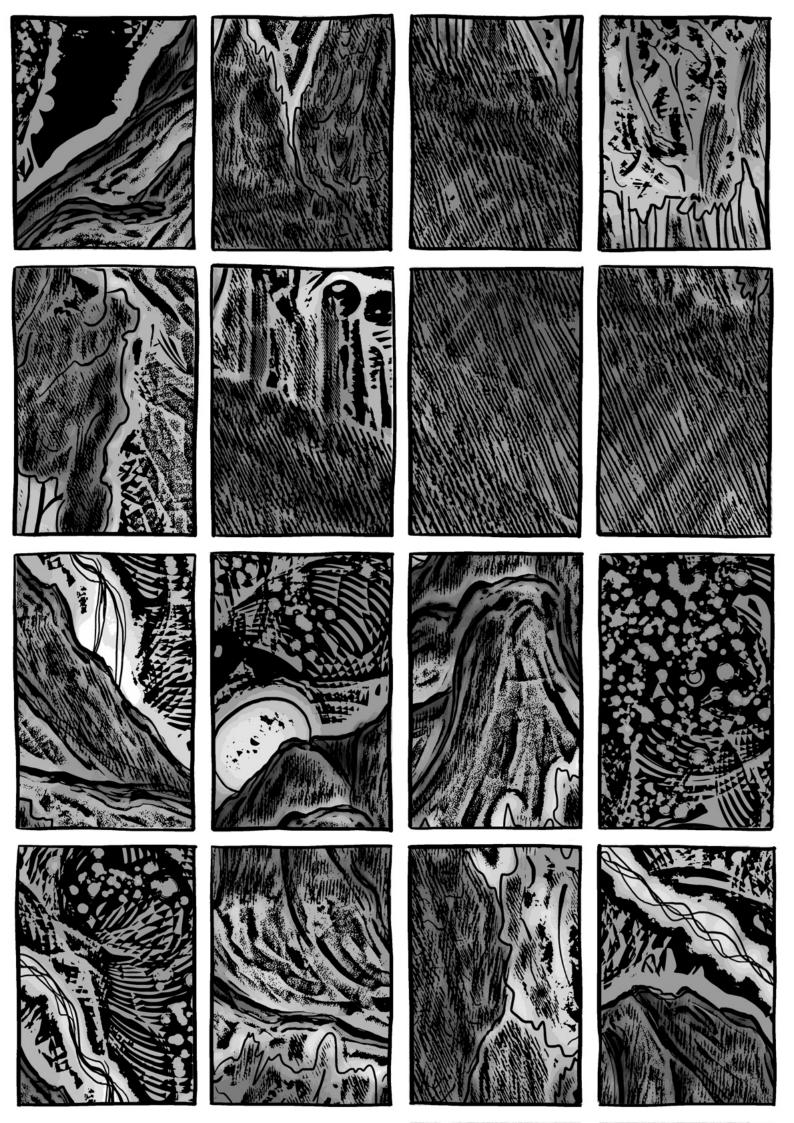


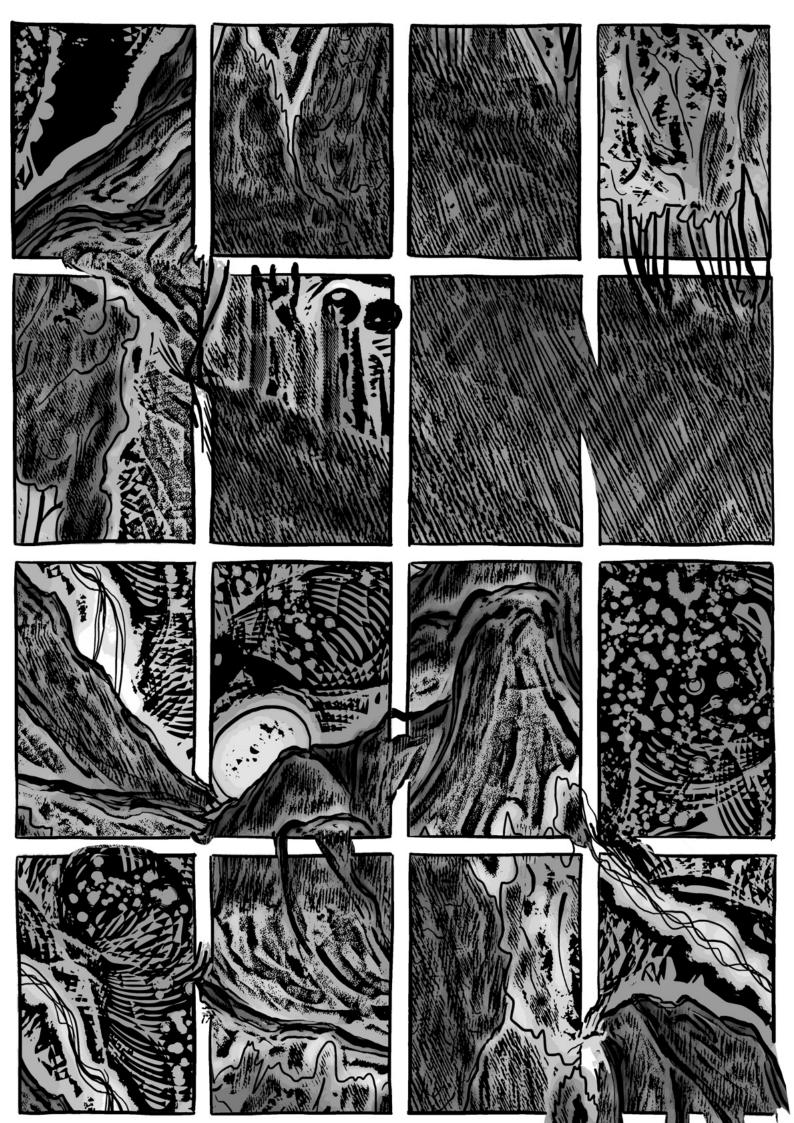


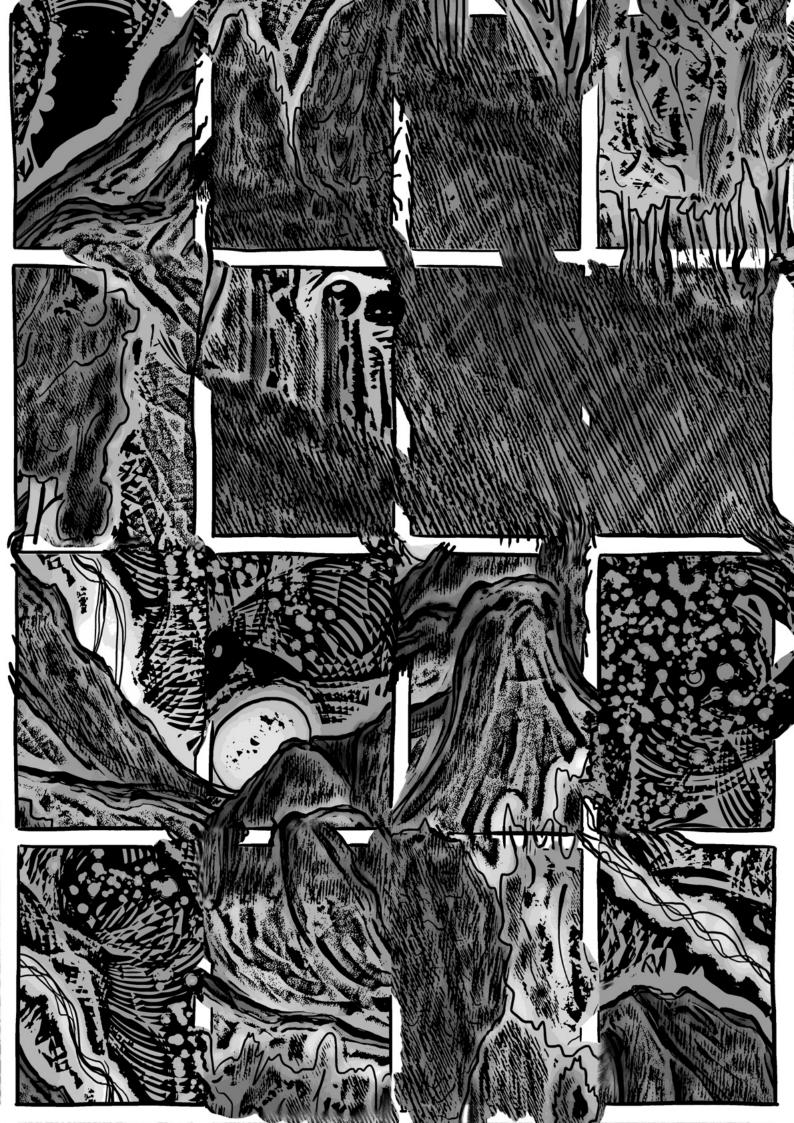










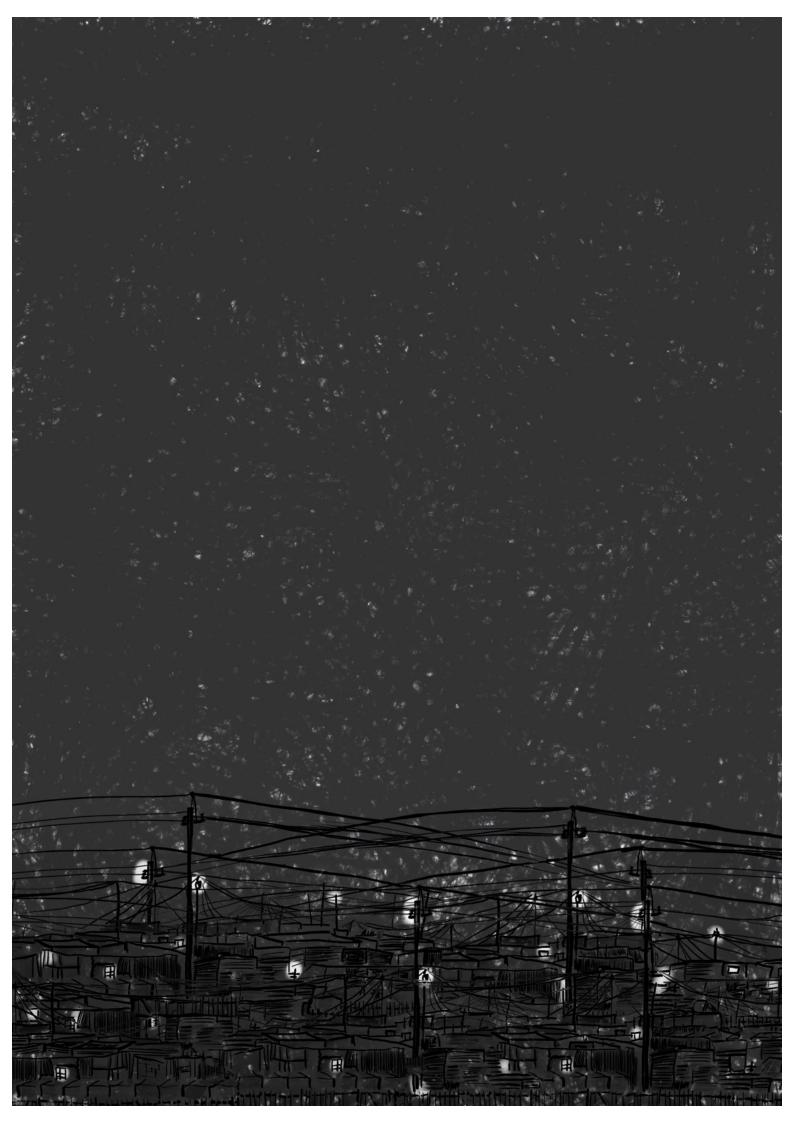


















RUMBLE

GRUMBLE

A LITTLE WHILE LONGER

JUST BREATHE

YOU ARE NOT A FAILURE







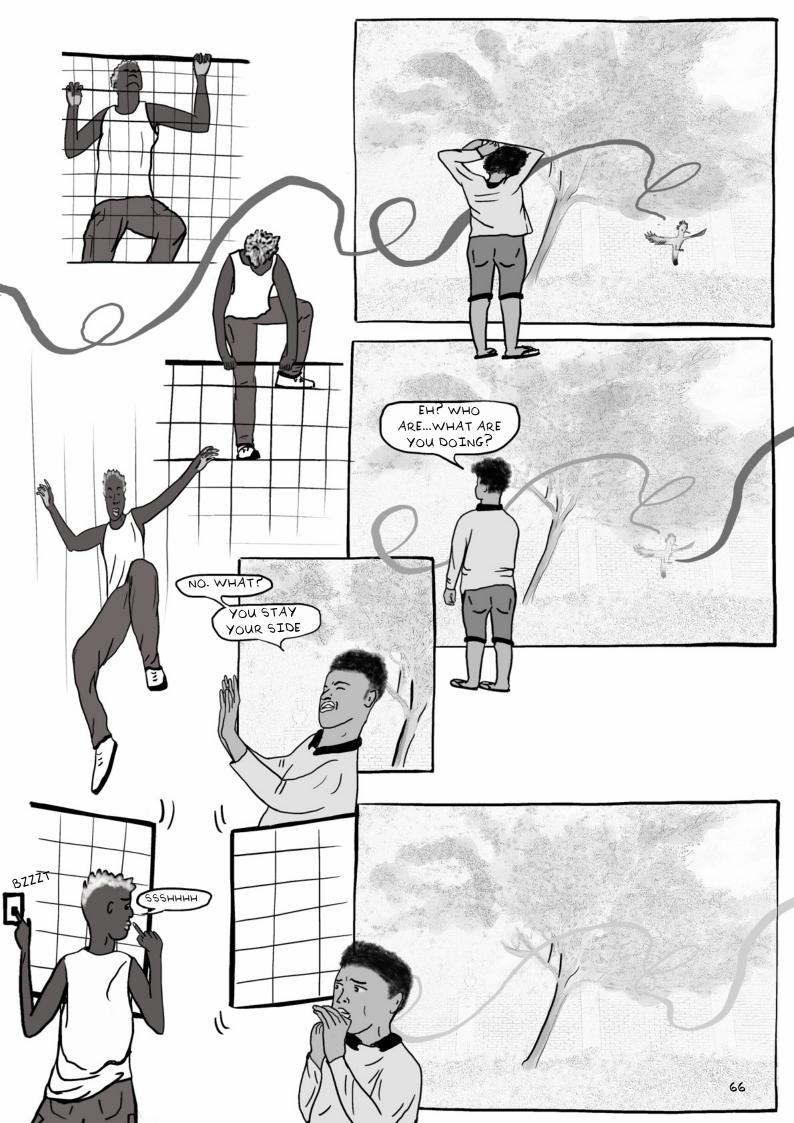






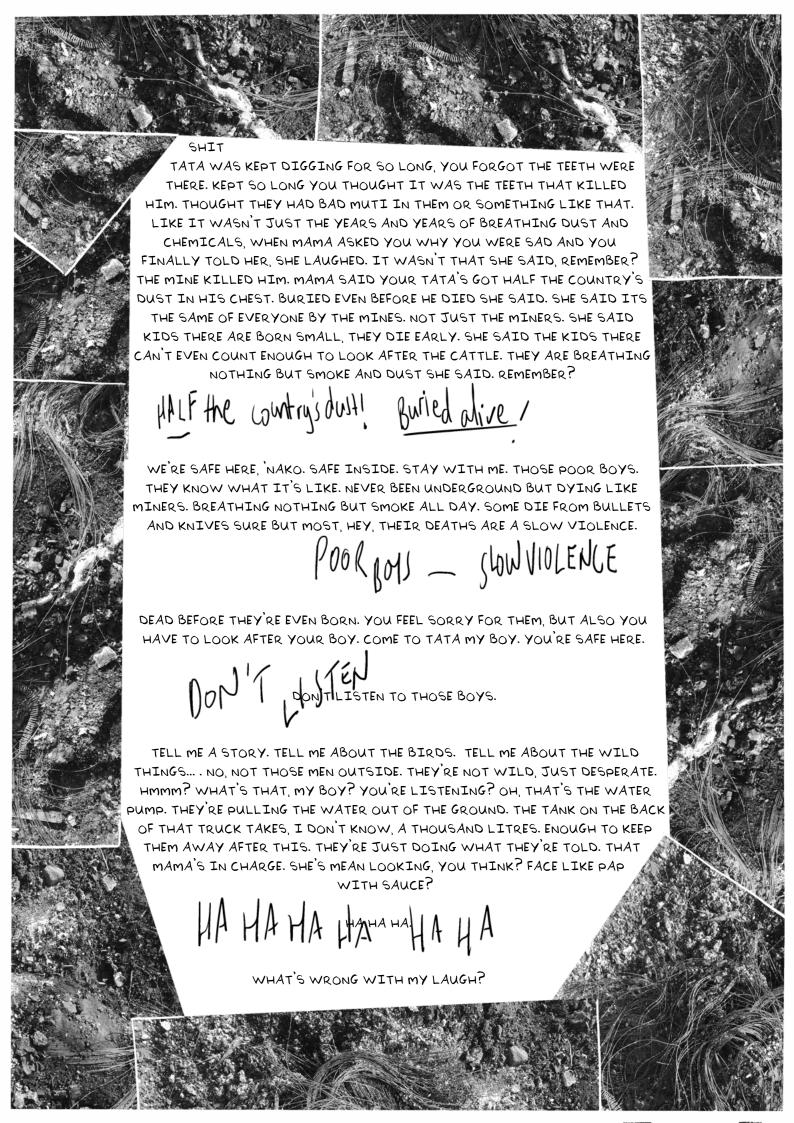


















THEY'RE BACK AND SO WHAT ARE YOU GOING TO DO ABOUT IT? YOU CAN'T JUST SIT HERE AND TAKE IT. ONAKO IS NOT SAFE WITH THEM.

WHAT KIND OF A MAN ARE YOU? WHAT KIND OF A FATHER?

A NO GOOD ONE.

A BROKEN ONE. NOT ONE GOOD ENOUGH FOR ONAKO. THAT BOY'S SOMETHING ELSE. YOU CAN'T DO THIS.

YOU HAVE TO DO SOMETHING.



YOU'RE A USELESS MAN, A USELESS MAN, A USELESS AE THIS? YOU MAN. WHAT CAN YOU DO IN THE EAST OF THI HAVE NO USES. WHAT CAN YOU DO THE CAN ANYON WHAT IS IT? ) AND KEEPING RUNNING. LOOK AFTER YOUR OWN.

YOU'VE BEEN DOING THAT ALL THIS TIME ALONE ANYWAY





















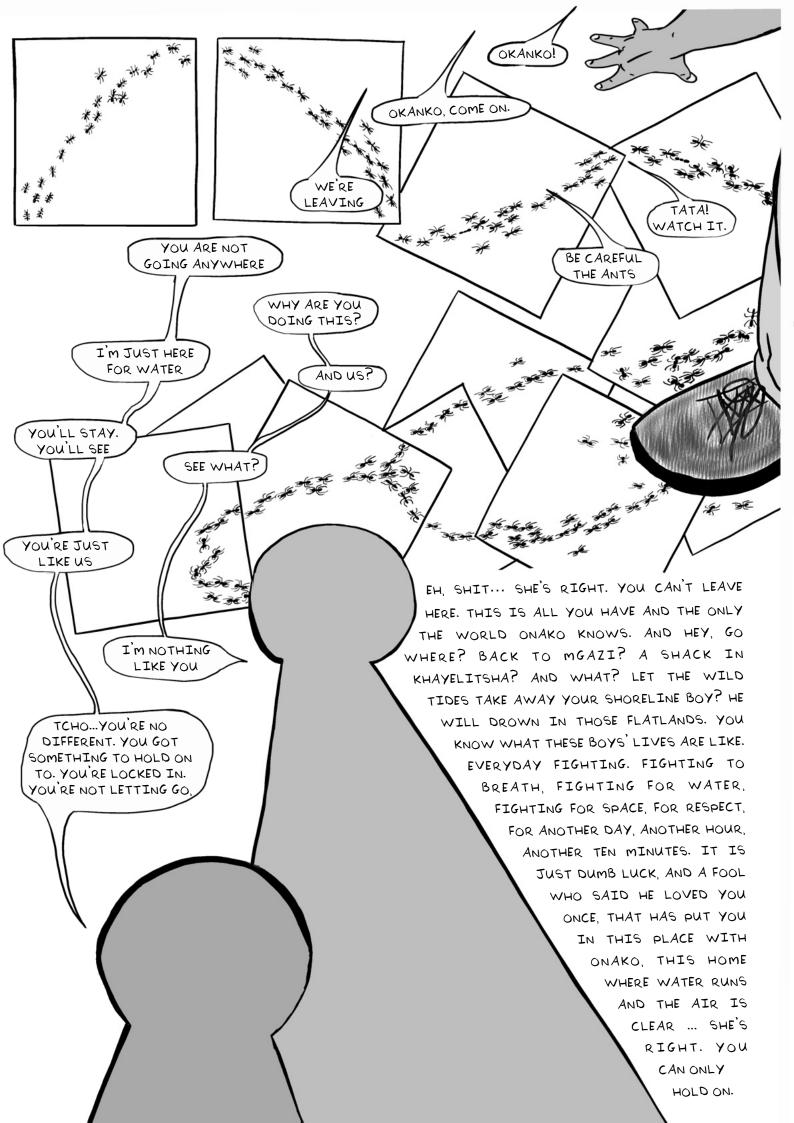












WHAT ELSE CAN YOU DO? YOU'RE GOOD FOR NOTHING ELSE. YO, YO, YO, WHAT IS WRONG WITH THIS MAN? NEVER HAD TO OU'VE DONE WELL TO GET WHAT YOU GOT, TO KEEP ONAKO

WORK A DAY IN HIS LIFE. WHAT DOES HE KNOW ABOUT OUR

SAFE AND HEALTHY. YOU HELP HIM WITH HIS HOMEWORK LIVES. NOTHING ABOUT HIM MAKES SENSE. YOU WANT TO HIT

AND DO WHAT YOU CAN AND WHAT YOU MUST. YOU DO IT HIM AND TALK TO HIM AT THE SAME TIME. HE LOOKS LIKE HE

WELL. THIS IS NOT A TIME TO PROVE ANYTHING. WHAT

HAS BRAINS. BRAINS ONLY GET IN THE WAY. THERE'S NOT

POISONIT

CAN YOU PROVE, WHAT DO YOU THINK YOU ARE TRYING TO TIME FOR BRAINS. NOT WHEN THERE'S NOTHING BUT YOU AND

PROVE. THIS IS ONLY ONE DAY, MAYBE A FEW DAYS BUT THEY ALL DEPEND ON AND, EH, YOU NEED A WE ARE LOCKED HAVE IT BACK DRINK AND IN OUR BOXES SOMEONE YOU'RE LEF AVEN'T SEEN CARRYING E FOR YEARS LIGHTNING FOLLOWING A LINE OF E SEE WHAT SAY AND ] THOUGHTS LIKE ANTS JRE. WE CAN HEAVY LI S NOTHING SOMETIME HAT TRUE? LOOK AT ) SNOTHING NEGATIVE THOUGHTS WOLVES A NARROW VIEWS BUT THAT'S FIRE AND THING BUT MOSQUITO ND SLICES WHISPERS JUST TIME DEPENDENT YOURSELF NOTHING LIKE LOOKING AN WORRY THOUGH A KEYHOLE JUST ME. I VT FORGET MAMA THI VHAT IT'S MAMA THA AND OURS YOU WAN SOMEONE EAT AND S J HAVEN'T AND ALL S JUST GO YO, YO, YO JE UP AND ALL YOU H YOU CAN'T YOUR VIE IS YOUR ROOFTOPS WONDER UNTIL WE FORGET TO SMILES A LOOK OUTSIDE AT ALL FOR SURE FROM THE ARE YOU

THINKING ABOUT THAT. YOU DIRTY MAN. YOU'RE YOUR

WATER AND THEY COME TO YOU THEY COME TO YOU AND SAY HEAD IS SPINNING AND YOU CAN'T STOP IT. FOCUS. DO THE MAMA, HEY MAMA, SAVE MY SON, TAKE MY SON, YOU ARE THE

RIGHT THING, WHAT'S THE RIGHT THING? WHAT'S WRONG ONLY ONE AND YOU ARE THE ONLY ONE. WHAT YOU SUPPOSED

TO DO? WHAT'S THIS MAN THINKING? SITTING ON THIS

THING. DO WHAT'S RIGHT FOR HIM. DO WHAT'S RIGHT FOR TOWER. WHAT'S HE KNOW? NOTHING. YOU HAVE TO DO WHAT

HIM. DO WHAT'S RIGHT FOR HIM. DO WHAT'S RIGHT FOR YOU HAVE TO DO. THERE'S NO ONE ELSE. THERE'S NO ONE ELSE.

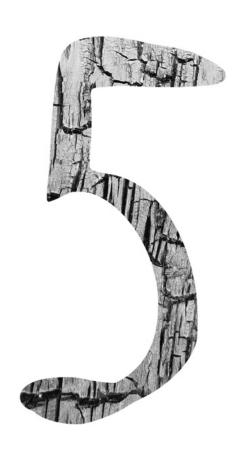
HIM. DO WHAT'S RIGHT FOR HIM. DO WHAT'S RIGHT FOR THERE'S NO ONE ELSE. THERE'S NO ONE ELSE. THERE'S NO ONE ELSE. HIM. DO WHAT'S RIGHT FOR DO WHAT'S RIGHT. DO RIGHT.

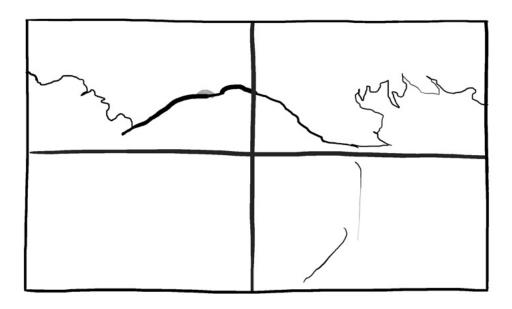


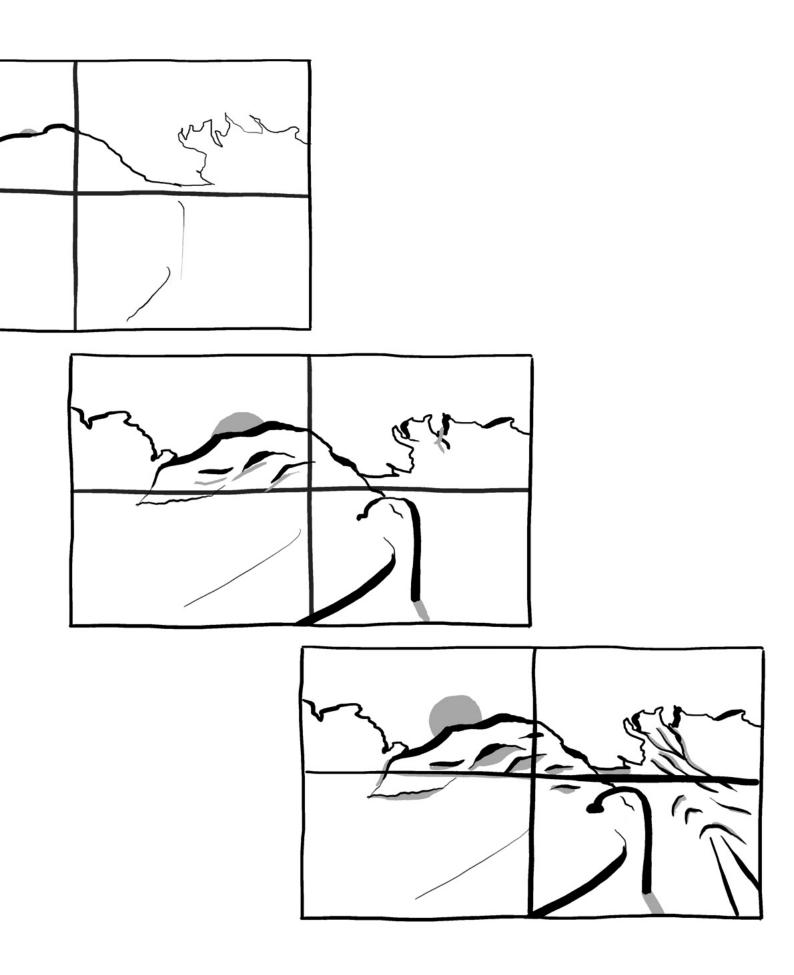
HANDOUTS, HEY. NOBODY!





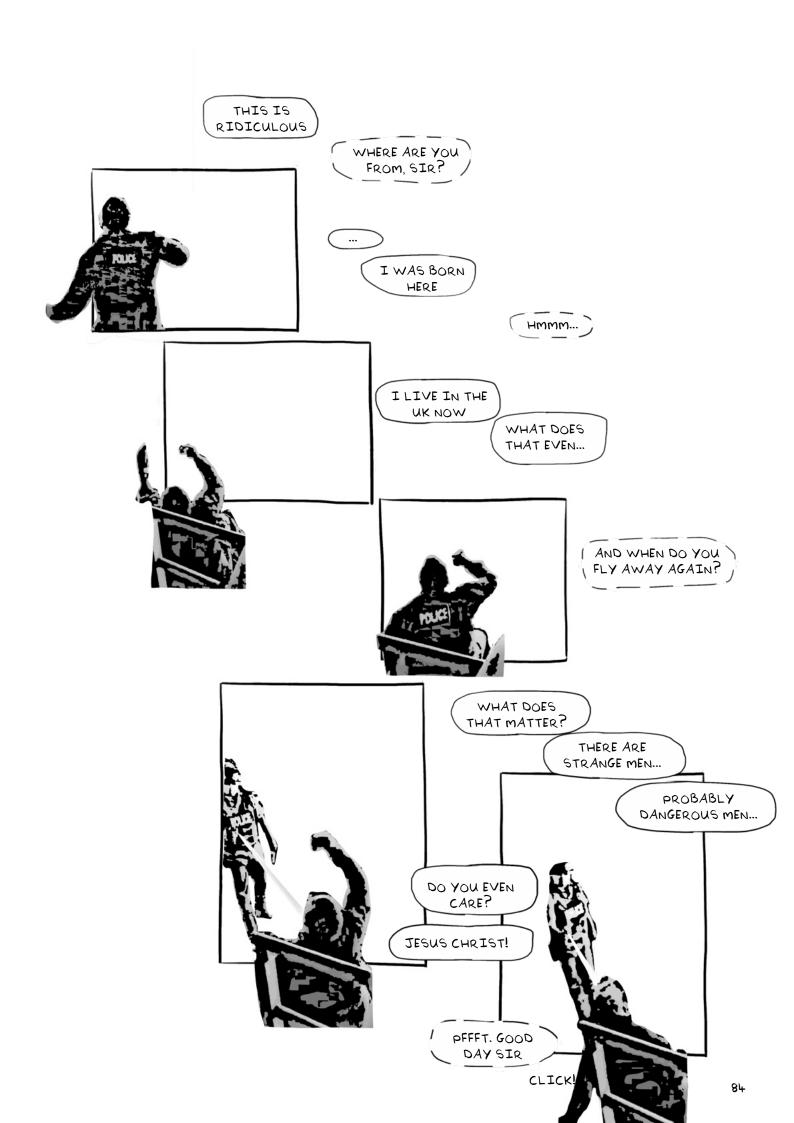


















AMBULANCE WHEN IT COME SAID HE ALMOST LIVED BECAUSE HE HAD SO FEW WATER IN HIS BODY HIS BLOOD WAS LIKE MUD. THE BOY HE LEFT BEHIND WAS NINE AT HIS BIGGEST BUT STILL PISSING THE BED AND SPITTING TEETH. SPIT ALL SHADES A SHIT TOO. CRAZY STORIES BUT SO FUNNY THEY CRACK YOU IN HALF WITH LAUGHING. THAT BOY TOLD YOU HE DON'T BELIEVE IN TOMORROWS. NOT AT ALL. SAYS HE NEVER SEEN THEM COME. SAYS TOMORROWS ARE LIKE RAIN OLD PEOPLE STORIES. SAID HE HAD NO BED TOO. TOLD YOU HE HAD NEVER SLEPT IN THE NIGHT AND HE NEVER KNOWN DATES, MONTHS OR DAYS OF THE WEEK, SO HE'S THINKING IT'S ALL A LONG STRETCH OF THE SAME. AGAIN AND AGAIN. EISH. YOU KNOW HOW HE FEELS. BOY'S NO DIFFERENT FROM YOU. FROM ANY OF YOU. JUST GOT THE WORDS FOR IT AND YOU DON'T. NONE OF YOU DO. HOW CAN YOU THESE DAYS WHEN WORDS MEAN NOTHING TO ANYONE? HEY? OTHERS CAME AFTER TOOTHSPITTER. IT WAS THEN THE STORY CAME OUT ON THE STREET THAT YOU WERE TAKING IN STRAYS. AND PEOPLE CAME AND ASKED AND YOU SAID NOTHING. COULD SAY NOTHING. THEN CAME THE FLOOD UP IN KWAZULU AND YOUR DOOR IS SWINGING ON ITS HINGES LIKE A FUCKING TIN BITCH AND ITS ALL OLD PEOPLE BRINGING THEIR CHILD'S CHILD, NEPHEWS, COUSINS, HAND DOWNS WHATEVER THE FUCK ALL TO YOUR DOOR. YOU COULDN'T TAKE THEM ALL. SO YOU TOOK THE ONES ONLY WHO LOOKED HEALTHY. ALL OF THEM SMALL BUT YOU LEARNED TO CHECK THEIR TEETH, LOOK AT THEIR FEET AND HANDS TO SEE THEY CAN WORK, FEEL THEIR BELLY AND SHOULDERS. THE FLOODS WERE BAD AND THE HOUSE WAS QUICKLY FULL UP. FLOOD SHIT PEOPLE CALLED THEM. REMEMBER THAT? BEEN YEARS NOW SINCE PEOPLE WERE TALKING ABOUT THEM BUT THEY STILL HERE, PROBLEM DOESN'T GO AWAY LIKE THAT. A PROBLEM LIKE THAT. LIKE ALL THE PROBLEMS WE HAVE, STINKS AND BRINGS FLIES. PEOPLE FIRST THOUGHT THE FLOOD SHITS DIDN'T DIE WITH THE OLD PEOPLE BECAUSE OF SOME MAGIC OR SOMETHING. THEN SOMEONE WITH BRAINS SAID NO IT WAS BECAUSE THE KIDS WAS WORKING IN THE FIELDS WHEN THE RAIN AND FLOOD COME AND SO IT WAS THE MOTHERS BACK HOME WHO DROWNED. THEN

BECAUSE THE MEN COULDN'T KEEP THE KIDS, BECAUSE YOU CAN'T WORK WITH KIDS ON YOU LIKE RATS AND MOST OF THEM HAD A SICKNESS FROM THE WATER ANYWAY, THEY NEEDED THEM GONE. THEY SENT MONEY SOMETIMES. EISH. REMEMBER WHEN IT USED TO BE HIV AIDS THAT HAD THE KIDS ON THE STREET, SNIFFING GLUE,

WHAT ARE YOU GOING TO DO? NONE OF THE KIDS WENT TO SCHOOL. YOU TRIED TO GET THEM READING, TO BE A GOOD MAMA AND GET THEM THINKING THEY COULD

STEALING. NOW IT'S THE WEATHER. TOO DRY, TOO WET. AND

MAKE SOMETHING OF THIS SHIT. MAYBE MAKE

YOU A LITTLE MONEY DOING

IT TOO BUT NO. THEY DON'T GIVE A FUCK.

HEY? WHAT'S ALL ANY OF IT MEAN, HEY,

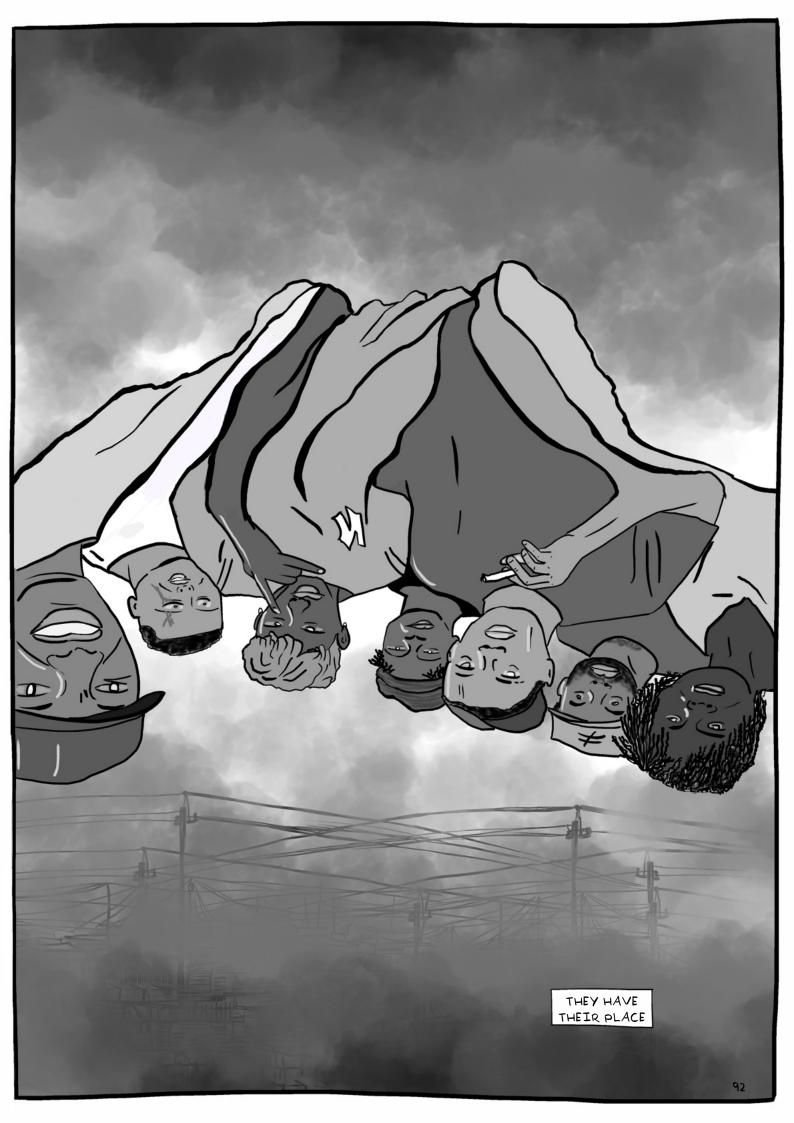
WHEN YOU SEE NO TOMORROW,

DON'T BELIEVE









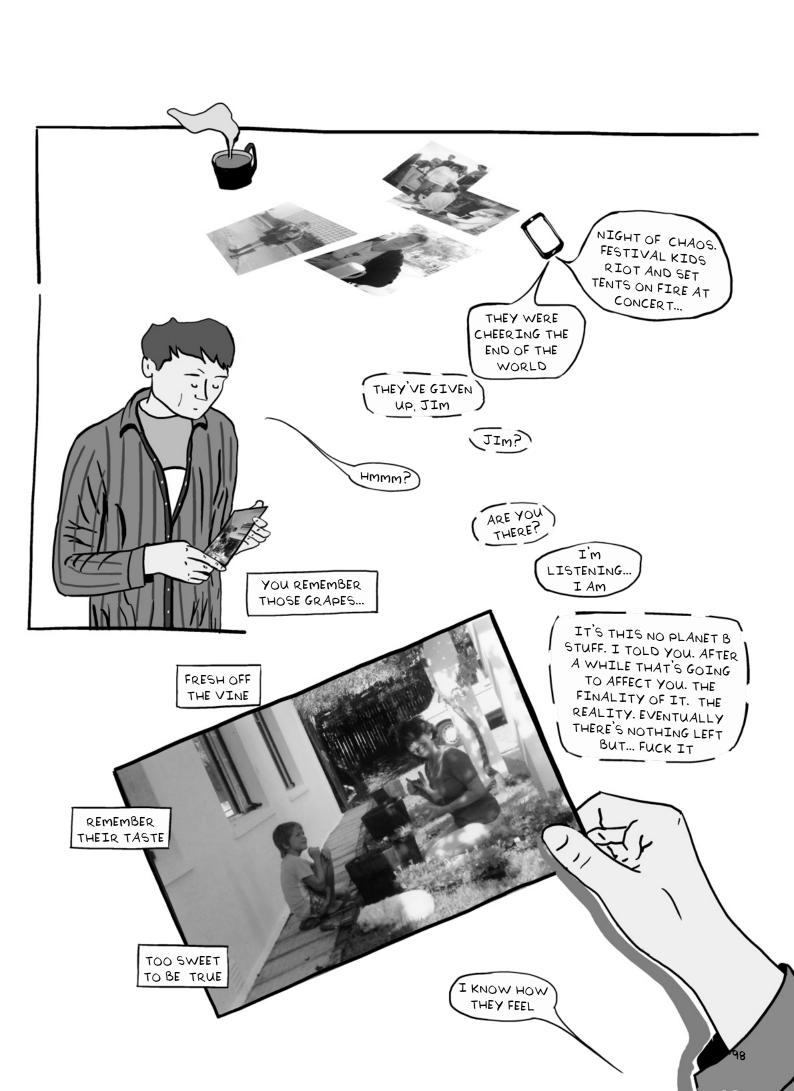














DUNDE ON

BUT HIS HEART IN HIS THROAT





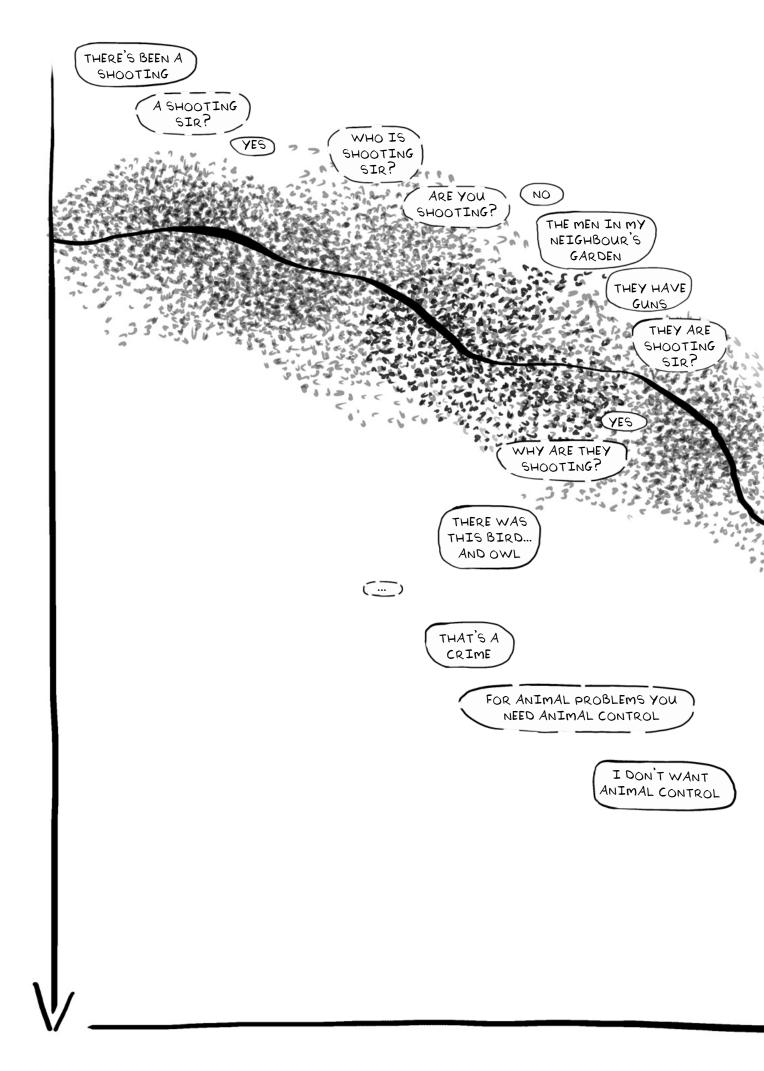


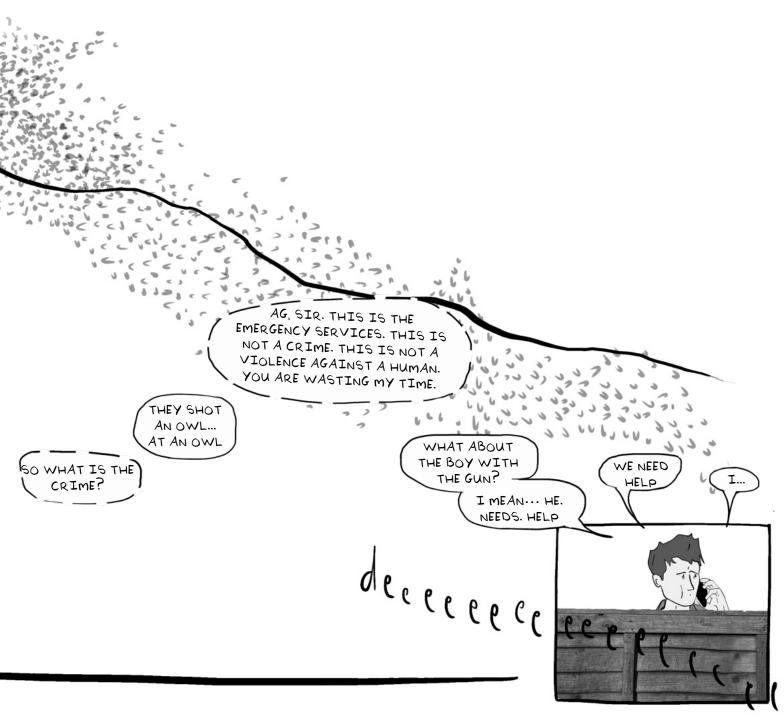


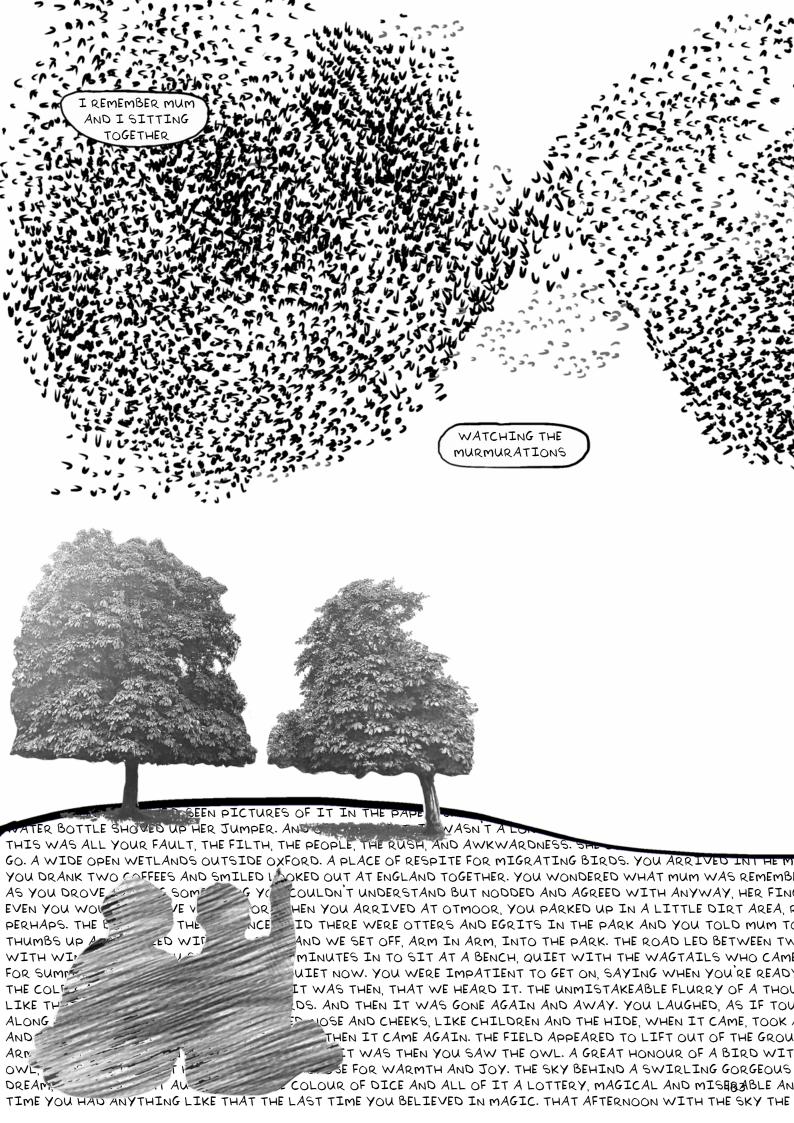


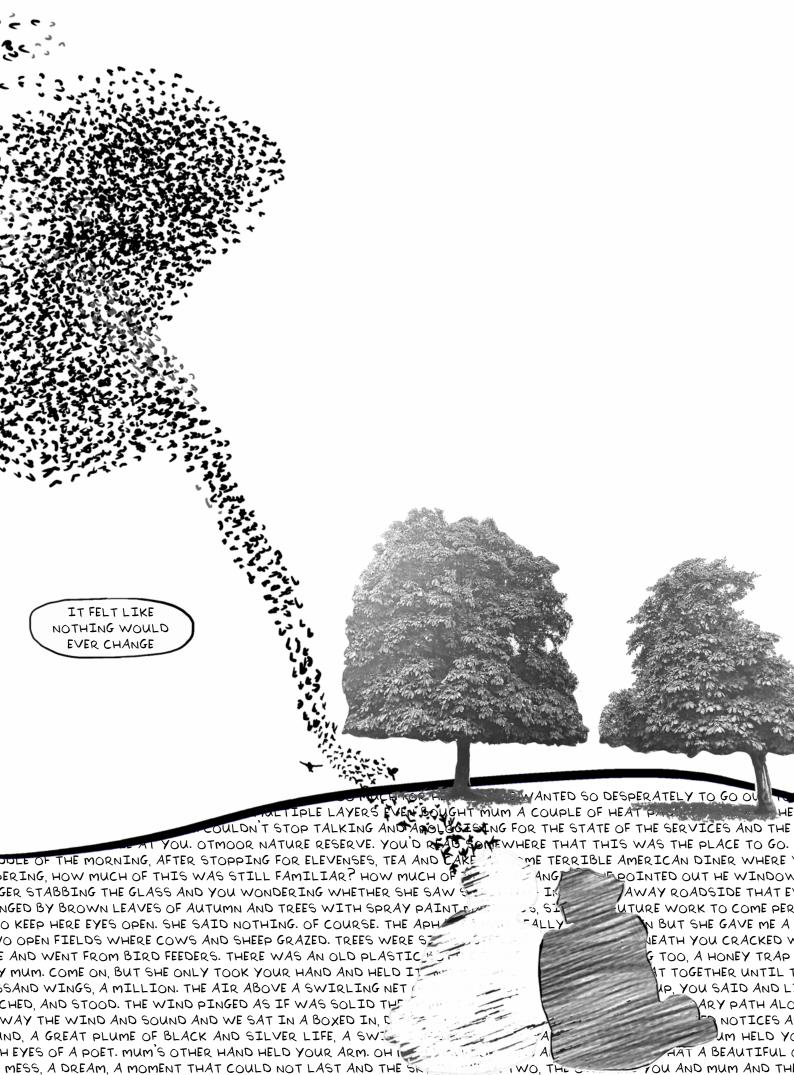












D MUM A DREAM. THE MURMURATIONS, A SHADOW ON THE GROUND, OUR SMILING, COLD FACES. THAT WAS THE LAST T COLOUR OF DICE. ONLY MEMORY NOW. ONLY MEMORY NOW. HOLD ON TO THE IMAGE IN YOU MIND. THESE MURMURATION

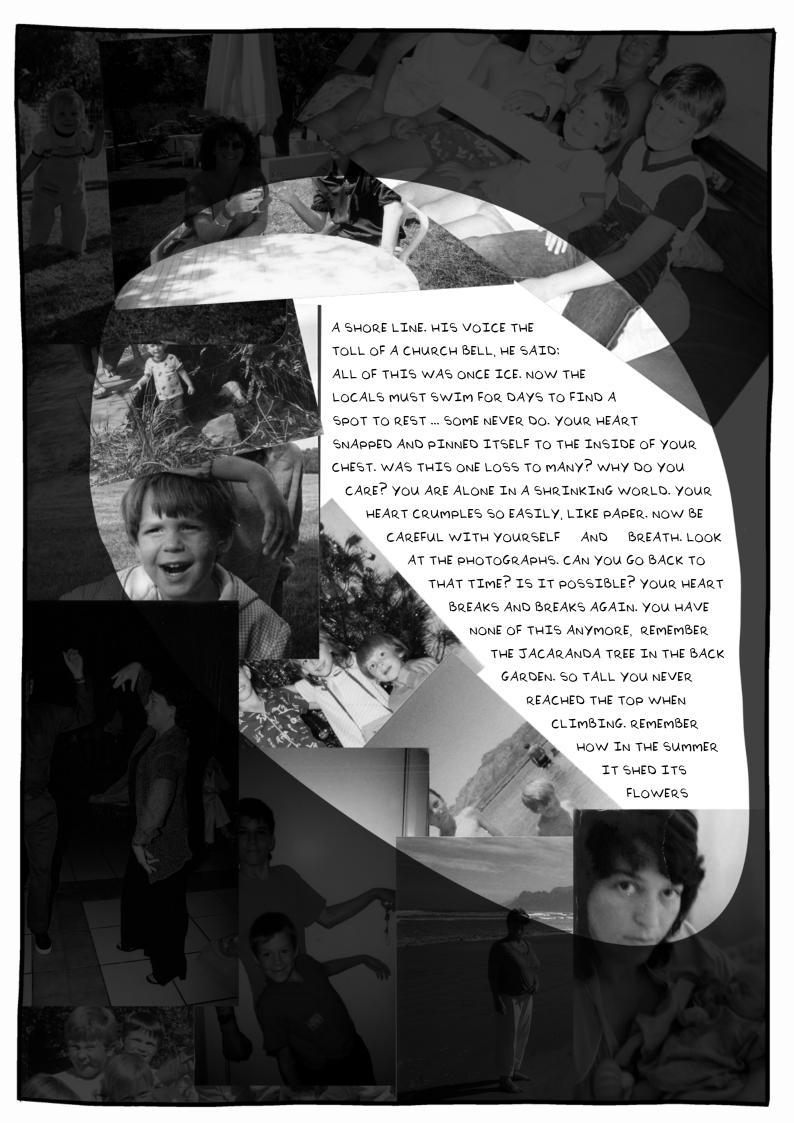
TONS MUR
LONS MUR
LONS MUR
LONS MUR
LONS MUR
ATIONS MURMUR
TIONS MURMUR
TONS MURMUR
TONS MURMUR
TONS MURMUR
TONS MURMUR
TONS MURMUR

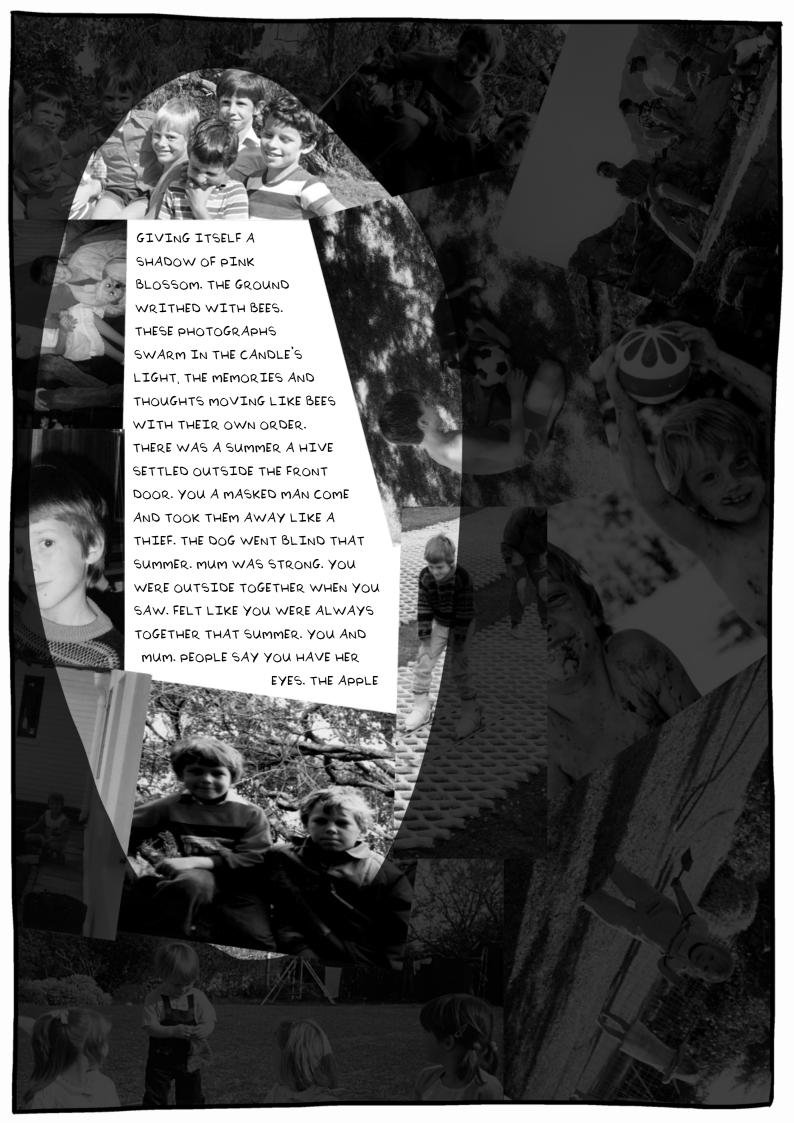


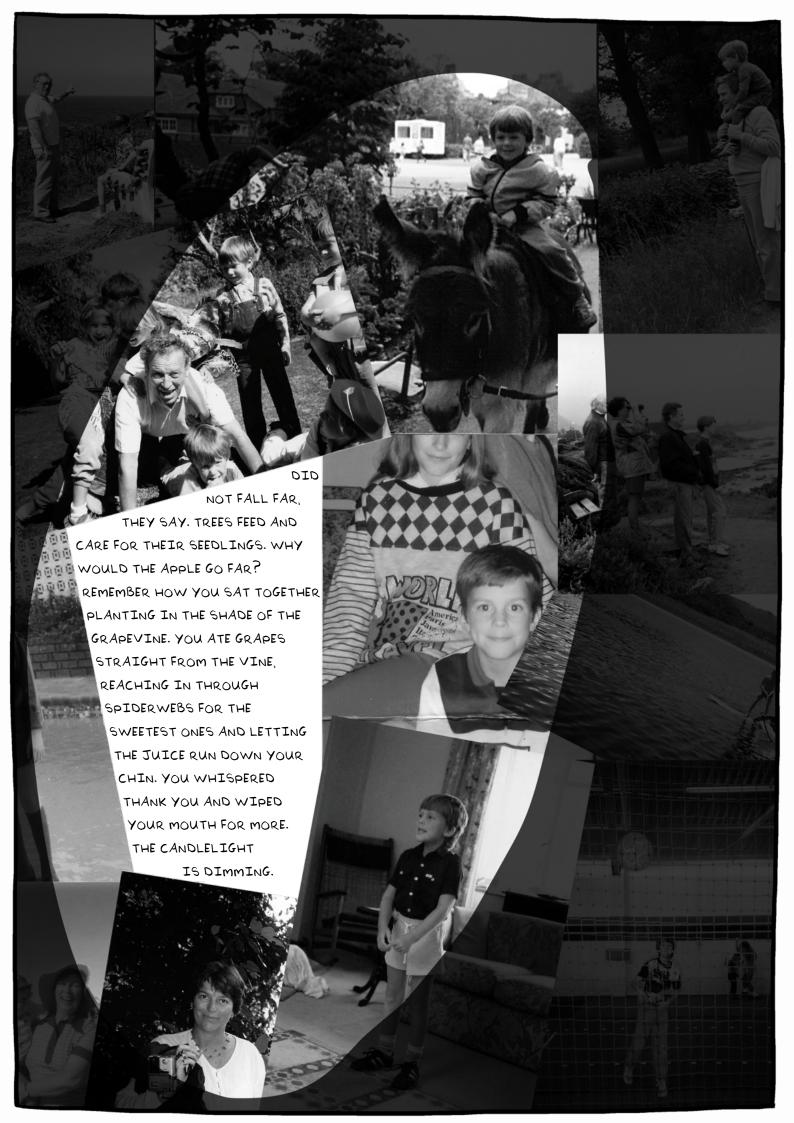




















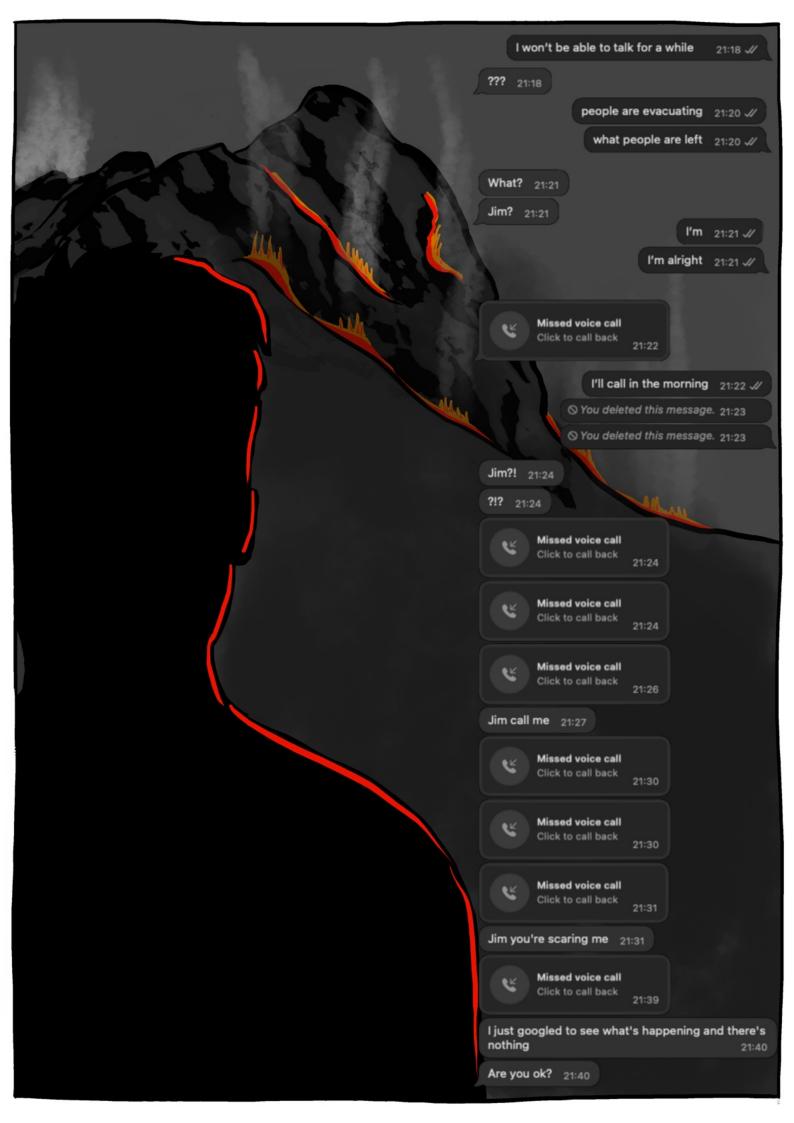












THE MOUNTAIN IS ON FIRE AND YOU ARE JUST WATCHING IT BURN. YOU'VE BEEN STANDING AT THIS WINDOW FOR TOO LONG. THIS HOME IS YOUR REFUGE AND YOUR PRISON, YOU WATCH FROM THE WINDOW AS THE FIRE GROWS, DOUBLES AND SPREADS. YOU DO NOTHING. IT IS TOO BIG FOR YOU. IT CAME FROM OVER THE MOUNTAIN, OUT OF THE DARK LIKE A CARNIVAL, A HORRIBLE CIRCUS. THE LIGHT OF THE FIRE AGAINST THE SMOKE IS THE COLOUR OF THE TRACTOR LIGHTS AT THE NODDY CHRISTMAS SHOW. REMEMBER THOSE DAYS? YOU WHERE THERE EVERY YEAR, THOSE SUMMER EVENINGS LIT UP WITH ELECTRIC LIGHTS. RAW SUGAR ON YOUR FINGERS AND WIPED OFF ON YOUR JEANS. YOU TOOK FISTFULS

> OF STRAW AND RAN WITH THE OTHER STRANGE KIDS. THE STRAW WAS THE COLOUR OF SYRUP. THE CHILDREN WERE RABID DOGS AND YOU WENT WITH THEM, BEATING UPON THAT CLOWN, SHOVING STRAW DOWN HIS TROUSERS.

E BEEN SPANBIHINGT TA OUR RETTHE MOUNTAIN IS ON fire. ETREAS BOUBLES END SER EADS! DOY CHRISTMAS SHOW, REMEMBER TH ASE SUMMER EYENINGS LIIVEN TI IGERS AND THE EED OFF OF YHER JECH THUTHE OTHER STRANGE KIRS THE EVERYTHING IS BURNING THE ENGERSHANDING STEPANT ON YOUR LAUGH EASILY IN THOSE DAY RTHE MOUNTAIN IS ON FITE ANGE ACTOR OF CHILDREN WERE ITAB! THE BUT NOBODY WAS GOING THE MOUNTAIN IS ON FIFE THE F ENBREILED HEERATGE PRAGES FA
The mountain is on fire. IL INAVOIGALIBBAIGIA YBECE/EBEAIGA TH

WININ IS

Everything is burning E PRIZE AND TAGE TURE AND Everything is burning ESUG ALTENLACHE, COLLEGE COLLEGE

IEAYUST-SARQUED JUS EVENBITENT-LARK STEIS

WAKE YOU UP? LOOK AT YOUR HANDS IN THE WORLD TO SEE SEELS

PULLING AT HIS CLOTHES. YOU COULD LAUGH EASILY IN THOSE DAYS. THE AIR SMELLED OF ENGINE FUMES FROM THE TRACTOR. PEOPLE SMOKED SITTING ON HAYBALES. MAYBE WE SAW THE FIRE EVEN THEN BUT NOBODY WAS GOING TO MOVE NOBODY WAS GOING TO MISS THE SHOW. THE ELECTRIC LIGHT OF THE FAIR, THE STAGE LIKE A BURNING ALTER. YOU REMEMBER THE THE FANCY DRESS AND HUGE, COMICAL HEADS. EVEN A BLACKED-UP GOLLIWOG. BLACK FACE BENEATH THE ELECTRIC LIGHTS AND THE SOUND OF SUMMER'S CRICKETS AWAY IN THE DARK. YOU REMEMBER ASKING MUM, WHO IS THAT PERSON AND SHE JUST SMILED. JUST A BIT OF FUN, SHE SAID. THE FIRE WAS BURNING THEN. ONLY IT HAS COME OVER THE MOUNTAIN NOW. HOW OLD WERE YOU THEN? EIGHT OR NINE? COME TO WATCH THE NODDY CHRISTMAS SHOW, TO RIDE THE TRACTOR LIT GOLDEN ON THAT LATE SUMMER EVENING. THE SMELL OF FIRE IN THE HAY ALL AROUND US EVEN THEN. LOOK AT THE COLOUR OF THE FIRE NOW. DOES THAT WAKE YOU UP? LOOK AT YOUR HANDS IN THE LIGHT OF IT, BLOOD RED. IT DOESN'T FEEL REAL Everything is burning BUT MAYBE IT'S NO SURPRISE. FEELS LIKE THE FIRE HAS BEEN FOLLOWING YOU, LIKE EVERY STEP AWAY LEAVING BLACK

OIL PRINTS, THE OILY STUCK TO THE SOLES OF YOUR SHOES, STUCK TO YOU, AND YOU CAN SMELL IT EVERYWHERE. GOD, LOOK AT IT GO. EVERYTHING IS BURNING. THIS IS IT. BUT STILL YOU DON'T MOVE.

YOUR FEET ARE STUCK SOLID IN THE MESS YOU HAVE MADE. YOUR HEAD FOREVER ELSEWHERE S IF SOMEONE IS YELLING AT YOU. AND THEY HAVE BEEN YELLING FROM BEFORE YOU EVEN KNEW THE WORDS THEY WERE USING AND ONLY NOW YOU CAN HEAR THEM. SUDDENLY IT ALL COMES AT YOU, ALL YOU HAVE MISSED

SENT EFFOL BUTE TO SOME IT'S WATSH THE ISEN EFFL SIR LBEYTHE TRACTORE EYERY STEP AWAY LEAVING BLACK OFIL.
FRITE IN FLE CLAS ALL ARBUND USE VET THEM. 2004 A 4 PLE YE BYTHE BATOLETTA INDICATED SOLD FOR BYRNEINE HILL The mountain is on fire. FEEL The mountain is on fire. SURPRI N YELLING FROM BEFORE YOU EVEN KNEW EVERYTHING IS DURNING FOR SHOES OF YOUR ALI DEED REEDBE THE HOT RUSHING MASS. OF UTHE HALL DEUTHERE AS A MAKE THE HOLL BUT THE READ A MAKE THE STANDARD THE READ SERVING OF THE STANDARD THE STA CLOWING THE COLOUR OF TOO THACKE THEY WERE USING AND THE MUTHENSKEART-HEM. UNFLORITENED THE NIGHTER US DERTH ANCHERED THE MOUNTAIN IS ON FIRE. EVERYTHING IS BURNING. THE MOUNTAIN IS ON FIRE, EVERYTHING IS BURNING AND YOU HAVE STILL DONE NOTHING. YOU'RE EATING SUGAR AT THE EDGE OF DISASTER. YOUR FINGERS ARE STICKY WITH IT. YOU FEEL SICK AND STILL YOU DON'T MOVE. LICK YOUR FINGERS AND LIPS. YOUR THROAT IS DRY. STILL YOU DON'T MOVE. THE FIRE IS CLOSER NOW. YOU CAN FEEL ITS HEAT. THERE IS A SOUND IN THE AIR LIKE A THOUSAND INTAKES OF BREATH, SUCKING OUT THE AIR... YOU STILL HAVEN'T MOVED. EVERYTHING IS BURNING. THE MOUNTAIN IS ON FIRE. THE COLOUR OF IT IS THE COLOUR OF COUGH MEDICINE, OF TCP, OF CORDIAL, THERE ARE THE LIGHTS OF CARS. WHITE AND SHARP LIKE THE TIP OF A MECHANICAL PENCIL. REMEMBER THE PENCILS AT SCHOOL, THE

ENDS BREAKING, THE SHAVINGS ON THE FLOOR, THE SMELL OF THE LEAD ON YOUR FINGERS. IT REMINDS YOU OF THE SMELL OF THE GUNSHOT, OF LUNJE AND HIS BOY ONAKO. YOU ARE WONDERING IF THEY ARE OK. YOU SAW THE WATER THIEVES PACK UP AND LEAVE, RUNNING FROM THE FIRE SQUAKING LIKE SEABIRDS, TAKING THE WATER WITH THEM. YOU WATCHED THE LORRY DRIVE INTO THE SMOKE, GET EATEN BY THE SMOKE, CUT UP THE SMOKE WITH ELECTRIC LIGHTS FOR A MOMENT, THEN EATEN AGAIN. YOU SHOULD THINK ABOUT LUNJE AND HIS BOY. BUT YOUR MIND IS AWAY WITH THINGS AND YOU DON'T PULL AWAY. YOU'RE FIXED ... AND THEN COMES THE SHOUT. YOU HEAR YOUR NAME ON THE BURNING WIND. LIKE A HOT ASH SINGEING YOUR CLOTHES, YOU JUMP AT IT. YOU SEE THE ROOM AROUND YOU THICK WITH SMOKE. YOU HAVEN'T SEEN IT CHANGE. IT HAS COME UP QUICK AND QUIET LIKE AN OCEAN AND YOU COULD BE DROWNED. CLOSE AND COVER YOUR MOUTH. YOU MUST SAVE YOURSELF. AND THE BOY? WHAT IS THE BOY DOING? LUNJE IS CALLING YOU. CALLING YOU OUT AND YOU'RE RUNNING. FINALLY RUNNING TO THE DOOR. KEEP LOW AND KEEP YOUR MOUTH COVERED. THE PHOTOGRAPHS. DON'T FORGET THE PHOTOGRAPHS. YOU GRAB WHAT YOU CAN. THEY ARE ALL OVER THE ROOM. WHAT WILL YOU SAVE? WHAT CAN YOU SAVE? WHAT MEMORIES WILL COME WITH YOU? EVERYTHING IS PALE AGAINST THE FIRE. FACES GLOW AND FEEL HOLLOW. HOLD THOSE PHOTOS TIGHTLY. YOU ARE STRUCK BY ALL THAT COULD HAVE BEEN. IT IS A BURNING INSIDE

COULD HAVE BEEN TAKEN. YOU
SEE THE IGNORED PATHS AND
RESOLUTIONS. YOU MISSED SO
MUCH. AND NOW IT IS TOO
LATE. WHAT CAN YOU SAVE?

YOU. THE FIRE PULLS THE MOUNTAIN FROM THE SKY AND CUTS FORM INTO FORMLESS NIGHT, IN EVERY PHOTOGRAPH, EVERY MOMENT, YOU SEE THE CUTS AND CONTRASTS THAT













I THINK IT WILL GIVE US SOME PROTECTION IF...



WE'RE GOING TO HAVE
TO FIGHT THIS

TATA SAID, STAY
WERE YOU ARE. DON'T
MOVE, YOU CAN WATCH
FROM THE WINDOW BUT
IF I CALL YOU OR SHOUT
OUT ... I KNOW TATA, I
WILL RUN AWAY WITH

IT'S CRAZY, I
KNOW, BUT I... I
WANT TO...I
WANT TO GET
INVOLVED

MMMMMM.

OUT THE BINOCS. I
WILL KEEP SAFE.

BINOCS ARE BANANAS. THEY MAKE THINGS COME SO

CLOSE, LIKE YOU COULD REACH OUT AND PICK UP THE

MOUNTAIN. LIKE YOU ARE A GOD, A GIANT WITH HUGE HAIRY

HANDS. THEY MAKE THE WORLD FEEL SMALL AND YOU FEEL SO BIG

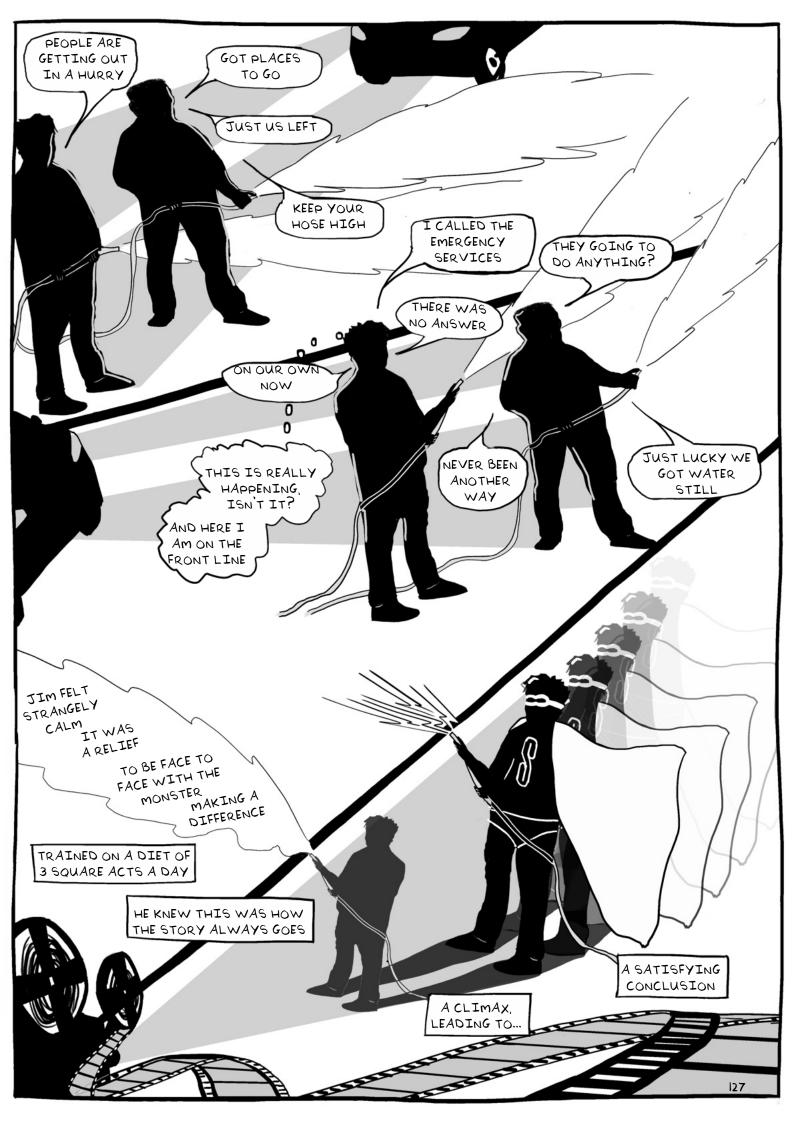
LIKE THE WORLD IS NOTHING. IT'S NOT NOTHING. YOU LEARNED IN

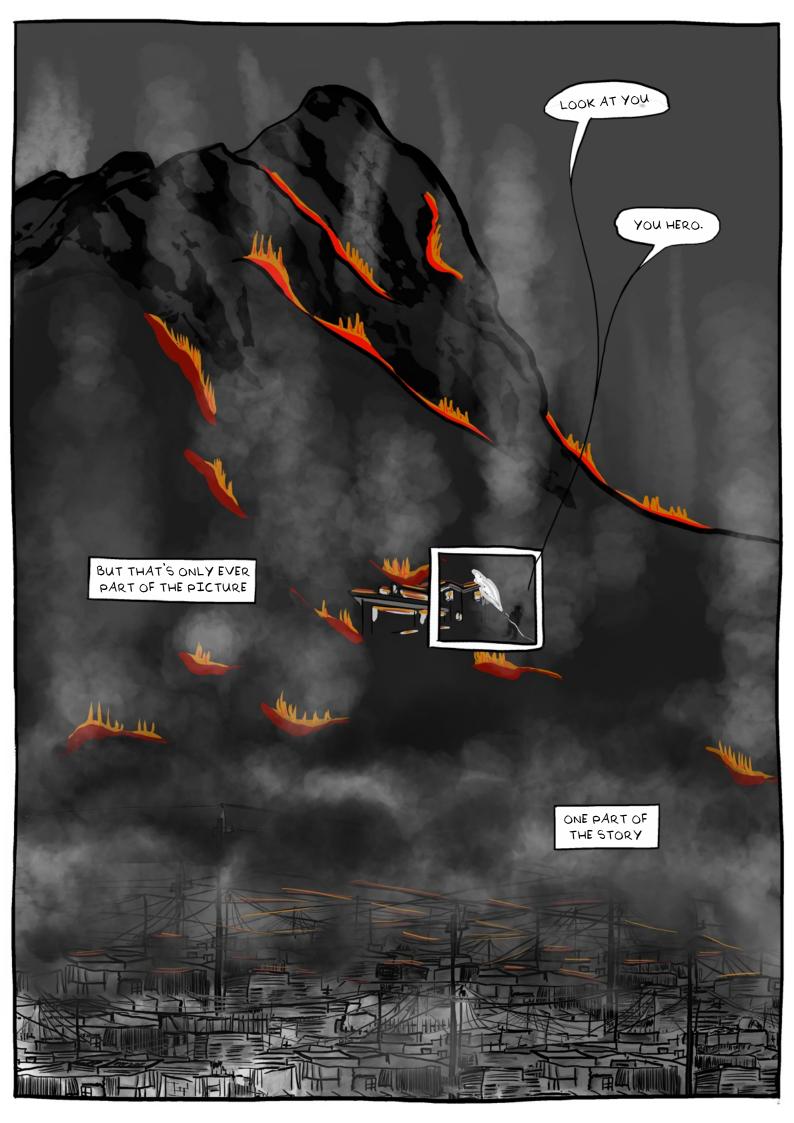
SCHOOL HOW THE EARTH IS A COMPLEX SYSTEM, YOU HAVE

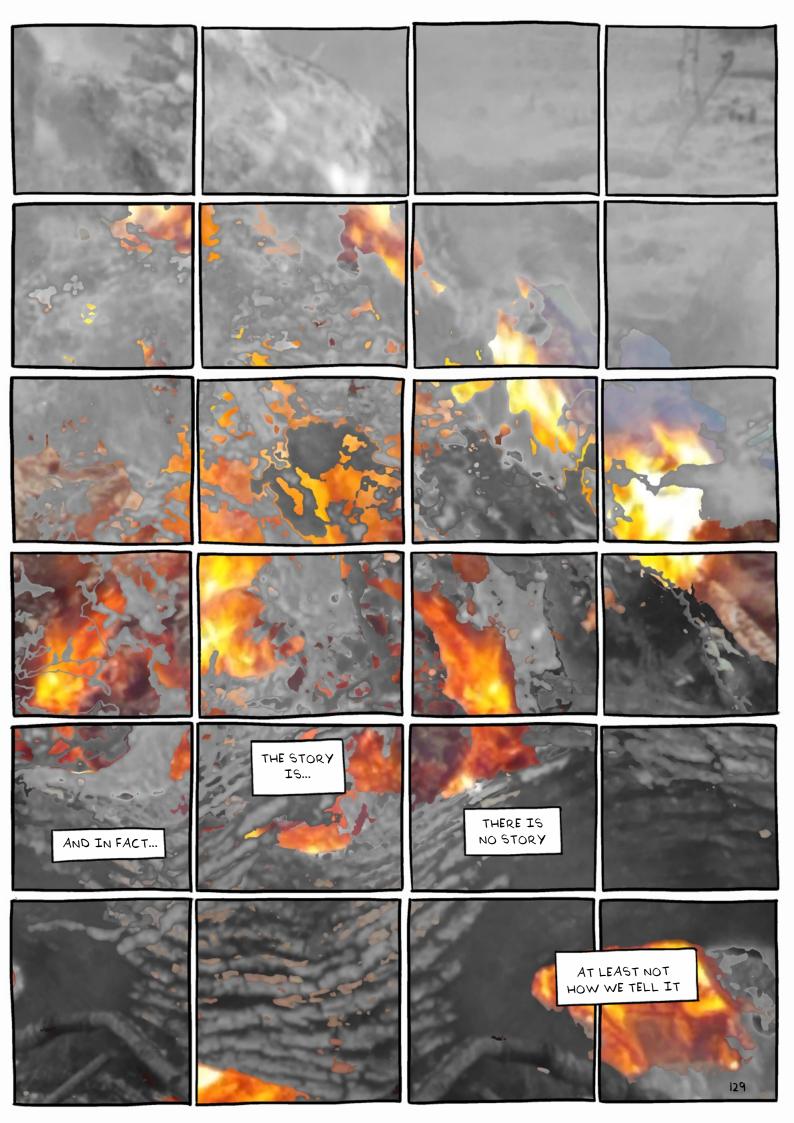
FORGETTEN WHAT YOU LEARNED AT SCHOOL. NO TIME FOR THAT, THEY FIRE IS HERE NOW. YOU CAN FEEL IT ON YOUR SKIN, THE SMOKE IS THICK LIKE MILKY TEA. TATA AHD JIM ARE GETING HOSES, FACES COVERED LIKE BADDIES. CRAZY.

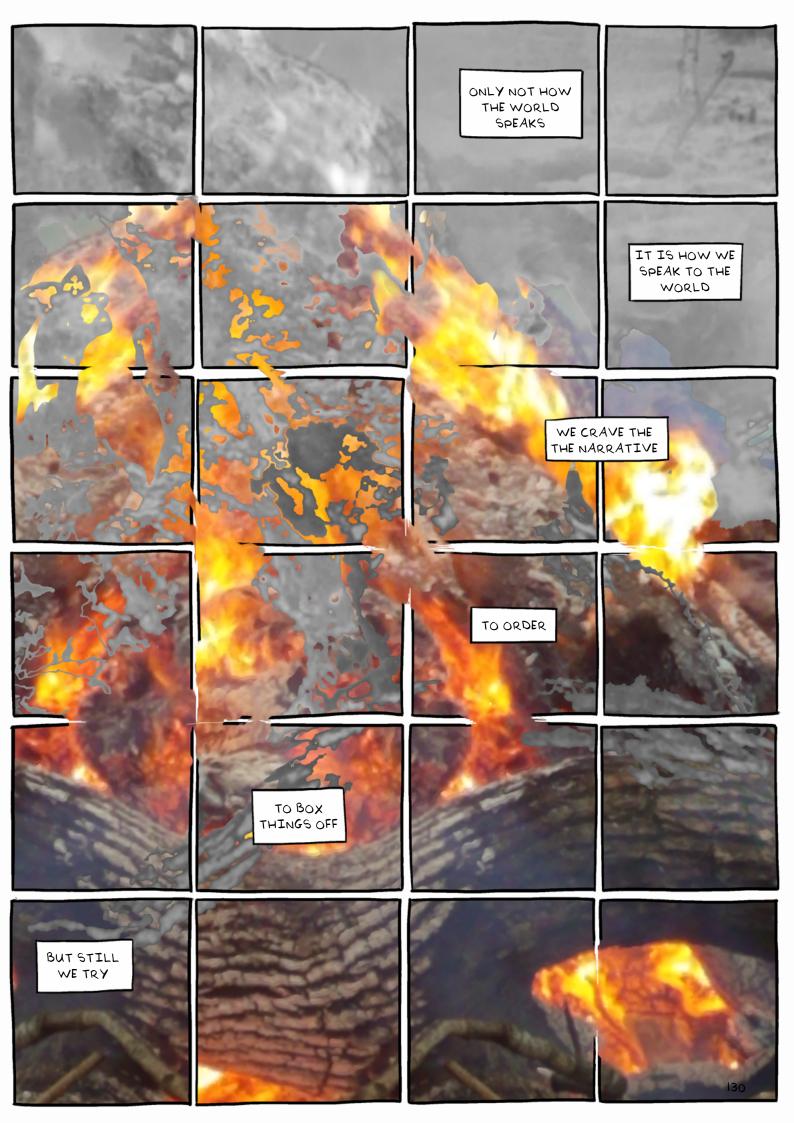
LET'S SEE...

THIS IS NO PICNIC FIRE













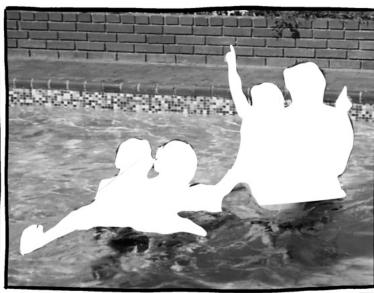


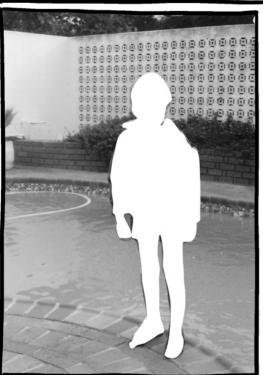




























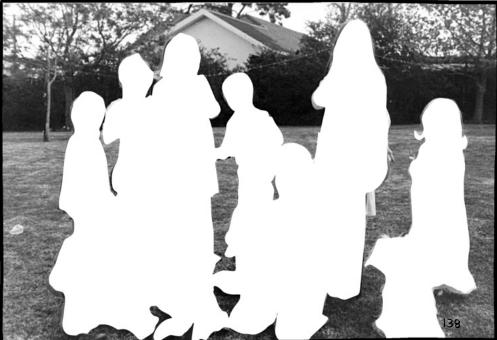














DOWN THE HILL WITH CARDBOARD PEGGED TO THE BACK FRAME SO IT MADE THE SOUND OF A ENGINE. YOU STUMBLED ALONG THEM DRUNK OR STONED OR BOTH. YOU RAN DOWN THEM WITH A BACKPACK FULL OF MARIJUANA WRAPPED IN NEWSPAPER.

RAN DOWN THEM WITH THUNDERCAT OUT AT ARM'S LENGTH. YOU HELD A

GIRL'S HAND FOR THE FIRST TIME

UNDERNEATH THAT TREE. YOU PISSED AGAINST THAT WALL, DROPPED FIRE CRACKERS IN THAT LETTERBOX. YOU SOLD YOUR ZILDJIN CRASH CYMBAL AT THAT GATE TO A KID WITH METRONOMIC FLIMFLAMS AND A MUM WHO SMOKED ROLLIES AND WANTED TO BE FRIENDS WITH YOU. YOU COVETED YOUR FRIEND'S ACTION FIGURES AND USED THEM AS TARGETS FOR HIS PELLET GUN AT THE BACK OF THAT HOUSE. THE POLICE STOPPED A PARTY THERE YEARS LATER. NOT ONE KID COULD STAND UP BUT YOU WALKED RIGHT

BY TO SHOW THE OTHERS YOU WEREN'T AFRAID. YOU THREW UP. THREW EGGS ON THE

OF YOU AND WHO YOU ARE OR WERE AND THE MEMORY OF IT COLLECTS LIKE DIRT UNDER

UNHUNG, ON THE FRITZ CHRISTMAS

ARE THE BLANK FACES OF STRANGERS WITH EYES

HOLLOWED OUT, ONLY CONCRETE AND BRICK ARE

HIGH WITH ASH AND TORTURED METAL, MELTED

GLASS, MOUNDS OF BLACKENED RED ROOF TILES.

METAL DRUMS, TYRE FRAMES THE RUBBED BURNT

CREATURES. AND YET THINGS STILL REMAIN IN

MEMORY. AT THE TIP OF YOUR TONGUE AND THE EDGES

AWAY, CORRUGATED IRON LIKE MANGLED

STANDING NOW. PAINT STRIPPED TO MORTAR, BACK

TO THE HANDIWORK, AND THE GROUND AROUND KNEE

LIGHTS. THE HOUSES BEHIND

YOUR FINGERNAILS, LIKE THE SMELL OF THE WOODS, A FARAWAY FAMILIAR SMELL, THESE STREETS ARE YOUR NAVIGATION POINTS, YOUR MAGNETIC POLES, YOUR WAY HOME. YOU WALKED THEIR TARMAC, HOPPED THEIR FENCES, TO SEE FRIENDS. TO PLAY POOL, GET WASTED. YOU RAMPED THEIR PAVEMENTS ON YOUR BIKE, FLEW MANIC

EASTER, TIME, RAN FROM THE COPS OVER THAT WAY, HIGH ON SHITTY DRUGS AND WHOOPING AND HOLLERING LIKE SPIDER MONKEYS. LIKE NOTHING BUT TIME

COR NER OF THAT STREET AT

THE ROOTS OF YOU GO DEEP HERE. SOME YOU TRIP UP ON. LIKE YOU AND GARETH, THE SWEET NAUGHTY BOY. GARETH, WHOSE FATHER HIT HIM FOR DRINKING HIS WHISKEY, YOU WERE NOT YET ADULTS, NO LONGER CHILDREN. YOU DRANK AND PLAYED GAMES. CHILDISH GAME WITH GROWN UP THINGS. THE SUN WAS LETHAL THEN, A HORROR STORY. THE HOLE IN THE OZONE HAD PARENTS PANICKED AND YOU AND GARETH FEELING LIKE VAMPIRES, LIKE DEATH WAS IMMINENT. YOU REMEMBER WRESTLING WITH GARETH, DOING ALL YOU COULD TO PUSH, TO PULL, TO KICK AND SWIPE AND THROW THAT SWEET NAUGHTY BOY OUT OF THAT RING OF SHADE BENEATH THE EUCALYPTUS. REMEMBER HOW YOU PRETENDED YOU WERE FRYING IN THE SUN. SSSSSZZZZZZZ! YOU WERE IN THE DIRT, PUSHED OUT INTO THAT KILLER SUN. YOU LET GARETH WIN, YOU LET HIM BEAT YOU SO YOU COULD SIT TOGETHER AFTERWARDS IN THE MOVING SHADE AND SMOKE A CIGARETTE GARETH HAD STOLEN FROM HIS DAD AND YOU HOPED AS YOU BREATHED THAT SMOKE THAT GARETH WOULD NOT BE HIT FOR THIS. SO YOU LET HIM WIN. THOSE TREES HAVE GONE NOW. CUT DOWN LONG AGO AND THE LAST ONES BURNT OUT IN THE FIRE. YOU REMEMBER GARETH ASKING, DO YOU THINK WE'RE GOING TO DIE. WHAT? YOU SAID. DO YOU THINK WE'RE GOING TO DIE? HE SAID IT AGAIN. OF COURSE GARETH. ONE DAY. NO. HE SAID, FROM THE SUN AND SHIT. AND SHIT? WE LAUGHED AND COUGHED. SURE AS SHIT WON'T LAST LONG SMOKING THESE SHITTY CIGARETTES. THAT POOR SWEET NAUGHTY BOY. THE SHADE WE HAD IS GONE BUT NOT THE MEMORY OF IT. THERE IS A WIND NOW COMING THROUGH WHERE THE TREES STOOD AND THERE IS A LOW HUMMING SOUND, A MOANING OF THE WIND AS IT CUTS ACROSS THE SPLIT AND SHATTERED TRUNKS. THERE IS NOTHING NOW BUT BLACK ASH ON THE AIR. ARE WE GOING TO DIE? WE WON'T LAST LONG SMOKING THESE SHITTY CIGARETTES. YOU COVER YOUR MOUTH AS THE ASH AND DUST COMES OVER YOU. YOU COUGH AND CURSE. SWEET NAUGHTY BOY. DID YOU KNOW WHAT YOU WERE DOING? THE SHADE WE

BUT NOT THE MEMORY OF IT. THE ROOTS OF YOU GO DEEP HERE. ARE WE GOING TO DIE? THE SHADE HAS GONE NOT THE MEMORIES. ARE WE GOING TO TS OF YOU GO, DEED HERE. THE ROOTS OF YOUEGE SEETH HEREIGHER PRESSIDE YOU GO DEED AREVAE LO PALEW OFFE CA PFROMETE YS 2000 TO TAKE STITUTE ENTRE LAFTEL MOETRALETTES. 595 7797 PREFER HERE. THE ROOTS OF YOU GO DEEP HERE. THE ROOTS OF YOU GO DEEP

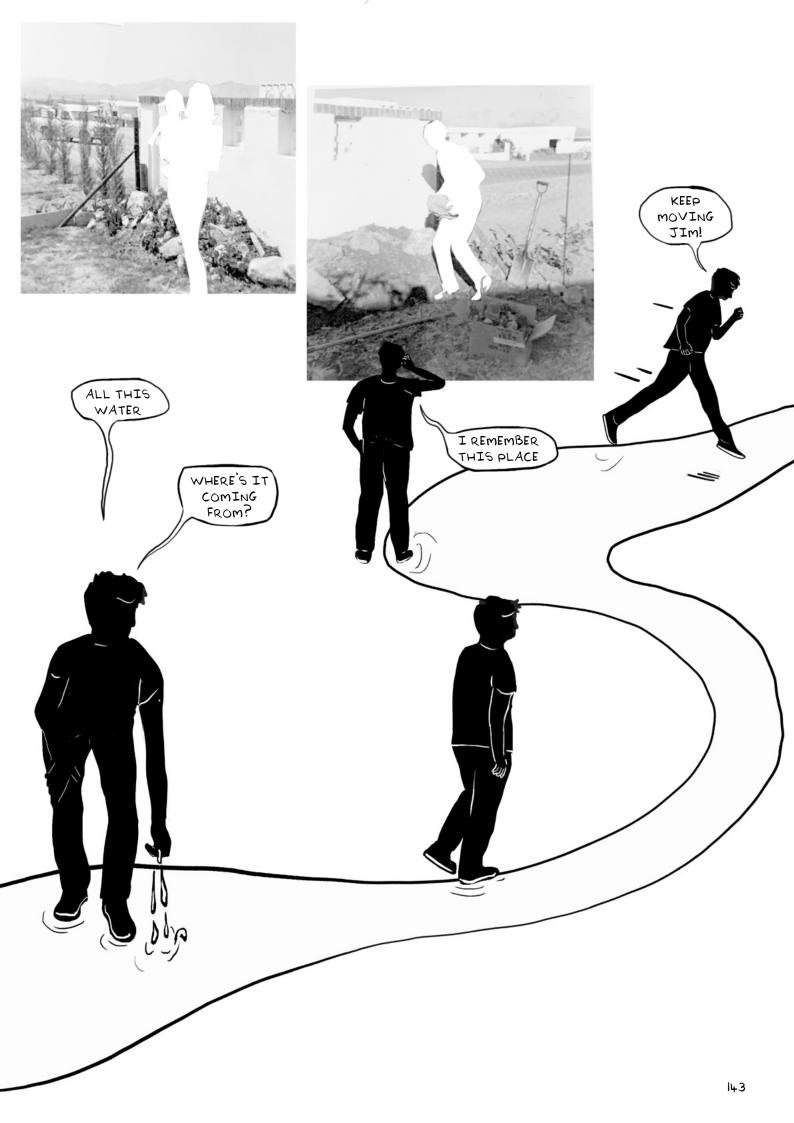
HAD IS GONE BUT NOT THE MEMORY OF IT. THE SHADE WE HAD IS GONE

PLANT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE LAST LONG THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE SHADE HAS GONE BUT NOT THE MEMORY OF IT. THE OF IT. THE HE MEMORY OF LITE THE SHIPS FIAS GONE BUT NOT SSSSSZZZZZZZ KILLER SUN. THE ROOTS OF YOUR GOING DEPLACE CONFIGURATION THE MEMORY OF IT

DUEGE ARE WE GOTHE TO DIE? WE WON'T LAST LONG SMOKING THESE SHIFTYT.





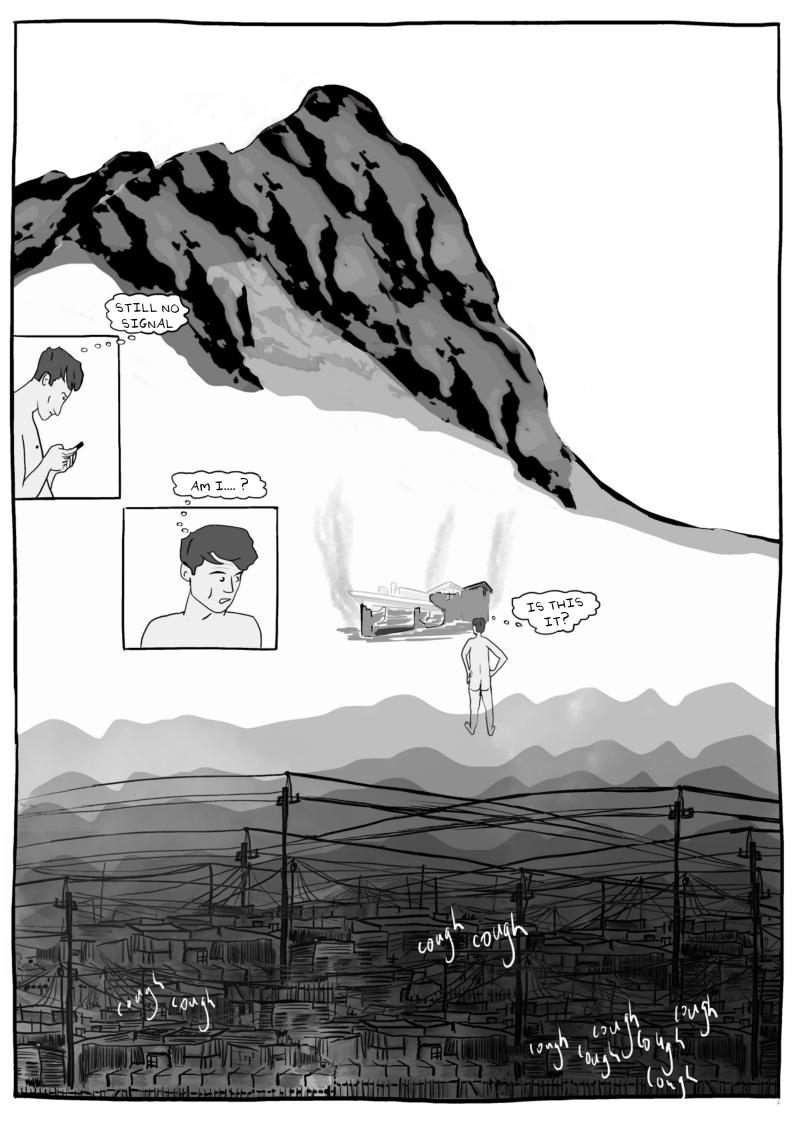


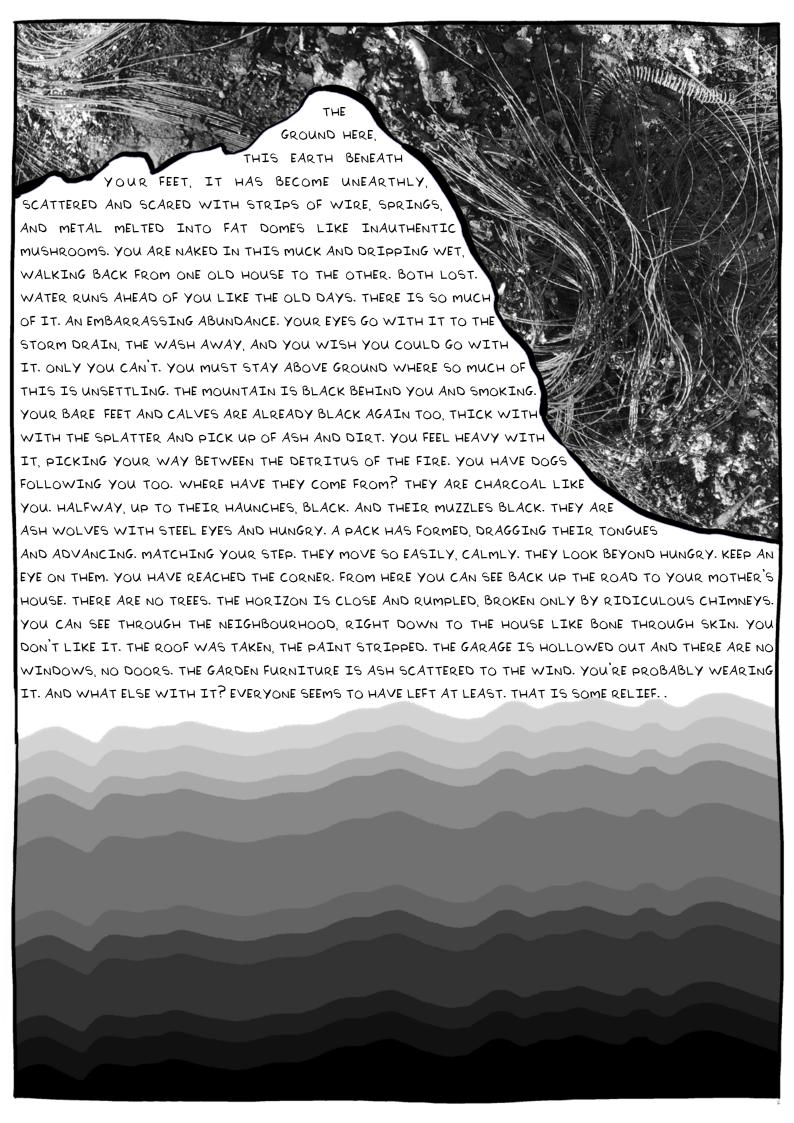


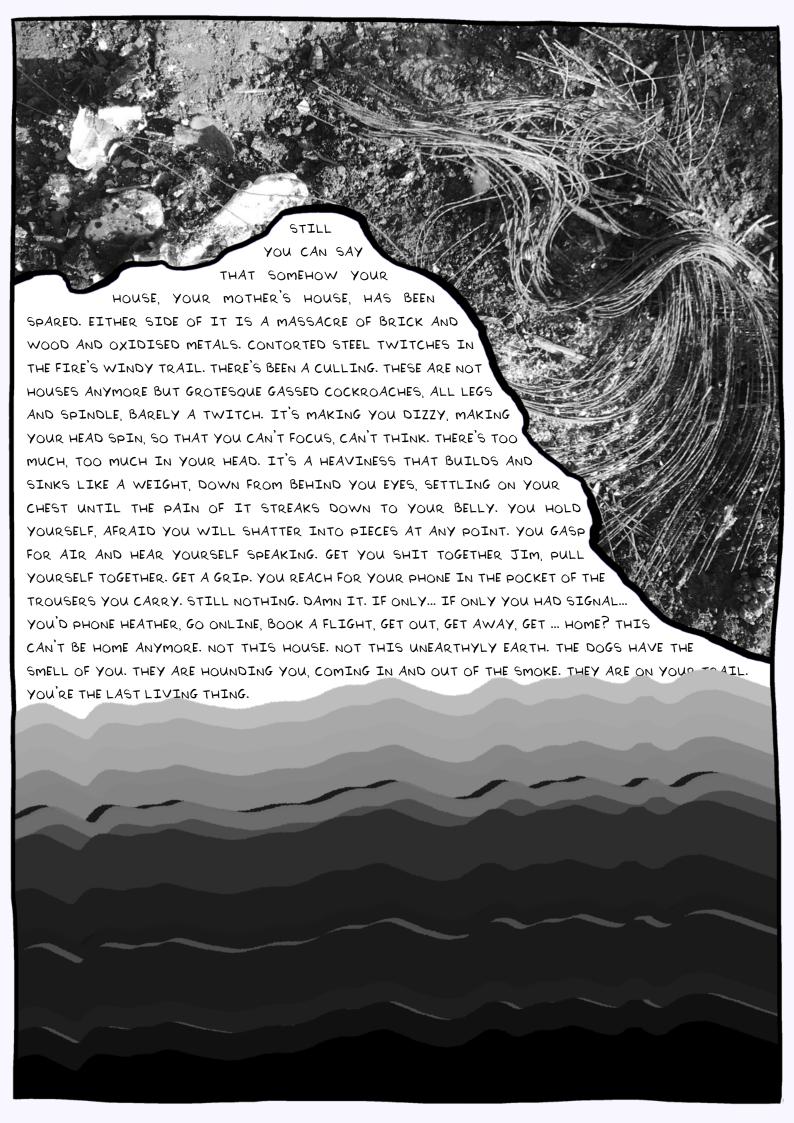


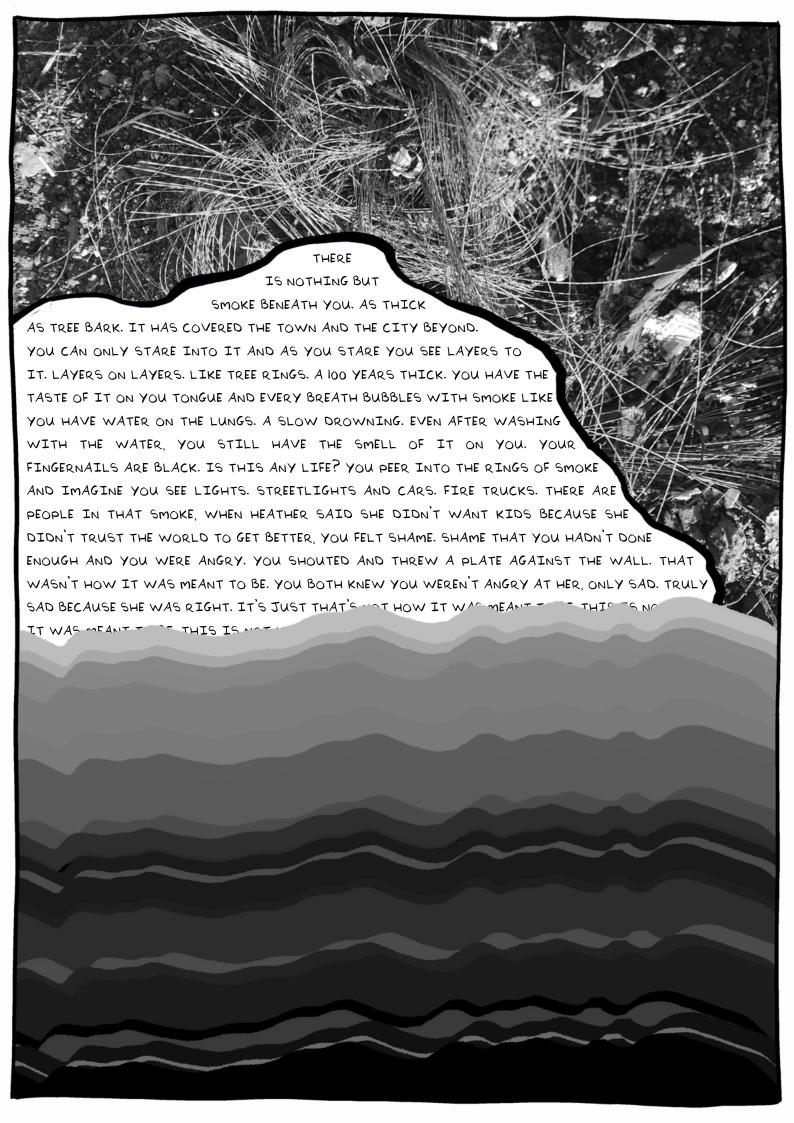


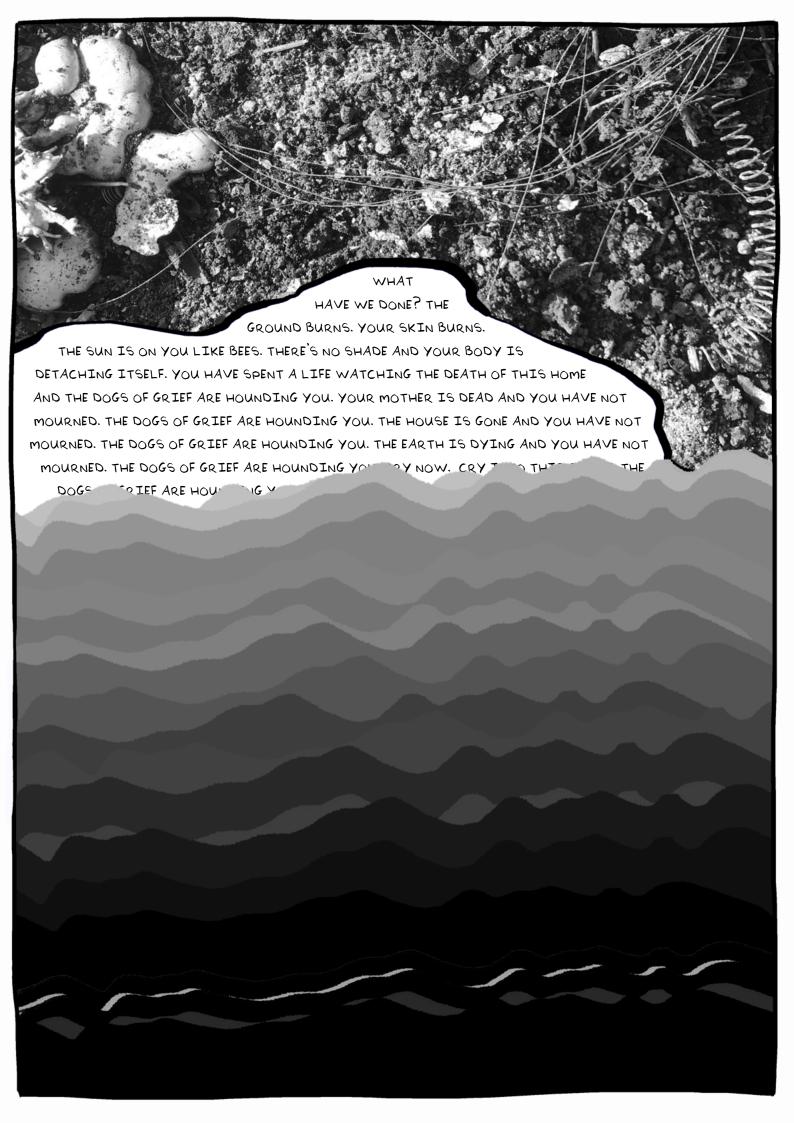










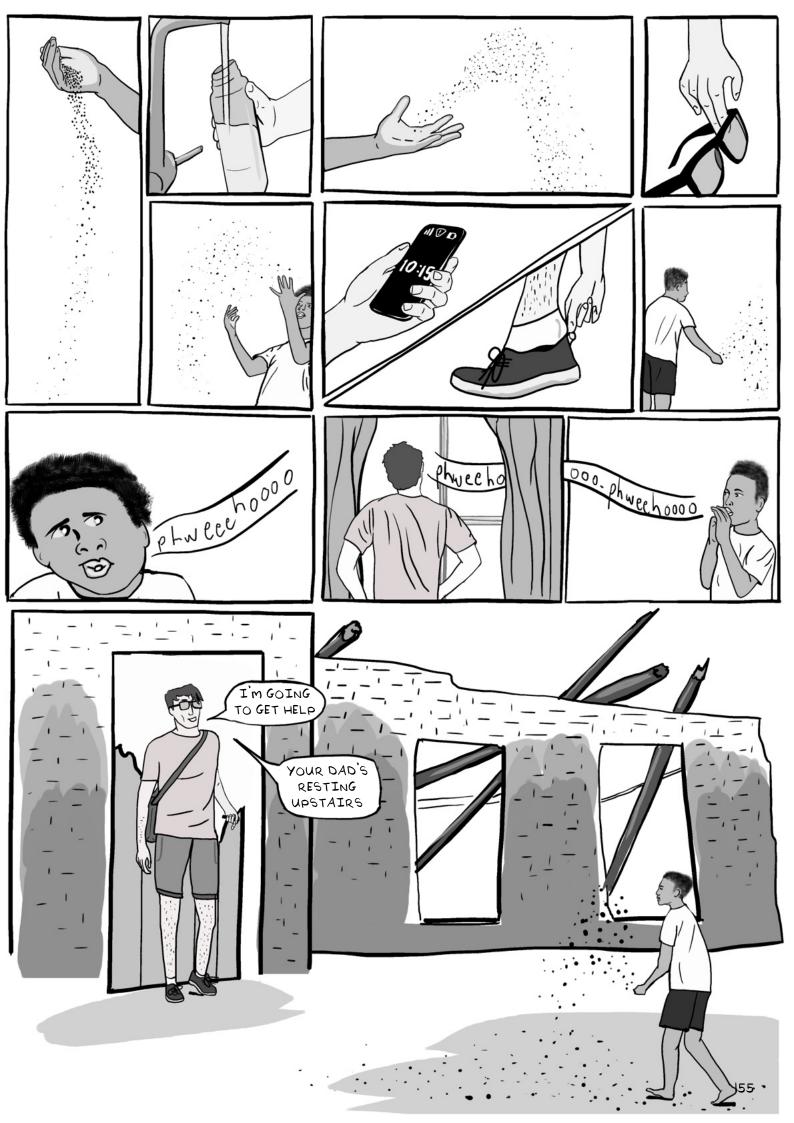


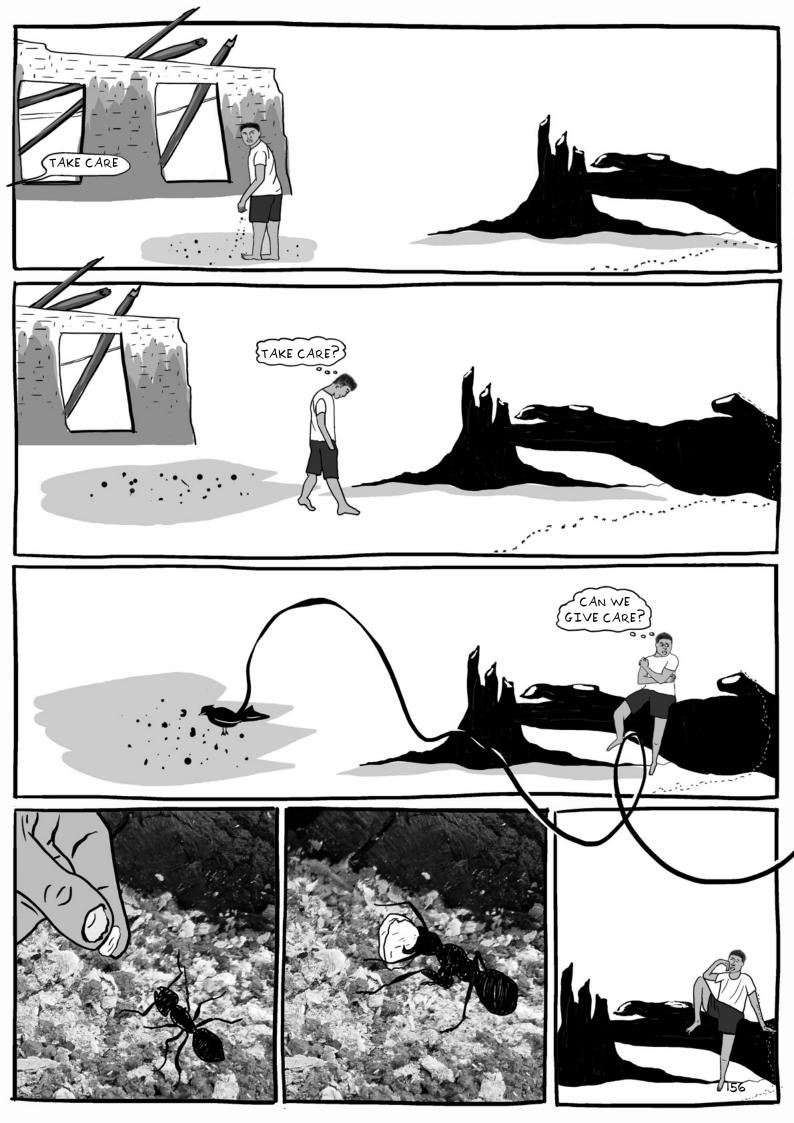


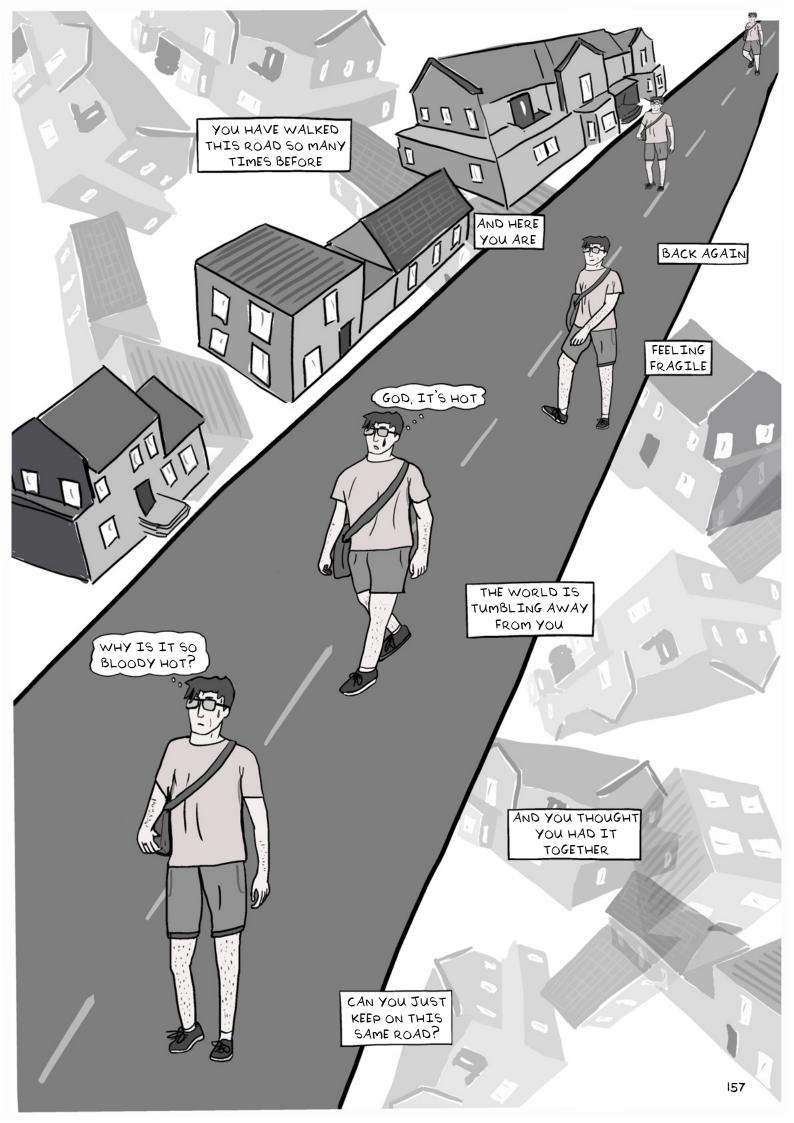








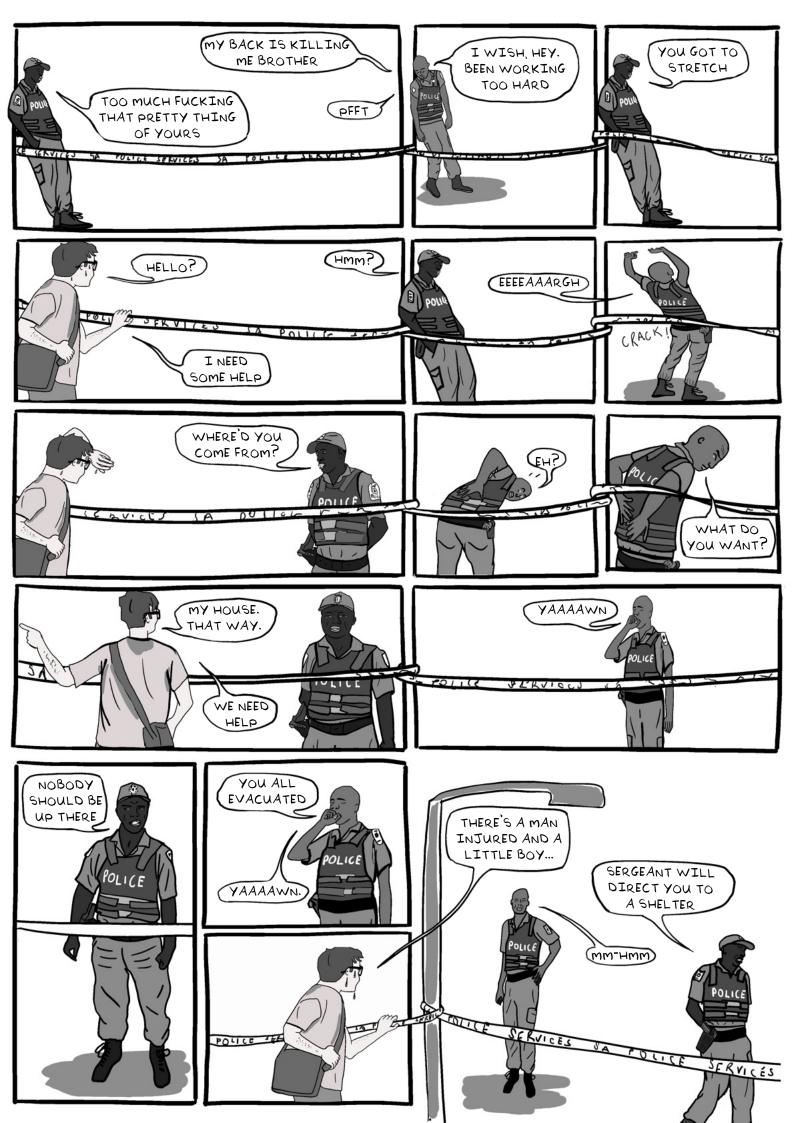




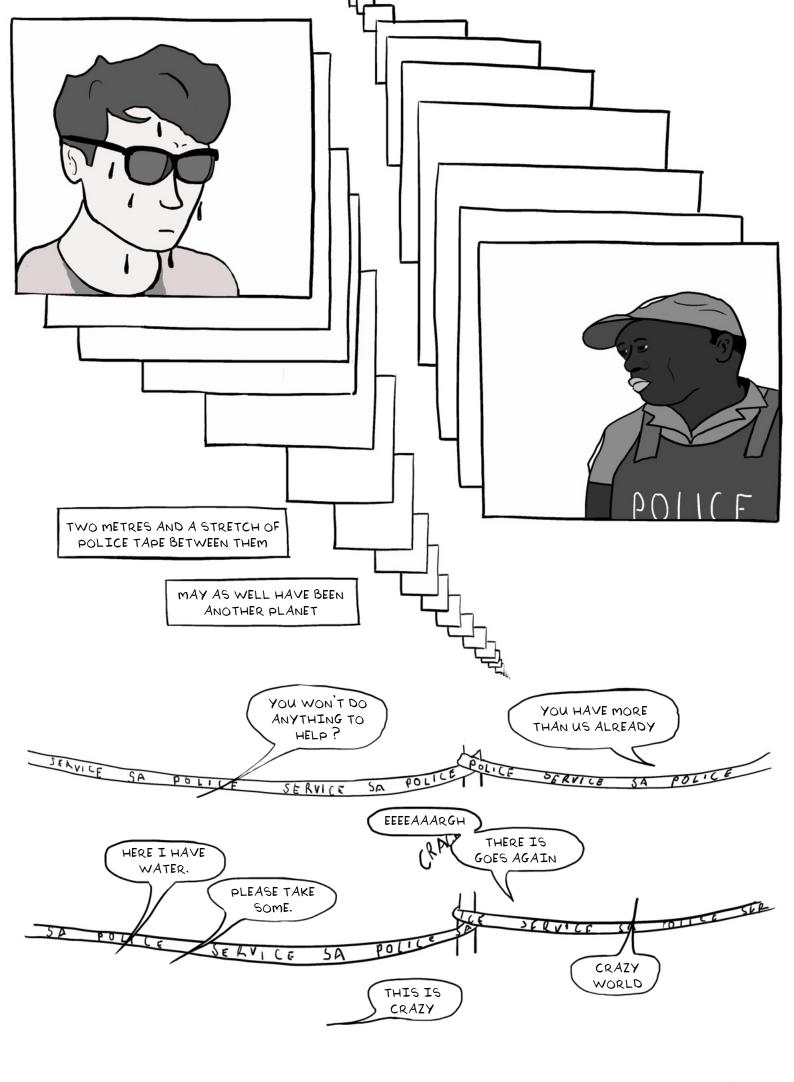
LOST IN A CYCLE OF LOSS

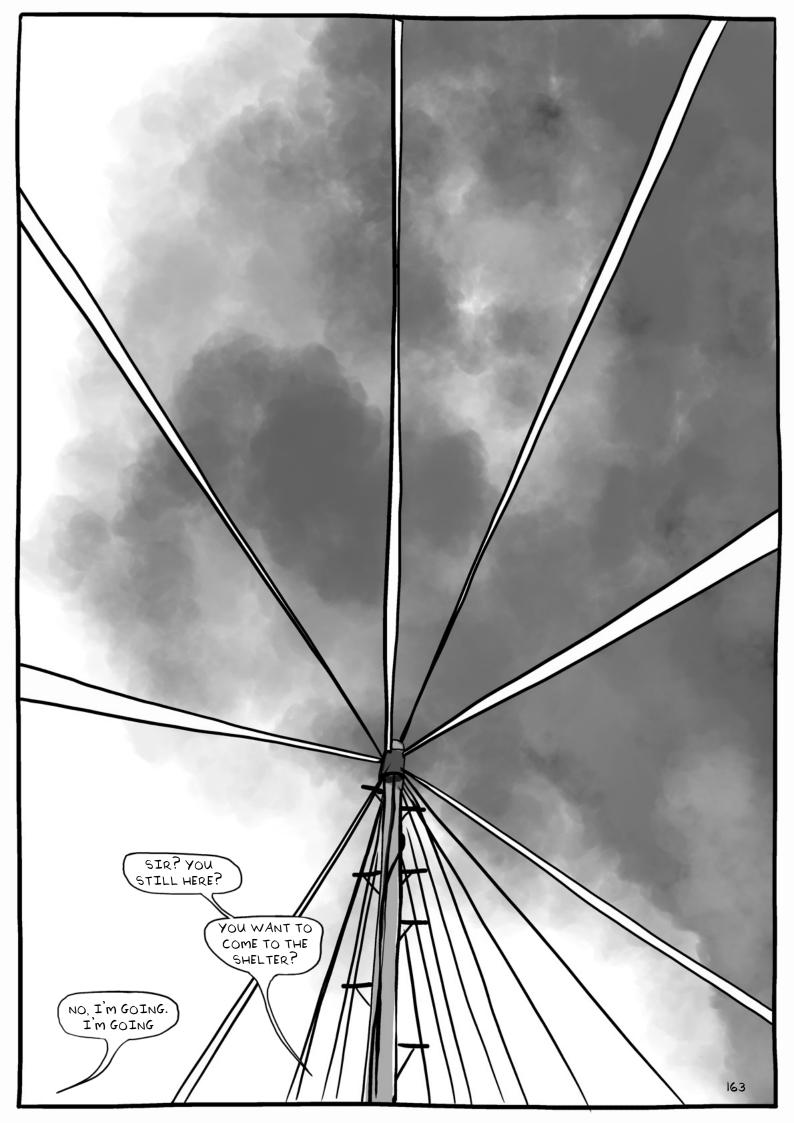


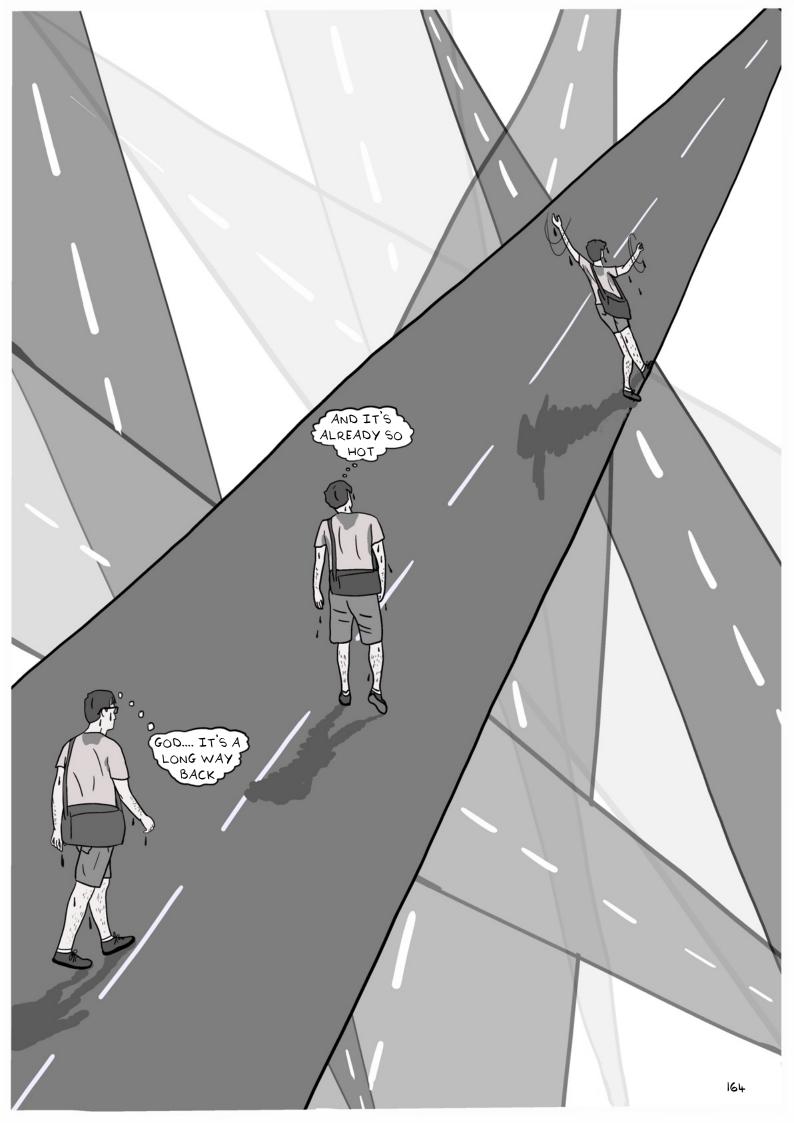










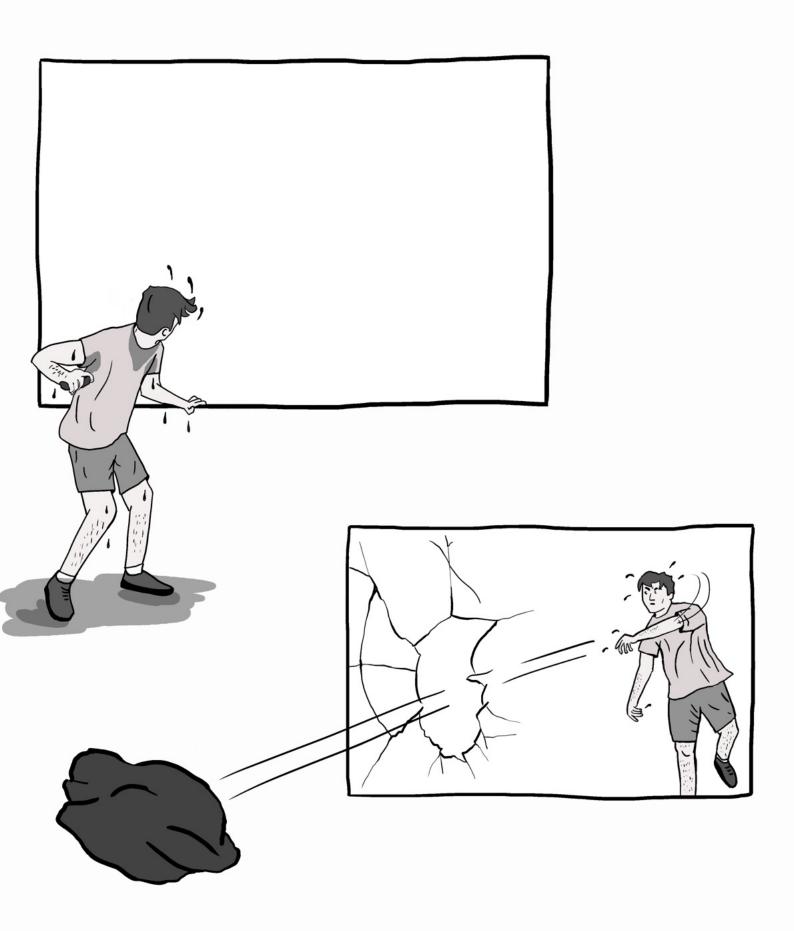




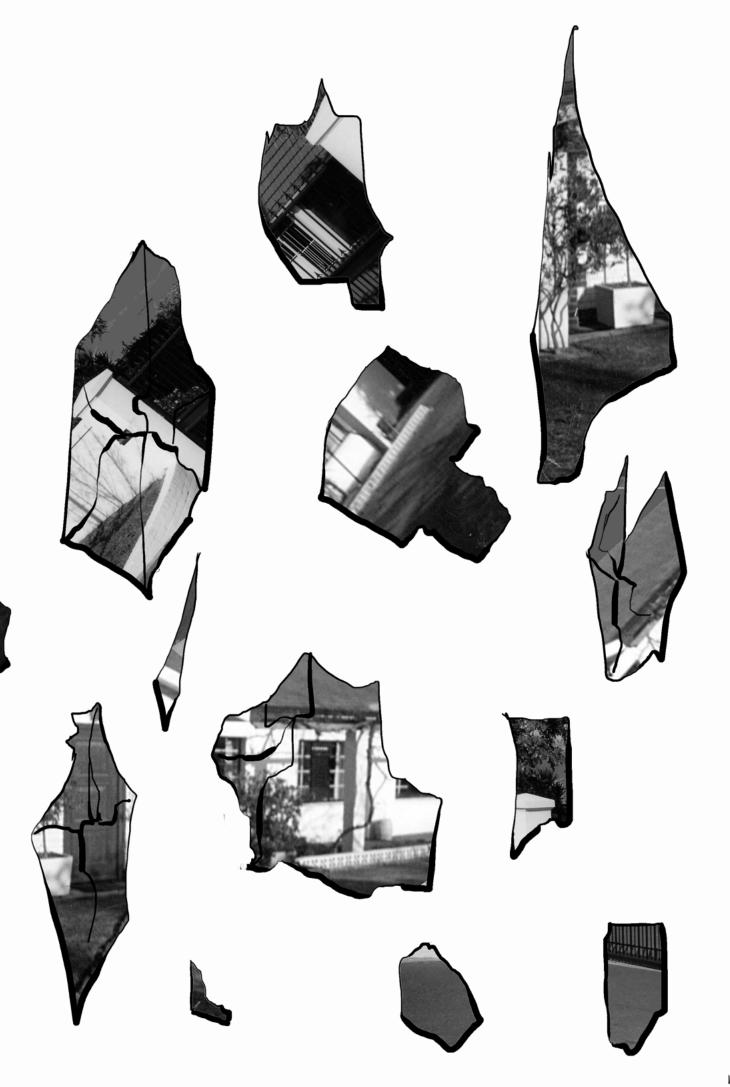








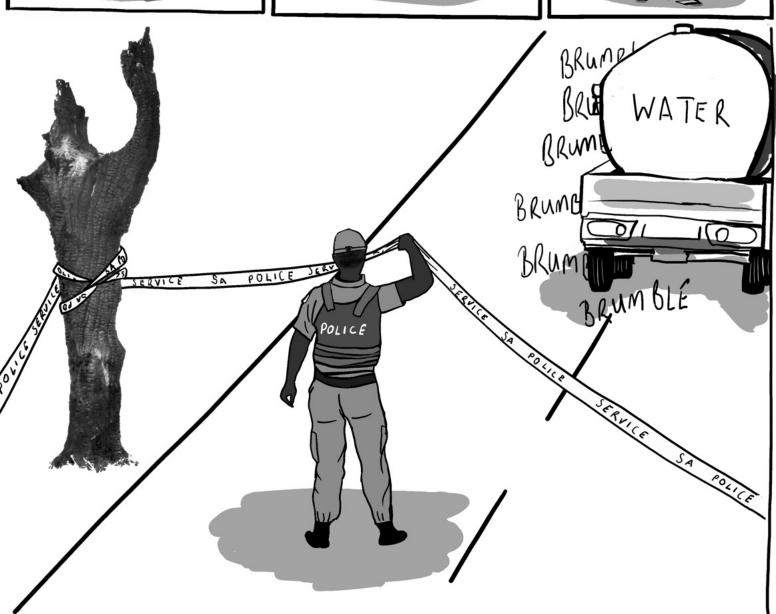








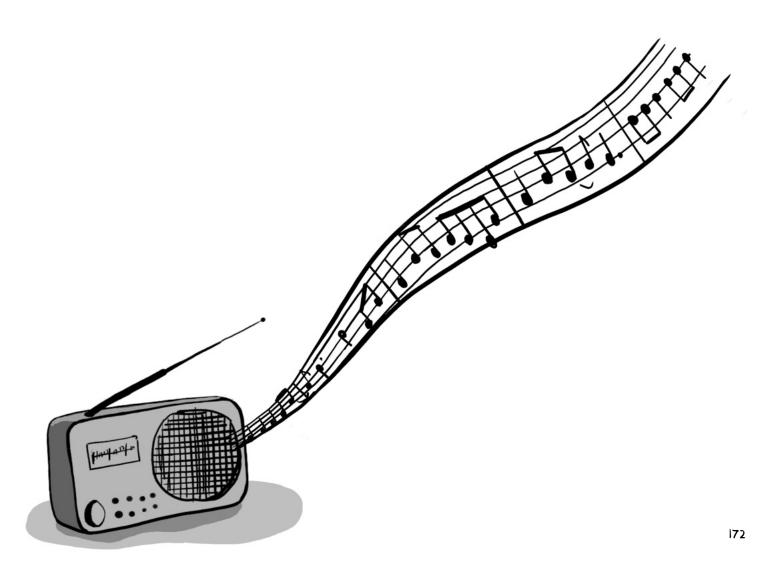


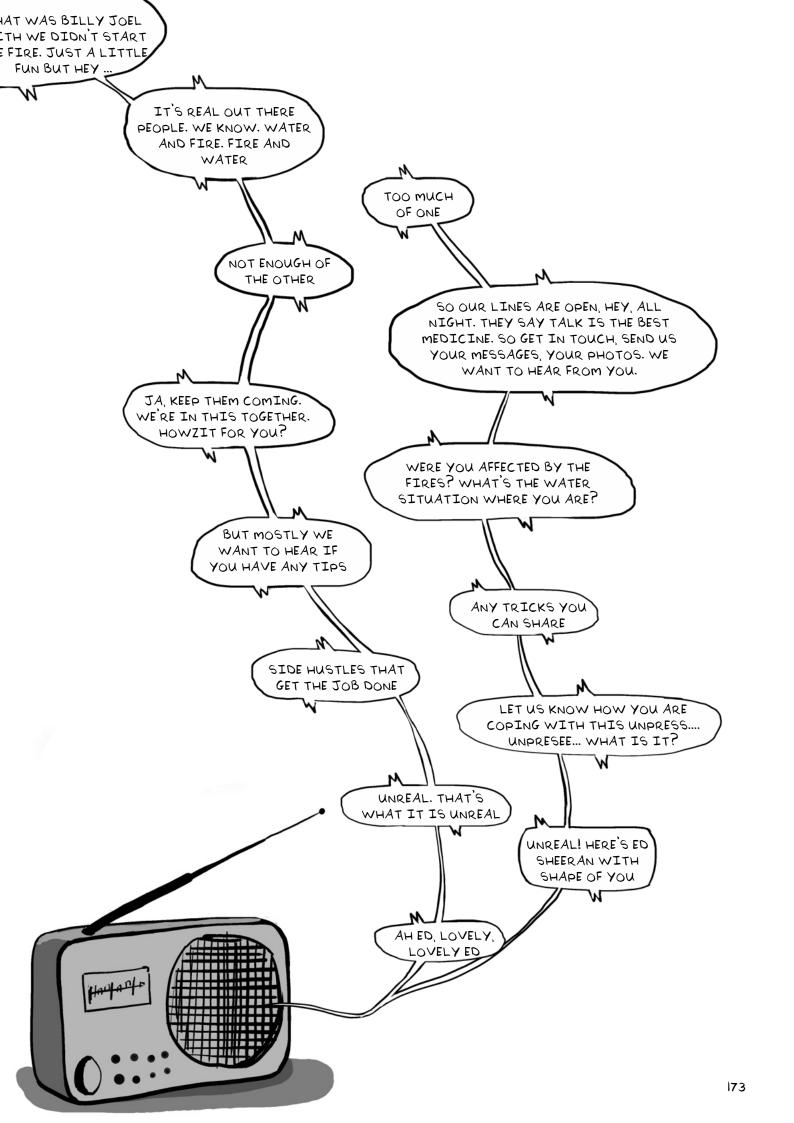












GHAAA YOUR LEG IS KILLING YOU. WHAT AN IDIOT YOU ARE. A WORTHLESS IDIOT.

CAN'T DO ANYTHING RIGHT. COULD HAVE

FUCKING KILLED YOURSELF AND STILL YOU LOST THE HOUSE, WHAT KIND OF A MAN ARE YOU? NO KIND OF MAN. AND NOW WHAT? HOW CAN'T YOU LOOK AFTER YOUR BOY LIKE THIS? SO STUPID. GET YOURSELF HURT LIKE THAT.

EISH. WHAT GOOD ARE YOU?

IDIOT. HOW YOU MADE IT OUT THAT FIRE YOU DON'T KNOW. JUST AN

IDIOT'S LUCK. AND NOW WHAT? WHAT ARE YOU DOING HERE? YOU DON'T KNOW HOW TO BE BETTER. YOU DON'T KNOW HOW ... JUST MAKE IT STOP. MAKE ALL THIS FUCKING STOP. IT'S TOO MUCH. TOO MUCH. THE CRIMINALS ARE BACK ON YOUR DOORSTEP AND YOU'RE STUCK HERE. PATHETIC. HOW ARE YOU GOING TO KEEP YOUR BOY SAFE IN THIS WORLD? WHAT CAN A MAN LIKE YOU DO? WHAT WORLD ARE YOU LEAVING FOR HIM? NO WATER IN THE TAPS. THE GROUND ON FIRE. SMOKE SO THICK IT HAS YOU IN ITS GRIP LIKE AN OCEAN WAVE. YOU'RE DROWNING. YOU HATE THESE LONGS NIGHTS. IS ANY NIGHT NOT LONG? AT LEAST YOUR BOY IS SLEEPING. THAT IS SOME SOMETHING AT LEAST. SOME COMFORT ... BUT HOW LONG IS THAT GOING TO LAST? SOON HE WILL NEED MORE THAN JUST A WARM BED. A FULL BELLY, A BOOK TO READ AT NIGHT. YOU HAVE FAILED HIM. TO

LEAVE HIM TO THIS WORLD.

BREATHING. YOU WANT TO TELL HIM IT'S OK. HE IS DOING OK. BUT YOU DON'T. YOU LIE STILL AND LISTEN. YOU USED TO HEAR OWLS IN THE NIGHT. BUT LATELY IT HAD GONE VERY QUIET. AND NOW EVEN MORE SO AFTER THE FIRE. YOU DON'T LIKE THE QUIET. IT FEELS TOO EASY TO BREAK. THE WORLD FEELS THICK TO YOU. FULL AND HARD TO BREAK. BUT THEN LATELY YOU HAVE ALSO BEEN THINKING ABOUT SINKHOLES, UNDER ALL THE PLACES WE GO THE GROUND IS SO MOMENTS? AND THIS BURNT OUT THIN. LIKE BREAD CRUST OR EGGSHELL. ONLY THE INSIDE ISN'T GOOEY EGG OR SOFT-BAKED BREAD. YOU KNOW THERE IS A LOT HIDDEN FROM US. UNDER THE GROUND IT IS BOTH BURNING HOT LAVA AND

TATA IS WORRYING AGAIN.

YOU CAN HEAR IT IN HIS

THAT'S ENOUGH. FUCK'S SAKE. ENOUGH! YOU CAN'T GO ON LIKE THIS. NECK DEEP IN THESE PHOTOGRAPHS. IN THESE PLACES AND WITH THESE PEOPLE YOU THINK YOU REMEMBER. YOU THINK YOU KNOW BUT ... NO.

EACH PHOTOGRAPH IS A

CATASTROPHE OF REMEMBERING AND SEEING.

SEEING WHAT YOU HAVE LOST. REMEMBERING WHAT YOU HAVE FORGOTTEN. NOTHING REMAINS. THE WORLD IN THESE PHOTOGRAPHS IS LOST ... DID IT EVER EXIST? IT'S TOO MUCH. YOU HAVE SAT EVERY NIGHT WITH THESE PHOTOS LIT BY ELECTRIC LIGHT AND NOW CANDLELIGHT, CLOSED IN BY FIRE AND HUNTED BY A GANG OF WATER THIEVES, THIS POSSE OF CHILDREN AND THEIR OWN CANCEROUS MOTHER, THIS CREW WHO KNOW THE TRUTH, WHAT THEY NEED, AND HOW TO TAKE IT. YOU CAN ONLY DREAM OF THAT CERTAINTY. YOU HAVE STAYED TOO LONG HERE, HERE IN THESE PHOTOGRAPHED MEMORIES, YOUR MOTHER IS DEAD AND THE WORLD YOU SHARED WITH HER IS DYING NOW TOO. THAT IS THE TRUTH OF THESE PHOTOGRAPHS. YOU LOOK AND LOOK AGAIN. MAYBE THAT IS ALL YOU SEE NOW. SO, WHAT IS LEFT FOR YOU HERE IN THIS HOUSE? WHAT IS LEFT FOR YOU AT ALL IN THIS HOUSE OF PASSING

EARTH? THIS HOUSE OVERRUN

WITH THE RUN OVER. AND YOU?

YOU ARE NO MORE A PART OF THIS

WORLD THAN A ROPE IS PART OF

THE NECK IT BREAKS. YOU MISS

YOUR WIFE. AND YOU HATE HER. YOU HATE HER PRIVILEGE

BECAUSE IT IS YOUR

HIS FUTURE? WHAT WILL HIS FUTURE BE LIKE? A

PARENT'S DREAM IS TO SEE YOUR CHILD LIVE A

BETTER LIFE THAN YOU ... BUT WHAT HAVE YOU GIVEN

FOR THAT DREAM? NOTHING. YOU HAVE ONLY EVER

TAKEN AWAY. YES, YOU HAVE TAKEN CARE OF THE NOW,

YOU HAVE KEPT HIM SAFE, AND COMFORTABLE AND

FREE ... IN THE NOW. YOU HAVE GIVEM HIM A HUNDRED

TODAYS BUT NOT ONE TOMORROW. IS THAT HIM

STIRRING, WAKING INTO THE NIGHT AS DID SO MUCH

AS A LITTLE BOY? HE WAS NEVER A GOOD SLEEPER, AS

IF HE KNEW WE WERE SLEEPWALKING OFF A CLIFF. THEN

WHEN HE DID DREAM, HE ALL THOSE DREAMS. THE ONE

WITH BIRDS FALLING FROM THE SKY? THE ONE

WERE FISH CRAWL OUT OF THE OCEAN,
COMING UP OUT OF THE WATER, GASPING
FOR OXYGEN. EISH, WHAT ABOUT THE ONE
WHERE RAIN SETS THE EARTH BURNING?
YOU HATE TO HEAR HIM TALK ABOUT THAT
ONE. YOU CANNOT TELL HIM NONE OF THESE
ARE DREAMS ANYMORE? HOW DO YOU DO
IT AND NOT KILL HIM A LITTLE MORE
EACH TIME? NO. YOU CAN'T. INSTEAD, YOU
DO NOTHING BUT CALM HIM, NOTHING BUT
HELP HIM FIND A WAY TO SLEEP THROUGH.
THAT IS ALL YOU WE HAVE EVER DONE.

IT'S NOT ENOUGH. HE'S STIRRING NOW, WAKING FROM SLEEP. IT'S LIKE HE CAN HEAR YOU SCREAMING IN YOUR HEAD.

YOU WORK HARD NOT TO

PASS ON YOUR

TROUBLES AND

THERE HE GOES

READING YOUR

MIND, SEEING IT

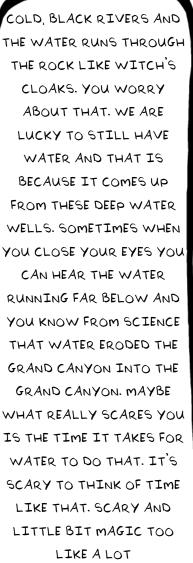
IN YOUR

FACE.

PRIVILEGE TOO. LOOK AT THE BOY IN
THESE PHOTOGRAPHS. HE HAD SO MUCH THEN,
SO MUCH LIFE HE TOOK FOR GRANTED. HE HAD
IT ALL THEN. THERE IS NOTHING OF THAT LEFT
ANYMORE. YOU WOULD NOT BELIEVE IT
WITHOUT THESE PHOTOGRAPHS. IT IS ALMOST
A PHYSICAL PAIN TO LOOK AT THEM. THEIR
EDGES CUT INTO YOUR FINGERTIPS, TINY
FEATHER THIN CUTS. DEATH BY A THOUSAND
CUTS. LOOK AT THIS BOY AGAIN. IS THAT
REALLY YOU? IS THAT WHO YOU WERE, WHAT
YOU HAD? LOOK AT YOU NOW. YOU RUBBED

OUT, BLEACHED, RUST STAINED,
PLASTIC POISONED, SHIT
FILLED, FAT CLOGGED, PESTICIDE
SWIGGING, LOCKED DOWN HUMAN.
LOOK AT THE LIFE AROUND THAT
BOY. THERE WAS SO MUCH OF IT
THEN. YOU REMEMBER SILKWORMS
COLLECTED IN SHOEBOXES AND FED
MULBERRY LEAVES. CHRISTMAS
BEETLES LIKE BROWN BUTTONS
UPTURNED IN THE SUMMER LIGHT
AND YOU LIFTING THEM IN YOUR
CLASPED HANDS, YOUR HANDS ARE
EMPTY NOW, IN EMPTY PRAYER. I
WISH YOU HADN'T LEFT MUM.





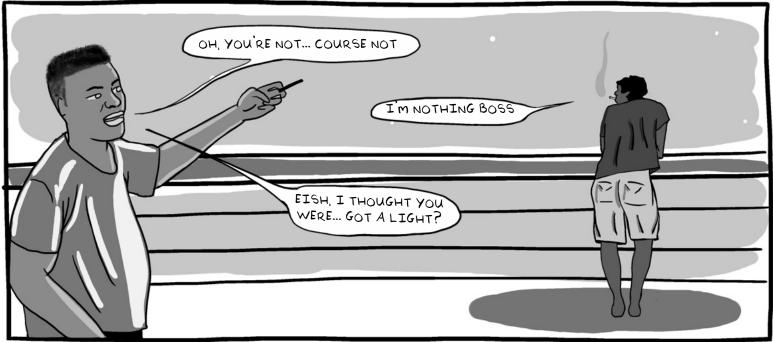
OF THINGS.























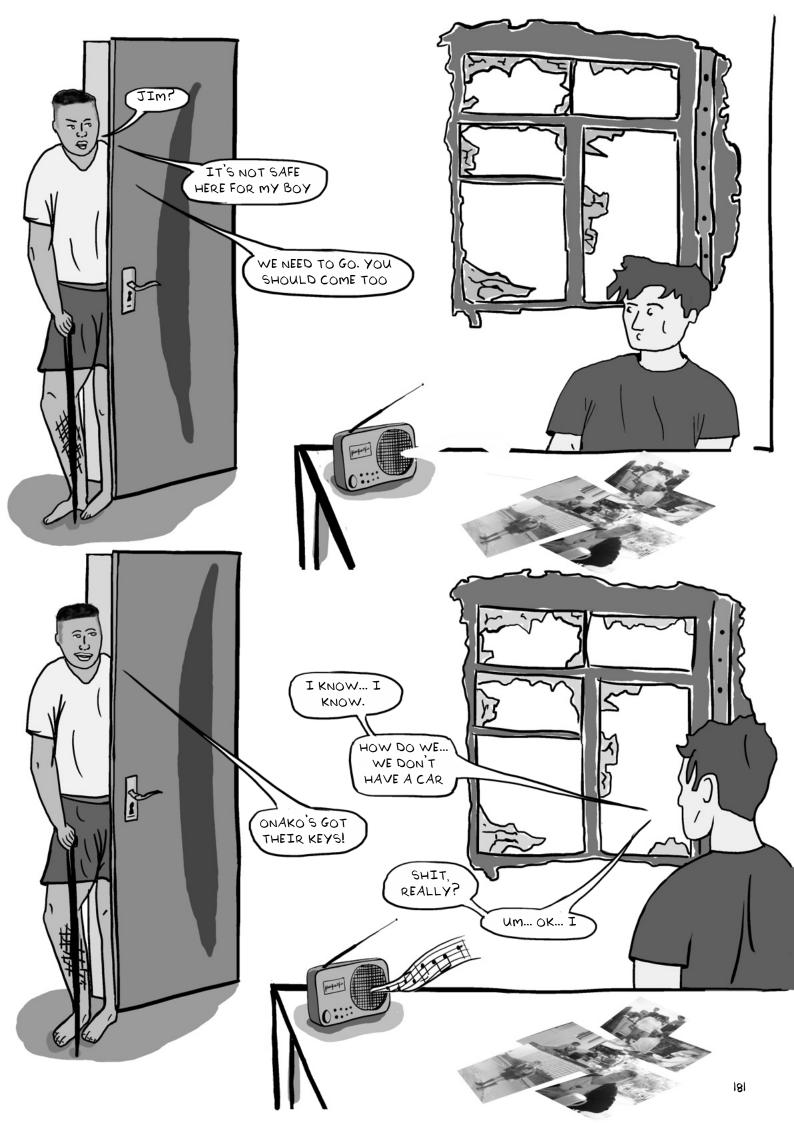


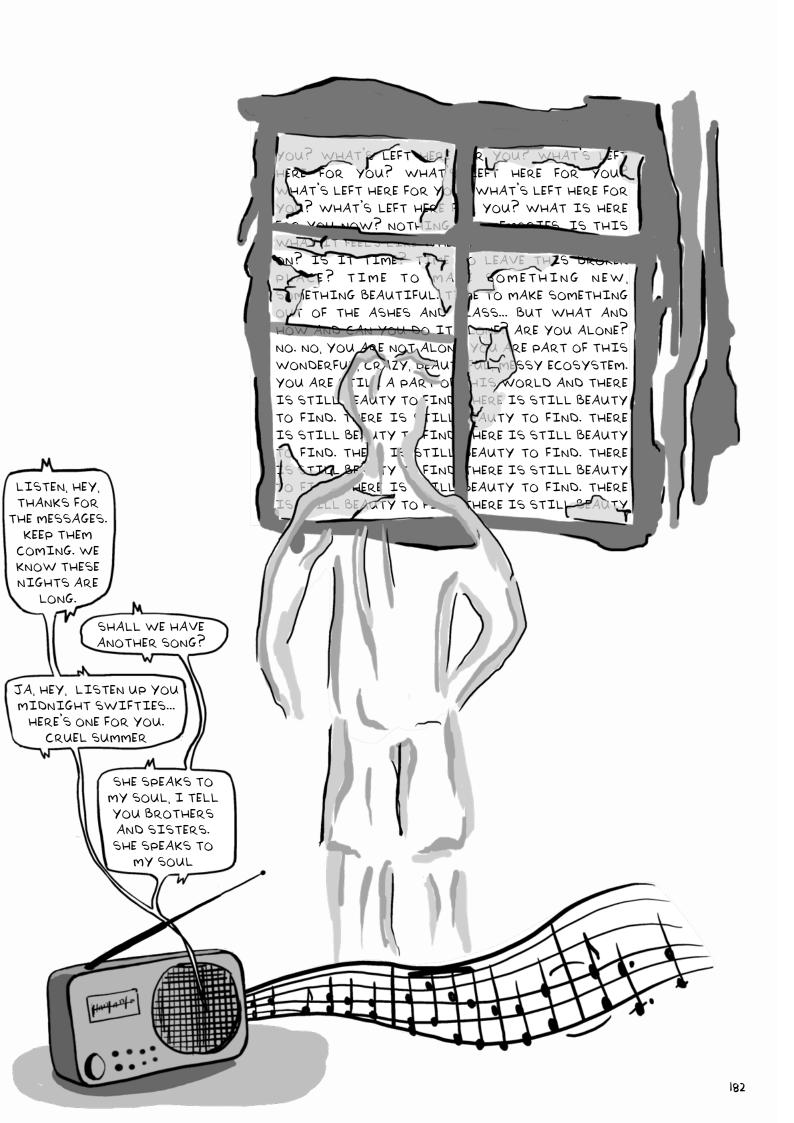


THOUGHT AND FACTS AND FEAR. THAT OTHER BOY, THE ONE SO LIKE ONAKO BUT NOT, THE SMOKING BOY... HE IS DEAD RIGHT. THEY HAVE NO FUTURE. NOT EVEN LIKE WE DID. AND ONAKO? YES, HE HAS SOME MONEY IN THE BANK, NOT A LOT BUT SOME. HE IS A SMART BOY, GOOD MARKS, GOOD REPORTS. HE RUNS FAST AND COMPETES IN EVERYTHING. BUT EISH, HEY, SO WHAT? WHEN THE WORLD IS BURNING? WHEN WE ARE HOSTAGE TO WATER THIEVES AND YOU CAN DO NOTHING FOR YOUR BOY? YOU

CAN SEE IT IN HIS EYES. HE DOESN'T LIKE YOU TO KNOW IT. HE SAYS IT'S GROWN UP PROBLEMS BUT YOU CAN SEE HE CARRIES THIS HEAVY WEIGHT. YOU CAN SEE HOW HE BENDS UNDER THE WORRY. HE'S NEVER BEEN THE SAME SINCE HIS FRIEND LEFT. THOSE WERE GOOD TIMES. WHEN TATA'S GOOD FRIEND WAS LIVING IN THE HOUSE WITH US.

BUT NOW THINGS ARE DIFFERENT. YOU KNOW HAVE NOT PREPARED HIM FOR THE WORLD HE HAS CANNOT CARRY ON LIKE THIS. TATA KNOWS M? ARE YOU TOO. YOU CAN SEE IT IN HIS FACE. WE CANNOT AHEAD. HOW COULD YOU EVER PREPARE HIM? OR SO LONG. LIVE IN THE PAST ANYMORE. YOU WANT TO HELP BOY IN THE PREPARED? YOU HAVE BEEN DENYING IT FOR LIVING IN THE DARK, SHELTERING YOUR BOY TATA. YOU WANT HIM TO SEE WHAT YOU CAN SEE. IS LIT UP. THE BEAUTIFUL THINGS STILL IN THE WORLD. DARK, BUT NOW YOU SEE IT. NOW THE DARK THIS IS NO PLACE FOR YOUR BOY. THIS IS NO FUTURE FOR YOU KNOW TATA IS ALONE WITHOUT HIS GOOD S FOR YOU HIM. AH, LOOK AT HIM. LOOK AT HOW HE SMILE FRIEND, AND THE HOUSE IS GONE, THE TREES HOW DOES HE CARRY ON? HOW DOES HE HAVE HOPE? WHAT BURNT AND THE SKY BLACK WITH SMOKE, BUT DOES HE SEE THAT YOU DON'T? THIS FEELS LIKE THE END BUT YOU ALSO KNOW THIS IS NOT THE END. INSTEAD LIKE THIS. THERE IS NO END AND WE CAN BE PART OF THE NO, THIS IS NOT HOW YOUR STORY ENDS. NOT WE ARE LEAVING HERE. WHERE AND FOR HOW LONG, YOU STORY... NO, NOT STORY. THERE IS NO STORY.
WILL FIGURE IT OUT. YOUR STORY IS NOT HERE ANYMORE.
THERE IS ONLY THE WILD SPACE AND US A PART YOUR STORY IS AWAY FROM THIS PLACE. AWAY WITH HIM OF IT. WE ARE ONLY A PART OF IT. ONLY A PART. AND BUILDING SOMETHING NEW. BUILDING A FUTURE.



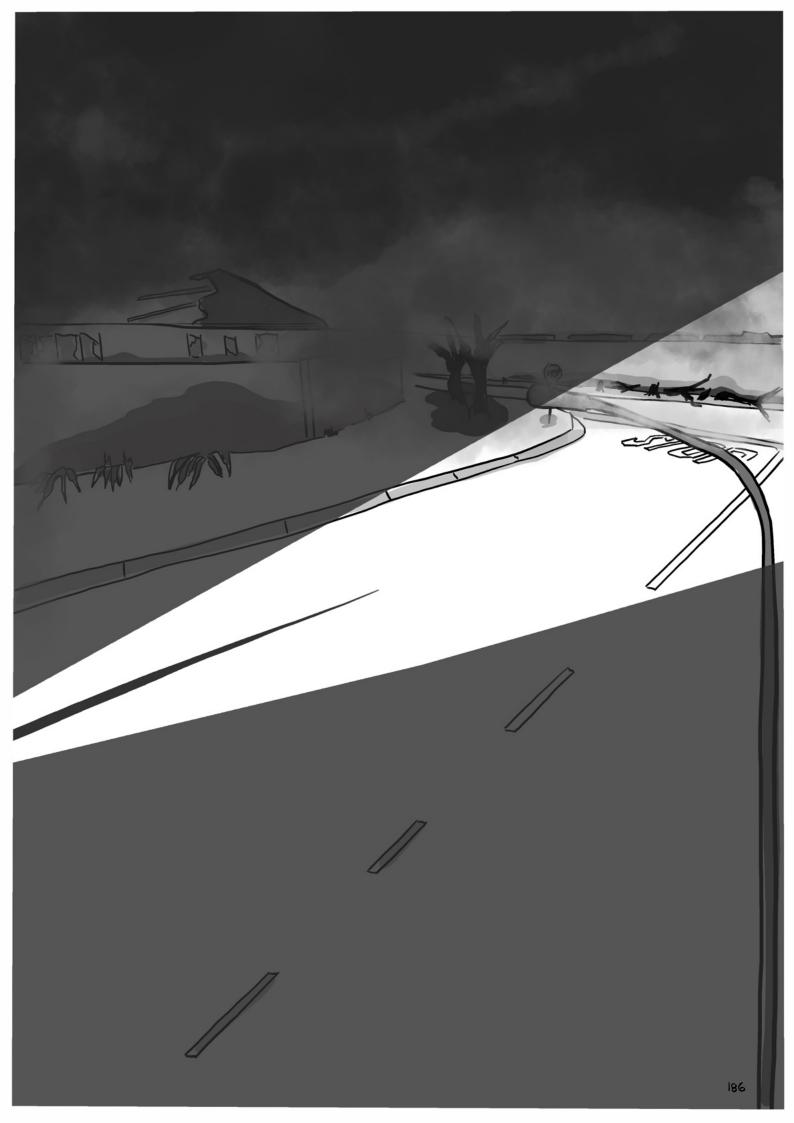




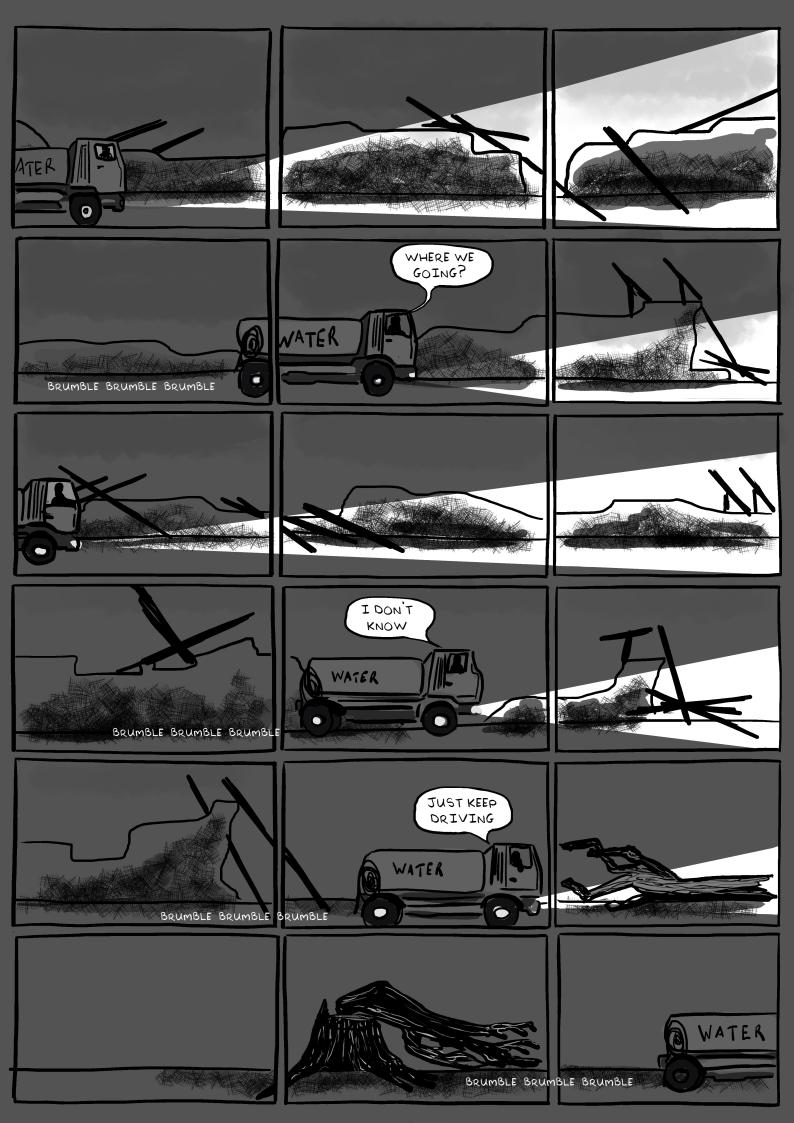










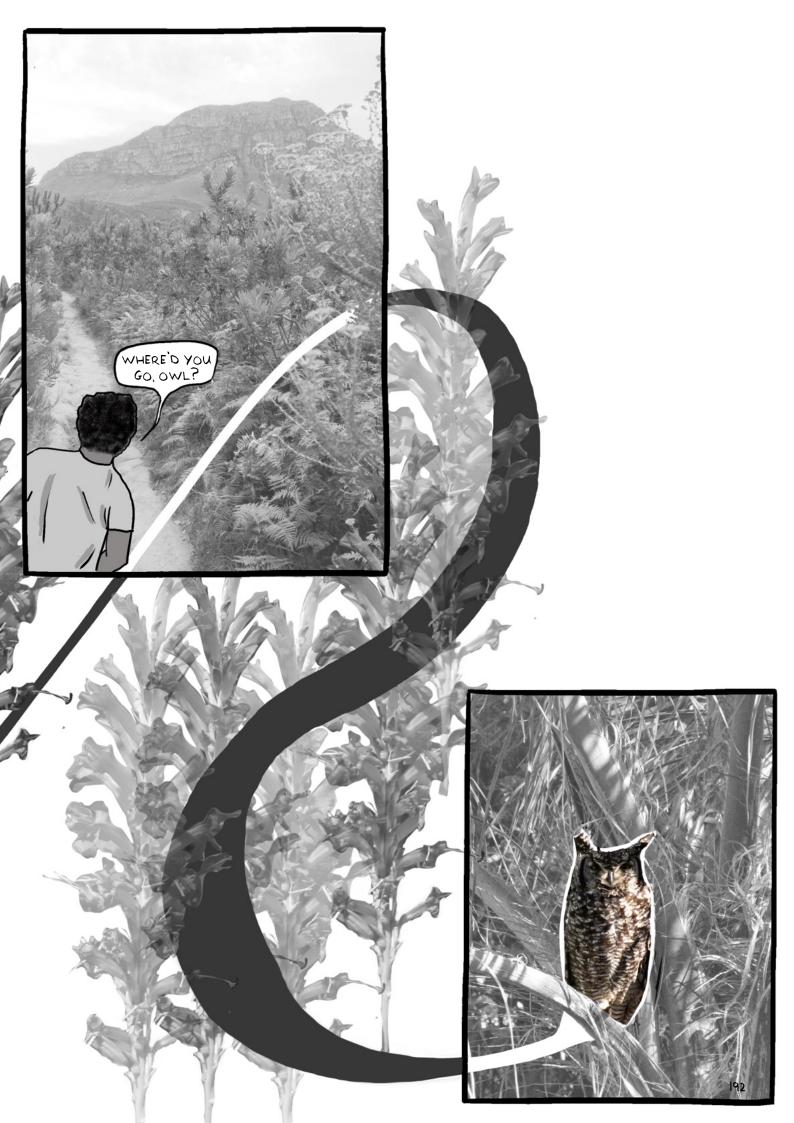




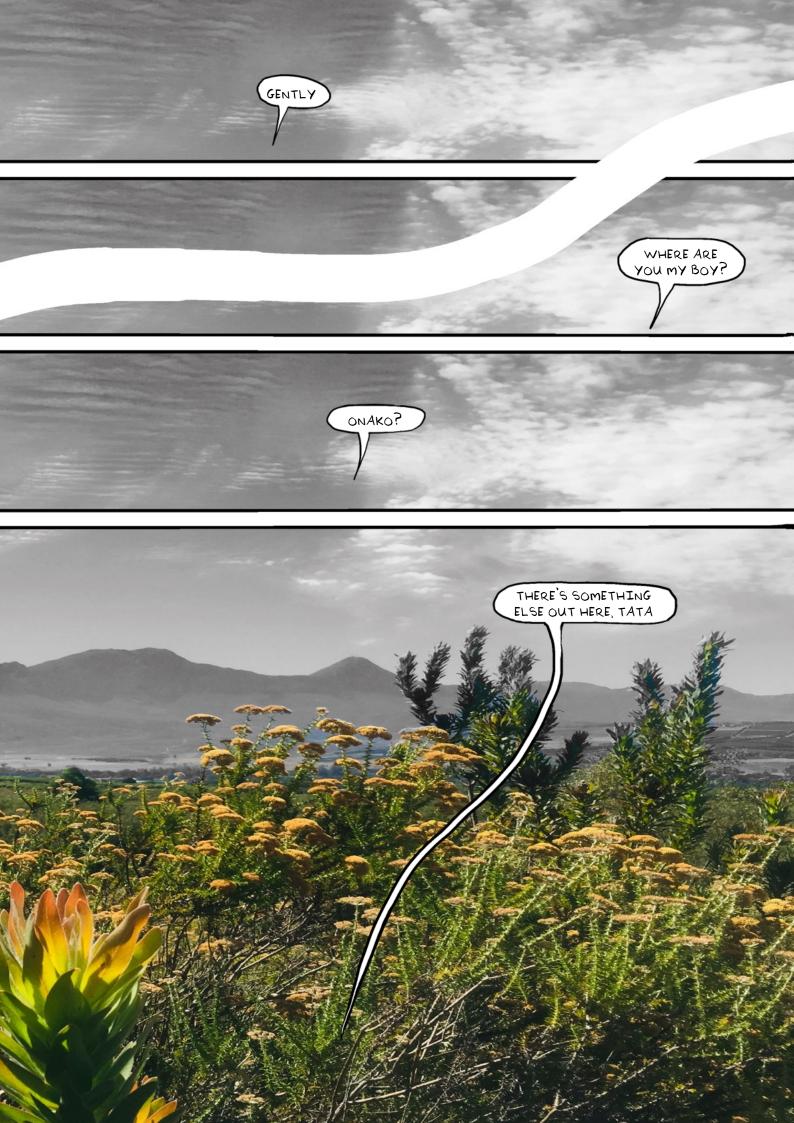




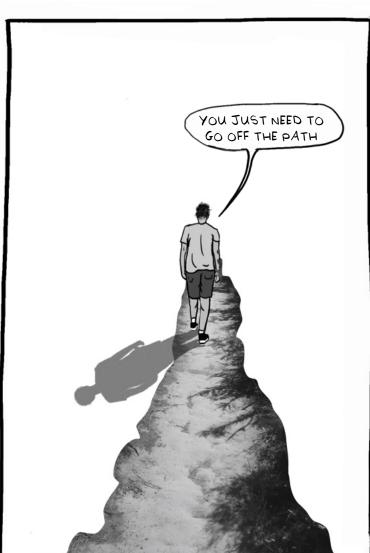












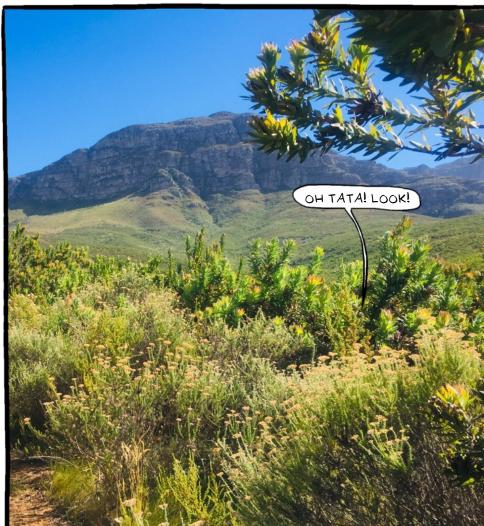


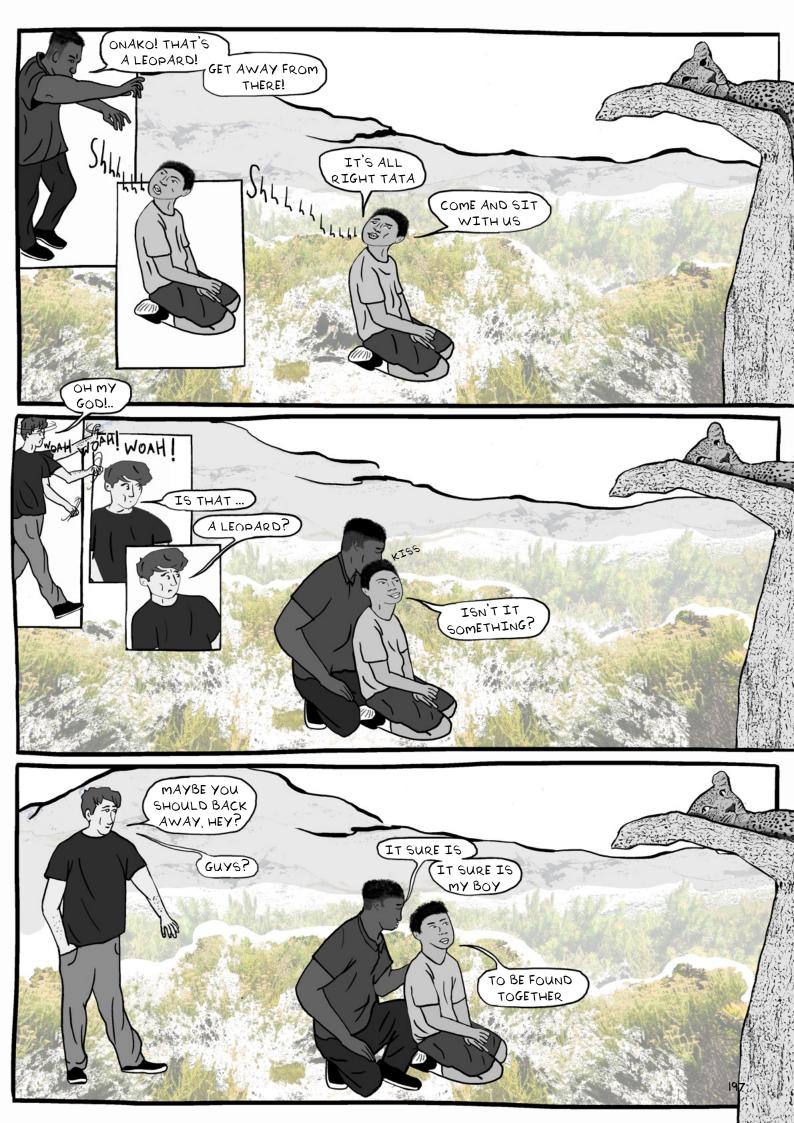


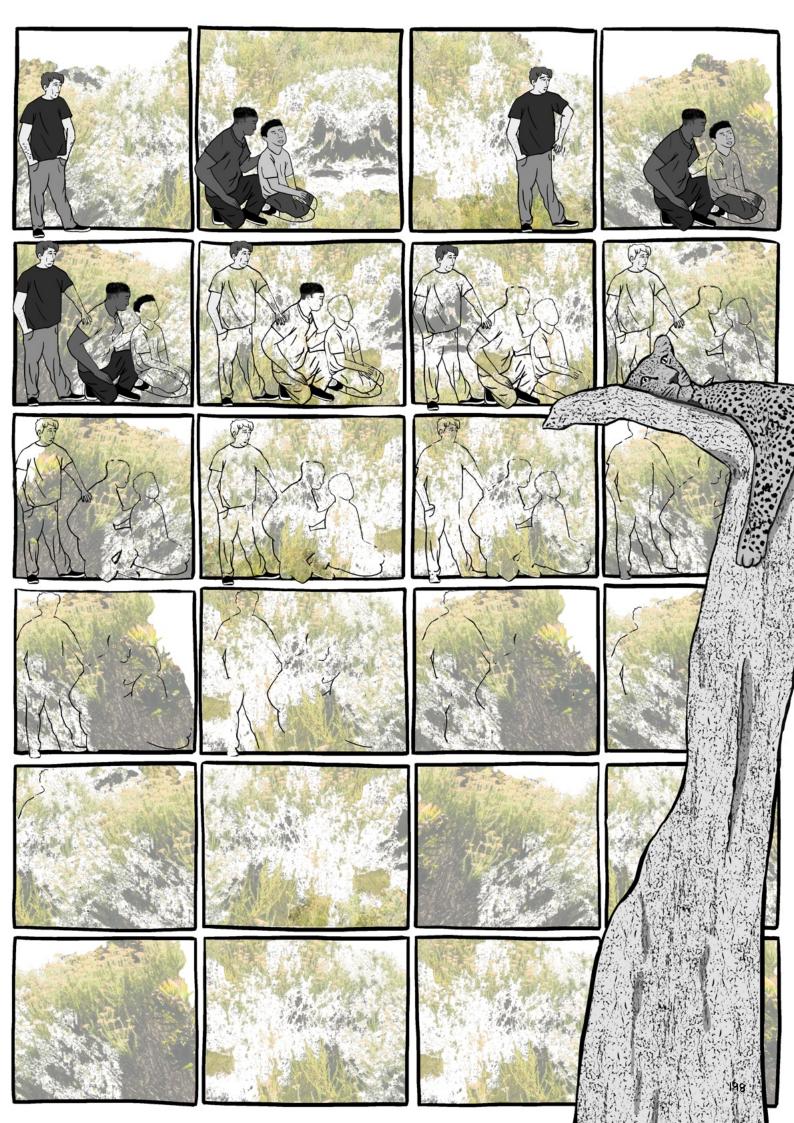


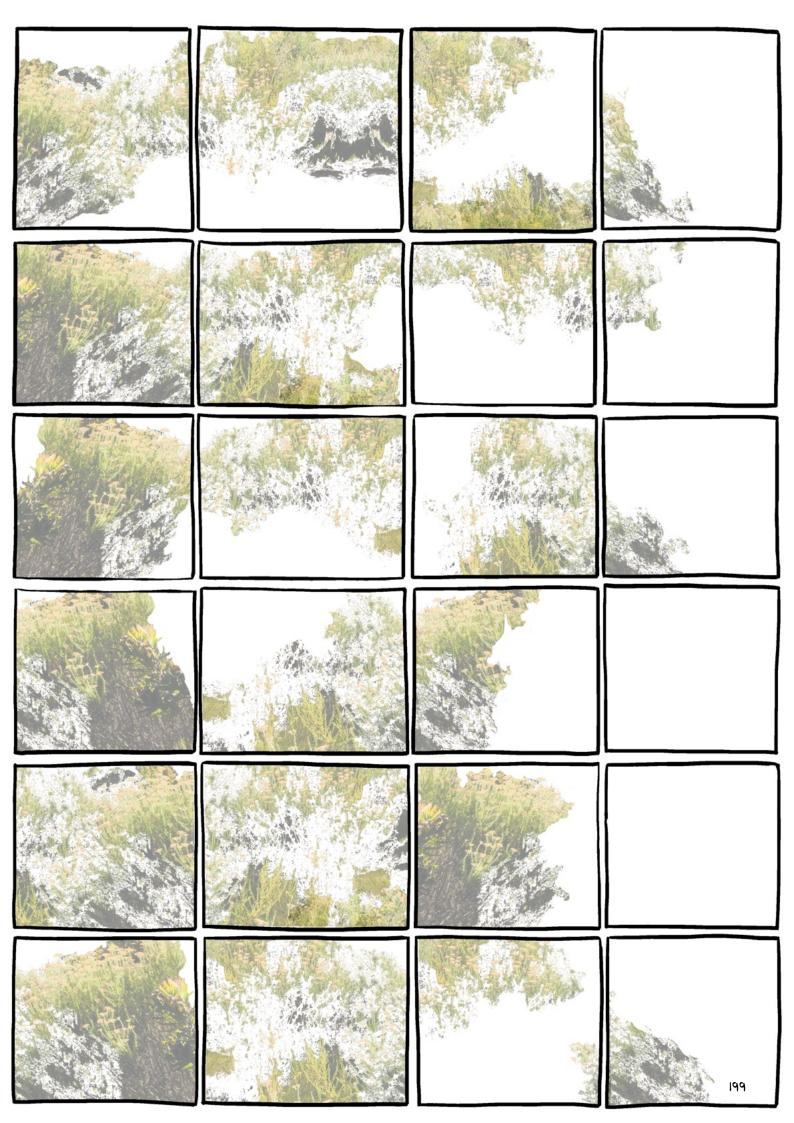




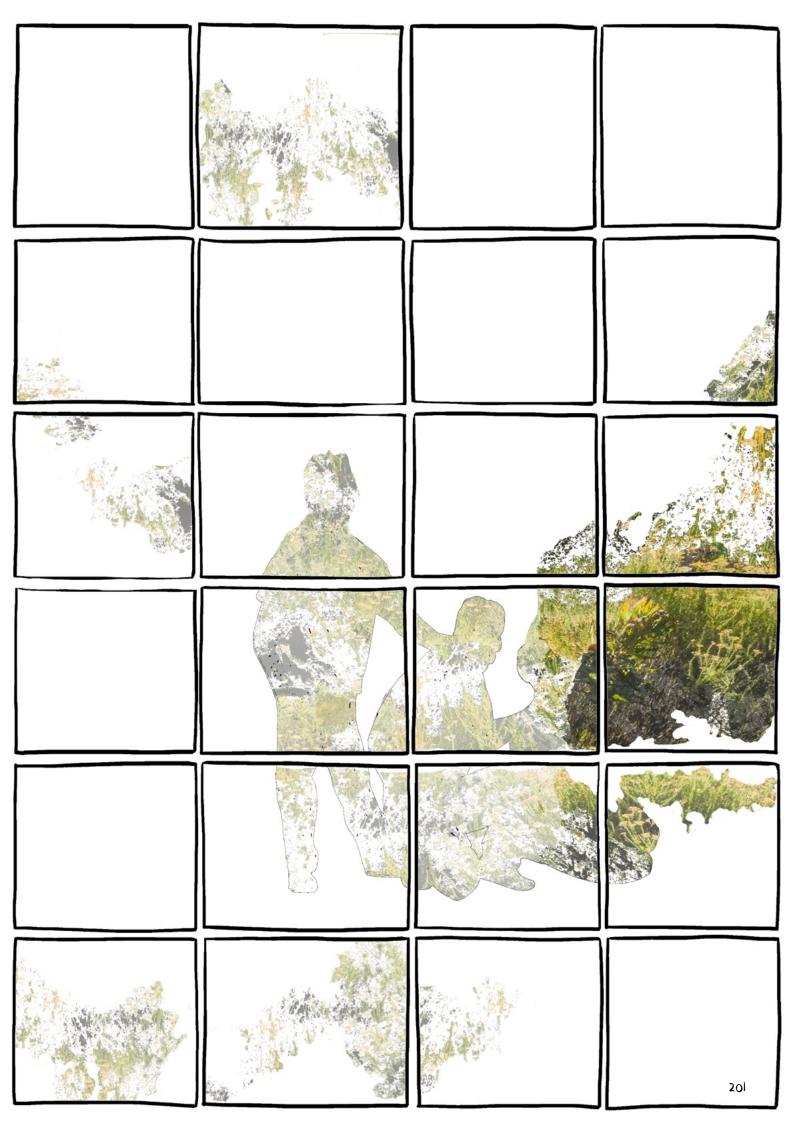


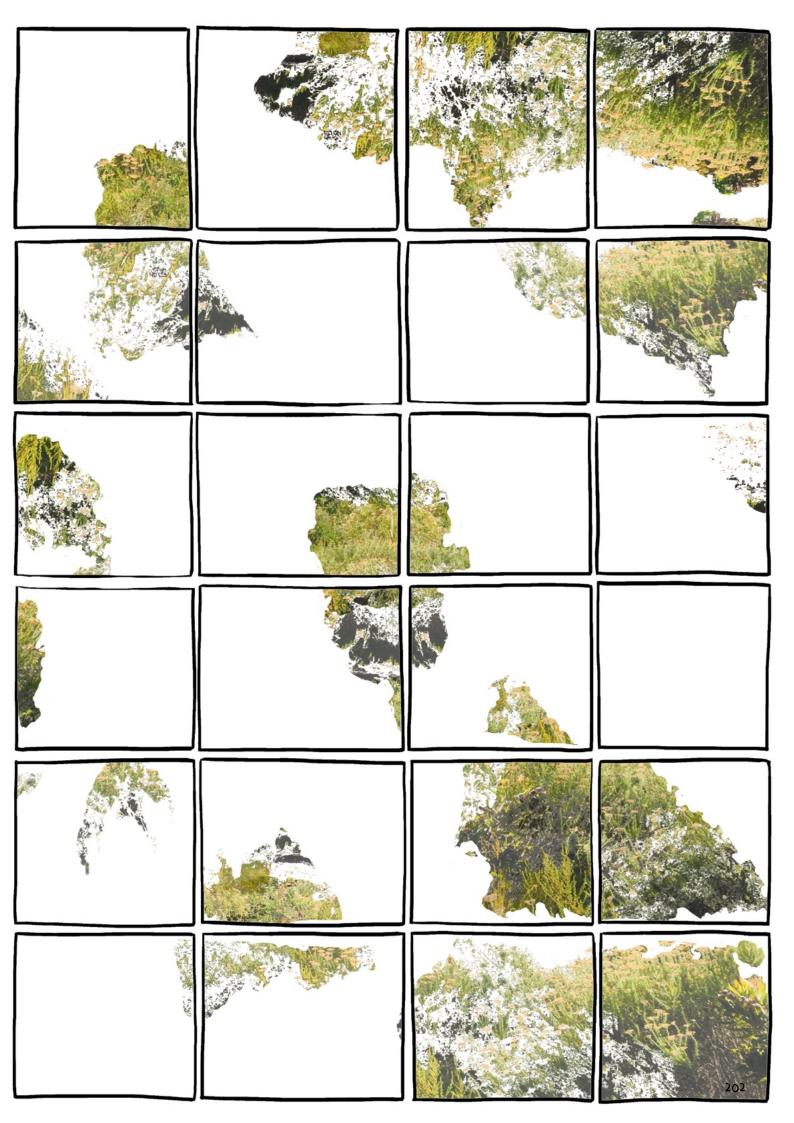


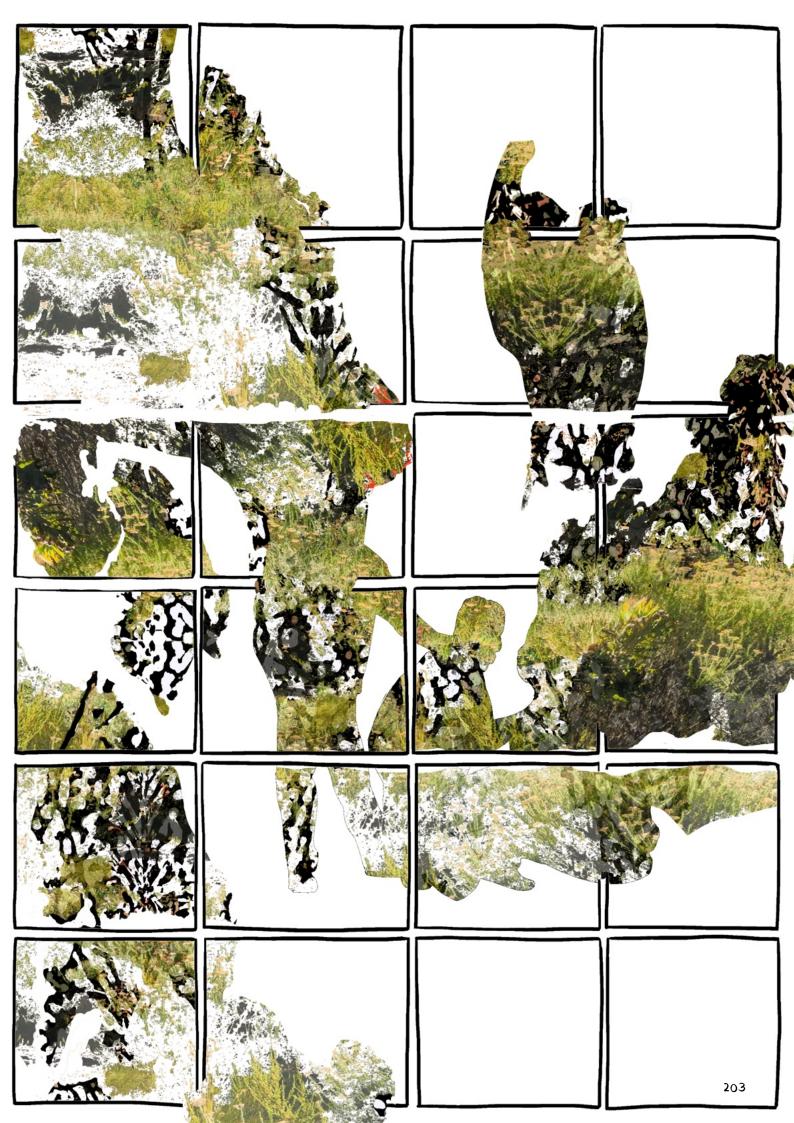


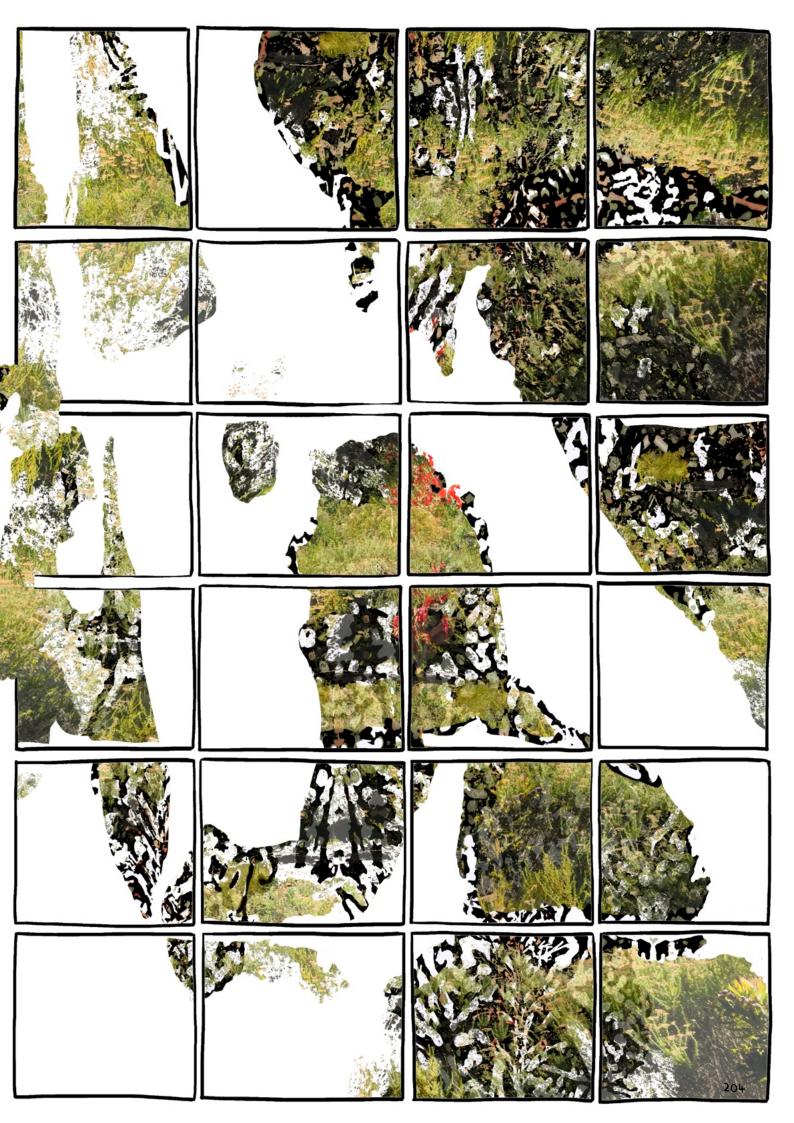


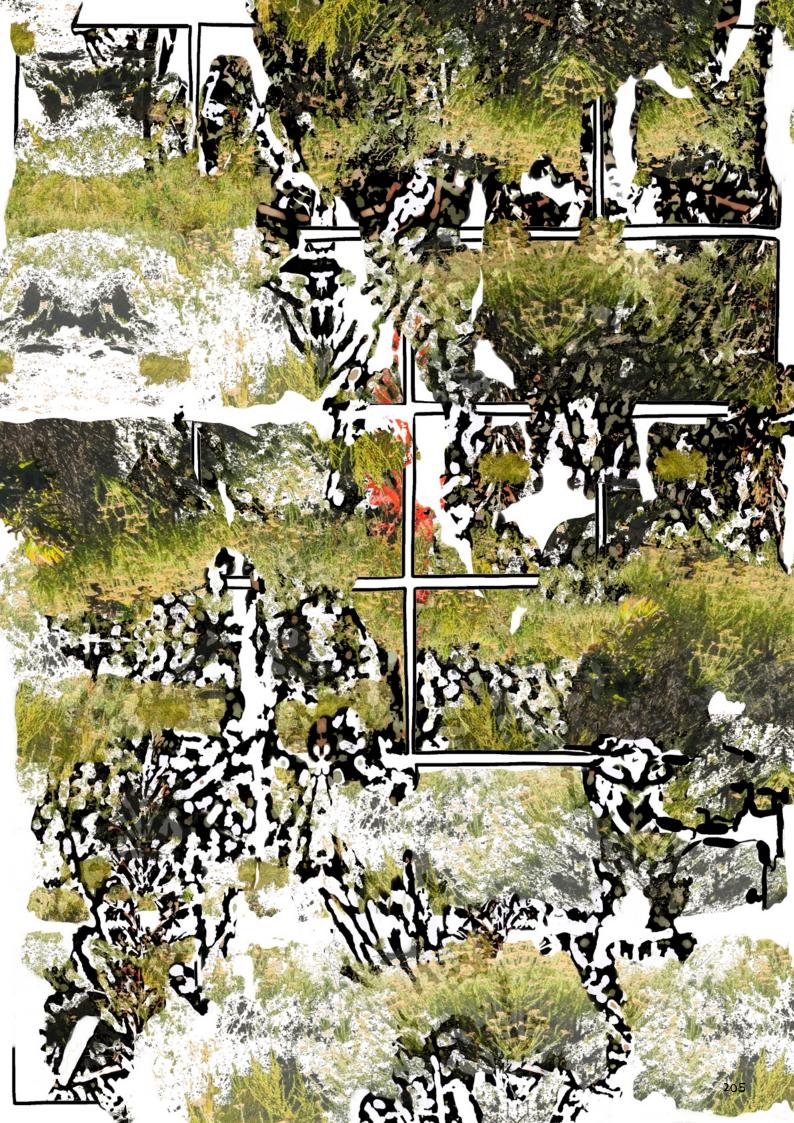


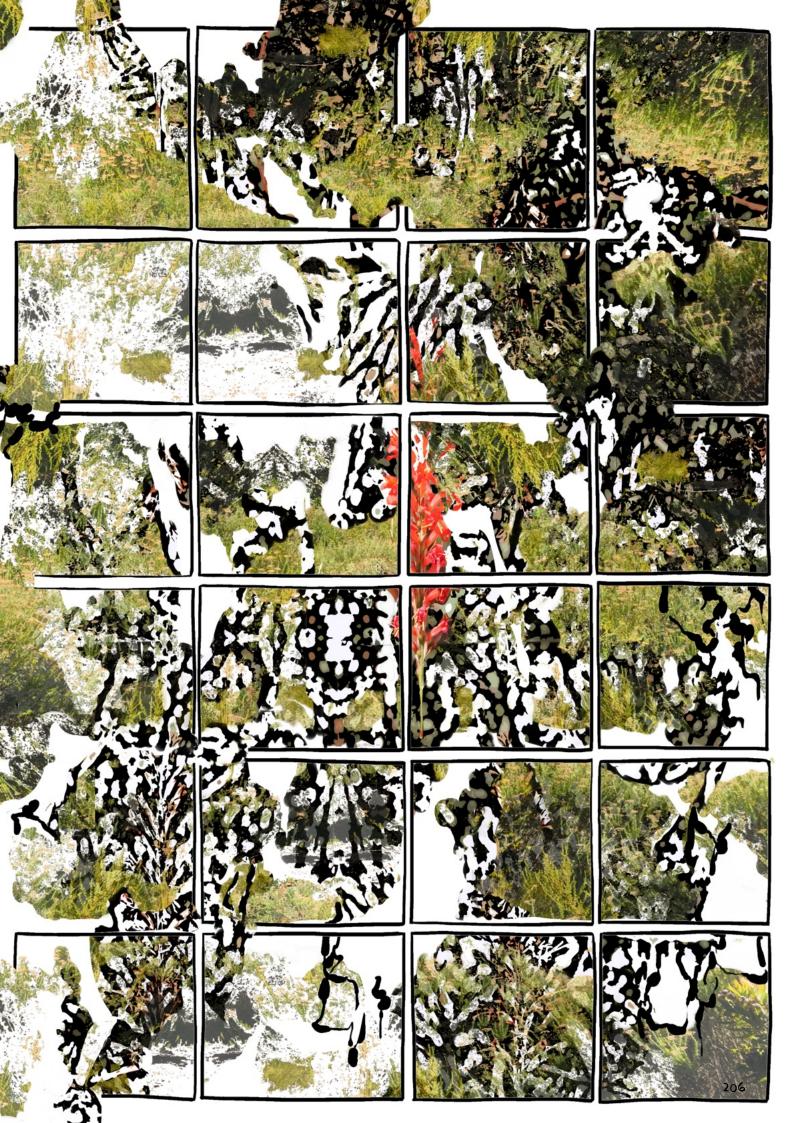


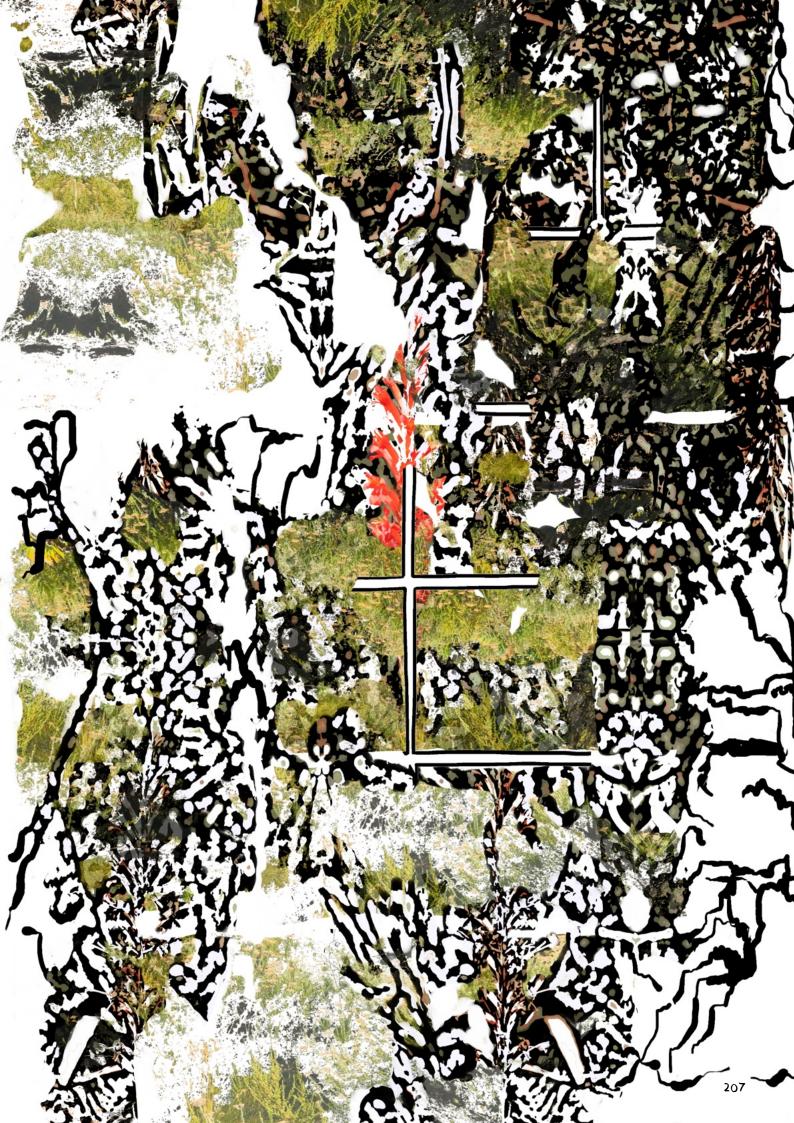


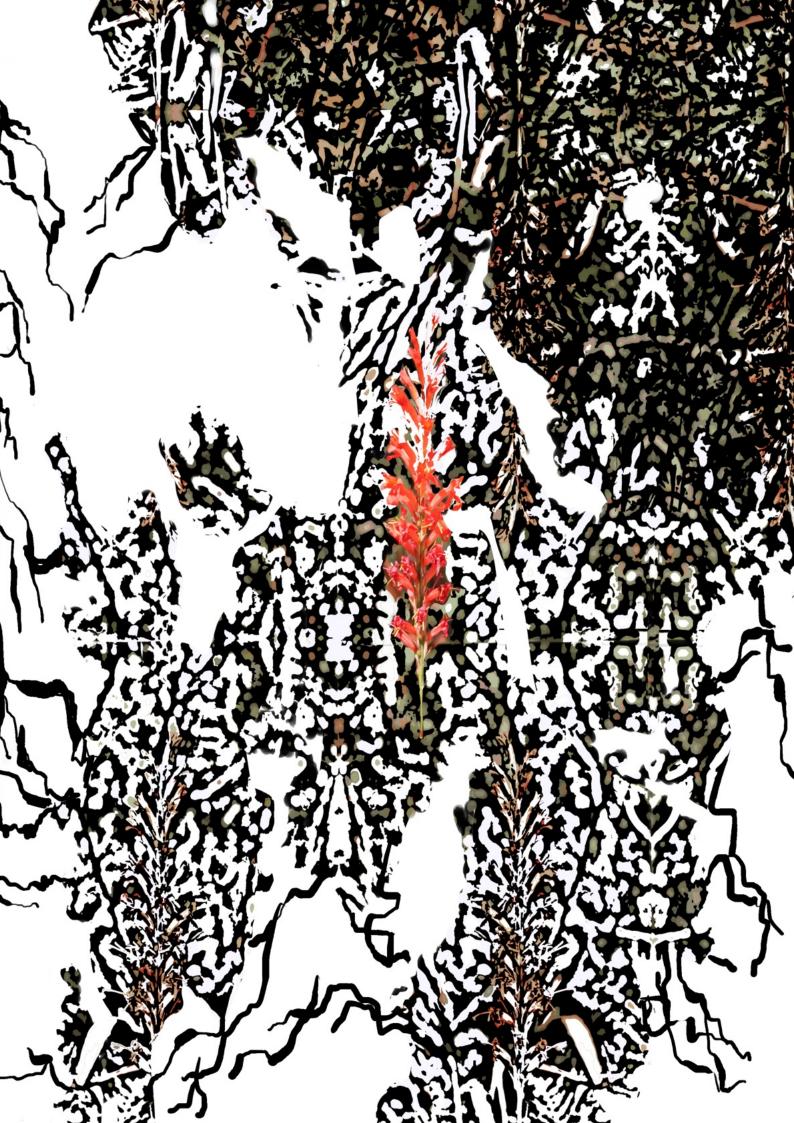


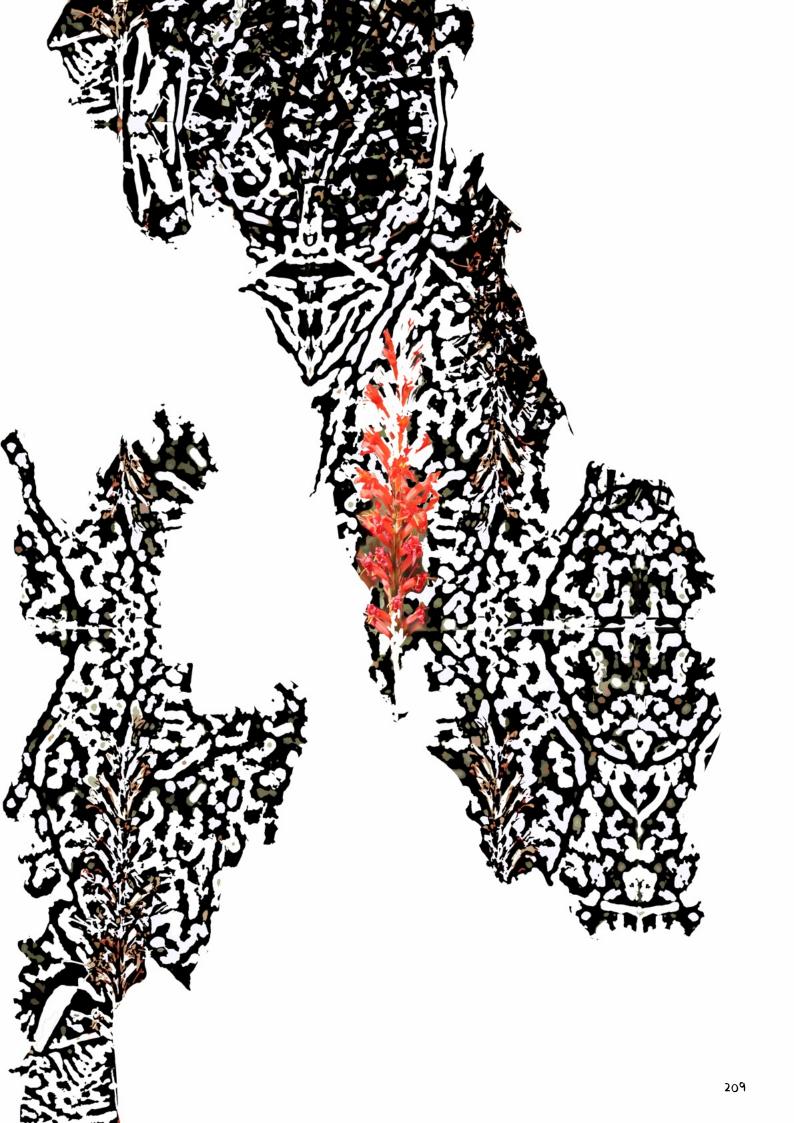




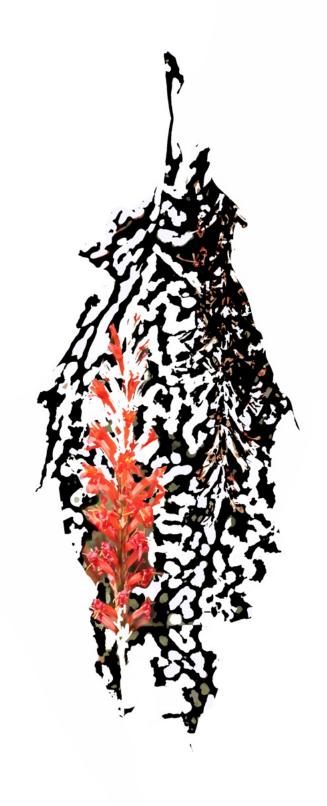




















# The Dark Lit Up

## **Ecosystemic Writing as a New Multi-Modality for the Climate Crisis**

Section 2 (of 2)

Critical Enquiry

Logan Scott

Doctor of Philosophy

Creative Writing Research

Literature, Drama and Creative Writing

University of East Anglia

31 January 2025

This copy of the thesis has been supplied on condition that anyone who consults it is understood to recognise that its copyright rests with the author and that use of any information derived there-from must be in accordance with current UK Copyright Law. In addition, any quotation or extract must include full attribution.

## **List of Contents**

List of Contents	2
List of Figures	3
Abstract	6
Introduction The Dark Lit Up	8
Chapter 1 Too Big, Too Small, Too Far Away	25
Chapter 2 Breaking the Frame	47
Chapter 3 Picture This	83
Conclusion The Unreturnable Gift	116
Notes	126
References	128

# **List of Figures**

Fig. 1.1 Methuselah Tree, Bristlecone pine. (Chao Yen)
Fig. 1. 2 Hunger stone on the Elbe. (Robert Macfarlane)
Fig. 2. 1 McCloud's "transition scale". (Own photo)
Fig. 2. 2 Non-sequitur transitions in Abstract Expressionist Ultra Super Modernist
Comics. (Own photo)
Fig. 2. 3 Non-mimetically recognisable images in series in Molotiu's <i>Universe A</i>
(Shenandoah)
Fig. 2. 4 Example of abstraction from <i>The Dark Lit Up</i> (51–58)61
Fig. 2. 5 Example of abstraction from <i>The Dark Lit Up</i> (199–210)62
Fig. 2. 6 Comics to prose modal switching in Watchmen. (Own photo)69
Fig. 2. 7 Pages of prose designed as case files in Watchmen. (Own photo)
Fig. 2. 8. Prose sections in Americana. (Own photos)
Fig. 2. 9. Sample from Diary of a Teenage Girl. (Own photo)71
Fig. 2.10 Sample from Cassandra Darke. (Own photo)
Fig. 2. 11. Example of modal switching from The Dark Lit Up (73)76
Fig. 2. 12. Example of modal switching from The Dark Lit Up (89–90)
Fig. 2. 13 Example of sequence breaking from The Dark Lit Up (17–18)78
Fig. 2. 14 Examples sequence breaking through bird flight from The Dark Lit Up
(65–66 and 189–190)
Fig. 2. 15. Example of obscured text from <i>The Dark Lit Up</i> (47–48)80
Fig. 2. 16 Example of text obscuring text from <i>The Dark Lit Up</i> (pg. 75–76) 80
Fig. 2. 17 Example of image obscuring text from <i>The Dark Lit Up</i> (pg. 89–90) 81

#### Acknowledgements

I am hugely grateful to my PhD supervisors, Frederik Køhlert and Andrea Holland, for their constant support and invaluable advice. Frederik's gentle insistence to push at the boundaries of my work and to always look for ways to 'go further' with design and visual metaphor helped me get much closer to the visions I had in my head at the start of the project. I am also especially grateful to Frederik for continuing as my supervisor even after circumstances changed and would like to thank him for being such an advocate for the project and for comics in general. Andrea's close reading and engagement with the topic was greatly appreciated. I am particularly grateful for her gentle but persistent questioning of the critical enquiry and her notes on narrative structure and characterisation.

Thank you to my Michele and Levi for their patience and support over these long few years. Levi's kind words of encouragement and his amazement in the growing world is an inspiration. While Michele's calm guidance was quite often the literal rescue I needed. Many things have inspired this work, and Michele was there for much of it. Thank you. I would not be where I am today without them.

I am indebted to everyone who read early drafts or sat and listened to my ideas as they took shape. Thank you Katie, Mako and Ioan for your patience and feedback and to the comics research community who have shown such support in my work and responded so positively to the topic.

Lastly, thank you to the trees of Shotover Country Park. I honestly don't think I would have made it this far without my regular visits to those woodlands. Thank you.

#### Abstract

The climate crisis exists on a scale that far exceeds our day-to-day experience. At the same time, our stories have largely written the more-than-human world into the background in favour of anthropocentric narrative models. This project is an attempt to develop a workable model that can speak to the scale and complexity of climate change while decentring the human and accepting the disorder and non-linearity of the more-than-human world. The proposal is a new hybrid, multi-modal narrative form I call *ecosystemic writing*.

To explore and demonstrate this form, the project consists of two sections:

1.) an original work of ecosystemic writing, a novel entitled *The Dark Lit Up*, 2.) a critical enquiry, which sits in conversation with the novel. The critical enquiry has three main chapters, opening with a discussion around the spatial-temporal scale of climate change and the challenges it poses to narrative fiction. Chapters two and three focus on the two primary, formal responses demonstrated within *The Dark Lit Up*. Chapter two argues for the application of abstraction and narrative disruption as a way to provide space for the more-than-human world within a narrative structure. Chapter three investigates theories of photography within the context of memory studies and, in turn, advocates for the use of personal photography to speak to the role of memory in our experience of climate change and biodiversity loss.

Throughout the thesis, the core arguments presented across these three chapters are supported with visual examples from the novel and page references to support the proposal for ecosystemic writing.

"Everything is connected to everything else"

First Law of Ecology

(Commoner xiii)

#### Introduction

#### The Dark Lit Up

I was fortunate as a child to live in a house with a large window that looked out onto the slopes of the Helderberg Mountain, a gentle peak of 1000 metres at the head of the rolling Hottentots Holland range on the southern tip of Africa. I remember a night sitting at that window watching an electric storm develop. The night was dark beneath the heavy cloud cover and the mountain was lost within it until a bolt of forked lightning illuminated its outline. Each flash was only a moment, no more than the flash of a camera, but even after it was gone an image of that mountain lingered for a second or two in the form of an after-image. An illuminated, visual memory held momentarily between my mind and eye. Then it was gone, and I waited for the next flash of light. I sat with that storm long into the night as the space between light and sound grew shorter until the storm looked to be caught up on the mountain itself. The next shock of lightning and crack of thunder was different. This time the mountain did not sink back into darkness. A part of it remained. A small pocket of light, silent and red, flickering like a distant star. It took me a moment to process what had happened, that the mountain was on fire. The dark was lit up.

Thankfully, that fire did not spread far that night. The lightning was followed closely by heavy rain. That is not always the case. Wildfires, known locally as veldfires, are common across the dry mountainsides of that region in South Africa. Changes to the climate, namely severe drought and longer summers, have seen these fires grow in frequence and ferocity. So, it was no surprise that when I found myself back on that mountainside many years later, I was reminded of that night as I stood

surrounded by the after-effects of a series of recent fires. Until that point, I had viewed the world as having a sense of permanence and cyclical order: a dry season followed by a wet, a fire season followed by a period of respite. That was until the double challenge of my mother's death and the unmistakable reality of the impact of the climate crisis on my childhood home. Nothing left felt reliable, nothing felt sufficient.

The mountains and their surrounds, historically part of an area identified as being Mediterranean in climate, were into their third year of severe drought. The reservoirs were so low, the flow on public taps was turned down to a fine mist. The city of Cape Town was on the precipice. At the start of 2018 it was estimated that this city of around 5 million had less than 90 days' worth of public water. Without rain, Cape Town would become the first city in the world to run dry. The municipality was expected to have to turn off all water mains on April 22, 2018, a day that became known as Day Zero. I was home in remembrance of a personal loss, but it felt like the world itself had shifted. As I stood before a blackened, burnt-out tree, I realised I did not have the words because I needed more than words. It was on that mountainside, at that moment, that I had the idea for this PhD project.

In search of ways to speak with more than words, this PhD project is an exploration and demonstration of the use of multimodal hybridity in narrative fiction. The project is an exercise in developing a hybrid narrative form that uses a variety of modes of communication, most notably image (drawn and/or photographed) and text (prose and/or captions). This multi-modal hybridity is explored through critical analysis and creative exploration. To this end, the output consists of two components. Firstly, an original work of fiction, a graphic novel entitled *The Dark Lit Up*. Secondly, this critical enquiry, which sits in conversation

with the novel. The critical enquiry has three main chapters, opening with a discussion around the spatial-temporal scale of climate change and the challenges it poses to narrative fiction. Chapters two and three focus on the two primary, formal responses on show within *The Dark Lit Up*. Chapter two argues for the application of abstraction and narrative disruption to provide space for the more-than-human world within a narrative structure. Chapter three investigates theories of photography within the context of memory studies and, in turn, advocates for the use of personal photography as a way to unpack the role of memory in our experience of climate change and biodiversity loss. The core arguments across these three chapters are supported with examples from *The Dark Lit Up*.

With the critical enquiry engaged in an exploration of the contemporary experience, impact, and narrativization of the climate crisis, the novel is equally focussed on the present-day experience. Set in the shadow of the Helderberg Mountain with a character returning home after the death of his mother to find a South Africa facing the twin threats of water shortage and forest fires, *The Dark Lit Up* is a personal story with a global focus.

From this starting point, the novel utilises the multi-modal approach to layer narrative and character on top of the personal/biographical to explore the wider implications of climate change and biodiversity loss (drought, fires, pollution, a sense of disconnect from the world) across the Helderberg basin, from the wealthy suburbs on the mountainside down to the sand-swept and historically marginalised Cape Flats. While the city ultimately avoided Day Zero, the spectre of severe and extended drought has not left the region and these marginalised areas, often blanketed in smoke and fire from both wild and domestic burning, must also cope with the added impact of pollution.

In their study of this extended period of severe drought, Christina Botai et al. describe drought as a "creeping phenomenon whose effects evolve with time, yet the start and end is often only clear in the hindsight" (1). While their report concluded that "the ongoing drought conditions over the Western Cape Province appear to be a regular part of nature's cycle" (1), they did not account for why "the Western Cape Province has now experienced the longest or persistence [sic] drought duration" (14). While more research into the root cause is needed in this case, drought as a phenomenon remains representative of the broader environmental crisis. The description of drought as a "creeping phenomenon whose effects evolve with time" (Botai 1) is just as appropriate for the climate crisis more broadly. Drought is a reminder of the scale and complexity of the natural world as a whole and the challenge we have in communicating the full impact of anthropogenic climate change across such an extended spatial-temporal scale, particularly in a country with a history of marginalisation and exclusion such as South Africa.

For Botai et al., droughts embody an "inherent complexity" (1), reminding us of the relational exchanges and dependencies of the more-than-human world. Even an event marked by the absence of something is, in fact, evidence of a continual and complex web of active agents that interact across the world. The unpredictability of this creeping phenomenon is a reminder of how the more-than-human world is sustained by an interwoven web of connections. It is, as Nick Sousanis describes it, a "rhizomatically bound" (45) ecosystem of cause and effect, not always visible on a human scale.

To write with the more-than-human, to speak to its scale and relationality, requires us to think and write differently, to build our narrative arts 'rhizomatically'. Robin Wall Kimmerer reminds us of "our kindship with all of the animate world"

(56). Kimmerer is in no way restricting the term "animate world" to the animals and insects that move. She is guided by the language of her ancestors, Potawatomi, a language of a "world where everything is alive" (56). Objects that in the English language it would be impossible to see as anything other than nouns (rock, hill, stream, bay, etc.) are defined as verbs in Potowatomi. For Kimmerer, a bay can only be a noun if we see the water as dead. She writes, "when *bay* is a noun, it is defined by humans, trapped between shores and contained by the word. But the verb *wiikwegamaa*—to *be* a bay—releases the water from bondage and lets it live. 'To be a bay' holds the wonder that, for that moment, the living water has decided to shelter itself between these shores" (55). This is not a dead, trapped world defined by humans. As Bruno Latour reminds us, the world is "fully articulate and active" (13). Kimmerer is clear too. Life "pulses through all things" (55). To speak with the morethan-human world is to acknowledge its different articulations.

Kimmerer's engagement with Potawatomi shows us how the language we use defines how we see the world we inhabit and our position within in it. In English, as with most modern languages, the pronoun 'it' is differentiated from the pronouns 'he/she'. In contrast, Potawatomi has what Kimmerer describes as a "grammar of animacy" (55), in which the living world, including what the English language would class as "inanimate" (tree, pebble, mountain), is addressed in the same way as family members. "Because" as Kimmerer explains, "they are our family" (55). We are human within a more-than-human family.

By shifting from the dominant language form, in this case from English to

Potawatomi, we shift the human from the centre and recognise the space we co-habit

as being more-than-human, populated by animacy that exists outside of our

containers, our language(s) and dominant modes of communication. Birgit Spengler

and Babette Bärbel Tischleder speak of "the diverse life forms and rich more-than-human 'cultures' of our multispecies world" (12). For Anna Tsing et al., the curators and editors of the digital project *Feral Atlas*, "every event in human history has been a more-than-human event". The *Feral Atlas* project is an online collaboration with scientists, humanists, and artists that explores the "ecologies that have been encouraged by human-built infrastructures, but which have developed and spread beyond human control" (Tsing et al.). In the online introduction the editors elaborate on their notion of human history being intrinsically a more-than-human history.

When hunter-gatherers burn the land, they cooperate with herbs that seed quickly and grasses that sprout after fires, attracting game. Inside us, intestinal bacteria make it possible for us to digest our food. Other things, living and non-living, make it possible to be human. Yet powerful habits of thought over the last centuries have made this statement less than obvious. With the arrival of the idea of the Anthropocene, we move away from such thinking to reconsider how human and nonhuman histories are inextricably intertwined (Tsing et al).

While I dispute the separation here between human and nonhuman and instead lean into Kimmerer's preference for a collective animacy, the editors of *Feral Atlas* are thinking 'ecosystemically'. Our "powerful habits of thought", most notably for Tsing et al. defined as a "problem with words", encourages a separationist world view in which human history is elevated above the more-than-human world. This PhD project is an exploration of multimodality in the form of a disrupted hybridity of image and text, which like Potawatomi gives the more-than-human world a space *to be* and the agency to break free of the bounds our "powerful habits of thought" (Tsing et al.) have placed around it. The following three chapters

in conjunction with *The Dark Lit Up* are an exploration of non-hierarchical narrative hybridity, which speaks to an understanding of the space we share as being morethan-human and of which we are intrinsically connected.

The idea for ecosystemic writing developed in serendipitous parallel to an essay by Elvia Wilk, which appeared online in ArtForum during the COVID pandemic. With the pandemic necessitating months of restricted movement and government 'lockdowns' there are accounts of people experiencing a newfound sense of community from that period. Wilk defines this as a "totally novel feeling-incommon", which gave her a sense of being part of a wider, more interconnected system. She goes on to write, "when we are asked to 'flatten the curve' or wear masks outdoors, we are asked to see ourselves as both individuals with agency and a collective whose influence is only made en masse. We are asked to see our microcosms as elements constituting a macrocosm. We are made ecosystemic." From here, Wilk develops the idea of what she calls "ecosystemic thinking" based on the notion of an ecosystem as being "a tangled web of humans and non-humans alike." Similarly to Tsing et al. and the *FeralAtlas* project, Wilk is thinking 'ecosystemically' yet still maintaining the binary encoding of human and nonhuman. To use Kimmerer's term, there is evidence here of the more-than-human world being trapped "between these shores" (55) of language. To think 'ecosystemically' is to explore beyond our narrative boundaries.

The subtle, but inherent, bias in the language used is particularly interesting in the context of Wilk's focus on the relative positioning of protagonist to setting within contemporary climate fiction. In Wilk's terms, the protagonist as *figure* is portrayed within their environment, referred to as ground. She argues that "only a perspective shift in terms of figure and ground can adequately portray the

interconnectedness that has led the world to this cataclysm, the interconnectedness that neoliberal capitalism continues to violently deny." For Wilk, Jeff Van der Meer's *Southern Reach* trilogy and Richard Powers' *Overstory* "recast the traditional figure-ground narrative structure where a person acts against the backdrop of the world." Christopher Manes approaches this idea more broadly in noting that "nature has grown silent in our discourse, shifting from an animistic to symbolic presence, from voluble subject to mute object" (17). I agree with Wilk and Manes that the figure/ground dynamic and relative positioning is an important element of enquiry and exploration and that addressing this imbalance is a necessary response. As Corinne Donly notes, climate change is not "a singular, temporal event ... it must be seen as a condition that humankind dwells *within*" (3). Hence a move among those climate-engaged writers towards a 'bringing forward' of the ground or at least a move in some way towards an engagement with the environment of the narrative beyond merely setting or background.

However, in addition to this rebalancing or repositioning, narrative arts can also look to challenge the dominant narrative modes, what Axel Goodbody and Adeline Johns-Putra call our "habits of thought" (2019, 237). In general, these adopted 'habits' encourage a siloed, unimodal approach. Prose remains distinct from comics, the drawn image is different from photography, and so on. While there are examples of hybridity across these narrative modes, they still tend to maintain a separation on the page and/or in the narrative. To think and write ecosystemically is to allow the narrative modes to interact, contradict, interrupt, and contribute to each other, as within a natural ecosystem.

The more-than-human world is not binary but relational. It is not contained nor containable but messy and contradictory. It is not one single thing but many,

interrelated animate agents. Speaking to such complexity and relationality requires more than thinking 'ecosystemically', more than repositioning figure in relation to ground. It requires, what Andre Francisco Pilon describes as, "an integrated theoretical and practical holistic proposal" (13). To think and write ecosystemically requires an exploration of ways of speaking holistically to this messiness and contradiction, the 'inter-relationality' of human as integrated into the-more-than-human world.

This notion of integration is at the heart of the ecosystem concept as it originated within the science of Ecology in 1935. Botanist and pioneer of the science, Alfred George Tansley developed the proposal for "a holistic and integrative ecological concept that combined living organisms and the physical environment into a system" (qtd. In Golley, 8). Kimmerer would argue against the distinction here between living organisms and the physical environment and while Tansley's notion of the more-than-human world as an interrelated system has helped shape a deeper understanding of the more-than-human world, it maintains a distinction between 'nature' and 'human'.

Perhaps understandably in a world defined in binary terms, there remains a tendency across narrative art for the human (as figure) to be made distinct from the more-than-human (as setting or ground). In contrast, Paul Huebener makes the point that "resisting the assumption that the human world is separate from nature is an important task of the environmental humanities" (335). Huebener, along with Wilk and others within ecocriticism, is calling for an inclusive, even desegregated, literature with the roles of the human and more-than-human rebalanced. In response, I am advocating for an allowance of 'space' for the more-than-human world within the narrative mode and story. By giving the more-than-human world the 'space to

roam' within the narrative, the human (as figure) can be reintegrated into the setting, not as singular or separate but part of this much greater whole.

While Tansley's concept was an important paradigm shift in ecological and popular thought, it remains a paradigm understood on a human scale and so will remain limited in some way. Robert O'Neill reminds us that Tansley's paradigm remains "a product of the human mind's limited ability to understand the complexity of the real world" (3276). In classifying the more-than-human world as a system, or even a system of systems, we are still attempting to capture it within the shores of our language, the boundaries of our understanding. The more-than-human world remains undeniably, perhaps even unintelligibly, complex. "In the case of ecological systems," O'Neill explains, "we are faced with hundreds to thousands of interacting populations. The systems vary through time in complex ways, and they are spatially heterogeneous at every scale" (3276). Despite these complexities, the ecosystemic concept remains the dominant model of understanding the 'inter-relationality' throughout the more-than-human world and it remains a useful encapsulation of an undeniable complexity.

Tansley's development of the ecosystem concept was, in part, due to what Frank Golley refers to as "a conceptual argument that divided plant community ecology into two opposing camps" (8). There is a parallel here between the historical divides within ecological science and the often-physical separations placed between the modes used across the narrative arts. From their classification by booksellers and publishers to the physical divisions on the page—be it white space, line markings, or asterisks—the narrative arts tend to remain distinct, 'boundaried' camps separated by their 'nature.' Put another way, our "habits of thought" (Tsing et al.), from our systems and codes, the language we use, maintain separationist thinking within the

narrative arts. Is it a comic? Is it a novel? Is it sequential art or a photo book? Is it all these things and none of them?

What I am proposing is, in some way, a Tansleyian review of these narrative modes, in order to see them not as separate, and separated, but as part of a greater whole with potential for 'inter-relationality' and exchange. However, Tansley's ecosystem principal is a system of coding, a meaning-making exercise, meant to, as Golley reminds us, "provide order in the complex and multidimensional science of ecology" (167). While the notion of ecosystem within ecology is a reminder of the importance of interspecies interaction and impact, it can be accused of rationalising 'the wild', of forcing order and extracting agency from the living, animate world. As an illustration, imagine a sculptured and manicured garden. For Phil Macnaghten and John Urry, gardens are intended to "convey civilised images of a now-tamed nature" (113). However, as Camille Paglia reminds us in Sexual Persona, "nature is a primal power, coarse and turbulent" (3). There is a parallel here between the garden, as a system of ordering/taming, of giving meaning to an otherwise turbulent mess, and the notion of an ecosystem, which attempts to 'freeze' the melting flux of nature into a system of reasonable cause and effect. While it is an important notion and I do not wish to understate the importance of seeing the more-than-human world as interrelated and interdependent, it remains a system of ordering.

To think 'ecosystemically', ecosystemic writing borrows the Tansleyian notion of a web of interrelated elements and yet it remains open and accepting of a natural disorder or disruption from the more-than-human world. As Pieter Vermeulen explains, "life is precisely that which cannot simply be subsumed under formal patterns, orders, and rhythms, [it is] a force that resists even as it encounters form" (11). Ecosystemic writing is an attempt to speak to this resistance, to embrace

the notion of an ecosystemic inter-relationality between narrative modes while disrupting the ordered, and ordering, systems inherent within these narrative modes. In effect, ecosystemic writing offers a way to break the lines, to disrupt linearity, to abstract, in accordance with what Donly calls "relational and ecosystemic ways of constructing stories" (7). To this end, ecosystemic writing can be read as speaking directly to the disordering impact of the climate crisis.

As Wilk has discussed, writing fiction in response to the climate crisis requires a rebalancing of figure to ground, human to more-than-human. However, at the same time, there has been an acceptance and acknowledgement of what Andreas Malm and Alf Hornberg describe as "the standard Anthropocene narrative," (63) which is that of "large-scale human modification of the Earth System" (63). The key here is the use of the term 'human modification.' While climate fiction is attempting to readdress the balance and promote the more-than-human from out of the role of subordinate or passive background, popular understanding of the crisis (as led by the sciences) is doubling down on the importance and agency of the human 'actor'. The acknowledgement of the human responsibility and agency behind the crisis has been vital for the proliferation of environmental movements and the developing involvement and action from governments. However, in persisting with what Malm and Hornberg identify as the "popularisation of Anthropocene thinking" (63), we are in danger of solidifying a view of ourselves as primary, front-and-centre among a disenfranchised nonhuman world. In thinking and writing 'ecosystemically' across narrative modes, allowing for a disruption and abstraction of order, ecosystemic writing can continue the work of Powers, Van der Meer, Ghosh, Kingsolver, and many other climate fiction writers in addressing the relative positions of the human and the more-than-human within narrative fiction while allowing for more-thanhuman agency that may not support the narrative or plot. Put another way, ecosystemic writing does not force the animate world to conform to the driving system of the narrative, the plot. It aims to allow space for the more-than-human to 'just be'.

Across popular media and news outlets, climate events and natural disasters have often served as proxies for the wider climate emergency. Events such as unseasonable hurricanes or flash floods are held up as exemplars of climate change when, in fact, the crisis is largely a silent and insidious violence felt on a macro level across time and space. Barbara Adam writes that "a large proportion of the processes associated with the most difficult environmental problems tend to be inaccessible to the senses, invisible until they materialise as symptoms" (12). It is these symptoms that, for the most part, have dominated the climate narrative. As Adam Trexler notes, climate narratives have tended to take one of two forms; the story occurs in a "distant future when the catastrophic effects of climate change have already taken place" or to familiar cities within the United States or Europe, which are thrust into the "plausible but unpredictable idea of sudden climatic change" (Mediating 2). In Trexler's view this binary exploration of climate change is ubiquitous. There are examples of the first of the two forms, where the catastrophe has already taken place, ranging from Cormac McCarthy's *The Road* (2006) to Jeff Lemire's serialised comic Sweet Tooth (2009-2013). The second of the two forms, in which the catastrophe occurs as a single, sudden event in the story, are most common across mainstream cinema from 2012 (2009) to The Day After Tomorrow (2004). The reality of climate change is that it is neither the spectacle of storms and floods nor is it some distant prognostication.

The impacts of climate change are also not limited to the familiar cities of the United States or Europe. Nor are they evenly experienced within those cities. In fact, as Malm and Hornberg articulate, there are "realities of differentiated vulnerability on all scales of human society" (66). Referencing specific and recent examples, they write "witness Katrina in black and white neighbourhoods of New Orleans, or Sandy in Haiti and Manhattan, or sea level rise in Bangladesh and the Netherlands, or practically any other impact, direct or indirect, of climate change" (66). It is important for climate fiction to engage with this tendency to shift narratives in time and space in favour of the familiar. As a result, *The Dark Lit Up* is set outside of the familiar Anglo-American locations Trexler has identified and is engaged with questions of the impact of climate change on those traditionally marginalised communities.

I feel it is also important to engage with the power of spectacle and in the Western Cape region, the setting for *The Dark Lit Up*, wildfires are a spectacular reminder of the power of environmental catastrophe on a region. *The Dark Lit Up* explores the role of spectacle in climate fiction through fire but fire is the second of the two primary, non-human antagonists. Drought stands as a proxy for the complexity and slow, insidious nature of climate change. Fire is a direct threat, almost cinematic in its status as event, and within *The Dark Lit Up* it serves as a proxy for the popular narrative structure that has the protagonist in battle with the wild or threatening nature. (See pg. 127–128). A conflict model often described in film narrative theory as "man versus nature" (Lamb 122). By engaging with this narrative trope, *The Dark Lit Up* is engaging with the wider question of how climate change is narrated and by extension how this affects our understanding of the crisis and our role within it.

Fire is a feature of our collective pasts as well. It is an element that has brought us together and taken us forward. In fact, for Malm and Hornberg "the path to the fossil economy was laid down when our hominid ancestors once upon a time learned to control fire" (66). Fire has shaped our past and our present and it will do the same for our future. For Stephen Pyne this is enough justification to argue against the concept of Anthropocene in favour of the term Pyrocene, an age, not of humankind, but of fire. Daniel Immerwahr goes so far as to claim that fire has "changed our relationship with time". For Immerwahr, we can no longer profess to live only in the present. The past, present, and future exist as an ecosystem of their own, interwoven through our actions; "we excavate plant matter from the deep past, burn it in the present, and send its byproducts wafting into an uncertain future" (Immerwahr). Fire in *The Dark Lit Up* is a proxy for climate change as spectacle and a reflection of our tendency to visualise climate change through the imagery of fire, a burning earth, forest fires, and reddened skies. It is also a reminder that our experience of climate change cannot be projected only onto the future, nor can it be understood simply as the events of our present day. Like fire, the climate crisis has changed our relationship with time.

Our experience of climate change is directly influenced by our collective and personal memories and that memory remains largely created and curated by the visual image. I propose that this web of time and memory, which determines our experience and understanding of climate change and biodiversity loss, is at the heart of what Michaela Fenske and Martha Norkunas call "the complex story of the entanglements of life" (105), which climate fiction must grapple with. My response is ecosystemic writing. In addition to affording the writer a hybrid format more suited to the scale and complexity of climate change, it empowers the ecosystemic

writer to explore how the creation and curation of memory affects our understanding of the present and determines our future, particularly in the context of a greatly changed and diminished world. Chapter three explores this question in more detail and with particular focus on the intersection of memory studies, trauma studies, and photography within the context of climate fiction. In part, the complexity we experience in communicating climate change is born out of the role of memory, including inherited memory or what Marianne Hirsch calls 'postmemory', particularly in our narrativization of environmental loss. *The Dark Lit Up* uses photography, particularly non-illustrative personal/family photographs, to explore the connection between memory and our experience of the climate crisis; an example of ecosystemic writing.

Timothy Morton notes that "the ecological era we find ourselves in—whether we like it or not and whether we recognise it or not—makes necessary a searching revaluation of philosophy, politics, and art" (159). This PhD project and its proposal of a new form of hybrid writing was born out of a response to a personal loss experienced in the context of a wider, even global, loss that triggered my own searching revaluation. My response is ecosystemic writing, which I argue can offer an approach that provides space for the more-than-human to speak as it will and to explore our relationship to time and memory within the context of our decentralised and destabilised world. The multi-modality of ecosystemic writing with *The Dark Lit Up*, moving between comics and prose and between non-illustrative and non-sequential photography, can create an ecosystem of interrelationships, disagreements, and disconnections. John Bateman notes that with any multi-modality, "the value of a combination of different modes of meaning can be worth *more* than the information (whatever that might be) that we get from the modes

when used alone" (6). As with any ecological ecosystem, the total is more than the sum of its parts.

Some critics, such as Stef Craps and Rick Crownshaw, have expressed doubt towards "the novel's ability to meet the representational challenges posed by the pressing planetary problem of climate change" (1). There is no doubt that, as Pieter Vermeulen notes, "climate change constitutes a formal challenge to the customary rhythms, patterns, and scales of the novel" (9). The traditional novel is a powerful tool of formal exploration and has responded to cultural and social challenges throughout its history. However, we have been "thrown into a situation of urgent interconnectedness," writes Claire Colebrook, and we must respond "against a complex multiplicity of diverging forces and timelines that exceed any manageable point of view" (*Framing* 53). The solution, I propose, is what Roman Bartosch and others call theorising "through literature" (6) and, as such, the novel *The Dark Lit Up*.

Christopher Manes writes that "as we contemplate the *fin de siècle* environmental ruins that stretch out before us, we can at least be clear about one thing: the time has come for our culture to politely change the subject" (19). The subject, I argue, is the human standing at the centre of a silenced world. We must move to decentralise the human figure and to bring the more-than-human back into the conversation. We must speak to the role of memory and time in our understanding of this great crisis of our past, present, and future. We must take note of the day the dark lit up and find a way to speak if the words are not enough. This is ecosystemic writing.

### Chapter 1

### Too Big, Too Small, Too Far Away

#### Climate Change and the Scale of the Challenge for Narrative Fiction

The oldest known organism in the world is a bristlecone pine in the White Mountains of California. This ancient pine is over 5,000 years old. Its life spans a period of unprecedented change in the world. In a reversal of the figure-ground dynamic discussed in Wilk's essay on ecosystemic thinking, Paul Huebener charts the tree's life against the backdrop of human history, from prehistoric construction through to digital documentation. He writes, the tree "sprouted as a seedling several centuries before the construction of the earliest Egyptian pyramids, and it is now listed in an online database that counts its age while keeping its exact location a secret" (333-4). The secrecy is for the pine's own protection, and it means that by far the vast majority of earth's human inhabitants will never see our planet's most ancient resident. In fact, only a handful of scientists and conservationists are able to point to its precise location on a map. On top of that, only a subset of that group, those trained in dendrochronology, would be able to accurately confirm the pine's age. Most humans will never see, touch, or be able to verify this fact; this ancient bristlecone pine only exists in the word and record of a self-selecting group of specialised gatekeepers. The rest of us will only ever access this tree, this organism living beyond our comprehension, through what has been recorded: the online database and photographic, or possibly video, image. (See fig. 1.1). Outside of this documentation, and the word of that small group of people who have seen and can verify the tree's age, we have no access to it ourselves other than through what is recorded and narrated for us. In short, the only way we can create any sort of mental

image of this ancient being is through a multi-modal viewing, a hybrid of information that includes visual as well as text-based evidence. And even then, we are constructing a narrative, an imaginative mythology. The tree does not exist in any accessible spatial-temporal reality. It does not exist without narrative.



Fig. 1.1 Methuselah Tree, Bristlecone pine. (Chao Yen).

Timothy Morton argues that we are increasingly asked to think and visualise on a scale previously inaccessible to us and that this is only possible because of technological developments (*Dark Ecology* 25). The result, concludes Morton, is that we must acknowledge that "we live on more timescales than we can grasp" (23). Just as we are only ever witness to the top third of any tree, with the other two thirds hidden beneath the ground (Wohlleben and Bernard 23), much of the more-than-human world exists outside of our quotidian reality. Paul Huebener uses the bristlecone pine, in fact, as a reference point for the differing scales of the more-than-human world. He writes, "while the bristlecone pine is among the slowest of all organisms, it also participates, minute by minute, in the same ecological world that enacts the faster, sometimes astonishingly rapid, temporalities of hurricanes, forest

fires, and electrons" (333-334). Trees are a convenient and illuminating metaphor in this context. Tim Ingold, for example, sees this same temporal variance in a simple pear tree. As he explains, "the temporal rhythms of a pear tree range from its solid trunk, which presides immobile over the passage of human generations, to the much more rapid growth and decay of foliage" (168). Ingold's example here reminds us that temporal variance exists within a single tree. We do not need to look further or compare vastly different entities; our own bodies contain the same variance. The physical body ages and decays on a greatly different timescale from that of a synapse firing in the brain as it processes visual information. While Morton talks broadly about how the range of this variance is made accessible through modern computational power, it is not simply the technology but how that technology has been used, specifically the technology of the photograph or data visualisation and the rapid and widespread distribution of these images. It is through this application of modern computational advancements that the variances in time are narrativized. Take, for example, Ingold's use of the term 'rapid' in relation to the growth and decay of foliage. While this change is directly witnessable, or more specifically the outcomes of these changes are witnessable in that we can see that the tree has changed colour, we cannot see it changing in front of us. To see that change we must rely on the combination of visual reference and memory or technological aids, such as a time-lapse camera, which can 'contract' time into witnessable change. This is Ingold's "rapid growth" converted into our temporal reality.

These contrasts in relative times play out directly in our experience of climate change. David Wood writes: "if my tree is dying, I notice. But the earth slowly dying is not obvious, not something I can see at a glance out of my window ... There is a gap between what I can see and what may really be happening" (33).

Wood can acknowledge the passing of the tree for he has memory of the tree before it was dying; however, he cannot see how other apple trees, outside of his local area, are dying or, say, how increases in droughts affect the quality and quantity of the apple harvest. Moreover, he certainly cannot see from out his window the wider implications of these changes on communities, human and more-than-human, near and far. He can only rely on what he can access in his spatial-temporal reality and compare that to what records he has, either in memory or physical archive, of what came before.

Without access to data or visual technology, such as a photograph, we must rely on memory. Only through the mind's eye can we look at a pear or apple tree and see change by comparing what we see today to what we remember from yesterday, or perhaps what we have recorded. Without an event, a marked visible change such as the tree falling, we can only witness this "rapid change" through comparison; comparison requires some form of memory, be it human, as in cognitive memory, or mechanical, as in photographic or statistical.

Only on those rare occasions when the various timescales of the more-than-human world collapses into a moment of human understanding—a volcano erupts, an ice-shelf snaps, a coastal rock formation falls—can we call direct witness. One day that bristlecone pine in the White Mountains of California will fall and, for that precise moment when the change is accessible by the human senses (for those able to access it spatially) its life will be brought into direct human understanding. In that moment, it will exist on the same temporal scale as the human world. In that instance, it operates like a narrative event, a 'beat' in a screenplay. The challenge and opportunity for any writer of climate fiction is how to write a narrative that speaks to the slow and fast times of a living ecosystem such as the bristlecone pine

without reducing that system to a moment or keeping it locked within a momentless static state, as mere scenery.

Events such as unseasonable storms, flash floods, and heatwaves occur on a human scale; we track a storm over days, map heatwaves to weekends and summer holidays. These events are moments, 'beats', on a human timeline. The pine is a reminder of the scale of the more-than-human world, extending far beyond our quotidian concerns. Daniel Immerwahr speaks to this directly, with fire as the example. In the case of fires, the impacts to communities (human and more-than-human alike) are more complex, more insidious and subtle, and ultimately more impactful than the direct damage caused by the flames. He describes the scene:

Picture a dangerous fire and you're likely to imagine a thicket of tall trees blazing in a drought-stricken climate. But a more accurate image is smouldering peat or scrub burning by a tropical logging road. The real threat isn't catching fire, but the slow violence of breathing bad air. You've got a hacking cough, your father suffers a stroke and you watch your daughter—short for her age—leave school a year early.

The Dark Lit Up uses the arrival of a wildfire into the narratives as proxy for the narrative arts' tendency to reduce climate change to singular, catastrophic events. Yet, fire also exists in the form it takes in Immerwahr's description; fire as a slow violence that affects communities over an extended period.

The scene that Immerwahr is asking us to imagine is the reality of what Saffron O'Neill calls the "wicked nature of climate change" (261); it is a slow violence that may be overlooked. The notion of climate change as being a slow violence is from Rob Nixon's analysis of the impacts of climate change on marginalised communities across the world, *Slow Violence and the* 

Environmentalism of the Poor. As Nixon explains, "slow violence" means "a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all" (2). Nixon associates the experience of climate change with other more localised environmental disasters such as radiation poisoning in the Chernobyl area or inner-city air pollutants stunting children's lung growth. While this is a useful comparison in some respects, it is another example of how weather events—at best analogy or proxy—dominate the climate change narrative. Relying on eventbased telling does not meet what Barbara Adam calls the "striking temporal characteristics of [the] contemporary environmental phenomena" as the scale of the crisis ranges "from pollution and degradation of the environment to radiation and the disruption of the endocrine systems in all species" (11). For Ursula Heise the scale of the phenomenon challenges the limits of the traditional novel and communicating the crisis effectively "requires the articulation of connections between events at vastly different scales" (qtd. in Trexler, Anthropocene 77). The challenge is finding stories and story modes that can speak to the diverse and competing scales of the morethan-human world. For Axel Goodbody and Adeline Johns-Putra:

In order to capture the complexity of the challenges that climate change poses to individuals and societies, climate change novels must meet the many representational challenges mounted by climate change, confronting not just the invisibility of climate as opposed to weather, but also the gulfs between the standard, quantitative discourses of climate and the imaginative language of literature, as well as between the unprecedented scale of climate change effects and the human dimensions of fiction. (229)

That the oldest living organism is a bristlecone pine in the White Mountains of California, that is a quantitative scientific fact. That in 1964 Donald Rusk Currey cut down its predecessor, the oldest tree known at the time, to retrieve his tree corer is a story. It is a specific point of action on the human spatially and temporally scale; an event, a spectacle, that puts the more-than-human narrative onto a scale that is comprehensible and familiar for an audience. The reliance on spectacle within popular narratives is in line with Claire Colebrook's observations. For Colebrook, "the human animal or human eye is torn between spectacle (or captivation by the mere present) and speculation (ranging beyond the present at the cost of its own life)" (54). It follows, therefore, that the majority of climate-related fiction, particularly in popular or mass-marketed media, has focussed on spectacle (most notably through the disaster movie) or speculation (most often as dystopian projections in the science fiction genre).

The challenge for narratives focussed on the contemporary environmental crisis and particularly on the reality of the disparate impacts of climate change across place and time, is that it is, as Nixon claims, "spectacle deficient" (47). So, while the insertion or centring of spectacle is, perhaps, understandable an events-based narrative remains representative of only one side of the contemporary experience. It is reductive and not representative of the full scale and impact of this emergency across regions and generations. The question for the contemporary fiction writer concerned with the accurate and truthful communication of climate change, is how to narrativize the non-spectacle while staying within the present and away from speculation. As Adam Trexler writes, "the first hurdle faced by a novelist is to construct a fictional space where climate change presents itself as an immediate

problem" (*Anthropocene* 77). The second hurdle, I would add, is to depict the climate crisis without reducing it to spectacle.

Communicating the climate crisis through fiction is also not only a question of the temporal scale, of spectacle (as event) and speculation (as projection). The crisis exists across a large and disparate spatial scale as well. Jeremy Hess et al. note that "the effects anticipated with climate change will not have a uniform spatial distribution, and place will be a major exposure determinant" (468). This lack of a uniformity of experience is a reminder too of Trexler's observation of a spatial bias within contemporary climate fiction. As Trexler notes, contemporary climate novels often neglect marginalised areas in favour of what he calls "familiar cities" (Mediating 2), the major cities of Europe and the United States. Just as condensing the temporal scale in favour of an event-based narrative provides for a more cinematic and conventional narrative-fitting solution, the condensing of the spatial scale down to 'recognised' cities has allowed climate narratives to look away from the diverse and disproportionate reality of the crisis.

The scale and complexity of the climate crisis means that we do not experience the crisis in its entirety. As Timothy Morton notes, the crisis is largely "invisible to humans for stretches of time" (Hyperobjects 1) and so "cannot be directly seen, but it can be thought and computed" (3). Mertens and Craps support Morton's observations in their claim that "we cannot even see or experience global warming directly, but only the local and temporal manifestations of this vast entity ... a hot summer or long periods of rain are not the hyperobject global warming itself" (Mertens and Craps 136). Mertens and Craps are drawing on Morton's thesis of *hyperobjects*, objects he describes in part as being "massively distributed in time and space" (1). In attributing the climate crisis the position of hyperobject, Morton,

Mertens, and Craps are positioning the crisis as being consistent with the legacy of objects as distinct as polystyrene take-away boxes or plutonium, objects that exist on a timescale massively extended in comparison to human life. Morton argues that these "'hyperobjects' will be our lasting legacy" (The Ecological Thought 130). The climate crisis is not only on a timescale that "so massively distributed we can't directly grasp [it] empirically" (Morton, Dark Ecology 11), it shares other features of the hyperobject, not least the sense of the 'uncanny' (Morton's term) in that it can just as easily cause a freak heatwave as it can an unusually cool storm. As with all hyperobjects, climate change remains unreal while existing on a scale we cannot grasp.

As Colebrook has identified, the response in narrative fiction tends to be a reliance on spectacle or speculation. The spectacle of "local and temporal manifestations" (Mertens and Craps 136) or speculation in which the impacts of this "vast entity" (Mertens and Craps 136) are projected forwards into a future state. The challenge, and opportunity, for writers of climate fiction is how to capture the scale and complexity of this 'hyperobject' within a contemporary context. I propose that the benefit of seeing the climate crisis as 'hyperobject' is that in understanding it as stretching beyond the quotidian, even beyond our lives, we understand it as having no regard for boundaries, human or otherwise.

Climate narratives can move beyond the localised and event-based to explore new ways to speak to the crisis. The challenge is a challenge of form, of recognising and exploring what Pieter Vermeulen calls the "insufficiency of traditional modes of expression and representation" (9). This is where ecosystemic writing can respond as it engages directly, through form, with these traditional modes of expression, and explores how they might interact when combined into a hybrid system. Most

importantly, it is an example of how a hybrid system, which is not bound by the boundaries of these traditional modes, may speak back to Vermeulen's notion of 'insufficiency' while, at the same time, speaking forward in a new voice to the scale and complexity of climate change. The development of a new mode of hybridity, which works without boundaries while engaging in the legacy of these boundaries, can be one response to how the narrativization of anthropogenic climate change has, as Trexler describes it, kept the crisis "an abstract, remote prognostication" (*Anthropocene* 75).

To date, the response to the challenge of narrativizing the climate crisis as 'hyperobject' has been a reversion to type with a centring of the human over the more-than-human. For Stef Craps and Rick Crownshaw, the favouring of human drama is "at odds with the scale, complexity and the multiple and nonhuman contexts involved" (3). For Scott McCloud our inclination towards human-centred narratives is fundamental to human nature. He declares: "humans love humans! They can't get enough of themselves. They crave the company of humans, they value the opinions of humans—and they love hearing stories about humans" (60). For McCloud, who thinks and communicates through visual metaphor, our fixation with the human can be seen in something as simple as our inclination to see a human form in even the slightest visual hint. In *Understanding Comics*, a comicsbased examination of the comics form, McCloud demonstrates our tendency towards face pareidolia when seeing even something as simple as two black dots and a straight line or what may otherwise look like nothing but a rough scribble. A bias towards the human, form and character, is an unavoidable thread across the narrative arts; we have always created and shared stories about humans for humans.

Without the "grammar of animacy" (Kimmerer 55) present within indigenous

languages like Potawatomi, our dominant languages carry a bias towards the exclusion of the more-than-human. This is the nature of the language we use to tell our stories. Timothy Clark argues that as "language is a decisive human environment... its currently dominant forms can rightly be called an environmental problem" (46). By limiting ourselves to the ordering systems of these dominant forms we are excluding the more-than-human. This idea echoes Rebecca Raglon and Marian Scholtmeijer's assertion that "the environmental crisis is a crisis of meaning" (261). Clark goes further to argue that that all language is "solely a convention for representation and control" (51) and while I dispute the claim that all language is a convention for control (Kimmerer's observations around the Potawatomi language stand as counterpoint) there is merit in Clark's claims that "modern people ... find themselves locked in a culture for which discourse is seen as exclusively human" (51). Clark's reading is that by excluding the voice(s) of the more-than-human, we are controlling the more-than-human world through exclusion. Here David Abram's exploration of the exclusionary myth of human specialness is particularly relevant. "By denying that birds and other animals have their own styles of speech, by insisting that the river has no real voice and that the ground itself is mute, we stifle our direct experience" (263). The answer, for Abram and Clark, is an exploration of different modes of language (Clark 51) to "respond to the speech of the things themselves" (Abram 273). Ecosystemic writing can explore these different modes of language and their interactions to allow for the more-than-human to re-enter the story. This will be explored in more detail in chapter two alongside examples from The Dark Lit Up.

A rebalancing of the traditional figure-ground dynamic within the narrative arts would go some way to allowing space for the more-than-human to 'speak for

itself'. That is not to say that we can assume the 'voice' of the animal, tree or river. There is an ethical argument against any such assumption. Rather, by rebalancing the figure-ground dynamic the narrative arts may, at least, acknowledge the presence of these different voices. To do so, the more-than-human world must be 'promoted' out of its traditionally subservient role. By this, I mean that the more-than-human world tends to appear in narrative fiction as either passive background (woodland, hillside, wilderness), thematic device (desolate moors, lonely island, romantic cliffs) or antagonistic circumstance (storm, flood, fire). Against this, the human protagonist is cast, to act, enact, or react to external stimulants. To respond to the scale and complexity of the climate crisis we must allow for the more-than-human to just be without being something or meaning something. The desire for fiction to speak with the more-than-human world rather than be about or purely be situated within it, echoes the deep ecology movement's desire for a readdressing of how the human is seen within nature. As early as 1973, Arne Naess identified a distinction between what he termed the Shallow Ecology Movement and the Deep Ecology Movement as:

The Shallow Ecology movement: Fight against pollution and resource depletion. Central objective: the health and affluence of people in the developed countries.

The Deep Ecology movement: Rejection of the man-in-environment image in favour of the *relational*, *total-field image*. Organisms as knots in the biospherical net or field of intrinsic relations. (original emphasis, 1)

With its central objective being the health and wealth of people, the Shallow

Ecology Movement remains anthropocentric. Within the Shallow Ecology

Movement, the more-than-human world is prescribed the role of provider (for the

human) and so must be protected (for the human). This notion of the more-thanhuman as only provider has an impact on how climate change is perceived. If the more-than-human is to be protected *only* for its role as provider, then the emphasis on the response to climate change will be on its symptoms, the specific events, which could affect its role as provider and its threat to human life. Put another way, the Shallow Ecology Movement will focus its attention on the spectacle of a flood or drought, which devastate an annual harvest, a fire or storm, which destroys property, and so on. A shallow view sees only what Julie Doyle calls the "symptoms" of climate change (*Here Today* 2). Similarly, contemporary climate fiction remains largely fixed upon these symptoms, in some part as proxy for a wider crisis, but equally as often as the crisis itself. This is a shallow narrative view. In contrast, the Deep Ecology Movement builds on Tansley's notion of ecosystem but with special focus on reintegrating the human into the environment—not as spectator, bystander, or primary agent, but as a partner in the "biospherical net or field of intrinsic relations" (Naess 1). Neil Evernden notes that the Deep Ecological Movement "concerns itself with the underlying roots of the environmental crisis rather than simply its physical manifestation" (102).

Communicating the crisis in this way, as deeply layered and intersecting, is a challenge to both ecology science and the narrative arts.

A popular solution to the challenge of deep ecological representation, particularly within the news media and alongside data visualisations within science publishing, is the use of photography. Doyle writes extensively on "the visualisation of climate change through photography" (130). Doyle claims that the visualisation of climate change only "calls attention to the problems associated with trying to communicate environmental issues that are both temporal (long term and

developmental) and unseen (not always visible), through a medium that privileges the 'here and now' of the visual" (130). The use of photography and data visualisation is an attempt to 'deepen' our understanding of the scale and complexity of climate change but, as Doyle argues, it does more to highlight the issues we have in communicating the crisis.

In reducing climate change to the here and now, we are not only favouring the moment, the spectacle, but marginalising space in favour of the 'here' of the reader or audience member. Furthermore, Naess is specific with his description of the Shallow Ecology Movement as being concerned only with the fate of those in the developed countries. This observation of geographical exclusion foreshadows

Trexler's analysis of contemporary climate fiction and its "shifts of the fictional climate" away from "developing countries and species" (Mediating 2). This is the climate fiction of the Shallow Ecology Movement, biased toward familiar characters from developed countries. In contrast, ecosystemic writing is a direct response to the aspirations of the Deep Ecology Movement's favouring of the "relational, total-field image" (original emphasis, Naess 1). Ecosystemic writing is an exploration of multimodal hybridity to speak to this relationality and open the narrative outwards to the non-familiar.

To think and write 'ecosystemically' is to adopt a post-structuralist rejection of an authoritative centre, be that the centring of the human story over the-more-than human or the exclusive use of one narrative mode over another. It is to think and write with an intention of non-bias and without exclusivity, in exploration of a network of non-hierarchical narrative modes. It is to write with the intention for, what Ursula Heise calls, "a biocentric perspective, which acknowledges the mutual reciprocal relationship required for a sustained ecosystem" (5). While *The Dark Lit Up* can arguably be read as having one central character or protagonist, the

opportunity afforded through ecosystemic writing provides for the 'voices' of other characters in this world.

It must be acknowledged that these remain human voices across the narrative. The advantage afforded the writer through a multi-modal narrative is the possibility of layering in multiple and perhaps conflicting narrative voices. Yet, these remain, perhaps rightly, human voices. To speak for the more-than-human directly, by inserting or affording a voice to the swallow, ant, or owl, is to do the more-than-human a disservice. This does limit the 'direct' narrative voice to that of the human. However, within *The Dark Lit Up* this otherwise entirely human narrative is deliberately disrupted through abstraction and other physical interruptions on the page with the hope of highlighting the presence of another set of voices, that of the more-than-human, which may remain directly silent but not excluded.

The introduction of a more-than-human experience through narrative disruption and abstraction is intended as a rejection of what Sue Campbell calls the "authoritative centre of value or meaning" (206-7) in favour of the idea of a non-hierarchical network of modes. These modes can be related or unrelated, competing or contradicting; such is the nature of the more-than-human world. In thinking and writing "biospherically" (Naess 1) across narrative modes, ecosystemic writing is literature grown from the soils of deep ecology.

The notion of deep ecology echoes Robert Macfarlane's literal exploration of the "deep worlds" (*Underland* 13) we inhabit and the hidden spaces we leave beneath the earth—mines, caves, tunnels, catacombs. In an echo of Nixon's reference to the legacy of Chernobyl, Macfarlane also draws attention to the "deep time legacies we are leaving" (13) such as the mega-landscaping of mining, earth

shifting engineering projects, and the "long dyings" (Huebener 2) of our nuclear waste. These actions, with their generational legacy, push human time forward into what is otherwise outside of our experience, even our comprehension: the long, deep time of trees, of rocks, of mountains—of the more-than-human.

What is at play here is the disparity in experience between what we can call 'human time,' the chronological progression of time, with that of 'climatological time,' the grand passing of time as experienced by a landscape shaped over millennia. While 'human time' assumes the presence of the mechanical clock to mark the passing of chronological time, a full understanding of the passing of time must come from a combination of observation and memory. We witness change through memory or documentation and we project a future based on that change; that is the story of our experience of time. The documentation of memory is now increasingly narrated visually, be it photography or film, and the most-common site of this 'memory transferal' remains the personal photograph.<sup>2</sup> The adoption of non-experiential memories can provide some access to a sense of time extending beyond our own lives. However, no matter how well researched and how far back it extends a family's history can never match the temporal extent of a rock in the Atacama Desert or the cliffs of Dover. Moreover, this shared memory is still tied to our understanding of the progression of time on the human temporal scale.

Climatological time will always exist across a duration unimaginable within chronological time. For Robert Markley, climatological time "complicates and disrupts the connections among personal identity, history, and narrative that ... constitute the phenomenological and historical perceptions of time" (44). Markley argues that even with the combined collective memory of generations, which extends our own lives backwards, climatological time still exists so far outside of our

understanding as to feel unreal. As with the more-than-human world of the present day, which itself can feel like an "assemblage of entanglements" (Macfarlane, *Underland* 103), climatological time can feel abstract, even nonsensical. Markley writes:

The expanses of pre-human history that extend into the deep backward and abyss of time underscore the fact that climatological time, measured in millennia, exists beyond daily experiences of the weather, beyond the duration of individual lifetimes, beyond the accumulated memories of generations, and beyond the technologies of observation, inscription, and recording that characterize the rise of modern meteorology. (44)

Markley's observations are a reminder too of Naess' notion of the Shallow Ecology Movement's focus on preserving the more-than-human sphere for the benefit of the human alone. Markley sees the familiar expression 'the world our grandchildren will inherit' or our intentions to 'save the world for future generations' as evidence of how human understanding is "indebted to conceptions of embodied time, that is, to individual experiences of wind, heat, cold, rain, drought, and the thousand climatic shocks that flesh is heir to" (46). Markley's references to "climatic shocks" echoes Colebrook's identification of a tendency to favour spectacle within climate fiction. This bias towards the spectacle of weather events can therefore be read as a symptom of our experience of time. In response, climate fiction must therefore engage with the matter of time and memory in our relationship to the morethan-human world. I feel that with visual documentary increasingly dominant in society, memory as created and curated by the image is particularly interesting. It is with this in mind that *The Dark Lit Up* uses personal family photographs in its exploration into the links between memory, time, and the narrativization of the climate crisis.

To move away from linearity and order towards a space in which the more-than-human can be disordered, requires an acceptance of disruption and an act of imagination for, as Nick Sousanis reminds us, "imagination allows us to span gaps in perception" (91) and the "the image is an act of imagination" (90). Sousanis' own work of comics-based research, *Unflattening*, is "meant to counteract the type of narrow, rigid thinking that Sousanis calls 'flatness'" (<a href="www.hup.harvard.edu/books">www.hup.harvard.edu/books</a>). His proposal is a fusion of word and image, an interplay he frames as "seeing through multiple eyes" (45). Throughout *Unflattening*, Sousanis demonstrates how the interaction of image with text can counteract this notion of 'flatness' by providing an "expansive way of seeing [that] corresponds to an understanding of ecosystems" (45). Ecosystemic writing is an extension of Sousanis' call to arms; an exploration of multi-modal hybridity with the aim of speaking to the scale and complexity of the climate crisis, of seeing the more-than-human in its full expanse. To this end, *The Dark Lit Up* includes section of comics with particular focus on the comics form's relationship to time and linearity, order and disorder.

We experience chronological time as a linear, one-way flow. This is not the same as that of the more-than-human world, which is not fixed, nor linear, nor marked out. It is not a constant progression. Nor is it overtly ordered and sequential. This is in contrast with the dominant forms of the narrative arts—film, prose, comics—which largely rely on linearity and systems of ordering. As Ursula Le Guin notes, the notion of a 'rule' of narrative linearity in fiction has been set by, what she terms, the 'Lawgivers'. She writes, "the Hero has decreed through his mouthpiece the Lawgivers, first, that the proper shape of the narrative is that of the arrow or spear, starting *here* and going straight *there* and THOK!' (34). The hero encounters an obstacle, battles that obstacle, and is victorious. That is the linear

narrative form the 'hero has decreed'. In response, Le Guin argues, not from an ecocritical point of view but from a more general critique of the dominant narrative form, that "the reduction of narrative to conflict is absurd" and "the natural, proper, fitting shape of the novel might be that of a sack, or bag" (34–35). The challenge when expanding the narrative outwards from arrow or spear and into the expanse of an all-encompassing carrier bag, the hero does sit atop a pedestal. "You put him in a bag and he looks like a rabbit or a potato", notes Le Guin (35). However, that should not be a dissuasion. The human hero should not be separated from, indeed elevated above, the rabbit or potato. To embrace this desegregation is to think and write ecosystemically.

To do so, the writer must explore the impact of various narrative modes on the telling and reading of a story. Sebastien Conard and Tom Lambeens claim that "there is a distinction between arts of the spectacle (theatre/film) and arts of the written and fixed image. The former 'unfold in time and impose their duration on the spectator' while the latter 'let the reader manage his/her time and belong to the world of reading'" (93). The result is that a multi-modal application of image with written text (whether through the comics mode or in another hybrid form) can explore means of manipulating this "world of reading" to speak to the non-linearity of the more-than-human world.

Such manipulation and interference of linearity and time within comics is not without precedence. As Conard and Lambeens remind us, the comics form has many "tricks and devices" to "propel a certain reading pace" (93) and in comics "past and present events can even intersect, disrupting the linearity of action time" (99). As Thierry Groensteen points out, there is an assumption that "each panel [in a comic] is organised around new and pertinent information that will advance the

narrative" (116). This is not always the case. As Groensteen notes, "it is not true that each panel has as its mission progressing toward a resolution" (116). There is always scope for a comics sequence to linger, to wander, to digress. Ecosystemic writing encourages such digressions and diversion; disorder and disruption speak to the more-than-human world's anti-narrative 'nature'.<sup>3</sup>

Ecosystemic writing is an open invitation to writers and makers to use any combination of narrative modes to speak with the more-than-human world and to the contemporary experience of the climate crisis. The Dark Lit Up uses both static imagery (photographs) and comics, alongside prose fiction. Karin Kukkonen makes the distinction between these art forms as being "verbal art" (comics) and "pictorial art" (the single image). For Kukkonen, verbal art "unfolds through time" while pictorial art is the "art of space" (37). The notion of space, or a sense of place, has particular relevance in the context of the global climate crisis. Not least as technological advancements continue to 'shrink the world' and bring it into our hands in the form of digital devices. Bruno Latour notes that "there is no distant places anymore" (2). Sitting inside my house in Oxford, scrolling through the news or social media, a wildfire in Canada can feel as if it is on my doorstep until I look out the window and see no smoke or feel no heat.<sup>4</sup> There is an unreality to that experience. We are globally connected, tuned to the global narratives as if they are our own, and yet our day-to-day experience remains rooted in shared, domestic narratives, a family-community history. As a result, our sense of place or personal geography is experienced as being both bound and open.

It is possible that human memory is, as Anne Michaels so eloquently describes it, "encoded in the air currents and river sediment" (53) of the local while being encoded into the electronic currents and data dumps of the universal. The application of multiple internal narratives, either directly through prose, comics, or

non-illustrative photographs, empowers ecosystemic writing to narrow in on the variety of personal experiences without hierarchy, while acknowledging their shared connections through the global. It is a concertina effect, collapsing and expanding from the local/individual to the global/shared and back again.

A sense of place relies on the meanings we have attached to that place. A case in point is Ben de Bruyn's reading of Cormac McCarthy's post-apocalyptic novel, The Road. In McCarthy's novel, a father and son walk through a ruined landscape that should feel more familiar. de Bruyn points out that "after the disaster, 'everything [is] uncoupled from its shoring' [and] as the image of 'shoring' suggests, the human world is made and can hence be unmade" (14). de Bruyn's observation that McCarthy is asking us to consider the fact that "the human world is made and hence can be unmade" speaks directly to a notion of the more-than-human world as disruptive. Ecosystemic writing aims to speak directly to this in the way that is allows for the 'unmaking' of the dominant narrative systems of order and ordering. As an example, *The Dark Lit* Up explores this 'unmaking' through narrative disruption and abstraction.<sup>5</sup> Any form of narrative disruption can be read as an exploration of the notion of 'uncoupled shoring,' the state of being unmade. By 'welcoming in' the seeming disorder of the more-than-human world, ecosystemic writing is a challenge to the conventions of narrative arts just as climate change and environmental loss is a challenge to our global systems and our sense of comfort in those systems and routines.

A few years ago, a severely drought-stricken Western Europe saw water levels of most rivers at an all-time low and a series of marked stones on riverbeds across Germany were suddenly exposed. Macfarlane tells of how these marked stones, known as Hunger Stones, have been "used for centuries to commemorate

droughts and warn of their consequences" (*Underland*, 14). One such stone read: "Wenn du mich siehst, dan weine ... If you see me, weep" (14). (See fig. 1.2).



Fig. 1. 2 Hunger stone on the Elbe. (Robert Macfarlane).

Around the world, the climate crisis is seeing previously hidden objects, in Macfarlane's terms, "rising unbidden" (14). If you see me, weep. The message is clear, and it is a message from our past, into our present and in reference to our future. It is a startling side effect of climate change, for items long hidden in Arctic ice or beneath fast-flowing rivers to be revealed, but it is also a reminder that much of the world exists hidden from us. As a result, we have tended to, in Barbara Adam's view, place emphasis "on visible materiality at the expense of that which is latent, immanent and hidden from view: the bulk below the surface remains inaccessible" (12). Not least that which remains largely silent within our narrative arts: the more-than-human world itself.

Christopher Manes notes that "nature has grown silent in our discourse, shifting from an animistic to symbolic presence, from voluble subject to mute object" (17). The climate crisis is forcing us to listen. It is pulling back the river waters, burning the forests, exposing our fragility to point that we can no longer maintain that silence. And yet, to quote Barbara Adam, we remain "locked in a culture for which discourse is seen as exclusively human" (131). Ecosystemic

writing is an attempt at what Courtney Traub calls a "more-than-human-commitment to the flourishing of significant forms of difference [by] acknowledging ... a sense of 'significant otherness' that allows for messy unknowns to remain" (527). It is just these messy unknowns that ecosystemic writing looks to speak to, be it through the disruption of the form itself (prose, comics, or photography within *The Dark Lit Up*) or the conventions of that form (plot, character, linearity, etc.).

Macfarlane's journeys into the deep and hidden places of our world brought him to the conclusion that our singular, ground-level perspective is too limiting a view and one that does not sufficiently engage with deep space and time. He writes, "our flat perspectives feel increasingly inadequate to the deep worlds we inhabit, and to the deep time legacies we are leaving" (*Underland*, 13). Macfarlane's observations have an echo of Sousanis's notion of "flatness". For Sousanis "to step beyond the flat and narrow, we need a kaleidoscope of views that convey both our dimensionality and our dynamic capability" (146). Macfarlane's exploration of these liminal spaces beneath the surface also reminds us of the hidden and the unseen within our experience of anthropogenic climate change, be that due to its nature as a slow violence or its spatial disparity. Climate change, which Courtney Traub describes as an "ecosystemic disruption", may well be too big, too complex, too interrelated, for one single narrative mode. In ecosystemic writing, each mode combines, contradicts, challenges and develops the others, to speak to the scale, complexity, and disruption of anthropogenic climate change.

Somewhere in the White Mountains of California the oldest known organism is passing the time as the rivers of Germany rush over hunger stones, hidden for now. Families tell stories and share photographs, building memories and bringing the past forwards with them. The world turns and it turns into something we no longer

recognise and no longer see or hear. We must write and think 'ecosystemically' and speak to the messiness, the loudness, the complexity, and beauty of the more-than-human world.

## Chapter 2

## **Breaking the Frame**

## Speaking to the More-than-Human World's Resistance to Narrative Order

A tourist stands looking out at the Indian Ocean from the shoreline of an island off the east coast of Africa. "Not exactly paradise, is it?" he says, "this Zanzibar?" Zanzibar. The name conjures up the image of a tropical island, complete with palm trees, white sandy beaches, and glassy-blue seas. Yet this archipelago of islands is also an active, living ecosystem. At low tide, the sea can recede up to two kilometres from the beach, exposing an expanse of clawing, mud-like sand, detritus, and scavenging crabs. It is not the passive idyll many visitors expect, but a living world of change, existing outside of human needs. Every day a noticeboard at the beach is updated with the specific time of high tide and beside it the "the best swimming time." The tourist is assuaged by the sense of structure these times provide, in their ordering of a disordered world.

This desire for a sense of order, of a discernible system of plotting, is at the heart of the human experience. As Richard Kearney notes in his exploration of the role of stories across human society, "every human existence is a life in search of a narrative" (129). "We all seek, willy-nilly, to introduce some kind of concord into the everyday discord and dispersal we find about us" (Kearney 4). For Kearney, this concord is created through storytelling. It is through our narratives that we "strive to discover a pattern to cope with the experience of chaos and confusion" (129). In this instance, at the beach in Zanzibar, the more-than-human is inserted into the human narrative and given order through the reduction of the complex tidal cycle down to a specific point on the linear timeline of the human narrative; in this case, 'swimming

time.' The tourist now has an understood 'role' for the ocean in *their* story. In effect, the discord and dispersal of the ocean has been reduced to fit the human.

The human experience is that of narrativized, linear time. As Peter Brookes explains, "we live immersed in narrative, recounting and reassessing the meaning of our past actions, anticipating the outcome of our future projects, situating ourselves at the intersection of several stories not yet completed" (3). We live our lives through narrative, and it is through narrative that we explore, explain, and share. For Kearney, storytelling is what "gives us a *shareable world*" (original emphasis, 3). However, this shareable world remains a world shared by, with, and for humans. For John Yorke, whose book on scriptwriting still proliferates across undergraduate reading lists, the archetypal story requires "a central character—the protagonist— [we] identify with" (3). The implication here is that this central character must be human (or humanoid) for us to identify with them. The more-than-human world remains secondary to the human narrative in the archetypal story model. The reason for this, as Kearney explains, is that our myths have historically been the stories "people told themselves in order to explain themselves to themselves and to others" (3). This anthropocentric narrativization excludes the more-than-human and yet we do not exist in isolation from the more-than-human world.

Ecosystemic thinking reminds us that appreciating the natural world, as being more than human, does not exclude the human experience from that world. In fact, as early as 1978, Evernden was arguing for a study of "the individual as component of, not something distinct from, the rest of the environment" (18). The notion 'more-than-human' does not mean 'other-than-human,' but rather that we exist as a part of that greater world. However, our storytelling structures have largely maintained an exclusionary relationship and perpetuated a reductionist and narrow

exploration of human experience as being separate from environment (Evernden 20). In exploring new storytelling structures and disruptions, the arts and humanities can move towards an inclusivity that better replicates the reality of the human as existing within the more-than-human world.

True inclusivity requires an acknowledgement of difference, and so thinking ecosystemically requires an acceptance of the more-than-human world's resistance to the ordering conventions of narrative. One such convention is the notion of the plot or story structure. John Yorke summarises the most common plot structure simply as "once upon a time, in such and such a place, something happened" (3). This is the essence of plot, "the very organising line, the thread of design, that makes narrative possible ... finite and comprehensible" (4). In contrast, the more-than-human world is neither finite nor wholly comprehensible on the human spatial-temporal scale. In order to speak with the more-than-human world, to open the narrative arts to an inclusive model, there is a need for the narrative arts to explore alternative story models.

The archetypal plot structure of set-up, inciting incident, climax, and resolution remains popular across mainstream film and television. There are exceptions and challengers working across the popular screen media but the conventions of this structure, as a system of ordering, remain predominant. Within literary traditions, Kearney does acknowledge the "innovative experiments" of works such as Martin Amis' *Time's Arrow*, a novel written in reverse chronological order. However, Kearney argues that these literary experiments still maintain a link to narrative conventions (126). Critics such as John Barth may claim Modernism, for example, is a "frustration of conventional expectations concerning unity and coherence of plot" (88) but Kearney insists that the thread of convention persists

even through these contrary literary movements. As if these experiments remain as "prodigal sons ... linked to forebears" (126). Likewise, Peter Brookes argues that despite Modernism's attempts to disrupt narrative expectations and the primacy or plot structure, "we still live today in the age of narrative plots" (7). We continue to see, tell, and share our world through the conventions of anthropogenic story structures and, to-date, these structures have largely been centred on a human protagonist contained, at least in some part, within the dominant ordering system of plot.

By living immersed in narrative and for that narrative to remain immersed in the human world, contemporary experience largely excludes that which is seen as non-human and/or non-narrative. For David Abram, anthropocentric storytelling has created a general "lack of awareness in other animals and in the land itself" (qtd. in Allister, 30). Abram is writing from within contemporary North America, with and from the English language, and so does not have Robin Wall Kimmerer's appreciation for the presence of an 'animate world' in the indigenous language of Potawatomi for example. Graham Harvey reminds us that "animism is far from unique among the indigenous peoples of North America" (33), citing the example of Ojibwe, a language similar to Potawatomi. Abram's language bias is relevant though as he is writing from, and with, a primary language of popular media. Christopher Manes paraphrases Martin Heidegger to remind us that "all language both reveals and conceals" (17). The English language, devoid of the animism of languages such as Potawatomi and Ojibwe, reveals a human-centric marginalisation of anything termed 'non-human' and so conceals the more-than-human world. The result for Manes is that "nature has grown silent in our discourse, shifting from an animistic to symbolic presence, from voluble subject to mute object" (17). Our stories centre the

human narrative within a marginalised world, not only through the convention of plot, but in language too.

As the more-than-human world grows increasingly silent, with less birdsong and less insect buzz, our popular narratives have grown equally silent. We have, to quote Raglon and Scholtmeijer, "convinced ourselves that nature was forever abundant as we beat the last passenger pigeons from their roosts, and then we were faced with nature's uncompromising answer—a terrible and profound silence" (249). That silence persists across popular narrative. Abram wonders whether the silencing of other animals and the land is a product of "a strange inability to clearly perceive other animals—a real inability to clearly see, or focus upon, anything outside the realm of human technology, or to hear as meaningful anything other than human speech" (qtd. in Allister 30). Kimmerer and Harvey would likely point to the marginalisation of the languages of the indigenous peoples of North America as evidence to why we can no longer "clearly perceive other animals" (Abram 30). I feel that, in addition to the specifics of language, there is also the structure of our stories, which requires the centring of the human protagonist within an ordered narrative system. The result is that the more-than-human world remains silent in most of our stories. To think and write ecosystemically is to explore routes to decentralizing the human and allow the more-than-human the space it requires to make what noise it will.

Opening the narrative form to the more-than-human world requires an acceptance of resistance. Raglon and Scholtmeijer call for "writing about nature [that] builds into its narrative allusions to nature's resistance" (251). This requires an approach that does not relegate the more-than-human to a symbolic or metaphoric role (Raglon and Scholtmeijer 251). In much of our stories the more-than-human

world is reduced to a homogenous notion of nature, passive or at best representative or thematic. Raglon and Scholtmeijer advocate for an appreciation of nature as an agent of change or resistance. They call for stories that "have a sense of the power of nature to resist, or question, or evade the meanings we attempt to impose on the natural world" (251). We impose time onto the tides of Zanzibar and expect the island to perform its role as tropical paradise. The reality, as B.S. Johnson notes, is that "life is chaotic, fluid, and random; it leaves myriads of ends untied, untidily" (14). If, as Simon Barton argues, "art must imitate life" (21) and life is chaotic, fluid, and random, contemporary climate fiction must explore ways to communicate the contradictions and chaos intrinsic to the more-than-human world.

There is a space outside order, beyond language and narrative structure. It is a space for the more-than-human; a space for the contradictions, disorder and resistance of the more-than-human world. Through the multi-modal hybridity of ecosystemic writing, writers and artists can explore a myriad of methods or approaches to speak to this resistance. *The Dark Lit Up* uses two primary approaches: abstraction and disruption. What follows is a discussion of these two methods with examples taken from *The Dark Lit Up*. Firstly, there is a discussion on the use of abstraction as being representative of the more-than-human world's non-conforming, free exploration of space. This is followed by an analysis of narrative disruption as representative of the more-than-human world's resistance to human meaning-making and ordering. Disruption is exhibited within *The Dark Lit Up* through three methods: modal switching, sequential breaking, and visual obscuring. Each is discussed in turn.

Firstly, visual abstraction. *The Dark Lit Up* explores the application of abstraction within a narrative through abstract imagery and sequence within the

comics mode. Comics is particularly well-suited to the exploration of abstraction within narrative for, as Charles Hatfield notes, comic art is already "radically fragmented and unstable" (Art 1). For Hatfield, "this is their great strength" because "comic art is composed of several kinds of tension, in which various ways of reading—various interpretive options and potentialities— must be played against each other" (1). The result is that to navigate these tensions, the comics mode requires "a reader's active engagement and collaboration in making meaning" (Hatfield, *Alternative* 33). In order to engage and collaborate, the reader must rely on, what Pascal Lefèvre defines as, the form's "basic conditions [or] schemata". For Lefèvre, the most important of these basic conditions is an appreciation of the "elliptic and fragmented nature of the medium". The comics readers' expectation of tension, of fragmentation, and the requirement for active engagement, results in a readership attuned to the challenge of engaging with a fragmentary or unstable visual arrangement. Abstraction, whether through the image itself or the arrangement of those images sequence, can then be read as an extension of this fragmentation, this instability.

To counter this sense of fragmentation, the comics form relies on a number of organising principles. Most important of all is the notion of 'sequentiality' through, what Thierry Groensteen describes as, a "dialectic of repetition and difference" (115). In Groensteen's definition, this notion of 'sequentiality' is maintained through a partial repetition of the content of each image (115). For Groensteen, sequence requires each individual image to contain some visual reference to the preceding image. For the most part, as Benoit Peeters and Pierre Sterckx point out, the object of repetition is predominantly the "character represented in the frame" (qtd. in Groensteen 163). This repetition of character(s)

from frame to frame alongside visual change is what creates the sense of sequence and ultimately narrative. For Groensteen, this repetition is "a principle of the vast majority of comics [and] a direct consequence of the story's organization around a central figure (conventionally designated as the 'hero')" (115). Groensteen is echoing Yorke and Kearney's observation of an anthropocentrism in our storytelling models while underlining the importance of the panel as a principle of the comics form.

The panel is the comics' primary organising principle and, for Scott McCloud, its "most important icon" (99). In theory the outline of the panel stipulates the space the character can occupy. There are examples where characters and or other details break through the parameter of the frame, not least in abstract comics as will be discussed. However, for Groensteen the panel remains the characters' "natural habitat, its vital space, deliminating the space of its immediate behaviour" (162) and so "to close the panel is to enclose a fragment of space-time belonging to the diegesis, to signify the coherence" (40). While the closure of the panel is (likely) visibly on the page, and so 'provided' for the reader, the act of creating the coherence, of connecting these fragments of space-time, is a required from the reader. As Neil Cohn reminds us, "nothing about two images next to each other demands that each represents a moment in time" (134). The onus is on the reader to put these images together as moments in sequence and identify connections between the isolated images to build out the narrative. The reader must, in McCloud's terms, "collaborate" with the comics maker in a "silent dance of the seen and the unseen" (92). Charles Hatfield summarises McCloud's argument and writes, "the author's task is to evoke an imagined sequence by creating a visual series (a breakdown), whereas the reader's task is to translate the given series into a narrative sequence by

achieving closure" (41). This process, of evoking sequence, is intrinsic to the comics medium and yet it relies on the "invocation of learned competencies" (Hatfield, 4) on the part of the reader because, as Hatfield asserts "the relationships between pictures are a matter of convention, not inherent connectedness" (41). McCloud likens this learned convention to a series of join-the-dots puzzles. It is this convention, which enables the comics maker to lead the comics reader through a series of images or panels and be confident they will read this arrangement of images as denoting a sequence and so narrative. The insertion of abstraction, either through the images themselves or their arrangement, relies on this convention and the principle of collaboration.

Visual abstraction in comics must be read within the context of these learned competencies and conventions. As a result, Daniel Worden argues that the abstract form asks fundamental questions about "how meaning is made and what meanings are possible on the comics page" (63). He goes on to argue that the very act of looking and attempting to read or interpret abstract comics "requires us to think politically, about how we and our social world produce meaning, identity and value" (63). It is "only by seeing how we can no longer see", as Worden describes it, that we can "begin to imagine the possibility of another way of living" (63). This recalls Nick Sousanis' own graphical exploration of ways to "step beyond the flat and the narrow" and advocation for the introduction of a "kaleidoscope of views" (146), a metaphor that in itself conjures up the image of visual abstraction.

Abstraction, this antithesis of order and direct meaning, is one way that ecosystemic writing can push at the boundaries of form and the organising principles of comics to speak to the disordered and resistant more-than-human world.

Andrei Molotiu, the abstract comics maker and collator, has defined abstract comics in their broad sense as "comics that contain some representational elements [but which] do not cohere into a narrative or even into a unified narrative space" or as "sequential art consisting exclusively of abstract imagery" (Abstract o-i). This is consistent with Paul Fischer Davies, who has articulated these two types of abstraction in detail. He describes the first form as being the arrangement of



Fig. 2. 1 McCloud's "transition scale". (Own photo).

"recognisable mimetic images" in a series with no identifiable narrative, other than, perhaps, a loose set of associations (255). In this first example, the abstraction is created through the nature of what McCloud has called the transition, the link or otherwise between sequential panels. McCloud has identified six distinct panel-to-panel transition types in what he calls the "transition scale" (74). (See fig. 2.1). The last transition type, the "non-sequitur transition" (McCloud, 70-72) is consistent with Davies' description of abstraction. McCloud defines the non-sequitur transition as "a series of seemingly nonsensical, unrelated images and/or words [which do] not do anything to advance a story" (72).

Being non-sequitur, the images combine without narrative and so, as Davies has defined it, this constitutes a form of abstraction. Robert Crumb's *Abstract Expressionist Ultra Super Modernist Comics* is an example of this form of abstraction. (See fig. 2.2). For Davies, the second method of abstraction in comics is the arrangement of non-mimetically recognisable images in series (255). In this instance, the "images themselves are abstract" (255) and yet remain in some visible sequence. The retention of series or sequence through the arrangement of the images and/or panels in a layout indicative of a comics sequence is required for each individual abstract images to be 'read' as a narrative even without a clear narrative 'hook' or perhaps even the absence of repetition. As Molotiu outlines in the introduction to his own work of abstract comics, *Universe A*, "an abstract comic exists as a comic, as an act of visual narration, only in the transition between panels" (*Shenandoah*). See fig. 2.3 for an example from *Universe A*.

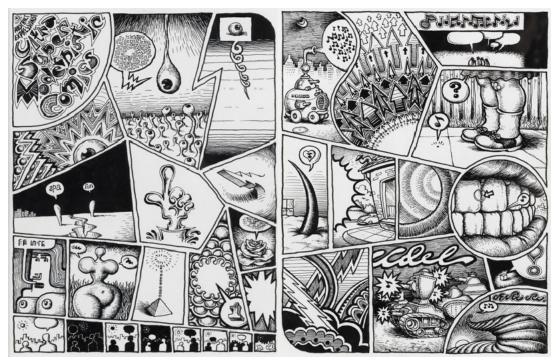


Fig. 2. 2 Non-sequitur transitions in *Abstract Expressionist Ultra Super Modernist Comics*. (Own photo).

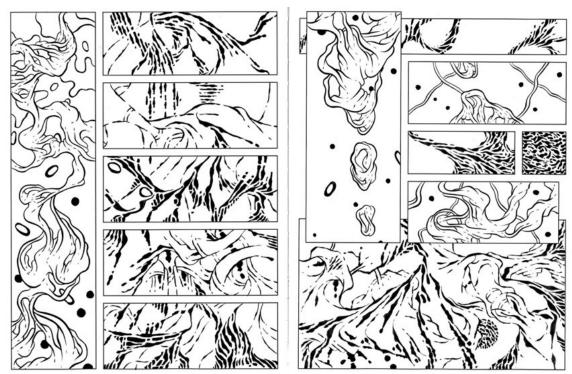


Fig. 2. 3 Non-mimetically recognisable images in series in Molotiu's *Universe A (Shenandoah)*.

Through his abstract graphic novel, *Universe* A, Molotiu explores the relationship between the panel and what Groensteen calls the "hyperframe" of the page (30). Groensteen claims that any panel-by-panel arrangement intrinsically indicates a "general principle of co-reference" (116) and that "every panel exists, potentially if not actually, in relation with each of the others" (146). Molotiu echoes this sentiment while emphasising the role of the page, or 'hyperframe', within the context of abstract imagery. As Molotiu explains, "the visual juxtaposition of panels is crucial to [abstract comics'] functioning, and that readerly phenomenon, noticed in representational comics, of eclipsing the rest of the page while focusing on a single panel is no longer an option ... the abstract comics page forms a differential visual field inhabited and structured by differences and deferrals that can only be perceived within its gestalt" (*Shenandoah*). Molotiu's use of the term *gestalt* speaks to a notion of an organised whole greater than the sum of its parts and, as such, has echoes of

ecosystemic writing. For the abstract artist and comics maker Kym Tabulo, any page that denotes sequence or signals to the reader a reading direction is immediately perceived as being a unified composition and therefore holding the suggestion of narrative (30). In effect, Tabulo is arguing for an ecosystemic reading of a page of abstract comics in which the otherwise disconnected images come together to form a greater whole, and in which the reader can find narrative through the observation of change across the page.

Abstraction may encourage a reading at the level of the "hyperframe", but the juxtaposition of panels remains fundamental to its functioning. It is the panel, or any visual indication of panel, that prescribes order and sequence in comics. It is the panel that sees readers follow their culturally dominant reading direction. The presence or suggestion of panels creates series, which, in turn, creates a readerly urge to read for narrative, to which abstraction is a direct challenge. However, the exchange between abstraction and narrative order is not linear. There are echoes of a more-than-human cycle of set and reset as narrative is read into abstraction and in turn that abstraction disrupts the reading. For Davies, the arrangement of abstract images into any semblance of sequence results in narrative being read into the abstract images (257). In effect, by sequencing the abstract images a sense of order is created and from there narrative. This, in turn, disestablishes the initial sense of abstraction. Jan Baetens supports Davies's argument argue, claiming that comics readers have a natural inclination to observe the system on the page and their bias towards a certain reading direction result in the inclination to find or impose narrative onto any series of images. This will, in effect, 'de-abstract' the sequence. However, this is not a one-way dialogue. This imposition of narrative is challenged or undercut by the abstraction. This tension, as Davies and Baetens both

acknowledge, is just as likely to see narrative dissolved into abstraction as it is for a narrative to be built out of the non-mimetically recognisable. What results is a back-and-forth exchange of meaning as the comics reader, used to and expectant of sequential order and understanding of their role in finding closure, works to create the narrative only for it to be disrupted or challenged.

This back-and-forth exchange mimics the relationship we have with the more-than-human world. Our desire for narrative overwrites the abstraction and so marginalises the more-than-human experience only for that anthropocentric narrative to be disrupted by the more-than-human world's anti-narrative, disruptive nature. The application of visual abstraction within ecosystemic writing speaks directly to this tension, and our natural inclination to implement order where we see chaos and/or dismiss the 'otherwise ordered' as chaos.

An ancient or primary forest is just such an 'otherwise ordered' space. As Peter Wohlleben notes, "to a layperson, primary forests can look derelict and disorganized [but] that is not true" (214). In his seminal study *The Hidden Life of Trees*, Wohlleben explores the connections, the ordered and organised systems, that remain hidden to the majority of us as we walk through woodlands. There is order here, he claims, only different and on a scale that makes it not immediately perceptible to the human eye. In an extension of Wohlleben's exploration of the connections trees share through filaments of mycelium (187), Robert Macfarlane asserts that the more-than-human world is "increasingly better understood in fungal terms" (*Underland*, 103). For Macfarlane, the more-than-human world is best understood "not as a single gleaming snow-peak or tumbling river in which we might find redemption, but rather as an assemblage of entanglements of which we are messily part" (103). Macfarlane's use of fungi as metaphor has echoes of

Sousanis' call for an "expansive way of seeing ... which despite visual boundaries, remain rhizomatically bound" (45). Interconnected, hidden, and without regards for boundaries, abstraction can mimic these entanglements through its messy contradiction and challenge to the systems of comics, most notably the panel structure. Fungal entanglement is a visual metaphor that persists across much of the abstraction within *The Dark Lit Up*. (See pages 4–5, 19, 129–132).

The following two examples taken from *The Dark Lit Up* showcase the application of abstraction within ecosystemic writing across multiple pages. Figure 2.4 is a sequence of seven pages with a set comics panel layout of 4x4. Across the eight pages in which the 'static' image of a mountain diverges from realism and towards abstraction. From page-to-page, the abstract image 'overcomes' the panel borders until only a hint of sequence remains. By the end of this sequence, the reader is left with a single panel at the level of 'hyperframe' showing how the more-than-human has overcome the human meaning making system.

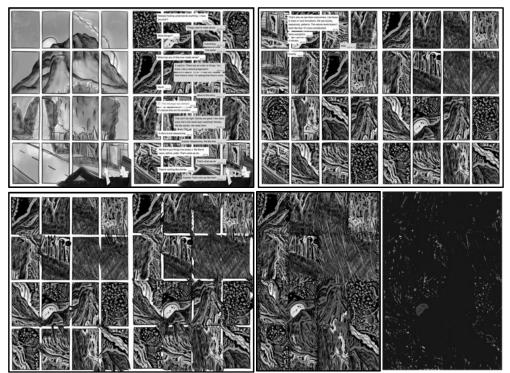


Fig. 2. 4 Example of abstraction from *The Dark Lit Up* (51–58).

Likewise, the example in fig. 2.5 moves from sequence into direct or full-page abstraction as the more-than-human 'grows out' of the confines of the panel in direct resistance to the ordering convention. The presence of the panel arrangement encourages a sequential reading, but this is likely discarded as the arrangement spreads, organically across the page. With echoes perhaps of a fungal-like growth, the more-than-human world moves in direct contradiction to the panel structure, adhering to its own invisible boundaries. By the end of this sequence, the panels are entirely removed in favour of an organic connection between elements directly representative of rhizomatic entanglements.

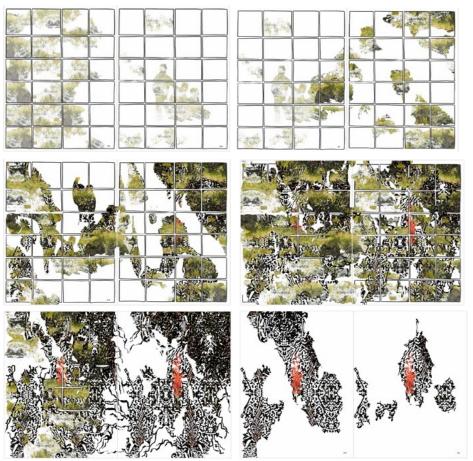


Fig. 2. 5 Example of abstraction from The Dark Lit Up (199–210).

The more-than-human world's resistance to narrative order and human meaning making can be explored through a number of approaches within ecosystemic writing. Abstraction is the first of two primary approaches used within *The Dark Lit Up*. The second approach is narrative disruption. Mike Puican defines disruption as moments of narratorial digression. However, Puican is speaking from the perspective of prose writing, particularly non-fiction. In the context of ecosystemic writing, disruption is more closely linked to structure, the mode or medium on the page, rather than digressions within the narratorial voice. Within ecosystemic writing, disruption is defined as any interruption of the systematic order and/or reading flow caused by a physical shift or obstacle. By 'physical' I mean direct disruptions caused by the layout of material on the page, which challenges the expected "readerly flow" as defined by the narrative mode. *The Dark Lit Up* uses three methods of physical disruption:

- 1. modal switching: a sudden and unannounced change from one mode to another, such as from comics to prose or vice versa.
- 2. sequence breaking: the rearrangement or discontinuation of an expected sequential order, most often seen across the comics mode.
- 3. obscuring: the intentional obfuscation of information on the page.

  These three methods of narrative disruption speak to the more-than-human world's digression from narrative structure. For Puican, "narrative is the straight-ahead engine of the story [and] digression is its indirect, yet insistent, emotional heart" (1). Within ecosystemic writing, the "straight-ahead engine" of the linear narrative order stands as proxy for human ordering systems. Any digression and/or disruption of this order can then be read as a challenge to this system by the more-than-human world. In ecosystemic writing, this disruption is caused by changes on the page, in a

physical aspect of mode or layout, and largely distinct from the human/emotional narrative.

Any disruption, whether it is a structural or an emotional digression, "halts the narrative progress" (Puican, 2). Puican explains that in prose this digression "signals there is something—a thought, a reflection, an aside—that must be stated before the narrator goes any further" (1). As a result, the digression is predominantly in the form of the narrator's internal voice interrupting the narrative with a vital or urgent thought. However, Courtney Traub reminds us that the climate crisis disrupts at the level of our representational models. As she explains, "ecosystemic disruptions such as global climate change ... might be understood as having agential capacities insofar as they inform/disrupt our understanding of the world and our representational models" (517). The disruption experienced as a result of the crisis require a narrative disruption that goes beyond the internal or human. In the context of ecosystemic writing, wherein narrative frameworks and conventions stand as proxy for human meaning-making exercises, disruptions speak to the inherent resistance of the more-than-human world to these structures. In this way, a structural or physical disruption of the narrative can be read as representative of the more-thanhuman interjecting with something, which although cannot be expressed in words, is nonetheless vital and urgent. In disrupting the expected reading sequence (comics and/or prose) through physical changes or obstacles, ecosystemic writing can be seen as mimicking the direct unsettlement caused by climate change.

Disruption should not be read wholly as negative, however. Traub continues her argument with the assertion that any disruption is also evidence of the more-than-human world's commitment to the "flourishing of significant forms of difference" (184). What a reader may perceive as disruptive or intrusive could,

therefore, also be read as the presence and acceptance of a sense of what Donna Haraway calls a "significant otherness" (qtd. in Traub 527) that allows for the "messy unknowns" (527) of the more-than-human world. Physical disruption can therefore be read as speaking to the very real interruptions caused by the global climate crisis as well as celebrating the more-than-human world's otherness.

Any narrative mode has an established understanding of how it must be read and so how it conveys meaning. In reading a prose novel, the reader settles into the reading of the text without a second thought. Likewise, a comics reader reads from panel-to-panel in a sequential order, glancing here and there perhaps, but generally following the principles of the form. Jeff Bezemer outlines how this understanding is developed and adopted within a culture over time. He uses the term "resources" to refer to the elements that come together to form a mode, such as panel, gutter, speech balloon. He writes, "the more a set of resources has been used in the social life of a particular community, the more fully and finely articulated it will have become. In order for something to 'be a mode' there needs to be a shared cultural sense within a community of a set of resources and how these can be organized to realize meaning". The time required for a set of resources to be established into a mode means that the reading of that mode has likely become 'second nature' to the extent that its 'constructedness' is overlooked. For Torsa Ghosal and Alison Gibbons, in "drawing attention to the codex that encases it, multimodal literature also brings into focus the real-world context in which reading takes place and reminds readers of their role in the narrative act" (9). Any disruption of the expected 'system' of the mode reinforces the sense of the reader as being involved, while reiterating the precariousness of the system they are engaged with and have helped maintain.

Ecosystemic writing utilises physical disruption as direct representation of the disruption of climate crisis and to give space to the more-than-human world outside of our system of resources and modes. The hybrid integration and disruption of modes within ecosystemic writing is a direct response to Stef Craps and Rick Crownshaw's call for writers to "not be confined to one particular novelistic genre or mode" in their exploration of climate narratives (2). Yet multimodality is not enough in itself. Pieter Vermeulen insists that climate change "eschews representation," so the only appropriate response is "the *breakdown* of literary form" (original emphasis, 9). No ecosystem exists in a state of continual stability, more so under the stresses of the climate crisis. Narrative disruption introduces moments of breakdown; moments where the reader is faced with the notion of things beyond image and text. A thing that cannot be said can, perhaps, only ever be understood as breakdown. In disrupting a reader's sense of stability or comfort within a particular mode, ecosystemic writing speaks to the flux of the more-than-human world and in acknowledgement of the threat of more severe change.

The first method of physical disruption used within *The Dark Lit Up* is modal switching. What follows is a detailed outline of what constitutes a modal switch within the context of ecosystemic writing along with examples from *The Dark Lit Up*.

Modal switching in ecosystemic writing is defined as a sudden and unannounced change from one mode to another, such as from comics to prose or vice versa. Modal switching is intrinsic to multi-modality and so it is a dynamic that contemporary readers of popular culture, billboards, advertising, and social media posts are familiar with; albeit the modes may differ. Elisabetta Adami credits Gunter Kress and Theo van Leeuwen for their observation that "multimodality is

increasingly the normal state of communication" (Adami, 451). As such, modern readers are adept at interpreting multiple concurrent modes. However, effective communication remains the primary aim of the majority of multimodal texts we encounter where the text is designed to lead the eye from one mode to another through a chain of supporting and/or developing information. While Kress and van Leeuwen are clear that "in a multimodal text ... the writing may carry one set of meanings and the images another" (18); they also reiterate that the page should then be read as one "integrated text" (183). Within ecosystemic writing, the modes combined on a page or spread may appear integrated to the reader until they must traverse a sudden, unannounced modal switch.

To be disruptive, modal switching must occur suddenly and without consideration for how a reader is led into and out of the switch. To this end, a modal switch will not align with a change in narrative voice, location, or time. There may be no clear reason for the switch; and yet the modes interact ecosystemically to carry the narrative through the modal switching. The impact is to the reader, who is likely to feel disorientated by the sudden switch and so perhaps needs a moment to adjust to the new mode of communication.

Modal switching within ecosystemic writing is more than a move from one dominant mode to another. To speak to the disruptive nature of the more-than-human world, it should follow three basic principles: a.) the narrative continues into and out of both modes equally; b.) there are no obvious break points to signal a modal switching; c.) each mode is presented in a format consistent with that mode. By listing these three specific details, it is possible to delineate between the modal switching innate in a work of multi-modality and the specifics of how these switches

are presented *disruptively* within *The Dark Lit Up* and a work of ecosystemic writing more broadly.

Comics are multimodal by nature, typically deploying the twin resources of image and text in a culturally established manner to convey a narrative. While the reader is having to 'move' between the two modes of image and text, the modes combine, and the switch is rarely meant as disruptive. However, some works of otherwise 'standard' comics have extended text segments that can be read as distinct from the comics sequences, in effect as prose. These are examples of switching 'away' from the comics mode, but they are distinct from ecosystemic modal switching in that they are not disruptive but clearly signposted and consistent with the 'logic' of the narrative. A few of these examples are explored here as counterpoints to the disruption of modal switching within ecosystemic writing.

Alan Moore's *Watchmen* includes multi-page sections of prose between the main chapters, themselves told in comics form. This seminal example of the comics form uses these segments of prose as an aside, to narrate a character's backstory, and styled as realia to replicate case files or pages from a fictitious memoir. (See fig. 2.6 and 2.7 for examples from *Watchmen*). Moving into and out of these longer sections of text would rarely be disruptive as the switch is clearly signposted and linked to a natural break in the narrative. The sections of prose are also styled and arranged visually as artefacts within the comic rather than as a block of prose within a novel or non-fiction text. The impact of moving into and out of these "sub-sections" is unlikely to unsettle a reader and, in fact, the use of these realia as an additional mode

of communication is done with the aim of developing the narrative further, to deepen the reader's understanding of the narrative world.



Fig. 2. 6 Comics to prose modal switching in *Watchmen*. (Own photo).

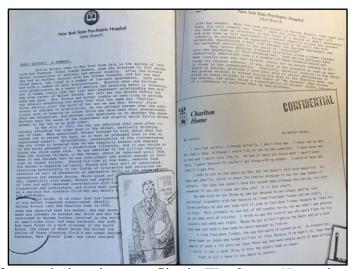


Fig. 2. 7 Pages of prose designed as case files in *Watchmen*. (Own photo).

Phoebe Gloeckner's *The Diary of a Teenage Girl: An Account in Words and Pictures* and Luke Healy's *Americana (And the Art of Getting Over It)*, both include sections of comics and longer blocks of text/prose. In neither works are the blocks of text styled as visual elements as they are in *Watchmen* and the narrative moves between modes equally. However, both Gloeckner and Healy start these blocks of prose at clearly sign-posted sections on the page; the prose text is also

clearly separated out from the sections of comics. In the case of Americana, a travel memoir recounting Healy's attempt to walk the Pacific Crest Trail, there is clear visual signposting of these shifts in mode. Healy often uses white space or physical markers to indicate a shift in mode or intersperses images into text as illustrative. When there is a shift back to comics or prose, this is done smoothly through a 'natural' transition. (See fig. 2.8). There is also a narrative logic to when Healy changes from comics to text, as Healy often uses the prose segments for sections of the narrative in which he is taking a break from the trail. Gloeckner's work is not as clearly delineated, but the comics segments often sit alongside the prose almost as illustrated vignettes. (See fig 2.9).

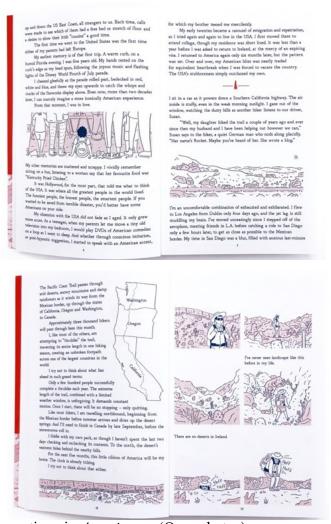


Fig. 2. 8. Prose sections in *Americana*. (Own photos).

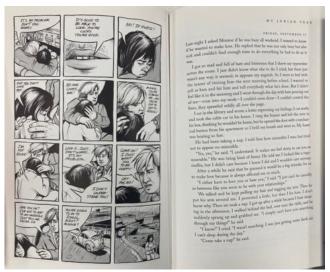


Fig. 2. 9. Sample from *Diary of a Teenage Girl*. (Own photo).

Lastly, in Cassandra Darke and Tamara Drewe, Posy Simmonds has longer sections of text intermingling with illustration and comics. It is a testament to Simmonds' skill that the narrative moves smoothly between the modes as there is no signposting or clear section breaks; the move between modes is also in no way narratively disruptive. (See fig. 2.10). I would not expect Simmonds to want to disrupt the reading. Her work is an argument for the 'flow' possible within a work of multimodality; it is not disruptive nor representative of any wider global disruptions. These examples of comics/prose multimodality show non-disruptive switching. Ecosystemic writing is the exploration of disruption as a way to speak to the nonlinearity of the more-than-human world; to allow the more-than-human world the 'space' to move beyond our ordering systems and the codes we follow in writing and reading a narrative text. As an example, The Dark Lit Up embraces the disruption of shifting between modes without clear signposting or the segmenting of Healy and Gloeckner, nor does it attempt the fluidity of Simmonds' work or Moore's integration of modes as realia. The intention is disruption, and the acceptance of the more-than-human world as otherwise ordered.

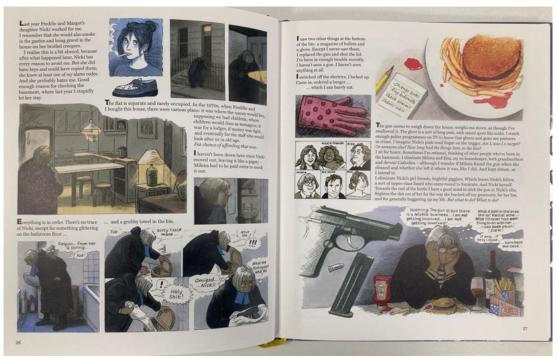


Fig. 2.10 Sample from Cassandra Darke. (Own photo).

Whether or not it is clearly signposted and segmented, the impact of switching from a pictorial-dominant (comics) page to a text-dominant (prose) page, or vice versa, has implications on the reading experience. I propose that this switch affects the reading experience in two specific aspects: access and understanding.

\*\*Access\* relates to how a reader first encounters the page of prose or comics, how they 'enter' the page or narrative. \*\*Understanding\* relates to the amount of 'work' the reader must do to create the narrative and/or develop and understanding of the plot. Put another way, \*\*understanding\* refers to the effort and time required for a reader to attain a basic understanding of the plot on encountering the page or spread for the first time.

There are distinct differences between how a reader 'enters' a page of prose compared to a page of comics. Before moving to the first panel in the sequence, the reader's first encounter is with panels as one image contained within Groensteen's "hyperframe" (30). In this moment, the sequentiality of the page or spread is superseded by the page-level arrangement; the page is seen as we see a painting or poster. After viewing/reading the page or spread at the level of the 'hyperframe', the reader will then likely follow what Neil Cohn calls their culturally defined "preference hierarchy" (132). Within English language texts, this hierarchy runs from top left to bottom right. Cohn reminds us that comics follows the same reading order (132). A reader is unlikely to break from the 'preference hierarchy' however, at the turn of every page, there is a moment when the reader has the whole spread visible to them before the reader must focus in on the first panel and work through sequentially from there. This moment/view is not accessible with a page of prose.

Therefore, narrative entry is not defined by the reading direction but by the broader nature of the material on the page. A block of text provides little to no information at the level of 'hyperframe'; it is only by reading linearly through the text that meaning can be gleamed. Similarly, a series of sequential panels will develop a narrative methodically and will need to be read as such. Yet, at the level of 'hyperframe', where the panels are viewed together as a single arrangement, it is likely that a reader can gleam some information on the basics of setting, plot, characters before engaging with any 'sequentiality'. As Sousanis explains, "the verbal marches along linearly, step by step, a discrete sequence of words. The visual on the other hand presents itself all at once, simultaneous, all over, relational" (58). With comics, the reader is able to access all the information, all-at-once, immediately on turning to that page. They are unconstrained for a moment, able to

navigate the page as they would an open field, by following their eye as they would follow their feet. With prose, after the initial page turn the reader is likely to spend very little time at the 'page level' before joining 'the trail', which is presented not as an open field but as a narrow boardwalk; from which if they go astray, they are likely to be lost.

The variation in access and understanding also has a bearing on the time required for a reader to extract information. By this, I mean the real-world time taken to read each section or mode rather than the time existing within the text, the characters' experience of time. While, as Sebastien Conard and Tom Lambeens note, comics use a variety of "tricks and devices' [to] propel a certain reading pace" (93), and so there is variance across comics, at the most basic level a page of text requires more time to 'complete' than an image or sequence of images. The notion 'completion' speaks to the physical act of finishing the text, reading it through from first word to last, with an understanding of the main points of the plot. At this point, the reading is complete; although any statements regarding this time are made with the assumption that reading to completion may not be the sole aim, and that time may well be taken across all narrative modes for the reader to linger, read, reread, look, and look again. However, at the base level of engagement—reading for story a higher time engagement is required to extract story from a block of text. The comics form has an 'all-at-onceness' that likely provides some quickly accessible 'information points'. A block of text has a higher threshold of understanding: readers must commit to the text as it is presented, linearly and step-by-step. There is a higher time requirement.

At the same time, pictorial narratives encourage the reader to 'take time', to stop and linger with the image. C.S. Lewis once described the common urge to keep

reading a narrative, to find out 'what happens next,' as "narrative lust" (qtd. in Sipe 171). Lawrence Sipe argues that the urge to linger with an image creates a tension with the 'pull' of the story. The prose reader may need to 'give' more time in order to complete the text and extract the information they require, but a comics reader is likely encouraged to 'take' more time by lingering with an image and resisting the urge to read on. The differences in *access* and *understanding* between modes means any modal shifting is likely to feel, at least momentarily, disruptive.

Furthermore, in the context of ecosystemic writing these tensions in time, between lingering and moving onwards, speaks to the experiential contrast that exists between the linear, chronological time of the human world and the seemingly atemporal climatological time. That is not to say that one mode (prose or comics) stands as chronological time and the other as climatological time. Both modes have narrative drive, although the comparative strength of that drive can be disputed. Does the comics form provide a slow lingering time synonymous with the natural world, or are we continually forced on to the next panel, continuously seeking to feed our need for closure? Is the prose form's linearity fixed and confining in the way the workday progresses in fixed intervals, or does it offer the slow pace and thoughtful exploration of a walk through the countryside? There is a case to be argued either way and this is not to argue that one form speaks for the more-thanhuman world directly. Rather what is relevant within the context of ecosystemic writing is the impact of switching between these modes, which draws attention to the contrast between the constructed, linear time of stories and our methods of telling them with the non-linear, slow time of the more-than-human world.

The Dark Lit Up uses modal switching ecosystemically by accepting disruption and rejecting the signposting and techniques most often used within multi-modal texts to help transition from one mode to another. In this way, the work

aims to speak to the methods our narrative modes deploy to ensure structure and order in contradiction to the otherwise ordered more-than-human world. Modal switching in *The Dark Lit Up* explores the relative time experiences of each mode, whether prose, comics, or photography; asking readers to linger with the image in acceptance of an otherwise ordered world that requires time and a wandering eye. (See Fig. 2.11 and 2.12).

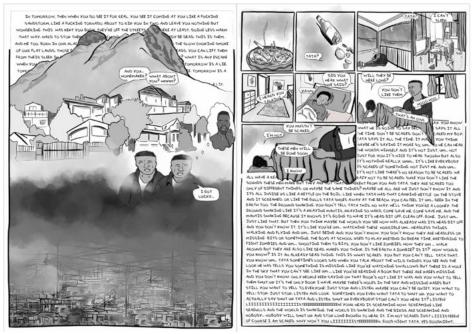


Fig. 2. 11. Example of modal switching from *The Dark Lit Up* (73).



Fig. 2. 12. Example of modal switching from *The Dark Lit Up* (89–90).

The second method of physical disruption used within *The Dark Lit Up* is sequence breaking. A sequence break is caused by an element on the page challenging or contradicting the reader's expectations of the mode's structural principles. This effect can be created through a variety of approaches. *The Dark Lit Up* uses three methods primarily 1.) drawn images that indicates directionality or movement contrary to the reading direction, 2.) an arrangement of images in clear sequence that breaks with the expected sequential order, 3.) intentional omissions such as extended spaces between words or paragraphs.

Intentional omissions are in addition to the 'standard' gaps expected across blocks of prose, the gaps between words, in margins, at the end of paragraphs, or chapters. These additional breaks in sequencing can be read as evidence of the 'constructedness' of the elements on the page. In running contrary to a sequential order or using unexplained and unnecessary breaks, the reader may well find themselves pausing to question their insertion. For Simon Barton, these deliberate breaks encourage the reader to "question the time they should take reading these gaps and hypothesising the possible contextual reasons for their appearance" (28). The simple act of having to hypothesise is a challenge to the reader's 'narrative lust,' a reminder of the maker behind the text, of the act of creation; and that this arrangement of text and/or image is part of a culturally defined regulatory system. (See pages 46–47, 67–72, and 108–110).

On pages of otherwise standard comics arrangement, where panels are structured and read following the preference hierarchy, visual elements that appear to move outside or against that 'sequentiality' will likely raise similar questions and observations with the reader to when encountering gaps in text. In following the

contrary flow of that element, the reader is taken outside of what Phillip Pullman describes as the "tyranny of the one-way flow" (qtd. in Sipe 172). In the context of ecosystemic writing, this on-page challenge to narrative convention speaks to the more-than-human world's disruption of our ordering systems, our regulated and linear story modes. *The Dark Lit Up* uses both drawn elements and photographs arranged in sequence in a way that runs contrary to the expected reading order. (See fig. 2.13 and fig. 2.14). In fig. 2.13 the movement of the deer is charted in a sequence in still images that run contrary to the arrangement of the comics panels it overlays. Running, first top right to bottom right and then bottom left to top right, the deer moves without regard for the ordering system of panels. In this sequence the deer also disappears into abstraction, a continuation of its rejection to order and direct representation. The bird flights charted across the spreads in fig. 2.14 break the sequential order of the comics panels, encouraging the reader's eye to cut back across the sequence, as the bird as proxy for the more-than-human world will not conform to the ordering system and will instead 'go its own way'.

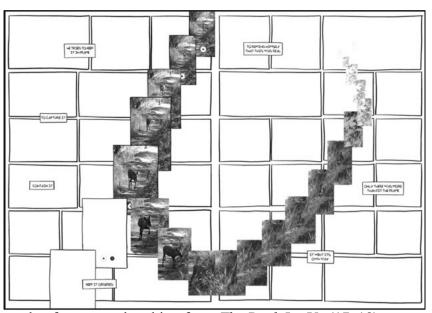


Fig. 2. 13 Example of sequence breaking from *The Dark Lit Up* (17–18).

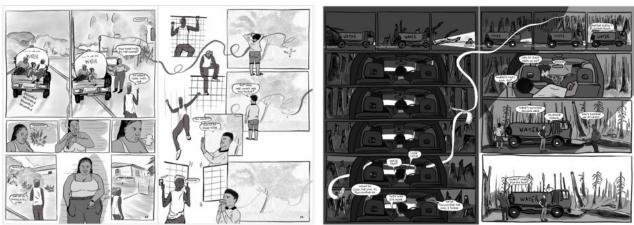


Fig. 2. 14 Examples sequence breaking through bird flight from *The Dark Lit Up* (65–66 and 189–190).

The third method of disruption used within ecosystemic writing is obscuring. By obscuring I mean the intentional obfuscation of information relevant to the advancement of the story. This can be done through any number of techniques. In *The Dark Lit Up*, obscuring is achieved through overlays or intersections of text onto text, image onto text, and/or the arrangement of text so that it flow off the edge of the page or into the binding between pages. With text hidden or obscured, the reader is again encouraged to stop, to assess, and make a call about the time required to decipher what is unavailable. The conscious obscuring of story elements speaks directly to what Phil Macnaghten and John Urry have noted as a shortcoming of many contemporary climate change novels. They argue that much climate change fiction has "not addressed the complex, diverse, overlapping and contradictory ways in which people sense the world around them" (104). While I do feel that climate fiction has advanced greatly since Macnaghten and Urry's writing in 1998, anthropocentrism remains, and one response is to explore ways for fiction to speak more to the "messy unknowns" (Traub 527) of the more-than-human world. Obscuring elements on the page continues in the vein of modal switching and

sequence breaking to disrupt the human meaning-making elements. In this way, I feel obscuring can challenge the dominant anthropocentric, story-driven structure to speak to the complex, diverse, overlapping, and contradictory ways of seeing. (See fig. 2.15, 2.16, and 2.17).

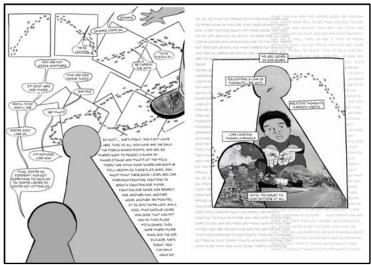


Fig. 2. 15. Example of obscured text from *The Dark Lit Up* (47–48).

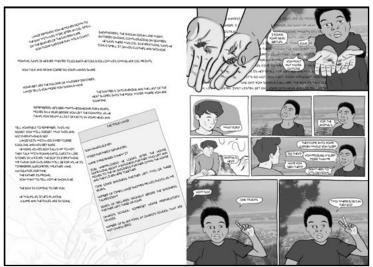


Fig. 2. 16 Example of text obscuring text from *The Dark Lit Up* (pg. 75–76).

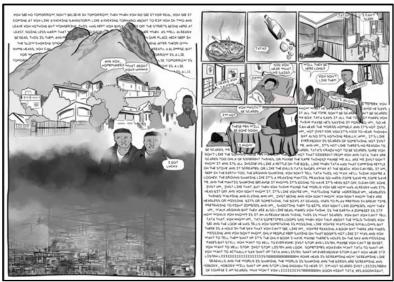


Fig. 2. 17 Example of image obscuring text from *The Dark Lit Up* (pg. 89–90).

Representations of the flux and contrariness of nature is one of the primary ambitions of ecosystemic writing. Through abstraction and disruption, ecosystemic writing aims to speak to, and with, the more-than-human world. This is a direct challenge to the narrative arts because, as Lawrence Buel reminds us, the narrative arts typically make a "distinction between text and referent" (qtd. in Allister 31). Within ecosystemic writing, the more-than-human world takes form and is directly present on the page, not as passive image or representation but as an agent. This presence, expressed through abstraction and disruption, intrudes into and occupies the textual space, disrupting the distinction between text and referent.

Ecosystemic writing embraces the breakdown of the cultural conventions of 'sequentiality', reading order, clarity, and linearity. The intrusion of the flux and messy unknowns of the more-than-human world into a narrative work supports Richard Mabey's observation that "culture isn't the opposite or contrary of nature" (qtd. in Smith, 1). For Mabey, culture is "the interface between us and the non-human world, our species' semi-permeable membrane" (qtd. in Smith, 1).

Abstraction and disruption are examples of how the more-than-human world can seep through that semi-permeable membrane. For me, this is directly representative of Traub's notion of the "porous interdependencies between human and nonhuman systems or persons" (517). For Traub, this interdependence exists simultaneously with the "partial unknowability of the nonhuman world from our vantage in a human social system" (517). Abstraction and disruption speak directly to this unknowability while simultaneously acknowledging the more-than-human world as disordered, in flux, resistant, but no less important.

Timothy Clark has issued a call for the arts and humanities to "aid a sort of species-consciousness" (qtd. in Smith, 18). I read this as a call for a consciousness of human meaning-making exercises as well as an increased awareness of the morethan-human world as independent to, and coexistent with, the human world. For Abram, the human world is "locked in a culture for which discourse is seen as exclusively human" (51) and "by denying that birds and other animals have their own styles of speech, by insisting that the river has no real voice and that the ground itself is mute, we stifle our direct experience" (263). "Nature speaks," as Allister reminds us, "but in our discourse nature is silent, a symbolic presence only, a mute object" (30). Ecosystemic writing is, in part, an exploration of methods and approaches that allow for nature to be unmuted, to be more than symbol or metaphor, and certainly more than setting or "best swimming time". The result is the discordant, dispersed voice presented through abstraction and disruption. This is more-than-human storytelling, speaking in part with "the speech of the things themselves" (Abram 273). This is the messy, in flux, tidal voice of the more-thanhuman world.

## Chapter 3

## **Picture This**

## Speaking to the Role of Memory in our Experience of Environmental Loss

A group of people sit in attendance at a talk on climate change and its impacts on the polar regions. They are asked to picture a glacier. It seems a simple task; the group know the term glacier and they know what is expected from them. Yet, none of them have ever seen a glacier up close. These large slow-moving accumulations of ice and snow exist only in the far-off regions of the world; regions rarely visited by the casual tourist. So, those in the crowd must, instead, draw on their memory of photographs or films they may have seen. A question comes from the crowd, "Do you want us to picture a glacier as they are now or how we remember them to be?" The question speaks to our relationship with the more-than-human world and our increasing reliance on the visual image (film or photograph) as a conduit between the human and more-than-human world, particularly in the age of mass extinction and climate-related change.

The glacier has long enchanted the public imagination. Robert Macfarlane recounts stories of travellers in the mid-19<sup>th</sup> century flocking to see these "superb enigmas" (*Mountains* 106), which "all but confounded metaphor" (113). A century earlier, the enigmatic pair of Richard Pococke and William Windham completed an expedition to the glaciers of Chamonix, France. From this expedition, Windham's evocative description of the glacier was "a lake put in Agitation by strong Wind, and frozen all at once" (original capitalisation, qtd. in Macfarlane *Mountains* 113). This powerful and arresting image of a wild ocean frozen in time did much to inspire

future travellers and explorers. It may also be in part responsible for the notion of the glacier as a permanent, ever-present feature forever frozen all at once.

Glaciers are not as fixed as they appear, of course. They have always existed in constant, albeit slow, migration downwards. However, glaciers are now attracting increased attention due to their fast rate of change. The glacier has become a visual indicator for the impact of global temperature rises caused by climate change. In 1997, the U.S. Geological Survey (USGS) began the Repeat Photography Project, with the aim of re-photographing historic glacier images to document changes to these glaciers through juxtaposition (see fig. 3.1). The result is a visually arresting shorthand for the changes wrought by climate change; the 'then and now' photograph.

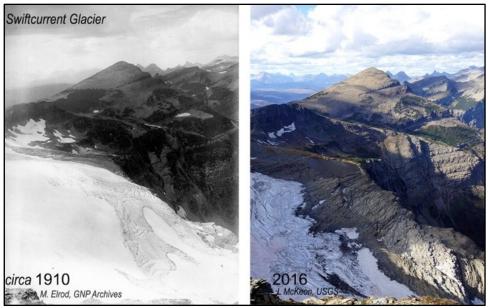


Fig. 3. 1. Swiftcurrent Glacier: circa 1910, Morton Elod, GNP Archives - 9/27/2016, Lisa McKeon, USGS.

Picture a glacier. With no direct experience, the group at the talk can only reconstruct an idea of a glacier from their collective memory bank of images. They may bring to mind an image of glaciers as "mighty ice rivers" (Macfarlane *Mountains* 106) and it may feel as if that is how they remember glaciers to be—a

collective memory of the glacier as wild places—but that is not their direct memory. It is an image that predates their lives; it is an inherited memory. They may picture the glacier as they imagine them to be now. Perhaps they imagine something like the images of the Swiftcurrent Glacier compiled by USGS in 2016 (see fig. 3.1). Yet, this is not the glacier now. It can never be. There is no static state, no glacier *as it is now*. That said, individuals in the group will still come up with an image.

Without direct experience of the glacier, how can the group create this visual image? They can only draw on their collective memory and, as George Kouvaros explains, memory is encountered "through the life of images and things" (391). In this instance, the group have their collective memory of the stories and images they have collected through their lives, and it is through these that they will 'build' their image of a glacier. As Susan Sontag notes, photography is "not so much an instrument of memory as an invention of it or a replacement" (*Photography* 165). Similarly, for Catherine Keenan "photographs do not only supplement memory but actually configure it" (60). To help illustrate the claims of Sontag and Keenan, Geoffrey Batchen gives his readers a simple task: "think back to childhood" and then asks, "can you remember it?" (15). He asks his readers to consider whether what they see in memory is any more than the stories they have been told or seen photographed from their childhood. "Has photography quietly replaced your memories with its own?" (15), he asks. At the same time, Marianne Hirsch asserts that "all pictures ... represent what no longer is" (23). We remember through imagery, and since the advent of the camera increasingly through film and photography, but the image is itself an object of memory.

That is not to say that memory exists only as photographed or documented in film. Groups have developed and maintained memories through written and oral

testimony and individuals can create and maintain memory without photography or recourse to a shared narrative. However, in our ever-increasing visual age the role of the visual document has a particular role in the creation and curation of memory. In particular, in the context of the climate crisis in that it stretches across a spatial-temporal scale outside of our day-to-day experience. To this regard, much of how we experience the more-than-human world, and mourn its losses, is through visual documentation.

Marianne Hirsch's exploration of the "the postmodern space of cultural memory" (13) has her concluding that a shared accumulation of history exists in part in our production and consumption of the visual image, most notably photography. Hirsch proposes the term "postmemory" (21) for this shared accumulation of history, an idea she developed through her analysis of the photographic imagery used within Art Spiegelman's seminal work of memoir in the comics form, *Maus I* and *II* (see fig. 3.2 and fig. 3.3.), in which Spiegelman uses photographs to illicit a sense of permanence to the memories and events he recounts within the graphic memoirs.

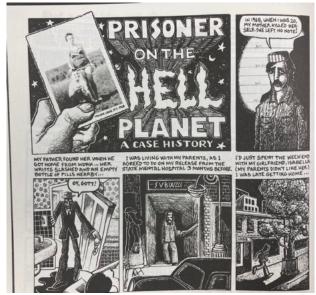


Fig. 3. 2. Photography in *Maus I* (100). (Own image).



Fig. 3. 3. Photography in Maus II (135). (Own image).

For Hirsch, "postmemory characterises the experience of those who grow up dominated by narratives that preceded their birth, whose own belated stories are evacuated by the stories of the previous generation shaped by traumatic events that can be neither understood nor recreated" (21). While Hirsch developed the notion of 'postmemory' in relation to children of Holocaust survivors, she does acknowledge that the concept "is useful to describe other second-generation memories of cultural or collective dramatic events and experiences" (21). There is scope here to explore the notion of 'postmemory' in the context of the climate crisis because of the role of photography within our understanding of the crisis and Hirsh's own claim that "photographs are precisely the medium connecting first- and second-generation remembrance, memory and postmemory" (23). We see the photograph of the Swiftcurrent Glacier circa 1910 as second-generation inhabitants see a photograph of their ancestors' past and adopt it as our own. For Hirsch, the photograph creates both

memory and distance. She claims, photographs "affirm the past's existence and, in their two dimensionality, signal its unbridgeable distance" (23). We see the photograph of the glacier as affirmation of its existence in our past and, at the same time, must acknowledge its temporal distance from us. It becomes an inherited memory, and so we carry the weight of its loss as if it were our own. This is the climate crisis as 'postmemory.'

In the context of climate change, the notion of 'postmemory' is related to those born into the climate crisis, specifically the age of the sixth mass extinction. The concept of a sixth mass extinction is disputed among ecologists, but the notion remains present within popular imagination and news media. Robert Cowie et al. describe a mass extinction event as "a short period when at least 75% of species are lost" (642).6 'Postmemory' as a concept can be applied to contemporary communities living with this notion of global mass extinction and so with second- or third-generation memories of environmental collapse preceding our birth. Climate anxiety has been instilled in contemporary society by a trauma that can only be understood in the context of a loss that has already taken place and cannot be recreated. We can only experience the trauma of climate-related loss and change with an understanding of what has been lost, what came before, and this understanding has been created for us through narrative, oral testimony, written accounts, retrospective data visualisations and, importantly, photography. The loss has already occurred, but that which has been lost has been photographed. The traumatic event has taken place, but its past can be relived through photographs.<sup>7</sup> Generations today have only the stories of a previous age and the visualisations of climate scientists as a reference to the scale of loss that has already occurred. Our

relationship with the more-than-human world is shaped, in part, by a collective 'postmemory.'

To conjure an image of a glacier as they remember them to be, the group at the talk on climate change has only the glacier as 'postmemory': an inherited image and memory, now lost. The same is largely true for the notion of picturing glaciers as they are now. The group must still rely on their collective understanding as created by imagery to create an image of the glacier as it is at that point in time. However, as Sontag reminds us, there is no present within photography: by nature, photography remains an "exquisite index of the pastness of the past" (Mourning). By placing the two images of the Swiftcurrent Glacier side-by-side, the indication is that the viewer is sitting as direct witness to climate change. They are witness to 'the state it was' in direct comparison to 'the state it is.' It has become a visual trope: two photos alongside each other, with date stamps or simply the words 'Then' and 'Now.' A more accurate labelling of these photographs would be 'Then' and 'Then.' Moreover, as Marita Sturken and Lisa Cartwright remind us, no photograph can ever remain true when the very notion of its truth is tied up in the assertion that the image is in any way a document of the present.

This notion of a photograph as being a document of a present state is, in part, what Sturken and Cartwright call the "myth of photographic truth" (16). A photograph of the Swiftcurrent Glacier or the Great Barrier Reef may be printed in the newspaper or included online as evidence of rises in global temperatures, but neither of those photographs can ever be the exact present. From the moment that photograph was taken, the changes evidenced in that glacier or reef have already occurred. Change is ever-present across the more-than-human world and any photograph is an attempt to 'capture' what is otherwise in constant flux. The climate

crisis intensifies this change, and in this context, the photo immediately becomes an artefact of the past, in which loss has already occurred. In fact, Julie Doyle makes direct reference to this in the context of photographs of melting glaciers, which she calls "a representational problem [as] photographs of glaciers represent temporally the already seen effects of climate change" (130). This is particularly pertinent for, as Silke Horstkotte and Nancy Pedri emphasise, "photography [has] had a significant impact not only on the way reality is perceived but also on how it is narrated" (qtd. in Pedri *Photography in Comics* 9). Julie Doyle claims that "photographs of a changed landscape due to global warming worryingly position the viewer as looking onto a landscape before climate change and after" (qtd. in Nurmis 54). This, according to Joanna Nurmis, "promotes a reading in which climate change has already happened" (54). This image has been documented. This has already occurred. As a result, climate change may be seen to be a concern of the past or something that the individual, in the present, has no control over. This is why, as Saffron O'Neill explains, "the very images that made [research] participants have the greatest sense of climate change being important were also disempowering at a personal level.

These images were said to drive feelings of helplessness, remoteness, and lack of control" (373). Rather than positioning the event in the present, it has been confined to the past as something no longer within our control.

There is a parallel here between how we have come to understand climate change as documented (and therefore already happened) and the work of Roland Barthes and George Kouvaros, among others, on the relationship between memory and personal/family photographs. Slavoj Žižek claims that "it is our roots in the natural environment that prevent us from taking seriously things that we already know: that all this normal life we see around us can disappear" (qtd. in Nurmis 56).

Kouvaros and Barthes have noted a similar relationship in how we view personal/family photographs and their part in projecting the viewer forward into a future state of loss. In his analysis of W. G. Sebald's novel Austerlitz, Kouvaros argues that while the photographs come to the reader from the past, they are "projecting us forward into a future in which the catastrophe of death has already occurred" (Kouvaros 404). Barthes makes the same observation in Camera Lucida. While looking at family photographs, he explains, "I tell myself: she is going to die. I shudder ... over a catastrophe which has already occurred. Whether or not the subject is already dead, every photograph is this catastrophe" (96). For Barthes, the "pastness" of that photograph and, by extension, the subject of that photo forces him to confront the prospect of loss, whether it has occurred or not. In looking at the original photograph of the Swiftcurrent Glacier, circa 1910, we cannot help but project forwards to a place changed or disappeared, for we know "all this normal life we see around us can disappear" (Žižek qtd. in Nurmis 56). Sontag insists, "all photographs are *memento mori*" (qtd. in Hirsch 1); perhaps in looking at the photograph of the glacier, circa 1910, we can only shudder with Barthes over a catastrophe that has already occurred.

The group at the talk is asked to picture a glacier and to do so they will draw on memory; for many these are memories shaped largely by photography. They reply with, "Do you want us to picture a glacier as they are now or how we remember them to be?" The question is redundant. They have no memory of what the glacier was. They have only the glacier as 'postmemory'—an inherited memory of the glacier as existing in some notion of a 'pure' state before the impacts of climate change—and which, in a Barthesian reading, remains a reminder of the catastrophe that has already occurred. Neither do they have a notion of what a glacier

is now. They may have a recent photograph of a glacier in mind but, as Sturken and Cartwright, Doyle, Nurmis, Sontag, and others remind us, any photograph once taken is immediately a record of the past. Asked to picture a glacier, the group can likely conjure an image on request, but this mental image of a glacier will be neither as they remember them to be nor how they are now. The challenge this group face is a microcosm of our wider relationship with the more-than-human world as created and curated by photography.

We inherit memory and thus an inherited sense of loss, 'postmemory,' while our understanding of the present as photographed erroneously classifies the more-than-human world as unchanging, the 'false-stasis' of Windham's frozen lake. This dichotomy exists concurrently with 'postmemory,' enforcing an idea of constant change contradicting our view of the more-than-human as caught within a photographic false-stasis. Threaded through this is Barthes' notion of every photograph repeating the catastrophe to come.

This interchange between memory and photography has a particular bearing on an exploration of the narrativization of climate change as the crisis is increasingly communicated visually. As Karin Kukkonen notes, across contemporary culture "the 'dominance of the verbal' has now been succeeded by the 'dominance of the visual'" (36). Doyle supports Kukkonen's assertion through her analysis of the use of images in the representation and communication of climate change across mainstream media. Doyle notes that "while texts are often privileged as primary means of climate communication, images have been considered as a powerful way to 'bear witness' to climate change" (131). For Birgit Schneider, this privileging of the image is in response to the relative invisibility of climate change. As she explains, "you cannot see global warming. Global climate change only can be perceived in a way

that is indirect and mediated. This is why visualizations of climate change play such a particular role in the discourse for they are designed to make visible the invisible" (5). The image, photographic or illustrative, has come to dominate contemporary culture and the narrativization of the climate crisis is no exception. In fact, the nature of the crisis has seen climate scientists, in particular, lean heavily on visual communication.

Schneider is writing specifically on the role of data visualisation. She argues that "only through these new strategies of visualizing observations and measurements could the climate be made 'evident'" (5) and, by extension, could some understanding of global climate change be even partly appreciated by the broader public. Gillian Rose's detailed exploration of visual methodologies is an important reminder that "all visual representations are made in one way or another, and the circumstances of their production may contribute toward the effect they have" (27). Put another way, while the power and influence of data visualisations on the communication of climate change may be indisputable, the 'constructedness' of any visualisation has a bearing on how they are read and/or received. In fact, Schneider does highlight a concern around the risk of data visualisations becoming "transparent" (4). As she explains it, "the more normal these images become within public communication processes, the more they are subconsciously looked through and simultaneously taken for granted" (4). Furthermore, there is the intrinsic challenge in attempting to communicate so much to so many. By this I mean, the scale and complexity of climate change, its impacts, importance, and possible responses, pose a challenge for data visualisation. As Saffron O'Neill et al. explain, "imagery can play a role in either increasing a sense of importance of the issue of climate change (saliency), or in promoting feelings of being able to do something

about climate change (efficacy)—but few, if any, images seem to do both" (414). While the twin goals of saliency and efficacy remain important, Kathryn Yusoff reminds us of the dangers of relying solely on technical/rational reporting. As Yusoff explains, "rational reporting of satellite and remote-sensing data [is] suggestive of a 'predictive planet'" (2). This notion of a predictive planet echoes the sense of photography enforcing the false view of the more-than-human world as being static, the myth of 'false-stasis.'

Instead, we live within a changeable more-than-human world. The narrative arts can offer a way of exploring the realities of living on this (increasingly) unpredictable planet. More specifically, an exploration of the role of photography through ecosystemic writing provides an opportunity to explore the social and emotional impact of living in a world unprepared for the "unpredictable ... wildness of future events" (Yusoff 2). In contrast to the rational reporting and "matter-of-fact charts" (Schneider 4), The Dark Lit Up uses personal/family photographs to explore the role of photography as creator and curator of our understanding of climate change and biodiversity loss. The personal/family photograph also has a direct connection to the Barthesian notion of 'every photography containing a future catastrophe' or Sebald's shuddering at the inevitable death. The photographs in *The* Dark Lit Up often focus on my mother as her death—a narrative thread that runs through the novel itself—speaks directly to this notion of the photograph as evidence of both existence and a reminder of loss. In fig. 3.4 for example, the mother character is pictured in one image, happy and smiling at Christmas time, while alongside it on the facing page, the same room is shown, starkly lit and empty of people and life. It is a haunting image in comparison and a reminder of the inevitability of loss.



Fig. 3. 4. Photography used in *The Dark Lit Up* (135–136).

Personal/family photographs are used in *The Dark Lit Up* to explore the relationship between memory and the more-than-human world because of their familiarity, even if they are not the reader's family. By nature, personal/family photographs remind the viewer of the notion of absence, as family and personal connections are always in some way transient. For Cross, family photographs can be used "to remind us of a structural absence" (43). In the context of family/personal photographs, this structural absence is present in the absence of loved ones. These photographs are a particularly powerful reminder of absence and of the role of photography in the continuation of this absence; in addition, they are a continuation of some aspect of presence too, as that which is lost continues to have a life in the photograph. See fig. 3.5 for a direct example of photography as a reminder of a structural absence, where the mother figure is literally cut from the photograph leaving only the structure of her absence. *The Dark Lit Up* uses these family/personal photographs to explore the relationship between memory, loss, and

photography. In removing the human figure, as in fig. 3.5, the intention is to make these connections more explicit through the intimacy of the personal/family loss, particularly that of the mother. Presented in the context of ecosystemic writing and with the character's own engagement with questions of memory and his disconnection with the more-than-human world, this extraction of the human/mother figure can be read as speaking to a wider loss. By extension, the use of these photographs as documents of loss, is an exploration of the notion of the more-than-human world as being extensively photographed while being intensively removed from our lives.

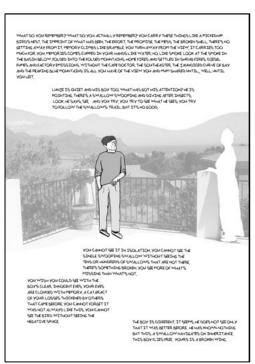


Fig. 3. 5. Structural absence within *The Dark Lit Up* (46).

One aspect of our experience of a disappearing world is the sensation of seeing natural phenomenon, locations, fauna, and flora documented on film but not recognised. The same is true of family photographs. Geoffrey Batchen notes, "we have all at some time searched our family albums and not recognized those we see within" (15). Likewise, Martha Langford recounts the experience of paging through

a photo album and seeing people and/or moments in her past she does not recognise. She makes the point that the "rediscovery of an image whose content has been forgotten transforms photographic experience into a crisis of memory—a mixture of self-doubt and mourning" (Suspended 16). The contemporary experience of climate change—a collective 'postmemory' narrated through images of a spatial and temporal reality that we cannot remember—results in a similar crisis of memory. We do not recognise what we are being shown and so are held in a state of self-doubt and mourning. Looking at a photograph from a time before the full impact of climate change—a flock of birds a thousand strong or immense migrating herds across the Serengeti Plain—we may experience the same double calamity we have from viewing family photographs. First, the calamity of doubt, of being uncoupled by an image we have no connection to and no memory of. Second, the calamity of realisation that these places, that version of reality, is lost to us.

Personal/family photographs can explore the global through our experience of the personal. The application of those photos within a work of ecosystemic writing asks: if we can look at a family photograph and not recognize the faces we see, is there a parallel to how we look at images of the more-than-human world? This is because ecosystemic writing must, by its nature, maintain focus on the exploration of ways to speak to, and with, the more-than-human world. In this context, the personal/family photographs can be read as analogous to our relationship to photography of the more-than-human world. The parallels with Hirsch's notion of 'postmemory'—a personal inheritance of a global catastrophe—is then explored through the dynamic of the personal within the global and vice versa.

The relationship between the personal and the global within personal/family photographs is evident too in their level of shared understanding; in how we can look

at a photograph of a family that is not our own (the global) and it will conjure mental images of our own family (the personal). There is a greater sense too, within family/personal photographs that are not our own, of the photograph being a moment 'cut' from time. It exists as it is, a singular moment without narrative, or rather cut from narrative. For Martha Langford, taking a photograph is "the extraction of an image from the spatio-temporal flow" (Suspended 13). When encountering a photograph of yourself, a family member, or friend you know well, you are immediately aware of this being a moment taken from time. The person in the photograph comes to you from that time and is locked within that time. The personal/family photograph speaks to this break in the flow of time most directly because these images can be quickly associated to a specific time and place. The photographs of the Swiftcurrent Glacier, which has no features connecting it to a time, require the timestamps "circa 1910" and "2016" to place it on the timeline. A photograph of family carries intrinsic time signatures (clothing, hairstyles, car models) that give it an immediate placement in time. In being so definitively 'of a time', the personal/family photograph is more clearly a 'cut' in the spatial-temporal flow, an extract from that moment in time. Unlike the glacier, there is no argument for the family photograph as existing in a state of continuum, a stasis outside of time.

Without the 'then and now' juxtaposition, when looking at a single, still image of the glacier in isolation, the viewer could be fooled into reading the photograph as evidence of the glacier as being fixed in time. As if the still photograph is proof of an equally still glacier. There is no possibility of this assumption when viewing a personal/family photograph. The use of these photographs in *The Dark Lit Up* is therefore intended to provide a reminder of the

illusionary nature of photography: the illusion of stasis. Personal/family photographs exist on a human timeline, a line of memory and story. They cannot be read as static. They are moments pulled from a sequence, which combine to build memory.

Paul Heubener is under no illusion as to the importance of memory in our interaction with the world, human and/or more-than-human. He explains, "memory, like narrative, is a necessary condition for human identity and for coherent forms of interaction with the world [and so] we must forever fashion time into human shapes, just as we shape the air to fit inside our lungs" (336). Personal/family photographs provide the most obvious examples of how we 'cut' time from the spatial-temporal scale and fashion it into human shapes. However, a photograph of the more-than-human world—glacier, fox, dandelion, or riverbank—is no less 'cut' from time as any personal/family photograph. All photography is an artefact of a time and place; personal/family photographs only more obviously so.

A personal/family photograph is a material artefact, a direct record of its time and place of origin, which gives credence to any narratives associated with that time, place, and photograph. George Kouvaros speaks to the impact of this materiality on the fictional work of W. G. Sebald. For Kouvaros, the photographs in *Austerlitz* "do not suggest that the story we *are* told is true. Rather, they affirm the materiality of the world from which this story has been drawn" (403). The inclusion of personal/family photographs within *The Dark Lit Up* therefore confirms the materiality of the novel's world and so, by extension, the materiality of the climate crisis as experienced by the characters in the novel.

Using personal/family photographs to engage with a wider exploration of the role of photography in our experience of the climate crisis also avoids what Saffron O'Neill has identified as the "barriers to engagement" within overt climate change imagery (363). For O'Neill, "meaningful engagement ... must involve some degree of connection with 'the everyday', in both spatial and temporal terms" (393). There is nothing more everyday than the photo album, albeit these days a digital album on a phone or a reel on social media. The power of the family photograph is in its domesticity, its "everydayness." This can be a comfort, a refuge, against the tide of time.

Mark Allister reminds us of the power a sense of refuge plays in the face of unprecedented change. He writes, "when we're scared and we want the world we know to remain ... refuge becomes the place that change doesn't touch. We 'retreat' to some soothing place, literally or in memory; we seek refuge with some soothing person" (61). This notion of retreating to a soothing place can include retreating to the familiarity of the personal photo reel. It is even possible to feel a sense of refuge in viewing photographs that are not our own.<sup>8</sup> The people may be unfamiliar, but the occasions, the moments, the clothing, they likely provide enough shared experiences to be familiar.

This sense of familiarity and refuge within personal/family photographs is fundamental to their meaning and impact when integrated into a work of climate fiction. The personal/family photograph speaks to the theory of 'postmemory' as the domestic imagery renders notions of inherited stories. The familiarity of the people in the photographs, who exist on a human timeline, recalls Barthes' claim for a photograph projecting the viewer forward to catastrophe. We experience the crisis of memory in seeing a photo of ourselves we do not remember, a face we cannot match to a name. The photographs create and curate our memories until we no longer know what came first.

The use of personal/family photographs for the exploration of the impact of photography on our experience of the climate crisis relies on the incorporation of these images into the multimodal arrangements specific to ecosystemic writing.

Liliane Weissberg and Karen Beckman's exploration of "the coexistence of writing (including but certainly not limited to fiction writing) and photography" has seen them identify an "uncertain energy" in their interaction on the page (13). They describe this energy as "the kind of energy we find in the realm of the experiment, the crossed border, and the bastard outcomes of surprising encounters" (13). This is a positive space of exploration, which speaks to the crossed borders and bastard outcomes required to communicate the scale and complexity of the climate crisis and the more-than-human world.

While photography as factual artefact may seem to have no place in fiction, there is a long history of writers incorporating photography into their work. As Weissberg and Beckman maintain, "as long as there has been photography, writers have been writing with it, and writing has been challenged, complicated, and enriched by it" (13). Simon Barton outlines a distinction between the use of images within prose fiction as either "supplementary" or "narrative" (114). Supplementary images are the most common. These are images that exist alongside the prose but are not necessary for an understanding of the prose. They are merely decorative and so not essential. Barton describes narrative images as "word and picture combinations that do not just supplement the textual narrative. They are significantly necessary for the textual narrative to function" (114). They are part of the story, even essential to the story. One example are the segments of comics interspersed between prose in the work of Posey Simmonds.

Ecosystemic writing uses a third image type, what I call the integral non-narrative image. The integral non-narrative image is not supplementary: it is not simply illustrative of a detail already presented in text form. Nor is it supportive of the central narrative structure. It is integral to the structure and meaning of the novel, but it does not carry some or any of the story as, for example, a segment of comic or informational image would. An integral non-illustrative image may contradict the central storyline, distract from it, or narrate its own storyline independent from the prose and/or comics. For examples from *The Dark Lit Up* see pages 108–116 in which the text narrative is surrounded by personal/family photographs, which neither supplement nor co-narrate.

Narrative images fit within the story in that they continue the story as part of the linear progressing. However, as Barton explains, narrative images are still "disruptive to the reader, since they require them to question the value and relationship between words and pictures and to use a different type of visual literacy uncommon in the reading of the conventional novels" (114). The integral non-narrative image requires the same level of engagement from the reader as it cannot be glossed over as simply supplementary, while raising deeper thematic questions distinct from the story.

W. G. Sebald uses photographs in a similar way to ecosystemic writing's integral non-illustrative image. The un-captioned and un-referenced photographs in *Austerlitz* or *Vertigo* do not supplement the narrative in an illustrative way, nor do they carry their own narrative (see fig. 3.6). For Kouvaros, "the photographs [in *Austerlitz*] are like points of contact—ambiguous at best—between the writing and a series of histories that hover just outside the perimeters of the story" (114). As such, Sebald's writing sits in an ambiguous space between reality and fiction. Heidt claims

that Sebald's "autoficitonal world [is] rendered precisely to cast doubt upon the boundaries between truth and fiction, while reaffirming the ethical imperative to continue to bear witness to the traumatic twentieth century". Alexander Hemon's *The Lazarus Project* and Jonathan Safran Foer's *Extremely Loud and Incredibly Close* both use photographs with their prose but their work has no claims to autofiction, and the photographs contribute and broaden out the story world, but they are not strictly illustrative or narratively essential. (See fig. 3.7 and fig. 3.8).



Fig. 3. 6. Photographs used in Austerlitz. (Own photo).



Fig. 3. 7. Photographs used *The Lazarus Project*. (Own photo).

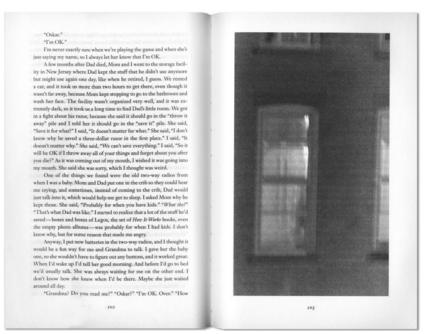


Fig. 3. 8. Photography used in Extremely Loud and Incredibly Close. (Own photo).

The use of often unclear or seemingly indistinct photographs by Sebald, Hemon, and Foer echoes Gotthold Lessing's notion of the photograph as being a "fruchtbarer Moment" or "pregnant moment" (qtd. in Kukkonen 36). For Lessing, this one single moment "points toward both the past and the future and from which the audience imagines the entire story" (37). Across chapter seven (pp. 107–116), *The Dark Lit Up* uses a collage-effect to present a number of unrelated personal/family photographs alongside a prose segment; each image is a "pregnant moment" thrust together in a seemingly haphazard manner, as these moments may be recalled without reconstructed (see fig. 3.10). The collage speaks to the notion of memory as being non-sequential and often disconnected. Each photograph is a point on a timeline but its place on that timeline cannot easily be resolved. The layout and design of photographs across the pages in figure 3.9 is such that the photographs overlap and are only partially visible; as memory is often contradictory, competing, and only ever partial. The light source across these pages is a drawn candle, which

brings the photographs into the fictional, drawn space. The light source also means some of the photos remain in the dark, perhaps unremembered, signalling the photograph as being an unreliable narrator, reliant on the viewer to reconstruct the narrative.

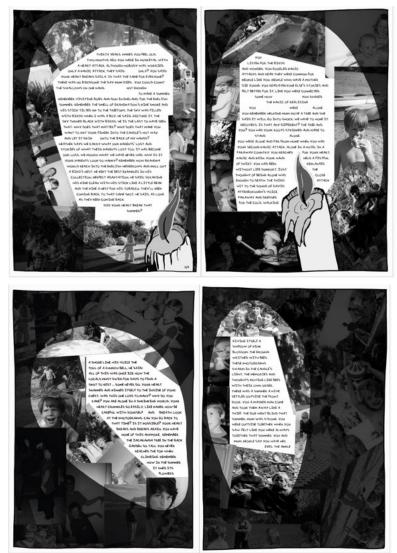


Fig. 3. 9. Non-sequential and unconnected photographs alongside prose in *The Dark Lit Up* (109–112).

The inclusion of photography with prose requires the reader to engage with questions of validity: the validity of the photograph as fact and the text as fiction.

Kouvaros's assertion that the photograph can "affirm the materiality of the (fictional) world" remains true. As Nancy Pedri claims, writing from the perspective of memoir

narratives, photographs play "a key role in persuading readers of the authenticity of a particular personal experience and, by extension, its narration" (Layering). However, Horstkotte and Pedri argue that "in a paradoxical movement, photographs, when taken out of their original contexts and included in a fictional narrative, become fictional themselves" (8). I propose that both arguments are true. The photograph will affirm the fictional world, as Kouvaros claims, while the fiction will question or undercut the notion of the photograph as being 'real.' Within the context of ecosystemic writing, this contrast and conflict speaks to our relationship with photography as well as to how we experience the climate crisis and biodiversity loss: somewhere between fiction and non-fiction, remembered and misremembered, fixed and chaotic. For Batchen, "photography is too coherent and too linear in its articulation of time and space. It obeys the rules of nonfiction. Memory, in contrast, is selective, fuzzy in outline, intensively subjective, often incoherent, and invariably changes over time—a conveniently malleable form of fiction" (16). It is here, at the borders between the fuzzy and the linear, between memory and image, fiction and non-fiction, where we can best explore our relationship with the climate crisis.

While ecosystemic writing does not discriminate against any variation of multimodal integrations, *The Dark Lit Up* is primarily a hybrid of prose, comics, and photography. The integration of photography with comics, in particular, raises a number of questions around authenticity across the two modes. Scott McCloud notes that "cartooning and photography have been theorised as opposite types of pictures in relation to their level of abstraction, that is, in relation to how closely they resemble their real-life counterparts" (qtd. in Pedri, *Layering* 249). Frederik Køhlert notes that "the mechanical process of photography is ... often considered to be fundamentally different from the other visual arts, which foreground their

subjectivity by virtue of being handmade" (148). Likewise, for Rosalind Krauss the photograph is most-commonly seen as "an imprint or transfer of the real" (qtd. in Pedri, *Cartooning* 250). This contrasts with comics as replicating the subject in drawing will always be a step or two removed from the apparent objectivity of the photograph. Nancy Pedri has identified this trait within her analysis of graphic memoir. For Pedri, "the communication of truth in graphic memoir is openly caught up in the cartoon image's constructed and interpretative quality" (*Cartooning* 248). It is the very nature of the drawing as an interpretive construction that, for Køhlert, Pedri, and McCloud, separate it from photography.

The nonfiction work of comics writers and artists have often included photographs as a form of legitimization, or verification, of the drawn images. *The* Photographer: Into War-torn Afghanistan with Doctors Without Borders by Emmanuel Guibert, Didier Lefèvre, and Frédéric Lemercier is a particularly relevant case study. This work of travel-memoir journalism recounts a journey through Afghanistan with volunteers working for Doctors Without Borders. The work uses photographs and comics together with little to no visual transitions between the modes. The photographs are often inserted in line with the comics panels, as if they were panels themselves. In some instances, the photographs themselves are presented in sequence with a central character repeated. Thierry Groensteen has identified the "dialectic of repetition and difference" (115) as a key feature of comics. For Groensteen, the "redundancy" of repetition, in which "each image [is] linked to the preceding one by a partial repetition of its content" (115) is an essential mechanism in the creation of narrative within comics. The Photographer replicates this feature directly through the selection and arrangement of photographs. For example, in fig. 3.10 the left-hand page of the spread has a sequence of photographs

with a central character repeated through the first four panels/photographs (see fig. 3.11 for detail). Arranged this way, the photographs give additional credence to the comics' images and their narrative. These photographs are read as "imprints of the real" and so, in sequence, they are read as existing on a timeline of real events. So, when switching to the drawn images, which remain "constructed and interpretative" (Pedri, *Cartooning* 248), the reader is likely more accepting of the comics sequence's claim of being documentary.



Fig. 3. 10. Example from *The Photographer*. (Own photo).

The right-hand page of this spread (see fig. 3.10) uses photographs outside of the comics sequence, as if showing the reader, the viewpoint of the characters in the comics. In this way, the photographs are used to "ground" the comic in reality and in a particular time and space. There is less repetition, less sequence, and more of an observational setting. This is particularly important for the art style of *The Photographer*, which tends not to include backgrounds in the drawn panels.

The red cross over the photograph in the bottom left panel of the left-hand page (see fig. 3.10 and 3.11) is a reminder to the reader of the role of

photographer/comics maker/writer in selecting the photographs. For Pedri, such a direct intervention is not required for a reader to be aware of this when reading comics with photography. Instead, the presence of the hand-drawn indicates the presence of an illustrator/maker. The presence of this individual on the page, and in the reader's mind, means that the photograph cannot be read as impartial or non-interpretive. These photographs are not presented in isolation: "The drawn hand makes the photographic image stand apart as a hand-selected artifact, one that is made to carry meaning within the cartoon universe in which it has been placed" (Pedri, *Layering*). In effect, every photograph within a comic contains the mark, which in *The Photographer* is made visible.



Fig. 3. 11. Detail from *The Photographer*. (Own photo).

In *The Photographer*, these drawn elements are of a different art style, literally a different pen, and so are read not as the 'infiltration' of the comics into the photograph but rather as a discreet aspect of photography as a mode within *The Photographer*. The markings on the photographs in *The Photographer* are the marks of the journalist-photographer selecting and rejecting photographs for publication.

The red cross (rejection) and red outline (selection) that is drawn onto the photographs within *The Photographer* is a direct reminder to the reader of the narrative process, of how selection and omission can shape the narrative.

The Dark Lit Up explores a more integrated/direct interaction between the drawn and the photographed in three distinct ways. Firstly, by either drawing into or onto a photograph. (See fig. 3.12). These moment of what Pedri calls "the deliberate defacing of the photographic image by a cartooning hand" (Cartooning 264) are used to 'draw through the borders' of a photograph, to integrate them more fully into the comics, particularly when they are present on the page as instances of memory for the protagonist. (For further examples from *The Dark Lit Up* see pages 37, 78, 99–100, 142, and 191–192).

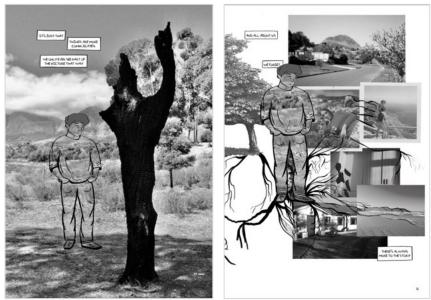


Fig. 3. 12. Character drawn 'into' a photographed landscapes in *The Dark Lit Up* (7 and 12).

Secondly, by positioning drawn elements, typically characters, inside a photographed setting the photograph locates that element or character in the 'real world'. The use of photography in this way in *The Dark Lit Up* as the setting for

drawn characters grounds the drawn image in reality. (See fig. 3.13). At the same time, as components within a work of ecosystemic writing, the photographs are likely to be read as being more than setting. They are representative of the more-than-human world as documented in photographic form. The drawn image is "constructed and interpretative" (Pedri, *Cartooning* 248); it is representative of the human world. The combination of the two is a direct juxtaposition of these two worlds as well as a contrast between the 'false stasis' of the more-than-human world in photography and comics as narrative. This is particularly true because, as Groensteen notes, when we talk about drawing in comics, we are referring to "narrative drawing" (161). Groensteen defines narrative drawing as that which "privileges the character, the agent of the action" (162). In the context of ecosystemic writing, the juxtaposition of drawn character—the privileged 'agent of the action'—against the seemingly static or passive photographed nature speaks to our privileging of the human world over the more-than-human.

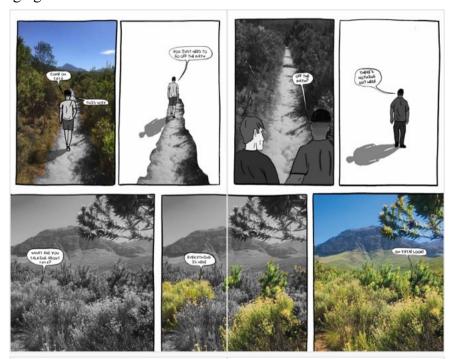


Fig. 3. 13. Juxtaposition of drawn characters with photographed environment in *The Dark Lit Up* (195–196).

The third, and final example of drawn elements and photography interacting in The Dark Lit Up, is the insertion of photographic elements directly into drawn compositions (see fig. 3.14 for an example). The insertion of these elements, such as a photographed fence into a drawn element, gives these elements a materiality within the composition. The photographed fence in figure 3.14 is neither constructed nor interpretive, as Pedri claims a drawn fence would be. However, it remains, in Pedri's words, a "hand-selected artifact" (Layering). The insertion of the photographed element reminds the reader that the image has been selected and clearly placed. Is the fence, this physical blockage, an undeniable imprint of the real? Or is the nature of it being selected and inserted a reminder that nothing within the narrative should be read as real? Perhaps the fence is a symbol more of the character's sense of entrapment or safety behind the fence. The introduction of photographic elements into drawn images raises such questions.



Fig. 3. 14. A photographed element inserted into a drawn sequence in *The Dark Lit Up* (99–100).

Personal/family photographs are imbued with an undeniable sense of time and place. So, in the context of ecosystemic writing, they play a particular role in the exploration of memory in our experience of climate change and biodiversity loss. The Dark Lit Up explores a variety of intersections between photography, prose, and comics. The novel opens with a character looking through a family album. The photographs are arranged in comics panels, as if in sequence, and yet there is no obvious repetition (as we see in The Photographer for example) and so no clear sequence to the images themselves (see fig. 3.15). Here the images point back to the disconnection of image and memory and to the narrativization required in connecting these images with each other and on our timeline. This arrangement of otherwise unconnected images is set against the background of radio chatter discussing the impact of the climate crisis.

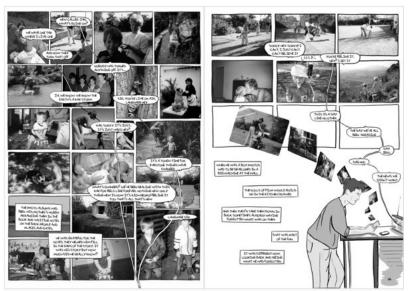


Fig. 3. 15. Non-sequential photographs arranged in sequence in *The Dark Lit Up* (25–26).

Whether arranged in comics panels or as integral non-narrative images, the personal/family photograph in *The Dark Lit Up* serves as an exploration of memory

in the context of the global upheaval and inherited trauma of loss caused by the climate crisis. In an increasingly visually narrated world, the role and influence of photography on how we see and understand the world is an important area of exploration. The personal/family photograph provides an opportunity to explore these connections away from the factual announcements within data visualisations and other 'traditional' climate imagery. In moving outside of the climate narrative, *The Dark Lit Up* can explore the connections between the photograph and our experience of the contemporary reality more broadly.

The aspiration of ecosystemic writing is to broaden our understanding of the relationship between the human and more-than-human world through the narrative arts. Photography within ecosystemic writing speaks to the role the medium plays in the creation and curation of memory and how that has affected the climate narrative; to our experience of the loss that has occurred before our birth; to the great extents of the earth system that we can only ever know through story and visual documentary.

We read accounts of immense flocks of migrating birds turning the sky black in their thousands. We see photographs of herds of American bison that numbered in the millions and took hours to cross a plain. We see photographs of their skulls piled to unbelievable heights by hunters. We have no memories of these phenomena. We have only what we have inherited through their documentation. This is an inherited loss. We have inherited the image and through it the memory of it as our own. We are left mourning a loss that predates us. This is climate change and biodiversity loss as a 'postmemory.'

The photograph creates and curates our memory, and the visual has become the dominant medium through which we access the more-than-human world. Like Barthes, we look at a photograph and are projected forward into catastrophe. We see

an image of the glacier circa 1910 and are pulled forward into the present along a continuum of loss. We have never known this glacier, nor the great flocks of migrating birds, the immense herds of American bison. We have only the stories of their loss; only the photograph to remind us of that loss. We mourn as we are told to mourn for something we are told we have lost. This 'postmemory' has come to dominate our experience of the present and curate our anxiety of the future.

If we do not have direct experience of a glacier; we must conjure one from memory and stories. We do not have direct experience of a world before the climate crisis, before the extinction crisis, we must conjure this from memory, from stories. We seek refuge in the familiar, the photo album, but find faces we do not recognise, places now lost to us. Every photograph is that catastrophe. A group is asked to picture a glacier; they can only picture what they have seen photographed. They must mourn the rest.

## **Conclusion**

## The Unreturnable Gift

On February 2, 1970, *Time* magazine published an issue exploring, what they termed, "the emerging science of survival". The cover included an arresting portrait of the American ecologist Barry Commoner. Painted in acrylic by Mati Klarwein, the portrait is split across two very different alternate worlds. One side in colour, bathed in sunlight, shows a vibrant natural landscape in full health. The other side is stark black and grey with images of polluting factories and nuclear fallout, a dead or dying world. The juxtaposition of these two alternate futures was meant as an acknowledgement of what was still only a growing understanding at the time; human life was under threat from pollution and environmental mismanagement and societies were at a crossroads. (See fig. 4.1).



Fig. 4. 1. Time magazine cover by Mati Klarwein.

After appearing on the magazine cover, Commoner published *The Closing Circle*, an ambitious attempt to raise further public awareness of the environmental crises at the time. Michael Egan notes that the central premise of *The Closing Circle* is that science alone cannot 'save' the natural world as, for Commoner, the two are diametrically opposed in form and approach. As Egan explains, "Commoner equated the ecosphere—the various ecological components that make up the world's organic nature—to a circle and technological progress to a straight line. Whereas the ecosphere works in cycles, regenerating itself, technology's progress is linear" (445). As early as 1972, Commoner was in effect calling for ecosystemic thinking and an acknowledgement of the more-than-human world's rejection of linearity and order.

The Closing Circle lists Commoner's four laws of ecology, the first of which is a testament to Commoner's ecosystemic way of thinking: "everything is connected to everything else" (qtd. in Egan 447). Julia Martin reiterates Commoner's assertion in the context of the climate crisis and its impact, in particular, on the continent of Africa. For Martin, "the recognition of interconnectedness is the unreturnable gift of the Anthropocene" (177). Martin's essay is a call for writers and critics to "render the binary divide irrelevant: to show, unambiguously, that it really is not there" (179). This is the ambition of ecosystemic writing; to explore alternative and disruptive narrative modes and combinations to speak to the binary separation of human from the more-than-human world that is maintained through popular narrative structures.

In part due to our anthropocentric narrative forms and the stories we tell, contemporary societies have largely developed an exclusionary view of the human experience. Most of us to do not have the luxury of a language, as Robin Wall Kimmerer has with Potawatomi, in which our kinship with the animate world is

fundamental to the way we see and communicate our experiences. In contrast, much of contemporary society remains separated from the more-than-human world, "prisoners of [the] ancient orientations imbedded in the language we have inherited" (Hayakawa, qtd. in Sousanis 51). As David Hinton notes, "our cultural assumptions tell us in so many ways that we 'humans' are fundamentally other than 'nature,' that we are not kindred. That separation has led to the instrumental and exploitative relationship that has brought us so far into ecological collapse". Ecosystemic writing is one way the more-than-human world can be given the space, the voice, it has lost within our stories. By accepting disruption and disorder—in *The Dark Lit Up* through direct visual abstraction, modal switches, sequence breaks, and obscuring—ecosystemic writing acknowledges the otherwise ordered nature of the more-than-human world in direct disruption of the binary divisions that maintain order and anthropocentricism within the narrative arts.

In this way, ecosystemic writing is a narrative approach in line with deep ecology in that, as Ursula Heise outlines, "deep ecology challenges the hierarchy that has polarized human and nature" advocating for a "biocentric perspective" (5). Heise also points out a parallel between post-structuralist thought and the deep ecology movement. For Heise, both post-structuralism and deep ecology "critize the traditional sense of a separate, independent, authoritative *center* of value or meaning; both substitute the idea of *networks*" (original emphasis, 5). By its nature ecosystemic writing advocates for a similar idea of networks; a rhizomatic hybridity that intertwines narrative modes allowing them to interact and contradict without restriction.

This rhizomatic or fungal approach continues across all modal interactions within ecosystemic writing. In *The Dark Lit Up* this includes the use of non-

illustrative photography, particularly family/personal photographs. The integration of these photographs into the narrative is intended to explore the connection between memory and the image in our narrativization of the climate crisis and biodiversity loss. More broadly, these photographs, as invocations of time and place, speak to the rhizomatic experience of a more-than-human world that extends on a spatial-temporal scale far beyond our day-to-day lives.

The results of this exchange across the hybrid multi-modality of ecosystemic writing is a narrative disorder that asks the reader to be the "willing and conscious collaborator" that is expected from comics (McCloud 65). Like comics, ecosystemic writing requires what, Charles Hatfield describes as, the "reader's active engagement and collaboration in making meaning" (33). Ecosystemic writing's disruption of structural features such as the expected reading order, signposting, and visual clarity asks the reader to engage; to question their assumptions as we must within the wider discussion of our role within the more-than-human world.

As seen within *The Dark Lit Up*, ecosystemic writing can, in part, be an extension of the multi-modal and collaborative medium of comics through an integration of additional modes. However, the intention of ecosystemic writing extends beyond the inclusion of additional modes of narrative. At its core, ecosystemic writing has the conscious intention to explore ways to speak with the more-than-human world and to our place within it.

By 'giving voice' to the more-than-human world, ecosystemic writing opens the narrative to disorder, non-linearity and narrative disconnection. This disruption speaks directly to the broader question of the 'narratability' of the climate crisis. Ann Gardiner quotes Gerald Prince when asking: "is climate change ultimately unnarratable because 'it defies the powers of the narrator'" (73).

Ecosystemic writing aims to decentre the human narrator or, more broadly, our anthropocentric ordering systems, which maintain a binary division between 'human' and 'nature'. This is not to say that the human experience is to be disregarded. A large focus of *The Dark Lit Up*, in particular, is an exploration of the role of photography in the creation and curation of memory and how this influences our experience of the climate crisis and biodiversity loss. *The Dark Lit Up*'s application of photography and exploration of memory is an example of how ecosystemic writing can open the narrative to the more-than-human world while engaging with the wider complexities of communicating the human experience of a crisis on the scale of climate change.

In particular, the use of personal/family photographs within *The Dark Lit Up* is an example of how ecosystemic writing can be used to explore a theory around photography as creator and curator of our relationship with the more-than-human world. Across *The Dark Lit Up* photographs are used non-illustratively as instigators of memory. This is done with particular focus on the exploration of Marianne Hirsch's notion of 'postmemory' and its application to the contemporary experience of climate change and biodiversity loss.

As writers and theorists such as Sebald, Barthes and Sontag have commented, every photograph in some way contains a notion of a loss to come, of a memory of how things were alongside how they would become. This is what Barthes describes as the "catastrophe which has already occurred" (96). Sebald sees something similar when looking back over an album of personal photographs. He writes in *Austerlitz*, "again and again, from front to back and from back to front, I leafed through the album that afternoon, and since then I have returned to it time and again, because, looking at the pictures in it, it truly seemed to me, and still does, as if

the dead were coming back, or as if we were on the point of joining them" (46). *The Dark Lit Up* asks whether Sebald's panic at seeing photographs as containing at once a sense of loss that has occurred and that which will still occur, can apply to our experience of climate change and biodiversity loss; itself largely a loss that has occurred and will still occur.

The climate crisis is a diverse and complex problem that requires a scientific, political and social response. The narrative arts must respond too; to find stories that tell the contemporary reality of climate change. However, to date the tendency across climate fiction has been towards *spectacle* or *speculation*, by focussing on singular climatic events or pushing the narrative forward into a postapocalyptic future. Furthermore, much climate fiction has tended to shift the narratives into familiar, European or North American locations. Ecosystemic writing aims to keep the narrative in the present and to speak to the wider experience of the crisis without resorting to a singular 'narrative event'. In being set in South Africa, The Dark Lit Up is also an example of how ecosystemic writing, with its nonhierarchical structures can explore the experience of communities often sidelined within contemporary climate fiction. As Julia Martin reminds us, "to speak these days about ecology in Africa is inevitably to speak at the same time about disempowerment and power, exploitation and agency" (178). Ecosystemic writing is a response to the marginalisation of voices, human and more-than-human. It is an attempt to address complexity, engage with the contemporary reality of the crisis, and "stay with the trouble" to use Michaela Fenske and Martha Norkunas' expression (105).

The relationship between character and place is particularly relevant within the context of climate change. The differing experiences of the climate emergency, so often linked to socio-economic and/or historical legacies of place has not yet played enough of a role in climate fiction. This is certainly relevant within the context of South Africa. Njabulo Ndebele speaks to this in the context of the country's world-renowned game reserves, so often seen as examples of positive conservation. He writes, "South Africa's ecologies of enclosure are ghosted by traumas of forced removal, the destiny of the game reserve ... remains inextricably bound to the racial dynamics of sanctuary and trespass, memory and amnesia, visibility and invisibility, looking and looking away" (qtd. in Nixon 176). Ndebele's focus on the historical legacies of the "ecologies of enclosure" demand further exploration, which is unfortunately outside the scope of this project, but his wider point around the dynamics of sanctuary and trespass, visibility and invisibility is a reminder of the context of place within *The Dark Lit Up* and the implication of place within the photographs. "Tell me the landscape in which you live, and I will tell you who you are," writes José Ortega y Gassett (qtd. in Allister 13). The photographs in The Dark Lit Up locate the characters in place and, in so doing, ground the narrative in reality.

It is clear that the climate crisis exists on a scale and complexity that challenges contemporary narrative structures. As Claire Colebrook notes, "the experience of climate change reveals multiple and incongruent systems for which we do not have a point of view. We are at once thrown into a situation of urgent interconnectedness, aware that the smallest events contribute to global mutations, at the same time as we come up against a complex multiplicity of diverging forces and timelines that exceed any manageable point of view" (Framing 52). Ecosystemic writing is an attempt to open the narrative form to these "multiple and incongruent systems" and to let the more-than-human world 'speak' where "we do not have a

point of view". It is an attempt to not only accept disorder but to embrace it as an expression of, what Colebrook calls, nature's "ambiguous, enigmatic [resistance] to the imposition of human meaning-making exercises" (260).

The Dark Lit Up is a demonstration of the potential for ecosystemic writing. It is a work that integrates three primary modes (prose, comics and photography) to disrupt an otherwise traditional, linear book structure. This is not to say that this is the only model for ecosystemic writing. I hope that other writers, comics-makers, and creatives more broadly, will take up the challenge of speaking to and with the more-than-human world through ecosystemic writing by exploring the application of other narrative modes. Ecosystemic writing is an intention, a focus on decentring the human and bringing the more-than-human world into the narrative through a multimodal application of hybridity. It is an acceptance of the more-than-human world as otherwise ordered and/or disruptive and a conscious engagement with structural tropes and biases that have traditionally marginalised voices. It is a means of exploration; of opening the narrative to a range of voices, human and more-thanhuman, and the complexity of our relationship with a world that can exceed our imagination. As Jamie Lorimer reminds us, "there are multiple forms of natural knowledge—not all of which are scientific or even human—informing a myriad of discordant ways of living with the world" (qtd. in Smith, 7). Ecosystemic writing aims to speak directly to this, acknowledging this "myriad of discordant ways of living" through the acceptance of disruption and an exploration of the scale and complexity of a contemporary crisis that extends beyond our lives while existing concurrently in memory and imagination.

The invitation of an otherwise ordered system into the novel or comic mode is to acknowledge that, to a large extent, our stories have silenced the more-than-

human in favour of anthropocentric order. Mark Allister reminds us "nature speaks ... but in our discourse nature is silent, a symbolic presence only, a mute object" (30). Ecosystemic writing is an attempt to reinstate the natural world, to bring it forwards from its role as setting, background or metaphor. Barry Commoner's portrait cuts across the cover of that 1971 *Time Magazine* issue. Behind him are two views of the natural world. Yet, he remains the only animal visible in the image. The human remains centred resulting in the exclusion of that which is seen as nonhuman. This is a vision of the world, utopian and dystopian, without the more-thanhuman; a literal example of what Arne Naess has called the "man-in-environment image" (1). It is shallow ecology environmentalism, 'saving' the earth for human benefit. In contrast, Commoner's foremost rule of ecology stresses the fundamental interconnectedness of all life on earth. Naess, a contemporary of Commoner, reminds us that deep ecology calls for an appreciation of the more-than-human world as a "biospherical net or field of intrinsic relations" (1). To think and write with an appreciation of this interconnectedness it is necessary to explore methods of speaking to and with the broadness of the full biospherical net; to have the narrative modes themselves be part of an ecosystem connected rhizomatically, including across time and memory. The climate crisis, and the related extreme biodiversity losses, have given us one thing. We can no longer deny our part in this broader world; we can no longer remain centred, straddling two versions of a future that does not acknowledge the presence of the full animate world. This is the "unreturnable gift of the Anthropocene" (Martin 177).

This project was born out of the ashes of a wildfire that devastated the mountains and farmlands around my childhood home on the southern tip of Africa. From a time before that comes the memory of that same mountainside, struck by

lightning and illuminated in the night. I have never forgotten the moment the dark lit up. This project has grown out of the ashes of memory, from that moment of lightning to the more recent wildfires and water shortages, and memories brought up by the death of a parent. It has also grown out of a silence, a desire to find a way to speak for what felt too big, too small, too far away.

I am fortunate now to live close to an old woodland. The widest oak I have come across I estimate to be around 300 years old. (See fig. 4.2). I often walk through these woods imagining the countless, invisible connections that exist between the trees, from their pheromones travelling through the canopy to the root system sending chemical or electrical messages or intertwined with mycelium. The woodland, as biologists like Peter Wohlleben and Robin Kimmerer have told us, is an unseen web of life. We need only to stop and look deeper, to see in the woodland, and the wider animate world, an otherwise ordered system that we have forgotten



Fig. 4. 2. Oak tree, Shotover, Oxfordshire. (Own photo).

how to see. When my mother died, I found myself walking further and deeper into those woodlands, mourning her loss of course but also the loss of the biodiversity I remembered from when I was a child with her. What I have learnt through this project is that there is more remaining across this living world than we have the words for. Ecosystemic writing is my attempt to introduce a little wildness back into our stories, to bring the quiet roar of that woodland onto the page, and to light up the spaces we have let go dark.

## **Notes**

- <sup>1</sup> A 2018 study, Ian Mudway et al., "Impact of London's low emission zone on air quality and children's respiratory health: a sequential annual cross-sectional study", found that "within London's LEZ, a smaller lung volume in children was associated with higher annual air pollutant exposures" (e28).
- <sup>2</sup> See Chapter three for a full analysis of the role of photography—non-illustrative and personal—and its relationship to memory and our experience of climate change.
- <sup>3</sup> See Chapter two for further discussion of disruption within ecosystemic writing.
- <sup>4</sup> The slow violence of fires is present in the far-reaching and long-affecting impact of smoke and so it must be acknowledged that for many the fire is still damaging, through smoke pollution, even while the fire may be a good distance away and they are under no direct threat from the flames. This slow violence is of particular focus within *The Dark Lit Up* and an element of the climate crisis that must not be dismissed.
- <sup>5</sup> See Chapter two for a detailed discussion of narrative disruption and abstraction in *The Dark Lit Up*.
- <sup>6</sup> The notion is debated. While Robert Cowie et al. do acknowledge a "current ongoing extinction crisis" (640), they claim that the "Sixth Mass Extinction" has not yet occurred. In contrast, K.R. Shivanna argues that "the rapid increase in human population and humanity's greed for luxurious living have

resulted in marked environmental degradation, particularly in the recent decades, increasing species extinction a hundred or even thousand-fold compared to background extinctions, thus precipitating the 'sixth mass extinction' crisis" (93). The evidential presence or otherwise of the "sixth mass extinction" may well remain a debate within the field ecology for some time but I feel there remains a strong, popular sense of living through and age of "biological annihilation" (Shivanna 99).

<sup>7</sup> This chapter, and *The Dark Lit Up* specifically, is focused on the role of photography in the creation and curation of memory. There is room for further exploration of other mediums and their relationship to how climate change is experienced, but that it outside of the scope of this project. To focus on photography is not to disregard other mediums, which could be explored through ecosystemic writing in other projects.

<sup>8</sup> There is much to be explored here around how online sharing of personal photographs through social media, such as Instagram and TikTok, relates to the role of the now-historical family photo album and the broader experience of viewing and sharing family photographs. An exploration into the role of online/social photo sharing as a place of refuge would be an interesting area of exploration, which is unfortunately outside the scope of this project.

<sup>9</sup> Within the context of fiction, there could be an argument for the author's photograph, inside the dust jacket for example, as being more than merely decorative. It could be read as playing a legitimising function for the author of that story. However, images used in this way are provided to the work as auxiliary material, separated from the narrative as a form of 'scaffolding' intended to promote and support the work. Images used in this way are not included in this discussion or this reason.

## References

- Adam, Barbara. *Timescapes of Modernity: The Environment and Invisible Hazards*.

  Routledge, 1998.
- Allister, Mark. *Refiguring the Map of Sorrow: Nature Writing and Autobiography*.

  University of Virginia Press, 2001.
- Baetens, Jan. "Abstraction in Comics". *SubStance*, Vol. 40, No. 1, Issue 124: Graphic Narratives and Narrative Theory, 2011, pp. 94-113.
- Baetens, Jan. "Drawing Photo Novels". *Mixing Visual Media in Comics*, Volume 9, Issue 2. https://imagetextjournal.com/drawing-photo-novels/
- Barth, John. "The Literature of Replenishment". *Essentials of the Theory of Fiction*, ed. Michael J. Hoffman and Patrick D. Murphy, Duke University Press, 2005, pp. 65–176.
- Barthes, Roland. *Camera Lucida: Reflections on Photography*. Farrar, Straus and Giroux, 1982.
- Barton, Simon. Visual Devices in Contemporary Prose Fiction: Gaps, Gestures, Images.

  Palgrave Macmillan, 2015.
- Bartosch, Roman. "Scale, Climate Change, and the Pedagogic Potential of Literature: Scaling (in) the Work of Barbara Kingsolver and T.C. Boyle". *Open Library of Humanities*, 4(2): 26, pp. 1–2. 2018. doi: https://doi.org/10.16995/olh.337
- Batchen, Geoffrey. Forget Me Not: Photography and Remembrance. Princeton Architectural Press, 2004.
- Bate, David. "The Memory of Photography". *Photographies*, 3(2), 2010, pp. 243–257.
- Bateman, John. Text and Image: A Critical Introduction to the Visual/Verbal Divide. Taylor & Francis, 2014.

- Beckman, Karen and Weissberg, Liliane (eds.). *On Writing with Photography*. University of Minnesota Press, 2013.
- Bennett, Tamryn. "Comics Poetry. Beyond 'Sequential Art". *Image & Narrative*, 15(2), 2014, pp. 106–123.

imageandnarrative.be/index.php/imagenarrative/article/view/544

- Bezemer, Jeff. "What is Multimodality". Institute of Education, UCL, 2012.
- Blanchot, Maurice. The Writing of the Disaster. University of Nebraska Press, 2015.
- Botai, Christina, Botai, Jaco, De Wit, Katlego, Ncongwane and Abiodun, Adeola. "Drought Characteristics over the Western Cape Province, South Africa". *Water* 9, no. 11, 2017, pp.876. mdpi.com/2073-4441/9/11/876
- Brooks, Peter. Reading for the Plot: *Design and Intention in Narrative*. Harvard University Press, 1992.
- De Bruyn, Ben. "Borrowed Time, Borrowed World and Borrowed Eyes: Care, Ruin and Vision in McCarthy's The Road and Harrison's Ecocriticism". *English Studies*, 91(7), 2010, pp. 776–789.
- Cameron, Laura and Earley, Sinead. "The Ecosystem—Movements, Connections,
  Tensions and Translations". *Geoforum* 65, 2015, pp. 473–481.
  doi.org/10.1016/j.geoforum.2015.03.015
- Cazden, Courtney. "A Pedagogy of Multiliteracies: Designing Social Futures". *Harvard Educational Review*. 66. 1996. https://www.sfu.ca/~decaste/newlondon.htm
- Chute, Hillary. *Disaster Drawn: Visual Witness, Comics, and Documentary Form.*Harvard University Press, 2016.
- Clark Timothy. *The Cambridge Introduction to Literature and the Environment*.

  Cambridge University Press, 2011.

- Clark, Timothy. *Ecocriticism on the Edge: The Anthropocene as a Threshold Concept.* Bloomsbury Publishing, 2015.
- Clune, Michael. Writing Against Time. Stanford University Press, 2013.
- Cohn, Neil. "The limits of time and transitions: Challenges to theories of sequential image comprehension". *Studies in Comics*, 1(1), 2010, pp. 127-147.
- Colebrook, Claire. "Framing the End of the Species: Images without Bodies|". *Symploke*, vol. 21 no. 1, 2013, pp. 51-63.
- Commoner, Barry. *The Closing Circle: Nature, Man, and Technology*. Dover Publications, 2020.
- Conard, Sebastien and Lambeens, Tom. "Duration in comics". *European Comic Art* 5, no. 2, 2012, pp. 92–113. doi.org/10.3167/eca.2012.050206
- Connerton, Paul. "Seven types of forgetting". *Memory Studies*, 1, 2008, pp. 59-71.
- Cowie, Robert, Bouchet, Philippe and Fontaine, Benoît. "The Sixth Mass Extinction: fact, fiction or speculation?". *Biological Reviews*, 97, 2002, pp. 640-663.
- Craps, Stef. and Crownshaw, Rick. "Introduction: The Rising Tide of Climate Fiction". *Studies in the Novel* 50, no. 1, 2018, pp. 1–8.
- Cross, Karen. "The Lost of Found Photography". *Photographies* 8(1), 2015, pp. 43–62.
- Comer Kidd, David and Castano, Emanuele. "Reading Literary Fiction Improves Theory of Mind". *Science* 342, (2013). 377-380.
- Davies, Paul. "Animating' the narrative in abstract comics". *Studies in Comics* 4, 2013, pp. 251 276.
- de Jongh, Aimée. Days of Sand. Metro Media Limited, 2022.
- Domingos, Ana Cláudia Munari and Cardoso, Arlei Rodrigues Cardoso. "Media Representation and Transmediation: Indexicality in Journalism Comics and

- Biography Comics." Elleström, Lars. (eds) *Beyond Media Borders*, Volume 2. Palgrave Macmillan, 2021.
- Donly, Corinne. "Toward the Eco-Narrative: Rethinking the Role of Conflict in Storytelling". *Humanities*, 6(2):17, 2017. https://doi.org/10.3390/h6020017
- Doyle, Julie. "Here Today: Thoughts on Communicating Climate Change". University of Brighton, 2012.
- Doyle, Julie. "Picturing the Clima(c)tic: Greenpeace and the Representational Politics of Climate Change Communication". *Climates and Cultures*. Hulme, Mike. (ed.), Sage, Vol. 6. 2015.
- Egan, Michael. "The Social Significance of the Environmental Crisis: Barry Commoner's 'The Closing Circle."". *Organization & Environment*, vol. 15, no. 4, 2002, pp. 443–57.
- Eisner, Will. Comics and Sequential Art: Principles and Practices from the Legendary Cartoonist. W.W. Norton, 2008.
- Eldon, Franz. "Ecology, Values, and Policy: Values". *BioScience*, Volume 51, Issue 6, June 2001, pp. 469–474.
- Evernden, Neil. "Beyond Ecology: Self, Place, & the Pathetic Fallacy". *The North American Review*, vol. 263, no. 4, 1978, pp. 16–20.
- Fenske, Michaela and Norkunas, Martha. "Experiencing the More-than-Human World."

  Narrative Culture, vol. 4, no. 2, 2017, pp. 105–110.

  digitalcommons.wayne.edu/narrative/vol4/iss2/2
- Foer, Jonathan Safran. *Extremely Loud and Incredibly Close: A Novel*. United States, HarperCollins, 2013.

- Freedman, Ariela. "'Sorting through My Grief and Putting It into Boxes': Comics and Pain." Esther Cohen (ed.), *Knowledge and Pain*, Rodopi, 2012, pp. 84--381.
- Gardiner, Ann. "Reflections on Philippe Squarzoni's Saison Brune". Vogelaar, Alison, Hale, Brack and Peat, Alexandra. *The Discourses of Environmental Collapse: Imagining the End.* Routledge, 2018.
- Genette, Gérard, and Ann Levonas. "Boundaries of Narrative." *New Literary History*, vol. 8, no. 1, 1976, pp. 1–13.
- Ghosal, Torsa, and Gibbons, Alison. *Fictionality and Multimodal Narratives*. University of Nebraska Press, 2023.
- Gloeckner, Phoebe. *The Diary of a Teenage Girl, Revised Edition: An Account in Words and Pictures*. North Atlantic Books, 2015.
- Goblet, Dominique. *Pretending Is Lying*. New York Review Books, 2017.
- Golley, Frank. A History of the Ecosystem Concept in Ecology: More Than the Sum of the Parts. Yale University Press, 1993.
- Goodbody, Axel, and Adeline Johns-Putra. "The Rise of the Climate Change Novel." *Climate and Literature*. ed. Adeline Johns-Putra. Cambridge University Press, 2019, pp. 229–245.
- Gregory, Chase. "In the Gutter: Comix Theory". *Studies in Comics*, Vol. 3, Issue 1, 2012, pp. 107–128.
- Groensteen, Thierry. *The System of Comics*. University Press of Mississippi, 2007.
- Guibert, Emmanuel, Lefèvre, Didier and Lemercier, Frédéric. *The Photographer: Into War-torn Afghanistan with Doctors Without Borders*. First Second, 2009.
- Hatfield, Charles. *Alternative Comics: An Emerging Literature*. University Press of Mississippi, 2005.

- Harvey, Graham. *Animism: Respecting the Living World*. Columbia University Press, 2005.
- Healy, Luke. Americana (And The Act Of Getting Over It). Nobrow Limited, 2019.
- Heidt, Todd. "Image and Text, Fact and Fiction: Narrating W.G. Sebald's The Emigrants in the First Person". *Image [&] Narrative* 22 (2008). imageandnarrative.be/inarchive/autofiction2/heidt.html
- Heise, Ursula. Sense of Place and Sense of Planet: The Environmental Imagination of the Global. Oxford University Press, 2008.
- Hemon, Aleksandar. The Lazarus Project. Pan Macmillan, 2009.
- Hess, Jeremy, Malilay, Josephine, and Parkinson, Alan. "Climate change: the importance of place". *American Journal of Preventative Medicine*, 5, 2003, pp. 468-78
- Hinton, David. "Breath-space and Seed-time." *Emergence Magazine*, November 27, 2004. emergencemagazine.org/essay/breath-space-and-seed-time/
- Hirsch, Marianne. Family Frames: Photography, Narrative, and Postmemory. Harvard University Press, 1997.
- Huebener, Paul. "Timely Ecocriticism: Reading Time Critically in the Environmental Humanities." *Interdisciplinary Studies in Literature and Environment*, vol. 25, no. 2, 2018, pp. 327–44.
- Immerwhar, Daniel. "'A deranged pyroscape': how fires across the world have grown weirder". The Guardian, 3 Feb 2022.

  theguardian.com/environment/2022/feb/03/a-deranged-pyroscape-how-fires-across-the-world-have-grown-weirder
- Kearney, Richard. On Stories. Routledge, 2002.
- Keenan, Catherine. "On the Relationship between Personal Photographs and Individual Memory". *History of Photography*, 22(1), 1998, pp. 60–64.

- Kimmerer, Robin Wall. Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants. Penguin Books Limited, 2020.
- Kluwick, Ursula, "Talking About Climate Change: The Ecological Crisis and Narrative Form". In Greg Garrard (ed.), *The Oxford Handbook of Ecocriticism*. 2014.
- Køhlert, Frederik. "At This Point I Become Real": Experimental Autobiography in Julie Doucet and Michel Gondry's Comics/Video Hybrid My New New York Diary. In The Comics of Julie Doucet and Gabrielle Bell: A Place Inside Yourself (145-163). University Press of Mississippi. https://doi.org/10.2307/j.ctvbj7gk4.11
- Korhonen, Vesa. "Dialogic literacy: A sociocultural literacy learning approach". In A. Lloyd, & S. Talja (Eds.), Practising Information Literacy: Bringing Theories of Learning, Practice and Information Literacy Together (pp. 211-226). Charles Sturt University, 2010.
- Kouvaros, George. "Images that remember us: photography and memory in Austerlitz". *Textual Practice*, 19(1), 2005, pp. 173–193.
- Kracauer, Siegfried. *The Past's Threshold: Essays on Photography*. University of Chicago Press, 2014.
- Kress, Gunther. *Multimodal Discourse: The Modes and Media of Contemporary Communication*. Arnold, 2001.
- Kukkonen, Karin. "Comics as a Test Case for Transmedial Narratology." *SubStance*, vol. 40 no. 1, 2011, pp. 34–52.
- Lamb, Nancy. The Art And Craft Of Storytelling: A Comprehensive Guide To Classic Writing Techniques. F+W Media, 2008.
- Langford, Martha. Scissors, Paper, Stone: Expressions of Memory in Contemporary

  Photographic Art. McGill-Queen's University Press, 2007.

- Langford, Martha. Suspended Conversations: The Afterlife of Memory in Photographic

  Albums Second Edition. McGill-Queen's University Press, 2021.
- Latour, Bruno. "Agency at the Time of the Anthropocene." *New Literary History*, vol. 45 no. 1, 2014, pp. 1–18.
- Lefèvre, Pascal. "Narration in Comics." *Image and Narrative* 1, University Catholique of Leuven, 2000, pp. 1–13.
- Le Guin, Ursula K. *The Carrier Bag of Fiction*. Ignota. 2019.
- Lisette van Beek, Tamara Metze, Eva Kunseler, Hiddo Huitzing, Filip de Blois, and Arjan Wardekker, "Environmental visualizations: Framing and reframing between science, policy and society." *Environmental Science and Policy*, Volume 114, 2020, Pages 497-505.
- Macfarlane, Robert. *Mountains of the Mind: A History of a Fascination*. Granta Books, 2018.
- Macfarlane, Robert. The Old Ways: A Journey on Foot. Penguin Books Limited, 2012.
- Macfarlane, Robert. Underland: A Deep Time Journey. Penguin Books Limited, 2019.
- Macnaghten, Phil, and Urry, John. Contested Natures. SAGE Publications, 1998.
- Malmand, Andreas and Hornborg Alf. "The geology of mankind? A critique of the Anthropocene narrative". *The Anthropocene Review*, 1(1), 2014, pp. 62-69.
- Manes, Christopher. "Nature and Silence." *Environmental Ethics* 14 (4), 1992, pp. 339-350.
- Markowitz, Steven. "Barry Commoner and the Current Environmental Crisis." *American Journal of Public Health* vol. 108, S2, 2018, S53.

  doi:10.2105/AJPH.2018.304411
- Martin, Julia. "Natures of Africa. Ecocriticism and Animal Studies in Contemporary Cultural Forms." *Tydskrif vir Letterkunde*, 54(2), 2017, pp. 177-180.
- McCloud, Scott. Understanding Comics: The Invisible Art. Harper Collins, 1994.

- McMurry, Andrew. Environmental Renaissance: Emerson, Thoreau, and the Systems of Nature. University of Georgia Press. 2003.
- Mertens Mahlu. and Craps, Stef. Contemporary Fiction Vs. The Challenge of Imagining the Timescale of Climate Change. Johns Hopkins University Press, 2018.
- Puican, Mike. "Narrative Disruption in Memoir". *Assay: A Journal of Nonfiction Studies*. 2.1, 2015.
- Mikkonen, Kai. "Presenting Minds in Graphic Narratives". *Partial Answers: Journal of Literature and the History of Ideas*, vol. 6 no. 2, 2008, pp. 301-321.
- Milkoreit, Manjana. "The Promise of Climate Fiction: Imagination, Storytelling and the Politics of the Future". In Paul Wapner and Hilal Elver (eds). *Reimagining Climate Change*, Routledge Publishing. 2016. pp. 171-191.
- Miodrag, Hannah. Comics and Language: Reimagining Critical Discourse on the Form.

  University Press of Mississippi, 2013.
- Molotiu, Andrei. *Abstract Comics: The Anthology: 1967-2009*. Fantagraphics Books, 2009.
- Molotiu, Andrei. "An Extract from Universe A" *Shenandoah*, Volume 71, Number 2, Spring, 2022. shenandoahliterary.org/712/universe-a/
- Moore, Alan. Watchmen. DC Comics, 2019.
- Morton, Timothy. Dark Ecology. Columbia University Press, 2016
- Morton, Timothy. *Ecology without Nature: Rethinking Environmental Aesthetics*.

  Harvard University Press, 2007.
- Morton, Timothy. *The Ecological Thought*. Harvard University Press. 2010.
- Morton, Timothy. *Hyperobjects: Philosophy and Ecology after the End of the World.*University of Minnesota Press, 2013.

- Mudway, Ian. "Impact of London's low emission zone on air quality and children's respiratory health: a sequential annual cross-sectional study". *The Lancet Public Health*, Volume 4, Issue 1, 2019, pp. e28 e40.
- Naess, Arne. "The shallow and the deep, long-range ecology movement." *Inquiry*, 16(1–4), 1973, pp. 95–100.
- Nelson, Andrea and Greenough, Sarah. *The Memory of Time: Contemporary*Photographs at the National Gallery of Art. Thames and Hudson. 2015.
- Nixon, Rob. *Slow Violence and the Environmentalism of the Poor*. Harvard University Press, 2011.
- Nodelman, Perry. Words about Pictures: The Narrative Art of Children's Picture Books. University of Georgia Press, 1988.
- Nurmis, Joanna. "Can photojournalism steer clear of the siren song of collapse?".

  Vogelaar, Alison, Hale, Brack, and Peat, Alexandra. (Eds.). *The Discourses of Environmental Collapse: Imagining the End* (1st ed.). Routledge. 2018.
- O'Neill, Robert. "Is it Time to Bury the Ecosystem Concept (With Military Honors, of course!)". *Ecology*, 82, 2001, pp. 3275-3284.
- O'Neill, Saffron and Nicholson-Cole, Sophie. "Fear Won't Do It': Promoting Positive Engagement with Climate Change Through Visual and Iconic Representations." *Science Communication*, 30(3), 2009, pp. 355-379.
- O'Neill, Saffron, Boykoff, Maxwell, Niemeyer, Simon and Day, Sophie. "On the use of imagery for climate change engagement." *Global Environmental Change*, Volume 23, Issue 2, 2013, pp. 413-421.
- Paglia, Camille. Sexual Personae. Yale University Press, 1990.

- Pedri, Nancy. "Thinking about Photography in Comics." *Image & Narrative*, vol. 16, no. 2, July 2015, pp. 1-13.

  imageandnarrative.be/index.php/imagenarrative/article/view/802
- Pedri, Nancy. "Cartooning Ex-Posing in Graphic Memoir". *Literature and Asthetics*, 2, 2012, pp. 248–268.
- Pedri, Nancy. "Photography and the Layering of Perspective in Graphic Memoir",

  \*\*Mixing Visual Media in Comics\*, vol 9, issue 2, 2017.

  imagetextjournal.com/photography-and-the-layering-of-perspective-in-graphic-memoir/
- Pilon, André Francisco. Building a New World: An Ecosystemic Approach for Global

  Change & Development Design. University Library of Munich. 2015.
- Pyne, Stephen. *The Pyrocene: How We Created an Age of Fire, and What Happens Next.* University of California Press, 2021.
- Raglon, Rebecca and Scholtmeijer, Marian. "Heading Off the Trail: Language,

  Literature, and Nature's Resistance to Narrative". Armbruster, K. and Kathleen R.

  eds. *Beyond Nature Writing: Expanding the Boundaries of Ecocriticism*.

  University Press of Virginia, 2001.
- Wapner, Paul and Elver, Hilal (eds). *Reimagining Climate Change*. Taylor & Francis Group, 2016.
- Ricoeur, Paul. Time and Narrative, Volume 1. University of Chicago Press, 1990.
- Ricoeur, Paul. Time and Narrative, Volume 2. University of Chicago Press, 1984.
- Ricoeur, Paul. Time and Narrative, Volume 3. University of Chicago Press, 2014.
- Rifkind, Candida. Documenting Trauma in Comics: Traumatic Pasts, Embodied

  Histories, and Graphic Reportage. Springer International Publishing, 2020.

- Rifkind, Candida. "Drawn from Memory: Comics Artists and Intergenerational Auto/biography." *Canadian Review of American Studies* 38, 2009), pp. 399–427.
- Rockström, Johan, Steffen, Will, Noone, Kevin. "A Safe Operating Space for Humanity." *Nature* 461, 2009, pp. 472–475.
- Sarayeva, Tatyana. Comics' and Graphic Novels' Effect on the Perception of Climate

  Change and Natural Disasters. Lunds Universitet, 2017.
- Schneider, Birgit. "Climate model simulation visualization from a visual studies perspective". Wiley Interdisciplinary Reviews: Climate Change. 3. 2012.
- Shivanna, K. R. "The Sixth Mass Extinction Crisis and its Impact on Biodiversity and Human Welfare". *Resonance* 25, 2020, pp. 93-109.
- Horstkotte, Silke and Pedri, Nancy. "Introduction: Photographic Interventions". *Poetics Today*, 29 (1), 2008, pp. 1–29.
- Simmonds, Posy. Cassandra Darke. Random House, 2018.
- Simmonds, Posy. Tamara Drewe. Jonathan Cape, 2007.
- Sipe, Lawrence. "How Picture Books Work: A Semiotically Framed Theory of Text-Picture Relationships". *Children's Literature in Education* 29, 1998, pp. 97–108,
- Smith, Jos. "Introduction" in The New Nature Writing: Rethinking the Literature of Place. London: Bloomsbury Academic. 1–34. Environmental Cultures.

  Bloomsbury Collections. 2017.
- Sontag, Susan. "Mourning Sickness". Times Literary Supplement, February 25, 2000.
- Sontag, Susan. On Photography. Dell Publishing Company, 1977.
- Sousanis, Nick. Unflattening. Harvard University Press. 2015.
- Spiegelman, Art. Maus: A Survivor's Tale: My Father Bleeds History, And, And Here My Troubles Began. Pantheon Books, 2011.

- Sturken, Marita, and Cartwright, Lisa. *Practices of Looking: An Introduction to Visual Culture*. Oxford University Press, 2009.
- Tabulo, Kym. "Abstract sequential art". *Journal of Graphic Novels and Comics* 5, 2013, pp. 29-41.
- Timms, Edward and Schultz, Deborah. "Charlotte Salomon's Life? or Theatre?: A

  Multimedia Response to the Crisis of German Culture". *Word & Image*, 24(3),

  251–268. 2008. doi.org/10.1080/02666286.2008.10406255
- Traub, Courtney. "Non-Anthropocentric Narrative Strategies in Recent Experimental US Fiction". *Literature Compass*, 13, 2016, pp. 515–529.
- Trexler, Adam and Johns-Putra, Adeline. "Climate change in literature and literary criticism". *WIREs Climate Change*, 2, 2011, pp. 185-200.
- Trexler, Adam, "Mediating Climate Change: Ecocriticism, Science Studies, and The Hungry Tide" in Garrard, Greg (ed.), *The Oxford Handbook of Ecocriticism*. 2014.
- Trexler, Adam. Anthropocene Fictions: The Novel in a Time of Climate Change.

  University of Virginia Press, 2015.
- Tsing, Anna, Lowenhaupt, Jennifer, Deger, Alder, Keleman Saxena, and Feifei Zhou, (eds). *Feral Atlas: The More-than-Human Anthropocene*. Stanford University Press. 2020.
- Vermeulen, Pieter. "Beauty That Must Die: Station Eleven, Climate Change Fiction, and the Life of Form". *Studies in the Novel*. 50, 2018, pp. 9-25.
- Vickroy, Laurie. *Trauma and survival in contemporary fiction*. University of Virginia Press, 2002.

- Weiglhoferm, Magdalena. "'Who Am I without My Story?': Uncertainties of Identity (Presentation) in Performed Autobiographical Storytelling". *Storytelling, Self, Society* 11, no. 2. 2015, pp. 263–79.
- Whitehead, Anne. Trauma Fiction. Edinburgh University Press, 2004.
- Wilson-Scott, Joanna. "Accommodating the Anthropocene: The Home as a Site of Ecological Significance in Climate Fiction". *Green Letters*, 25(1), 2021, pp. 7–16.
- Wohlleben, Peter, and Bernard, Fred. *The Hidden Life of Trees: A Graphic Adaptation*. Greystone Books, 2015.
- Worden, Daniel. "The Politics of Comics: Popular Modernism, Abstraction, and Experimentation". *Literature Compass*, 12, 2015, pp. 59–71.
- Yorke, John. *Into The Woods: How Stories Work and Why We Tell Them*. Penguin Books Limited, 2013.
- Yusoff, Kathryn. "Mapping the Disaster: Global Prediction and the Medium of 'Digital Earth'", *Leandro Electronic Almanac*, Vol. 14, No. 7-8, 2006.