

NORMAN W. LONG

Calumet in Dub

November 10, 2022-February 17, 2023



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Focusing on Norman W. Long's research-based work *Calumet in Dub* that delves into the ecology and soundscapes of the Southeast Side of Chicago along the Calumet and Little Calumet River area. Inspired initially by a story that aired on the BBC about the relationship of the Little Calumet River to the history of the Great Migration, Long investigated how housing, labor, and environmental activism have coalesced in this location and how historic figure, Hazel Johnson considered the "mother of the environmental justice movement," diligently brought these issues to light.

Calumet in Dub is an 8-channel sound installation presented in the main gallery, accompanied by two rooms shedding light on a portion of the research that informed the work. Population demographics, ecological information, and pollution statistics about the Calumet region provide the raw data that Long used in this body of work. While the research materials provide insight into Long's experimental sound art practice translates visual and text-based information into sonic experiences.

Long's experimental sound practice, as reflected in *Calumet in Dub*, used sound from direct field recordings, sonified research data, and experimentation with various inputs and outputs. The exhibition included sounds from historically significant locations from the the Great Migration in the Calumet area, such as wind rustling trees or the bubbling water of a stream. Long has gathered other sounds by processing data through inputs such as the TwoTone webapp (which allowed him to assign a particular note or pitch to the numerical data in order to turn it into sound) or the PlantWave device (that reads plant biorhythms through electrodes connected to a plant). Once sounds were collected, effects were then used to manipulate sound and further creative methods of editing, splicing, and moving sound through multiple audio channels were used to transport the listener to different locations via the soundscapes Long created.

Glass Curtain Gallery—Columbia College Chicago 1104 S. Wabash Ave, 1st Floor, Chicago, IL 60605 colum.edu/deps

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They Say Time is Like a River

Time has often been compared to a river, though usually toward the end of communicating the fundamental impermanence of life or encouraging us to "get in the water." But if time is a river, then the river reverberates with history.

For decades, Norman W. Long's artistic path has been focused on memory and Black subjectivity, but it hasn't been linear. *Calumet in Dub* is the greatest synthesis thus far of Long's manifold explorations into visual art, sound art, landscape architecture, and environmental activism.

The centerpiece of this exhibit is an 8-channel speaker installation featuring field recordings of the Calumet region Long calls home, an area which is very slowly recovering from the heavy industry of the last century. Long utilizes the dub production techniques of King Tubby and Lee "Scratch" Perry to communicate traumatic resonance in the Calumet soundscape. The structure of dub music can be interpreted as one of loss, rupture, and repair; experiences that are continuous across the diasporic experience of Black people displaced by the extreme horrors of slavery and colonialism. Dub emerges as an art form which recalls the notion of "testimony" described by trauma theorists, which attempts to bear witness and cull meaning from experiences which are challenging to integrate into our psyche.

The Calumet River is not particularly well-known or considered, but its strategic position connecting the East, West, and South via the Mississippi River is fundamental to the development of Chicago's prominence as the "Player with Railroads and the Nation's Freight Handler" as stated in Carl Sandburg's famous ode to the city. It's also why Chicago played such a central role in the Great Migration of Black Americans from the rural South to the urban North. Going back further than that, though, two Dutch-born abolitionists—Jan and Aagje Ton—used their farm on the Little Calumet River to ensure the safe arrival of hundreds out of slavery on the Underground Railroad.

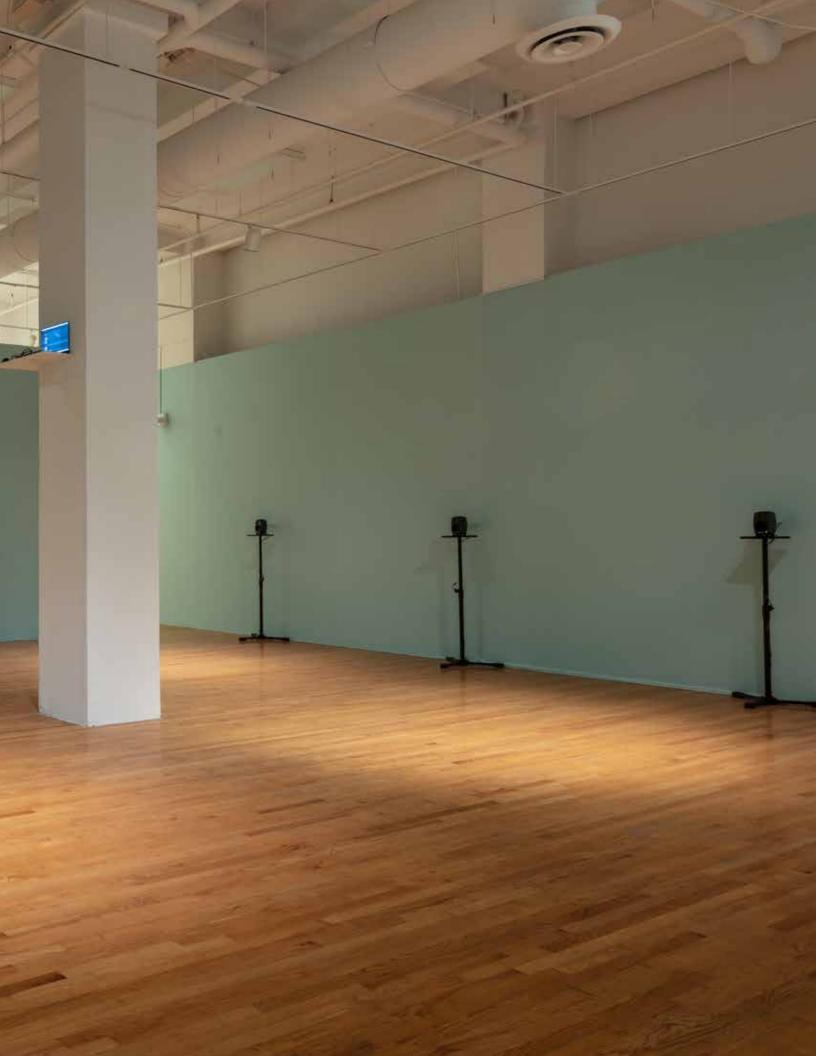
Long's recordings for this exhibit focus on locations of historical significance to the movement of Black people into the region. He includes sonified research data, books of demographic and ecological information, pollution statistics, and images of areas where the recordings were made, as well as lyrics to *Good* Lord (Run Old Jeremiah). The latter is a ring shout dance song, characterized by leader-chorus singing, complex counter-rhythmic hand clapping and other percussion, and shouts and hollers. Lyrically, the song captures the experience of having to run for your life and surrender your fate to others, be it God or the railroad engineer. Sonically, the frantic, collective rhythm communicates both a restlessness and a determination; a momentary transcendence of suffering through constant motion and sound, which is also a chronic worry of what may happen if you are stopped.

The final component of the exhibit is a video installation, where Long provides us with further history of toxic pollution in the region and the birth of the environmental justice movement through the work of its pioneer, Hazel M. Johnson. Johnson herself came to Chicago during the Great Migration and began looking into the toxicity levels in the area following the death of her husband from lung cancer in 1969 and the development of widespread skin and respiratory issues amongst her seven children. Levels of cancer and lead poisoning were so high in the area that it made the national news. The video installation also highlights some of the ecological restoration which has occurred in these neighborhoods that were abandoned and neglected for so long by environmental racism, where industrial waste sites are now being ecologically restored into parks and food deserts are becoming urban farms. There are also video presentations of images Long captured at field recording sites paired with the recordings he made there.

What is most noticeable about the interplay of media Long offers us in this exhibit is how the most abstract thing–these dubbed out and manipulated field recordings–are what communicate the most. The government-issued data is nearly impossible to understand, communicating a great deal about both how the people in power get away with this and how the communities it impacts struggle to even be a part of the conversation. It's in listening to the people in the videos and Long's soundscapes that the knowledge of this history and this ongoing situation really resonates, pointing towards the idea that it's in listening to each other and listening to the land that we engage meaningfully in transformation and healing.

— Erin Margaret Day

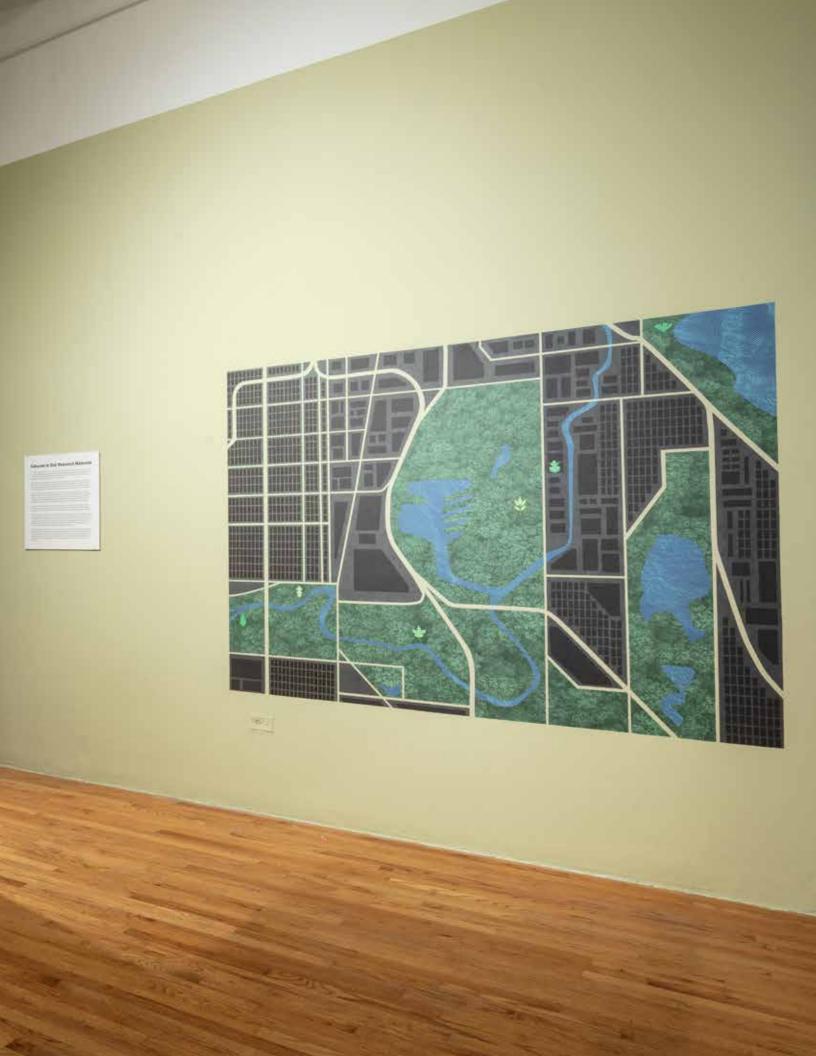




















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Afficial Americans as a Percentage of the Population by

Calumet in Dub Research Materials

For *Calumet in Dub* Norman W. Long conducted a deep exploration of the Calumet region that not only included engaging the site physically, but also by pouring through historical and environmental material surrounding the region. Supporting research presented alongside the work offered a glimpse into Long's practice by opening up a sliver of his references and thought process.

The development of *Calumet in Dub* brought Long to numerous locations in the Calumet River area to take photographs, capture field recordings, and to experience the land in person. Of the many locations explored, Long identified six sites he found particularly notable for their historical and ecological significance, as well as their importance to the creation of the sound piece presented in the gallery.

Each leaf icon on the map corresponds to one of the six locations spotlighted. Each location display featured a text extrapolated from Long's notes along with three research items—an image taken by Long during his visit to the site, a visualization of a field recording made at the site, and a data set that conveys related historical or ecological information. Using a process known as sonification the data sets were translated into sounds that were incorporated into *Calumet in Dub*.

In the following pages you will find a representation of what was viewable in the gallery as well as documentation from two videos influential to Long's process that were displayed along with two monitors featuring additional videos and photographs taken on location. Additionally, the field recordings from each site listed on the map could be heard through the headphones in the gallery.

By fusing field recordings with sonified data sets Long compares what he personally experienced at each site against published information collected and disseminated by branches of the local and federal government. Long's process addresses the inequity of access to public resources. The Calumet area is a dominantly Black region in large part due to the Great Migration. Industrial work in the region has employed a lot of Black citizens, yet these industries have created air, water, and soil pollution that threatens the lives of the very people living in the area.

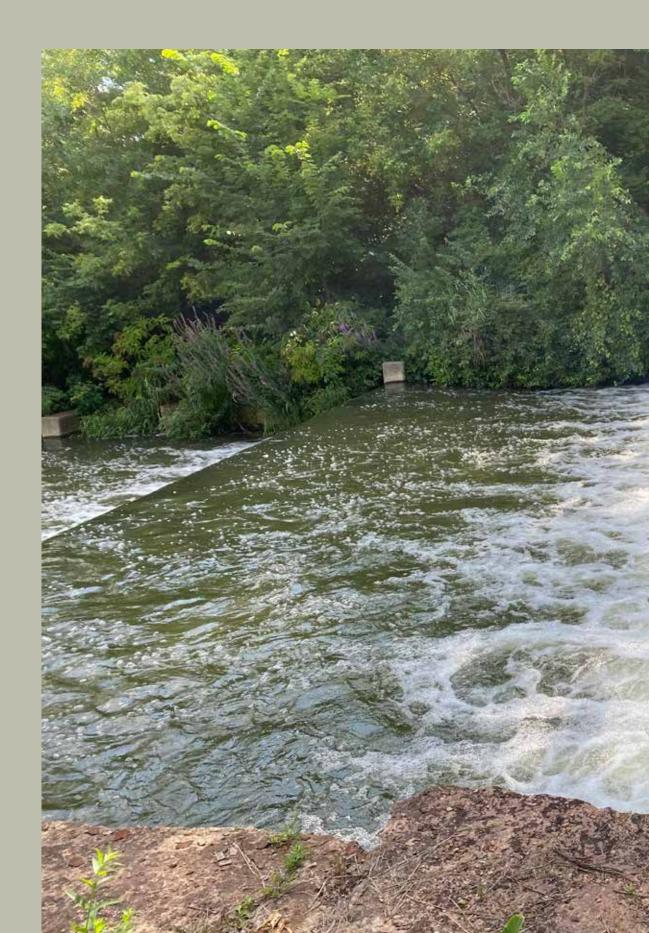
During Long's Calumet site visits, he found some of the areas to be unexpectedly closed. Similarly, the ecological and historical data sets Long researched were not put into technical terms that could be understood by members of the general public as governmental data is dense and requires specialists to decode. In Long's pursuit to interpret the Calumet region through innumerable sets of facts as well as through its presence, he reveals varying levels of access, information, and abstraction.







SEPA Station #2 (Sidestream Elevated Pool Aeration)







I found the waterfall to be calm and soothing on a very hot day. Yet the function of the pumping station is to clean the Little Calumet River. These types of stations pump river water into an elevated pool where it then flows over a series of waterfalls back into the river. As it tumbles over the falls, it mixes with air, resulting in greater oxygen levels in the water, improving the ability of the river to support fish and other aquatic life.

فالتراغفان برين برخواف أنطقها والقناف والمواطور والمستحكا الشاهيمان والمقارات وبالأجراج المتحرور ووافع والالتريطيمة الرخور



Ambient Water Quality Measurements

Conducted by the Metropolitan Water Reclamation District of Greater Chicago in 2021

The Metropolitan Water Reclamation District of Greater Chicago has several water quality sampling stations located throughout the Greater Chicago area. Samples are collected from approximately 225 miles of natural and modified rivers from 29 stations. The samples are analyzed for many pollutants that affect water quality including pollutants from intermittent stormwater releases and pollutants from sediments in the waterways.

Collect	Sampling	Time	TEMP	TEMP	DO	DO	pН			NO2+NO3			TKN	
date	point	collected	Deg C	TEMP Qual Code	mg/L	Qual Code		Qual Code	mg/L	Qual Code	mg/L	Qual Code	mg/L	Qual Code
	WW_78	1135	11		9.8		7.5		6.76		<0.3		<1	
	WW_19	1229			11.2		8.1		4.36		<0.3		<1	
1/4/21	WW_109	900	3		11.7		7.9		4.88		<0.3		<1	
	WW_22	940	3		12.2		8		4.05		<0.3		<1	
1/4/21	WW_23	1020	3		11.8		7.9		3.81		<0.3		<1	
	WW_91	1130	2		12.5		8		4.24	X	<0.3		<1	
1/4/21	WW_18	905			9.9		7.6		6.98		<0.3		1	
1/4/21	WW_110	940			10		7.7		0.57		<0.3		<1	
	WW_111	1010	6		10.4		7.7		9.85		<0.3		2	
1/4/21	WW_92	1200			7.6		7.6		5.91		<0.3		1	
1/4/21	WW_77	1055	2		11.3		7.9		0.42		<0.3		<1	
	WW_112	910	3		13		8.3		1.16		<0.3		<1	
1/11/21	WW_36	1000			10.1		7		9.3		0.6		1	
1/11/21	WW 96	1030	1		13.3		8		1.84		<0.3		<1	
1/11/21	WW 73	1140	7		9.9		7.5		8.1		<0.3		<1	
1/11/21	WW_92	1015	9		8.8		7.6		6.38		<0.3		<1	
1/11/21	WW_37	1105	8		10.2		7.4		7.86		<0.3		<1	
1/19/21	WW 100	900	4		11.7		7.8		2.15		0.3		<1	
1/19/21	WW 108	900	8		8.5		7.3		6.11		1.4		2	
1/19/21	WW_99	950	4		10.2		7.3		6.72		<0.3		<1	
1/19/21	WW_75	950	5		10		7.6		6.73		< 0.3		<1	
1/19/21	WW_41	1030	8		9.4		7.2		7.23		<0.3		1	
1/19/21	WW 92	1100	7		9		7.2		6.61		<0.3		1	
1/19/21	WW 48	1220	9		8.5		7.4		5.44		<0.3		<1	
1/25/21	WW 86	905	9		9.5		7.7		3.68		<0.3		<1	
1/25/21	WW 56	1130			12.1		8		3.04		<0.3		<1	
1/25/21	WW 76	1110			10.2		7.5		5.39		<0.3		<1	
1/25/21	WW 57	1050	2		12.6		7.9		4.91		< 0.3		<1	
1/25/21	WW 59	1010			10.2		7.6		3.86		0.3		1	
1/25/21	WW 43	910	5		10.1		7.6		3.98		<0.3		<1	X
1/25/21	WW 92	1047			9.8		7.5		5.43		<0.3		<1	
2/1/21	WW 19	1145	1		13.2		8.2		4.19		< 0.3		<1	X
	WW 109	852			12.4		7.7		8.85		<0.3		<1	
	WW 23	948	0		13.2		8		5.42		<0.3		<1	
	WW 91	1051			14		8.2		4.7		<0.3		<1	
	WW 18	915			10.5		7.4		7.71		<0.3		<1	
	WW 111	950			11.5		7.9		11.81		<0.3		1	
	WW_92	1126			10.1		7.9		5.22		0.5		1	
	WW 77	1035			12.2		7.7		0.38		<0.3		<1	



Beaubien Woods Boat Launch

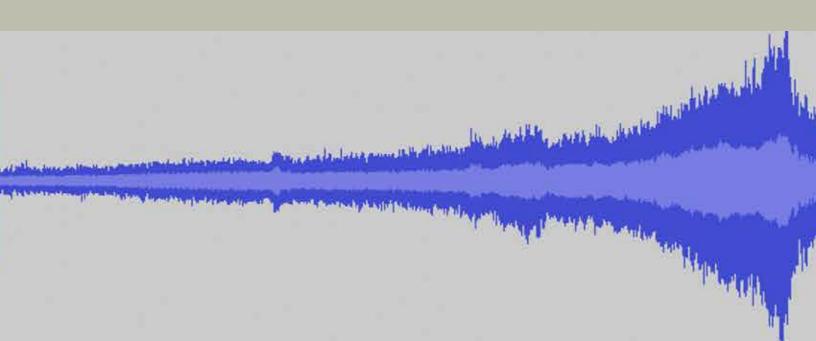






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The Michigan Central and Michigan Southern train rails run through the Beaubien Woods, part of the Forest Preserves of Cook County. Beaubien Woods comprises 300 acres of natural area along the Calumet River, this area is part of the African American Heritage Water Trail which honors the history of individuals who traveled the Underground Railroad and settled along the shores of the Little Calumet River. Shortly before the Civil War, an estimated 3,000–5,000 people fleeing slavery came into the Chicago and Calumet regions. The highest point of the area is the Harbor View Landfill, managed by the state of Illinois Environmental Protection Agency.



African Americans as a Percentage of the Population by Large U.S. Cities

Conducted by the Population Division of the United States Census Bureau, 2002

The United States Census Bureau, an agency of the United States Congress, is responsible for collecting information relating to the population of the United States and the economy. The data set on display relates to the migration of six million African Americans from the southern United States to the northern United States between 1910 and 1970. During this time, due to Jim Crow laws African American citizens experienced unequal economic conditions, racial segregation, and discrimination forcing them to move to the northern territories of the United States. At this time population increased in large cities, and in the Southside of Chicago.

City	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	Change in the Black Percentage of the Total Population Between 1900 and 1990	
Phoenix, Arizona	2.70%	2.90%	3.70%	4.90%	6.50%	4.90%	4.80%	4.80%	4.80%	5.20%	2.509	
Los Angeles,												
California	2.10%	2.40%	2.70%	3.10%	4.20%	8.70%	13.50%	17.90%	17.00%	14.00%	11.909	
San Diego,												
California	1.80%	1.50%	1.30%	1.80%	2.00%	4.50%	6.00%	7.60%	8.90%	9.40%	7.60	
San Francisco,												
California	0.50%	0.40%	0.50%	0.60%	0.80%	5.60%	10.00%	13.40%	12.70%	10.90%	10.409	
San Jose, California	1.00%	0.60%	0.50%	0.40%	0.40%	0.60%	1.00%	2.50%	4.60%	4.70%	3.709	
Denver, Colorado	2.90%	2.50%	2.40%	2.50%	2.40%	3.60%	6.10%	9.10%	12.00%	12.80%	9.90	
Washington, District												
of Columbia	31.10%	28.50%	25.10%	27.10%	28.20%	35.00%	53.90%	71.10%	70.30%	65.80%	34.70	
Chicago, Illinois	1.80%	2.00%	4.10%	6.90%	8.20%	13.60%	22.90%	32.70%	39.80%	39.10%	37.30	
Indianapolis, Indiana	9.40%	9.30%	11.00%	12.10%	13.20%	15.00%	20.60%	18.00%	21.80%	22.60%	13.20	
Baltimore, Maryland	15.60%	15.20%	14.80%	17.70%	19.30%	23.70%	34.70%	46.40%	54.80%	59.20%	43.60	
Boston,												
Massachusetts	2.10%	2.00%	2.20%	2.60%	3.10%	5.00%	9.10%	16.30%	22.40%	25.60%	23.50	
Detroit, Michigan	1.40%	1.20%	4.10%	7.70%	9.20%	16.20%	28.90%	43.70%	63.10%	75.70%	74.30	
Minneapolis,												
Minnesota	0.80%	0.90%	1.00%	0.90%	0.90%	1.30%	2.40%	4.40%	7.70%	13.00%	12.20	
Kansas City,												
Missouri	10.70%	9.50%	9.50%	9.60%	10.40%	12.20%	17.50%	22.10%	27.40%	29.60%	18.90	
St. Louis, Missouri	6.20%	6.40%	9.00%	11.40%	13.30%	17.90%	28.60%	40.90%	45.60%	47.50%	41.30	
Buffalo, New York	0.50%	0.40%	0.90%	2.40%	3.10%	6.30%	13.30%	20.40%	26.60%	30.70%	30.20	
New York, New York	1.80%	1.90%	2.70%	4.70%	6.10%	9.50%	14.00%	21.10%	25.20%	28.70%	26.90	
Cincinnati, Ohio	4.40%	5.40%	7.50%	10.60%	12.20%	15.50%	21.60%	27.60%	33.80%	37.90%	33.50	
Cleveland, Ohio	1.60%	1.50%	4.30%	8.00%	9.60%	16.20%	28.60%	38.30%	43.80%	46.60%	45.00	
Columbus, Ohio	6.50%	7.00%	9.40%	11.30%	11.70%	12.40%	16.40%	18.50%	22.10%	22.60%	16.10	
Philadelphia, Pennsylvania	4.80%	5.50%	7.40%	11.30%	13.00%	18.20%	26.40%	33.60%	37.80%	39.90%	35.10	
Pittsburgh, Pennsylvania	5.30%	4.80%	6.40%	8.20%	9.30%	12.20%	16.70%	20.20%	24.00%	25.80%	20.50	





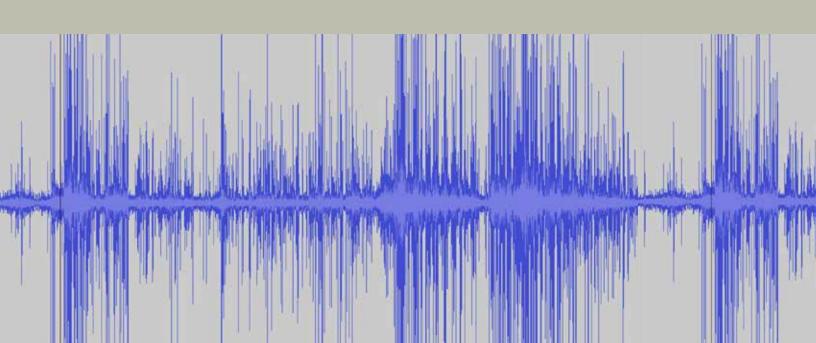
Indian Ridge Marsh







Indian Ridge Marsh is located where Lake Calumet, the Calumet River, and the Little Calumet River converge. My goal was to reach Deadstick Pond, but it was not accessible. Indian Ridge Marsh is managed by the Chicago Park District, and Deadstick Pond, which is managed by the Metropolitan Water Reclamation District, was temporarily closed to the public. Both areas serve as a critical wildlife habitat for many endangered regional waterfowl.

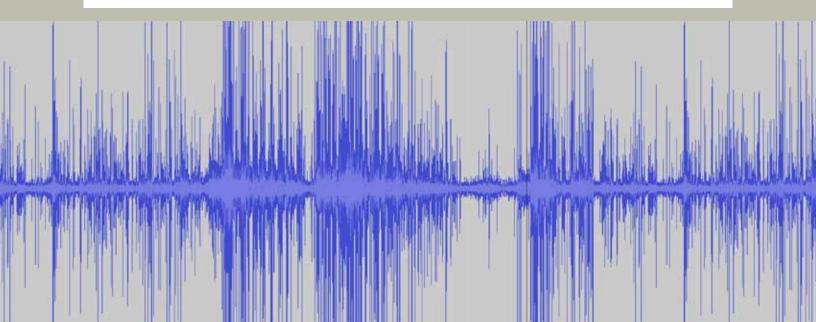


Biological survey of the Calumet West Solids Drying Area

Conducted by the Metropolitan Water Reclamation District of Greater Chicago, conducted in 2019

The Metropolitan Water Reclamation District of Greater Chicago is an independent special-purpose department of the state of Illinois that seeks to protect the health and safety of the Cook County residents by managing wastewater and flood water. The data on display makes note of the many wildlife species that are found in the Calumet West Solids Drying Area which includes natural wildlife habitats that are typically open to the public, such as Indian Ridge Marsh and Deadstick Pond. Many of the waterfowl documented in the dataset are endangered species that are reliant on the health of this natural area.

Name	NotableLocation .Description	NotableLocation .HabitatType	Taxanomic	ScientificName	CommonName	Exact Count	Rare End Threat	Flyover	Breeding
				- Continue to the continue to					
alumet West olids Drying reas									
			Dragonflies	Anax junius	Common Green Darner	48			
			Dragonflies	Celithemis elisa	Calico Pennant	5			
			Dragonflies	Enallagma basidens	Double-striped Bluet	132			
			Dragonflies	Enallagma civile	Familiar Bluet	15			
			Dragonflies	Enallagma signatum	Orange Bluet	6			
			Dragonflies	Erythemis simplicicollis	Eastern Pondhawk	36			
			Dragonflies	Ischnura posita	Fragile Forktail	1			
			Dragonflies	Ischnura verticalis	Eastern Forktail	37			
			Dragonflies	Lestes disjunctus/australis	Northern/Southern Spreadwing	2			
			Dragonflies	Libellula luctuosa	Widow Skimmer	14			
			Dragonflies	Pachydiplax longipennis	Blue Dusher	47			
			Dragonflies	Pantala flavescens	Wandering Glider	3			
			Dragonflies	Perithemis tenera	Eastern Amberwing	7			
			Dragonflies	Tramea lacerata	Black Saddlebags	10			
		wetlands, with shrubby edges							
			Birds	Agelaius phoeniorus	Red-winged Blackbird	31		_	PR
			Birds	Ardea alba	Great Egret	1		-	
			Birds	Bombycilla cedrorum	Cedar Waxwing	3		_	PO
			Birds	Cardinalis cardinalis	Northern Cardinal	1	_	-	PO
			Birds	Cathartes aura	Turkey Vulture	1		_	
			Birds	Chaetura pelagica	Chimney Swift	1		_	
			Birds	Charadrius vociferus	Killdeer	1		_	PO
			Birds	Cistothorus palustris	Marsh Wren	1		_	PO
			Birds	Dendroica petechia	Yellow Warbler	3		_	PO
			Birds	Dumetella carolinensis	Gray Cathird	5		_	PO
			Birds	Empidonax traillii	Willow Flycatcher	1		_	PO
			Birds	Geothlypis trichas	Common Yellowthroat	7		_	co
			Birds	Hirundo rustica	Barn Swallow	2		_	PO
			Birds	Larus argentatus	Herring Gull	1		-	_
			Birds	Larus delawarensis	Ring-billed Gull	2	_	_	
			Birds	Melospiza melodia	Song Sparrow	4		_	PR
			Birds	Molothrus ater	Brown-headed Cowbird	3		_	PO
			Birds	Passerina cyanea	Indigo Bunting	7		_	PR
			Birds	Picoides pubescens	Downy Woodpecker	2		-	PO
			Birds	Poecile atricopillus	Black-capped Chickadee	2	_	_	PO
			Birds	Quiscalus quiscula	Common Grackle	2		2	PO
			Birds	Spinus tristis	American Goldfinch	10	_	_	PO
			Birds	Stelgidopteryx serripennis	Northern Rough-winged Swallow	3		_	
			Birds	Sturnus vulgaris	European Starling	78	_	13	co
			Birds	Tachycineta bicolor	Tree Swallow	3			PO
			Birds	Troglodytes aedon	House Wren	2			PO





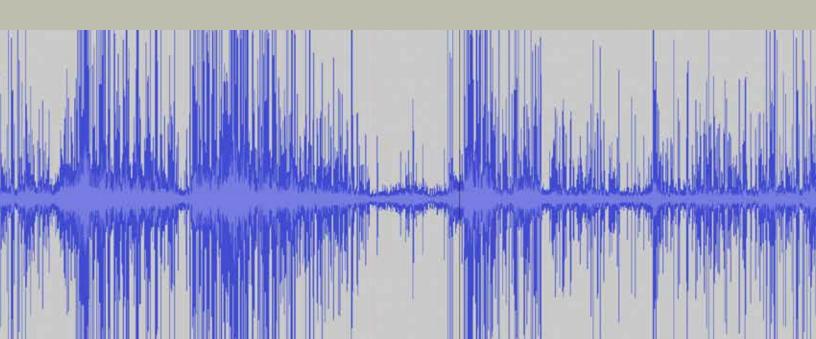
Jan and Aagje Ton Farm







I tried to visit the site this summer, but no one was there to let me in to record. A month or two later the same site was declared an Illinois landmark. The National Park Service's Network to Freedom project recognized the Jan and Aagje Ton Farm as a site of the Underground Railroad. From 1840 until the Civil War, the farm occupied 40 acres along the bank of the Little Calumet River and served as a safe house for those seeking freedom.

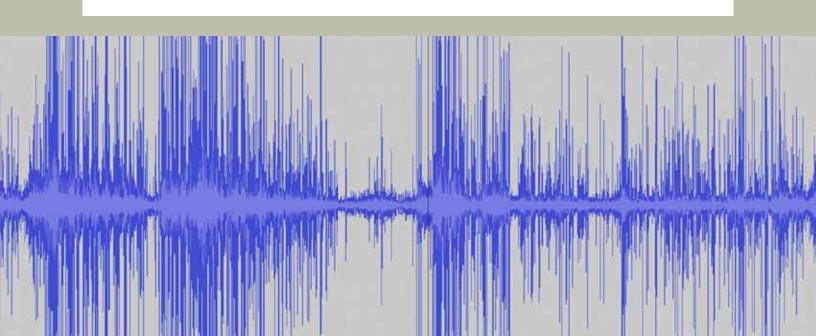


RadNet monitor data from Chicago 2020

Conducted by the United States Environmental Protection Agency

The Environmental Protection Agency (EPA) is a branch of the United States federal government that regularly conducts RadNet air quality measurements for the entire nation. RadNet, also known as Near-real-time Air Monitoring, is a network of 140 air monitors that collect gamma radiation levels across the nation in order to analyze the quality of our natural resources including the air, precipitation, and drinking water. The data summarizes RadNet data captured in Chicago in 2020.

LOCATION_NAME	SAMPLE COLLECTION TIME	DOSE EQUIVALENT RATE (nSv/h)	GAMMA COUNT RATE RO2	GAMMA COUNT RATE RO3	GAMMA COUNT RATE RO4	GAMMA COUNT RATE ROS	GAMMA COUNT RATE ROS	GAMMA COUNT RATE RO7	GAMMA COUNT RATE ROS	GAMMA COUNT RATE R09	STATUS
	1/20/2001 01 01		(CPM)	***********							
IL: CHICAGO	4/28/2021 21:06	35		563		102	66		49		APPROVE
IL: CHICAGO	4/28/2021 22:06	59	200.	1235		198	116	175	84		APPROVE
IL: CHICAGO	4/28/2021 23:07	50		990		172	105	156	74		APPROVE
IL: CHICAGO	4/29/2021 0:07	38		614		113	72		51		APPROVE
IL: CHICAGO	4/29/2021 1:07	34				94	63		48		APPROVE
IL: CHICAGO	4/29/2021 2:07	34	843	490		87	60	89	46		APPROVE
IL: CHICAGO	4/29/2021 3:07	40		634		113	73		52		APPROVE
IL: CHICAGO	4/29/2021 4:08	37	1045	638		115	73	107	53		APPROVE
IL: CHICAGO	4/29/2021 5:08	36		550		102	65	97	48		APPROVE
IL: CHICAGO	4/29/2021 6:08	34	845	493	168	89	61	89	46	32	APPROVE
IL: CHICAGO	4/29/2021 7:08	33	852	491	171	90	59	88	46	31	APPROVE
IL: CHICAGO	4/29/2021 8:08	35	903	536	186	99	67	97	49	33	APPROVE
IL: CHICAGO	4/29/2021 9:09	35	899	539	189	101	64	95	46	32	APPROVE
IL: CHICAGO	4/29/2021 10:09	34	851	497	171	92	61	91	45	32	APPROVE
IL: CHICAGO	4/29/2021 11:09	34	848	496	173	95	60	91	46	31	APPROVE
IL: CHICAGO	4/29/2021 12:09	33	831	486	169	91	60	89	43	31	APPROVE
IL: CHICAGO	4/29/2021 13:09	33	821	489	169	92	60	88	46	31	APPROVE
IL: CHICAGO	4/29/2021 14:10	34	838	495	171	92	60	92	45	31	APPROVE
IL: CHICAGO	4/29/2021 14:47	33	863	520	181	96	60	93	45	32	APPROVE
IL: CHICAGO	4/29/2021 15:55	35	956	573	195	101	66	98	49	31	APPROVE
IL: CHICAGO	4/29/2021 16:55	36	929	566	199	107	66	100	49	32	APPROVE
IL: CHICAGO	4/29/2021 17:55	34	868	528	182	101	65	97	49	31	APPROVE
IL: CHICAGO	4/29/2021 18:55	35	855	510	176	99	63	92	48	30	APPROVE
IL: CHICAGO	4/29/2021 19:56	34	840	499	173	94	62	92	47	32	APPROVE
IL: CHICAGO	4/29/2021 20:56	34	824	482	169	92	61	88	43	30	APPROVE
IL: CHICAGO	4/29/2021 21:56	31	822	480	168	90	60	87	45	32	APPROVE
IL: CHICAGO	4/29/2021 22:56	33	816	473	166	89	60	89	46	31	APPROVE
IL: CHICAGO	4/29/2021 23:56	34		479	169	89	60	87	44	32	APPROVE
IL: CHICAGO	4/30/2021 0:57	35	839	481	167	91	60	87	46	32	APPROVE
IL: CHICAGO	4/30/2021 1:57	33		482	166	90	61	89	44	30	APPROVE
IL: CHICAGO	4/30/2021 2:57	34		482		88	58	89	42	33	APPROVE
IL: CHICAGO	4/30/2021 3:57	32				91	60				APPROVE
IL: CHICAGO	4/30/2021 4:57	34		494		92	62	90			APPROVE
IL: CHICAGO	4/30/2021 5:58	33		491	2.70	92	61	92	45		APPROVE
IL: CHICAGO	4/30/2021 6:58	34		485		91	60	_	45		APPROVE
IL: CHICAGO	4/30/2021 0:50	32		501		94	63	93			APPROVE





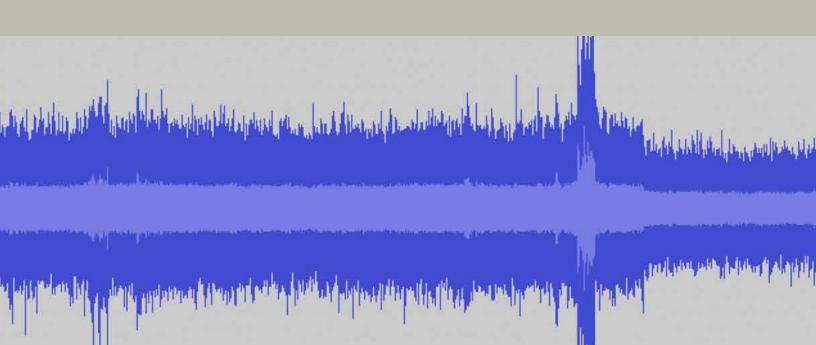
Acme Steel Company







One of the photographs I took captures a distant view of the Acme Steel Company, as I couldn't access it any closer. Given its location between the Calumet River and Lake Calumet it is easy to understand how the water quality of the Calumet area is affected by this kind of industrial activity.

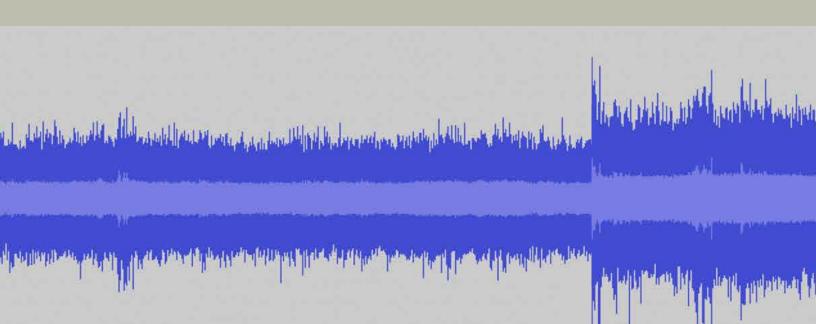


RadNet monitor data from Chicago 2017

Conducted by the United States Environmental Protection Agency

The Environmental Protection Agency (EPA) is a branch of the United States federal government that regularly conducts RadNet air quality measurements for the entire nation. RadNet, also known as Near-real-time Air Monitoring, is a network of 140 air monitors that collect gamma radiation levels across the nation in order to analyze the quality of our natural resources including the air, precipitation, and drinking water. The data summarizes RadNet data captured in Chicago in 2017.

LOCATION_NAME	SAMPLE COLLECTION TIME	DOSE EQUIVALENT RATE (nSv/h)							GAMMA COUNT RATE ROS (CPM)		STATUS
IL: CHICAGO	4/28/2021 21:06	35	944	563	196	102	66	101	49	33	APPROVED
L: CHICAGO	4/28/2021 22:06	59	1834	1235	406	198	116	175	84	39	APPROVED
IL: CHICAGO	4/28/2021 23:07	50	1498	990	351	172	105	156	74	37	APPROVED
IL: CHICAGO	4/29/2021 0:07	38	1010	614	217	113	72	106	51	34	APPROVED
L: CHICAGO	4/29/2021 1:07	34	880	514	181	94	63	92	48	32	APPROVED
L: CHICAGO	4/29/2021 2:07	34	843	490	169	87	60	89	46	31	APPROVE
L: CHICAGO	4/29/2021 3:07	40	1022	634	216	113	73	105	52	32	APPROVE!
L: CHICAGO	4/29/2021 4:08	37	1045	638	224	115	73	107	53	33	APPROVE)
IL: CHICAGO	4/29/2021 5:08	36	928	550	192	102	65	97	48	32	APPROVE
L: CHICAGO	4/29/2021 6:08	34	845	493	168	89	61	89	46	32	APPROVE
L: CHICAGO	4/29/2021 7:08	33	852	491	171	90	59	88	46	31	APPROVE
IL: CHICAGO	4/29/2021 8:08	35	903	536	186	99	67	97	49	33	APPROVE
IL: CHICAGO	4/29/2021 9:09	35		539	189		64	95	46	32	APPROVE
L: CHICAGO	4/29/2021 10:09	34		497	171	92	61	91	45	32	APPROVE
L: CHICAGO	4/29/2021 11:09	34	848	496	173	95	60	91	46	31	APPROVE
IL: CHICAGO	4/29/2021 12:09	33	831	486	169	91	60	89	43	31	APPROVE
L: CHICAGO	4/29/2021 13:09	33	821	489	169	92	60	88	46	31	APPROVE
L: CHICAGO	4/29/2021 14:10	34	838	495	171	92	60	92	45	31	APPROVE
L: CHICAGO	4/29/2021 14:47	33	863	520	181	96	60	93	45	32	APPROVE
IL: CHICAGO	4/29/2021 15:55	35	956	573	195	101	66	98	49	31	APPROVE
IL: CHICAGO	4/29/2021 16:55				199		66	100			APPROVE
IL: CHICAGO	4/29/2021 17:55	34				101	65	97		31	APPROVE
IL: CHICAGO	4/29/2021 18:55	35		510		99					APPROVE
IL: CHICAGO	4/29/2021 19:56			499	173	94	62	92		32	APPROVE
IL: CHICAGO	4/29/2021 20:56	34	824	482	169	92	61	88	43	30	APPROVE
IL: CHICAGO	4/29/2021 21:56	31	822	480	168	90	60	87	45	32	APPROVE
IL: CHICAGO	4/29/2021 22:56	33	816	473	166	89	60	89	46	31	APPROVE
IL: CHICAGO	4/29/2021 23:56	34	822	479	160	89	60	87	44	32	APPROVE
L: CHICAGO	4/30/2021 0:57	35	839	481	167	91	60	87	46	32	APPROVE
L: CHICAGO	4/30/2021 1:57	33		482	166	90	61	89			APPROVE
IL: CHICAGO	4/30/2021 2:57	34	835	482	168	88	58	89	42	33	APPROVE
IL: CHICAGO	4/30/2021 3:57	32		488	170	91	60	90			APPROVE
IL: CHICAGO	4/30/2021 4:57	34	846	494	170	92	62	90	44	32	APPROVE
IL: CHICAGO	4/30/2021 5:58	33		491	171	92		92	45	30	APPROVE
L: CHICAGO	4/30/2021 6:58	34	833	485	166	91	60	91	45	30	APPROVE
L: CHICAGO	4/30/20217:58	32	845	501	172	94	63	93	46	32	APPROVE
L: CHICAGO	4/30/2021 8:58	32	860	534	183	100	63	99	50	33	APPROVE
L: CHICAGO	4/30/2021 9:58	34	889	545	185	102	65	100	49	31	APPROVE
IL: CHICAGO	4/30/2021 10:59	34	907	565	194	106	69	102	52	32	APPROVE
L: CHICAGO	4/30/2021 11:59	34	933	589	200	108	68	103	53	33	APPROVE
IL: CHICAGO	4/30/2021 12:59	35	926	580	199	109	66	104	51	32	APPROVE
IL: CHICAGO	4/30/2021 13:59	32			185	100	63	98			APPROVE
L: CHICAGO	4/30/2021 14:59	31		491	170	91	59	91	44		APPROVE
L: CHICAGO	4/30/2021 16:00	32		471	162	88	60	86	43	29	APPROVE
L: CHICAGO	4/30/2021 17:00	32	792	459	150	87	58	86	43	31	APPROVE
L: CHICAGO	4/30/2021 18:00	32			158			83	43	30	APPROVE





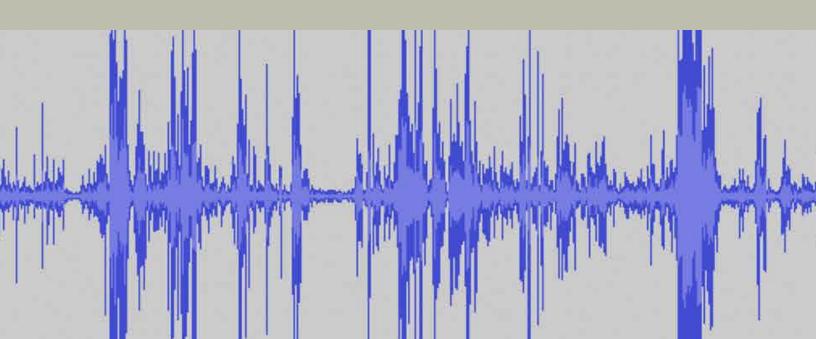
Steelworkers Park







The area of Steelworkers Park, near Calumet Harbor was developed from a U.S. Steel industrial complex into a tree lined natural area with walking paths. This photograph I took captures a huge piece of slag that lines the shoreline at Calumet Harbor. Slag, a discarded material created in the smelting process from industrial metal refining, can be seen throughout the recreational area.

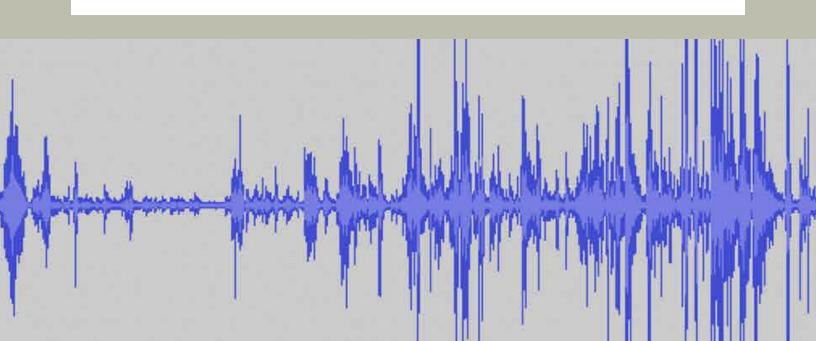


RadNet monitor data from Chicago 2021

Conducted by the United States Environmental Protection Agency.

The Environmental Protection Agency (EPA) is a branch of the United States federal government that regularly conducts RadNet air quality measurements for the entire nation. RadNet, also known as Near-real-time Air Monitoring, is a network of 140 air monitors that collect gamma radiation levels across the nation in order to analyze the quality of our natural resources including the air, precipitation, and drinking water. The data on display summarizes RadNet data captured in Chicago in 2021.

LOCATION NAME	SAMPLE	DOSE EQUIVALENT		GAMMA COUNT	STATUS						
		RATE (n5v/h)	RATE ROZ (CPM)	RATE ROS (CPM)	RATE RO4 (CPM)	RATE ROS (CPM)	RATE ROS (CPM)	RATE R07 (CPM)	RATE ROS (CPM)	RATE ROS (CPM)	
L: CHICAGO	4/28/2021 21:06	35			196	300		101	45		APPROVED
L: CHICAGO	4/28/2021 22:06	59			406				84		APPROVED
L: CHICAGO	4/28/2021 23:07	50		990	351	172					APPROVED
L: CHICAGO	4/29/2021 0:07	38									APPROVED
L: CHICAGO	4/29/2021 1:07	34									APPROVED
L: CHICAGO	4/29/2021 2:07	34		490	222						APPROVED
L: CHICAGO	4/29/2021 3:07	40		634					52		APPROVED
L: CHICAGO	4/29/2021 4:08	37							53		APPROVED
L: CHICAGO	4/29/2021 5:08	36									APPROVED
: CHICAGO	4/29/2021 6:08	34		493							APPROVED
L: CHICAGO	4/29/2021 7:08										APPROVED
L: CHICAGO	4/29/2021 8:08	35			186						APPROVED
: CHICAGO	4/29/2021 9:09	35							46		APPROVED
: CHICAGO	4/29/2021 10:09	34		497	171				45		APPROVED
: CHICAGO	4/29/2021 11:09	34									APPROVED
L: CHICAGO	4/29/2021 12:09	33		486	169						APPROVED
L: CHICAGO	4/29/2021 13:09	33		489							APPROVED
: CHICAGO	4/29/2021 14:10	34		495	171	92			45		APPROVED
L: CHICAGO	4/29/2021 14:47	33	863	520	181						APPROVED
L: CHICAGO	4/29/2021 15:55	35	956	573	195	500	66	98	45	31	APPROVED
: CHICAGO	4/29/2021 16:55	36	929	566	199	907			40	32	APPROVED
: CHICAGO	4/29/2021 17:55	34	868	528	182	100	65	97	45	31	APPROVED
: CHICAGO	4/29/2021 18:55	35	855	510	176	91	63	92	48	30	APPROVED
: CHICAGO	4/29/2021 19:56	34	840	499	173	94	62	92	43	32	APPROVED
L: CHICAGO	4/29/2021 20:56	34	824	482	169	92	63	88	43	30	APPROVED
: CHICAGO	4/29/2021 21:56	31	822	480	168	90	60	87	45	32	APPROVED
: CHICAGO	4/29/2021 22:56	33	816	473	166			89	44	31	APPROVED
L: CHICAGO	4/29/2021 23:56	34	822	479	169	89	60	87	64	32	APPROVED
L: CHICAGO	4/30/2021 0:57	35	819	481	167	91	60	87	46	3.2	APPROVED
L: CHICAGO	4/30/2021 1:57	33	835	482	166				- 44	30	APPROVED
L: CHICAGO	4/30/2021 2:57	34	835	482	168	84	58	89	42	33	APPROVED
L: CHICAGO	4/30/2021 3:57	32	840	488	170	90	60	90	40	31	APPROVED
L: CHICAGO	4/30/2021 4:57	34	846	494	170			90	44	32	APPROVED
L: CHICAGO	4/30/2021 5:58	33	835	491					45	30	APPROVED
L: CHICAGO	4/30/2021 6:58	34			166				45		APPROVED
L: CHICAGO	4/30/2021 7:58	32		501	172						APPROVED
L: CHICAGO	4/30/2021 8:58	32		534					50		APPROVED
L CHICAGO	4/30/2021 9:58	34		545	185						APPROVED
L: CHICAGO	4/30/2021 10:59	34		565	194				53		APPROVED
L: CHICAGO	4/30/2021 11:59	34									APPROVED
L: CHICAGO	4/30/2021 12:59	35									APPROVED
L: CHICAGO	4/30/2021 13:59	12									APPROVED
L: CHICAGO	4/30/2021 14:59	31									APPROVED
L: CHICAGO	4/30/2021 16:00	32			162						APPROVED
L: CHICAGO	4/30/2021 17:00	32									APPROVED
: CHICAGO	4/30/2021 18:00	32									APPROVED
: CHICAGO	4/30/2021 19:00	31		438							APPROVED
	4/30/2021 19:00	32			154						APPROVED
: CHICAGO											APPROVED
: CHICAGO	4/30/2021 21:01	32			153						
CHICAGO	4/30/2021 22:01	32			153				43		APPROVED
: CHICAGO	4/30/2021 23:01	33			154						APPROVED
: CHICAGO	5/1/2021 0:01	32									APPROVED
L: CHICAGO	5/1/2021 1:01	31			152						APPROVED
L: CHICAGO	5/1/2021 2:02	32	782	440	154	82	55	81	42	7] 31	APPROVED











Biographies

Norman Long's current practice centers on walking, listening, improvising, performing, teaching, field recording, and exploring memory, place, ecology, and race. Long has performed and exhibited at Yale University's Center for Collaborative Arts & Media in Newhaven, High Zero Festival in Baltimore, as well as the Experimental Sound Studio, Kavi Gupta Gallery, The Renaissance Society, Chicago Humanities Festival, Chicago Cultural Center, and the 2021 Chicago Architecture Biennial all in Chicago. Long has performed and toured with Angel Bat Dawid and the Brothahood, the Ali/Harris/Long/McKenna group, Honey Pot Performance Spectralina, Todd Carter, Xris Espinoza, Carol Genetti, Damon Locks, Jamal Moore, Tatsuya Nakatani, Joe Namy, Cristal Sabbagh, Ami Yamasaki, and Sara Zalek. He has released his compositions on labels such as Hausu Mountain, Reserve Matinee, LINE, and Room40. *Anemoi* is the latest ensemble release with Ishmael Ali, William Harris, and Wills McKenna. His solo album, BLACK BROWN GRAY GREEN was released in September 2021 on Hausu Mountain, and Return and Recovery is his latest solo release on LINE.

Erin Margaret Day writes primarily about music with specific attention to how it connects to our lives and our struggles, and what it communicates about our cultures and our histories. Her writing is an extension of her work as a participant in DIY music scenes and as an anti-oppressive educator and activist; it is deeply informed by knowledge gleaned from those efforts. She has lived in the urban industrial Rust Belt of the United States her whole life and is currently working on a book about how her home region of Northeast Ohio modernized rock music in the late '60s and '70s. Her work as a writer and broadcaster can be found in The Wire, Bandcamp Daily, Cleveland Review of Books, Brilliant Corners, Hugo Ball Chicago, and on WFMU.

Acknowledgments

Norman W. Long would like to thank the following individuals and organizations for their support: Norma P. Long, Sara Zalek, Erin Margaret Day, Aquarius Aquarius, Allen Moore, Asher Gamedze, Richard Chartier, John Daniel, Xris Espinoza, Olula Negre, Todd Carter, Lena Bouboushian, Carol Gennetti, Luc Mosely, Nick Yeck-Stauffer, Stephan Moore, DEPS, ThreeWalls, the High Zero Foundation, CAPE, Elastic Arts, the Midwest Society for Acoustic Ecology, and the World Listening Project.

We would also like to give a special thanks to Jonathan Michael Castillo for the exhibition photo documentation; Ted Cho for audio installation and operation consulting; the curatorial team: Mark Porter, Cecilia L. Vargas, and Meg Duguid—and their exhibitions team consisting of preparator Cassandra Meek and the student staff: Adele Hink, Sierra Delamarter, and Gray Beyer for all of their fantastic work in the exhibitions production, installation, and the design of this catalog.

This project is partially supported by a grant from the Illinois Arts Council Agency.



References

Audio

Calumet in Dub Playlist
A playlist compiled by Norman W. Long citing research and influences.
bit.ly/3H7p0QB

Kepla with Norman Long (September '22)
Aired by Melodic Distraction
58 minutes 50 seconds
Mixcloud
mixcloud.com/melodicdistraction/kepla-with-norman-long-september-22/

The Sounds of Slavery
Playlist by T. David Franklin

Track 1: Arwhoolie Cornfield Holler, 46 seconds Track 3: Field Holler, 1 minute 17 seconds

Track 13: *Run Old Jeremiah*, 5 minutes 30 seconds Internet Archive

archive.org/details/TDavidFranklinTheSoundsofSlavery *The Sounds of Slavery* is the closest modern listeners will ever get to experiencing the diverse sounds that surrounded slave life.

Websites

African American Heritage Water Trail: From Beaubien Woods to Robbins
An initiative of Openlands
bit.ly/3HbHUWe
This site offers maps and information about exploring the Trail that honors the 180 years of African American history in the Calumet Region.

Illinois Underground Railroad illinoisundergroundrailroad.info
A website presenting detailed information about the Underground Railroad in Illinois.

Untold America: Chicago's new African American Heritage Water Trail
by Tiffany Walden
BBC Travel
bbc.in/3JcAKnx
This piece provides a detailed look at the African
American Heritage Water Trail.

Videos

Chicago: City of Big Shoulders with Scott Simon Part 1 of EDENS LOST & FOUND How Ordinary Citizens are Restoring Our Great American Cities
Directed by Harry Wiland
PBS, May 18, 2006
56 minutes
This show highlights the cooperation of ordinary

This show highlights the cooperation of ordinary citizens, environmental groups, and government to develop solutions to ecological issues.

Matter of Fact With Soledad O'Brien Executive Produced by Rita Aleman NBC, June 21, 2020 30 minutes Internet Archive bit.ly/3HvRcxJ

This video focuses on Hazel Johnson's environmental activism regarding cancer causing pollution in the Altgeld Gardens area of Chicago.

Book

Dub Soundscapes and Shattered Songs in Jamaican Reggae by Michael E. Veal

Wesleyan University Press, Middletown, Connecticut 2007

Particularly chapter 8, Starship Africa: the acoustics of diaspora and of the postcolony which discusses dub music techniques and processes as metaphor for loss, rupture, and repair that are a part of the experience of many Black people in the diaspora.



Scan the QR Code for an excerpt of *Calumet in Dub*

