

STAGES



Educational Packet & Discussion Guide for

Pieces of the Moon

by
Nick Flint

Presented by
STAGES in partnership with ONE YEAR LEASE THEATER COMPANY

A new stage play adapted to a radio play for live streaming
First aired at Stages in Houston TX on July 20, 2020

Originally Commissioned and Developed by One Year Lease Theater Company

Directed by Ianthe Demos

Sound Design by Brendan Aanes

Music Direction by Granville Mullings

Studio Engineering and Audio Editing by Tom Beauchel

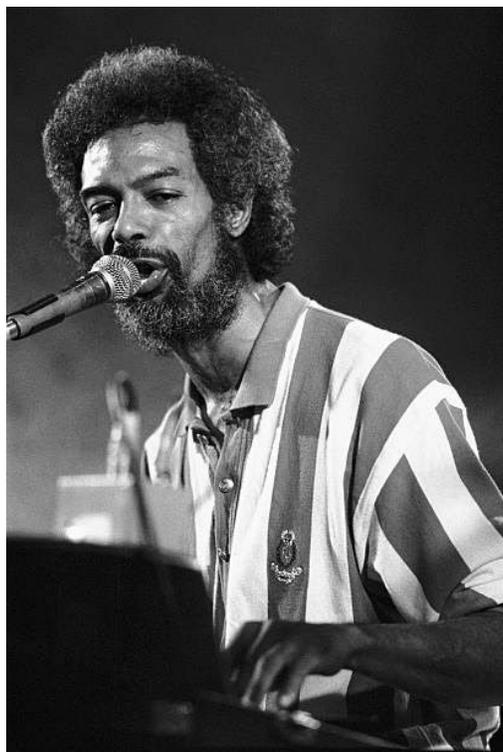
Packet Materials by Isabel Faith Billingham

Who Is Gil Scott-Heron?

Today, Gil Scott-Heron is widely considered the “grandfather of rap,” and “the Black Bob Dylan,” though he preferred to call himself a “bluesologist,” which he defined as “a scientist who is concerned with the origin of blues.”

Over the course of his life, he published two novels, a collection of poetry, thirteen studio albums, nine live albums, and posthumously published a memoir and an additional album.

“It is very important to me that my ideas are understood. It is not as important that *I* be understood. I believe that this is a matter of respect; your most significant asset is your time and your commitment to invest a portion of it considering my ideas means it is worth a sincere attempt on my part to transmit the essence of the idea. If you are looking, I want to make sure that there is something here for you to find.”



A Brief Timeline of Gil's Life

April 1, 1948 - Born in Chicago, Illinois to Bobbie Scott-Heron and Giles “Gil” Heron

December 1950 - Moves to Jackson, Tennessee to live with his grandmother, Lillie Scott

November 1960 - Gil's grandma dies; Bobbie moves to Jackson

November 1961 - Jackson passes around a petition to desegregate the schools; 40 students sign

January 3, 1962 - Gil's first day at Tigrett Middle School as one of three Black students to integrate the student body (alongside Madeleine Walker and Gillard Glover)

July, 1962 - Moves to the Hampden Place in the Bronx (NYC) with his mother; I-70 was being built straight through Jackson, TN

1965 - Attends the private school Fieldston on a full scholarship

1967 - Graduates Fieldston as one of five Black students in his class of 100

September 1967 - Begins college at Lincoln University

October 1967 - Takes a “sabbatical” to write his first novel, *The Vulture* (he never returns)

1970 - *The Vulture* is published, and his first album, *Small Talk at 125th and Lenox* is released

1971 - *Pieces of a Man* is released; starts graduate school at John Hopkins University

1972 - Second novel, *The Nigger Factory*, is published; receives his Masters in creative writing

1972-1982 - Records and releases eleven more spoken-word and blues/jazz albums

2001-May 2007 - In and out of jail for various drug-related charges (“a *birthright*,” he claimed)

2010 - Releases album *I'm New Here*

May 27, 2011 - Dies at St. Luke's Hospital in New York City

2012 - *The Last Holiday* is published; he receives a Grammy Lifetime Achievement Award

April 19, 2014 - *Nothing New* is released, a stripped-down version of past pieces

On Integrating the First School in Jackson, TN

In his memoir, *The Last Holiday*, Gil wrote that not much was different about the school physically, and it wasn't until they got to the Civil War did he realize the difference. He wrote:

“When we did get to the Civil War, it was like reviewing it from the loser’s locker room. I don’t know how many classes I’d had about the Civil War up to that point, but none of them had ever been from a point of sympathy with the South. Okay, so now the South was the home team.”

Gil’s Influence on Music Today

See if you recognize some of these names:

Kanye West, Talib Kweli, Jay Z, Ice Cube, Kendrick Lamar, J Cole, Chance the Rapper, Chuck D, Common, Travis Scott, S’Express, Noname, Rapsody, Saba, Ghostpoet, Jamie xx, Kendrick Lamar, Tupac Shakur, Usher, Snoop Dogg

All of these artists have recognized Gil’s influence on their own music. **Gil was the first person to find popularity by combining spoken word with jazz music.** He drew on an oral poetry tradition that extended from the blues and straight into what would become hip-hop, using biting satire and social commentary that reflected the uncertainty and tumult of the time.

Some Other Things...



-While at Lincoln, one of Gil’s friends died due to inadequate medical treatment from the school. He helped lead a protest that shut down the school until all seven of their demands for reform were met.

-The title of his memoir, *The Last Holiday*, refers to Stevie Wonder’s successful campaign to make Dr. Martin Luther King Jr.’s birthday into a national holiday; Gil played a role in bringing this about.

-Gil’s move to NYC in 1962 was part of a movement called The Great Migration (*see page 6*).

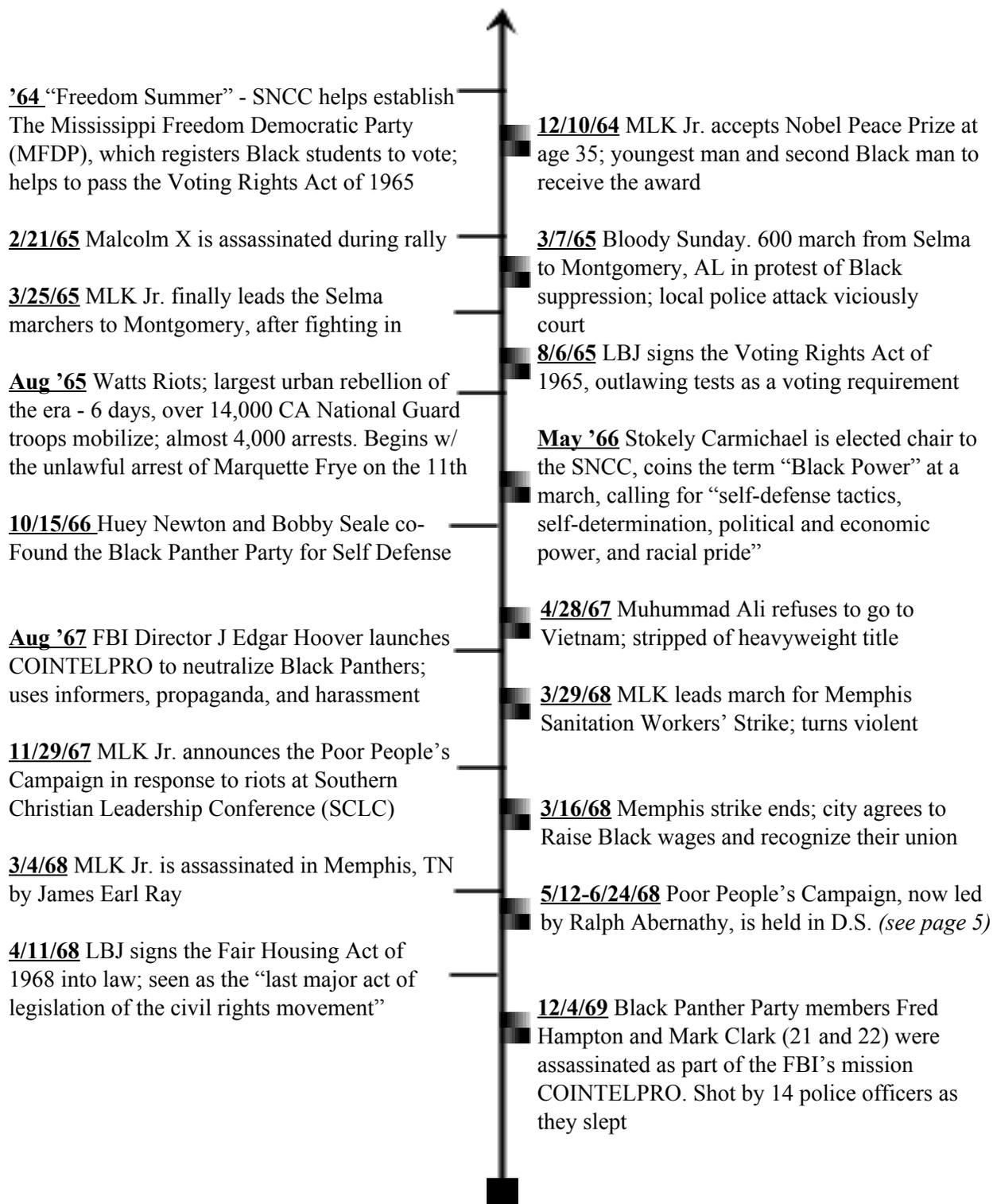
“I don’t think his influence can be overstated. For Black America, he was their greatest folk hero . . . One of the values inculcated in him by his grandmother was: if you can help someone, why wouldn’t you?”

-Craig Charles

The Civil Rights Movement: A Brief Timeline of Selected Events

-
- 5/11/54** The US Supreme Court deems segregation of public schools unconstitutional in Brown vs. Board of Education
- 8/28/55** Emmet Till is kidnapped and brutally murdered in Mississippi when a white woman falsely accuses him of whistling at her
- 12/11/55** Rosa Parks, a Black seamstress, is arrested when she refuses to vacate her seat on a public bus in the whites-only section
- 3/17/57** A. Philip Randolph organizes the Prayer Pilgrimage for Freedom march on D.C. to call out states for not desegregating schools
- 9/9/57** Eisenhower signs the Civil Rights Act of 1957 into law to protect voter rights
- 10/12/58** The Hebrew Benevolent Congregation is bombed in Atlanta, GA; suspects acquitted
- 2/1/60** The ‘Greensboro Sit-In’ - four Black students refuse to leave an all-white lunch counter; this ignites a slew of similar protests across the country
- 3/15/60** Ella Baker helps find the Student Non-Violent Coordinating Committee (SNCC) following the Greensboro Sit-Ins
- 5/10/60** Nashville agrees to desegregate public facilities following one of the most successful student-directed sit-in campaigns of the era
- 11/14/60** Six-year-old Ruby Bridges is escorted by four armed federal marshals to school, becoming one of the first to integrate New Orleans schools; met with hostile white protests
- 1961** ‘Freedom Rides’ - activists take bus trips through the South to protest segregated bus terminals; marked by horrific violence from white protestors. Organized by SNCC and CORE (Congress of Racial Equality)
- 9/27/61** Georgia Tech becomes the first college in the Deep South to successfully integrate peacefully and without a court order
- 11/1/61** The Interstate Commerce Commission bans segregation in all facilities under its jurisdiction
- Dec '61** Group of Freedom Riders test the ICC’s new ruling. **Their arrest** helps to invigorate the Albany Movement, now regarded as one of the most significant developments of the Civil Rights Era
- 6/12/63** Medgar Evers is assassinated by Byron De La Beckwith, a member of White Citizens’ Council in Jackson, MI, outside his home
- 8/28/63** The March on Washington for Jobs and Freedom - MLK Jr. gives “I Have A Dream” speech to approximately 250,000 people in front of the Lincoln Memorial
- 9/15/63** Birmingham Bombing at 16th Street Baptist Church; four girls killed, dozens injured. Riots break out; bombing intends to stall the movement, but only propelled it forward
- 2/3/64** Over 450,000 students refuse to attend school in NYC, boycotting to show support for the full integration of schools, one of the largest demonstrations of the era
- June '64** Malcolm X begins the Organization of Afro-American Unity, identifying racism as the enemy of justice; a human rights issue
- 7/2/64** Lyndon B. Johnson signs the Civil Rights Act of 1964 into law, outlawing segregation in public places, including all businesses
- 7/18/64** 15 yr-old James Powell shot by NYPD in Harlem; 8,000 residents launch large-scale riot that lasts for six days; spurs the NY Race Riots

Civil Right Movement: A Brief Timeline of Selected Events, Continued



The Poor People's Campaign

Dr. Martin Luther King, Jr. announced the Poor People's Campaign on November 29, 1967. He wanted a "middle ground between riots on the one hand and timid supplications for justice on the other."

He planned for 2,000 poor people to converge on Washington, D.C. to demand jobs, unemployment insurance, a fair minimum wage, and education for poor adults and children, designed to improve their self-image and self-esteem.



Marian Wright, the director of the National Association for the Advancement of Colored People (NAACP), believed this would be the next big step for genuine equality, and suggested the idea to King. This movement extended beyond Black Americans, in what King described as "the beginning of a new co-operation, understanding, and a determination by poor people of all colors and background to assert and win their right to a decent life and respect for their culture and dignity."

After King's assassination, Ralph Abernathy took over the movement, becoming the SCLC's new president. King's wife, Coretta Scott King, led the first wave of demonstrators on Mother's Day, May 12, 1968, when thousands of women marched on Washington. The next day, Resurrection City was erected -- a temporary settlement of tents and shacks on the Mall in D.C.



For over a month, Resurrection City remained in place. Abernathy demanded "that no child go hungry...that no family lack in good housing...that no man be without a job...that no citizen be denied an adequate income...that no human being be deprived of health care...that no American be denied the opportunity of education...that this murdering of people end in America, in Vietnam, and in the world."

The Department of the Interior forced the City to close on June 24, 1968 after the permit to use park

land expired. Abernathy believed the concessions made were insufficient; members of the PPC met with "bureaucrats and Government lawyers," but ultimately amounted to promises for *future* action, in addition to qualifying 200 counties for free surplus food distribution. "He has also called it 'incredible' that such gains must be 'extracted' by hard bargaining from the 'richest Government in the world.'"



The Great Migration

Beginning in 1916, The Great Migration refers to Black families leaving their homes in the South in search of a sort of “political asylum within the borders of their own country, not unlike refugees...”

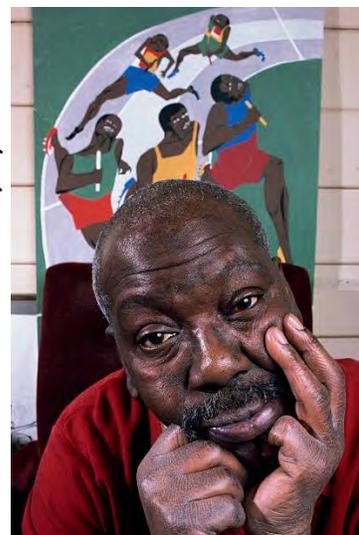
This self-bestowed milestone has been referred to as “the first big step that the nation’s servant class ever took without asking.” Prior to this time, most African-Americans were restricted to the South. Simply by leaving, these families

sought the chance to participate in a democracy, and just by being present, “force the North to pay attention to the injustices in the South and the increasingly organized fight against those injustices.” This was the first step in exposing police brutality, mass incarceration, and wide disparities between races for housing, healthcare, and education -- social fault lines that are more apparent than ever today, fifty years after the migration “ended.”

This migration reshaped both the political and social geography of the nation. At the very beginning of the migration in 1913, 90% of all African-Americans were living in the South. By the end of the 1970s, 47% of all African-Americans were living in the North and West.

Leaving changed the course of history for these Black lives. The children of the Great Migration reshaped and trailblazed otherwise inaccessible professions, such as Gil Scott-Heron, John Coltrane, Bill Russel, August Wilson, Toni Morrison, Miles Davis, Diana Ross, Tupac Shakur, Prince, Venus and Serena Williams. John Lawrence (on right) was enrolled in an after-school art program by his mother where they settled in New York to keep him out of trouble. He went on to create “The Migration Series,” a 60-panel collection of brightly colored paintings that became “not only the best-known images of the Great Migration but among the most recognizable images of African-Americans in the 20th century.” [View the series at: lawrencemigration.phillipscollection.org](http://lawrencemigration.phillipscollection.org)

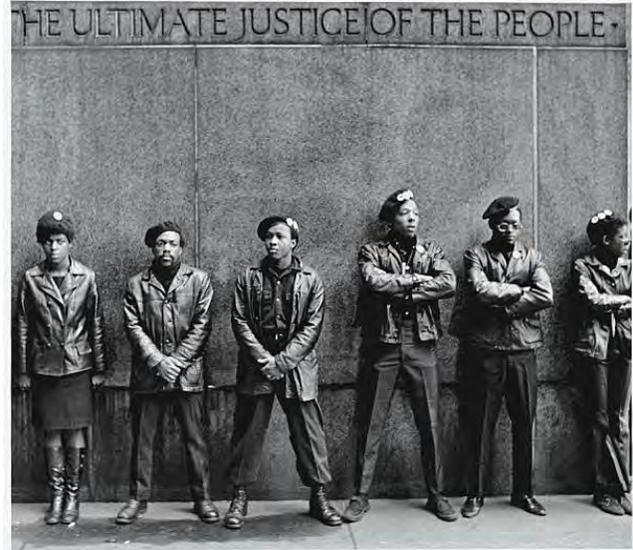
The migration technically ended in the 1970s, though the tragic aftershocks remain ever-present in examples like Tamir Rice, the 12-year-old Cleveland boy shot to death by the police in the city to which his ancestors had fled. His fate is “a reminder that the perils the people sought to escape were not confined to the South, nor the past.”



The Black Power Movement

This was a political and social movement advocating for racial pride, autonomy, and equity for all people of Black and African descent. Following the assassination of Malcolm X in February 1965, the followers split off into two large camps, the first of which was the Black Panther Party (BPP).

Bobby Seale and Huey Newton co-founded the BPP “on the ideas of political action first laid out by Stokely Carmichael. The Panthers exposed self-determination, quality housing, health care and full employment for African-Americans.” Their uniform (pictured right) included berets and leather jackets, and were active in their community. They ran schools to provide an African-American centered education, and fed the poor and school children. They became known for their steadfast and militaristic belief for the right of Black people to defend themselves when under attack “as had been their lot for generations in the Jim Crow South and was increasingly in the North and West” (following the Great Migration).



The Black Arts Movement (BAM)



“The Black Arts Movement is the aesthetic and spiritual sister of the Black Power concept,” said Larry Neal, one of the leaders of BAM.

The movement’s mission was for Black artists to create Black art about Black experiences for Black people through poetry, novels, visual art, music, and theater. “Embedded in these works was a palpable emphasis on Black economic and cultural autonomy that was akin to the teachings of the Black Power Movement and Black Liberation Struggle.”

Black Aesthetic was a term used to describe any and all works of art that centered Black life and culture.

BAM was officially established when Imamu Amiri Barka (previously LeRoi Jones) moved to Harlem and founded the Black Arts Repertory Theatre/School (BARTS) alongside Charles Patterson, William Patterson, Clarence Reed, and Johnny Moore.

A Timeline of Selected Events Throughout the Black Arts Movement

1964.

- Precursor to BAM; Amiri Baraka's play *Dutchman* opens Off-Broadway, "a play of entrapments in which a white woman and a middle-class black man both express their murderous hatred on a subway."
- Miles Davis assembles the Miles Davis Quintet
- The Left Band Jazz Society establishes itself in Baltimore, Maryland

1965.

- April: Amiri Baraka creates the Black Arts Repertory Theatre/School. BAM begins.
- "The Revolutionary Theatre," a Black Arts manifesto by Baraka, is published
- Dudley Randall establishes Broadside Press in Detroit, Michigan
- Oscar Brown Jr. opens *Summer in the City* at the Harper Theater in Hyde Park - one of the first (if not *the* first) heritage shows in the country
- Nina Simone performs "Mississippi Goddam" outside Montgomery, Alabama while 3,000 marchers make their way from Selma
- *Flowers for Trashman*, a play by Marvin X, is produced by the Drama Department of San Francisco University
- Archie Shepp records *Fire Music*

1966.

- John Oliver Killens organizes the First Black Writers Conference at Fisk University
- The first Black Arts Convention takes place in Detroit
- *Jubilee* by Margaret Walker is published
- Stevie Wonder releases the album *Uptight*
- Nina Simone releases the album *Wild is the Wind*

1967.

- Marvin X and Eldridge Cleaver establish The Black House, a political and cultural center in San Francisco
- July 17th, John Coltrane dies - most famous saxophone player of all time
- Emory Douglas is appointed the Minister of Culture for the Black Panthers, responsible for developing the group's brand. Creates ad work that is to be dubbed "militant-chic"
- Haki Madhubuti established Third World Press in Chicago alongside Carolyn Rodgers and Johari Amini; currently the largest independent Black-owned press in the US
- *For Malcolm: Poems on the Life and Death of Malcolm X* is published, edited by Dudley Randall and Margaraet Burroughs
- Organization of Black American Culture paints the *Wall of Respect* mural on the South Side of Chicago with twenty artists, honoring the likes of W. E. B. Du Bois, Stokely Carmichael, Muhammad Ali, Malcolm X, and more; it is destroyed by fire in 1971
- Second Black Writers Convention and Black Arts Convention
- Robert MacBeth establishes the New Lafayette Theatre in Harlem; supplies free tickets to Harlem residents
- Kelan Phil Cohran and Oscar Brown, Jr. co-found the Affro-Arts Theater in Chicago
- July 17, John Coltrane dies
- May 22, Langston Hughes dies
- Aretha Franklin's *Respect* is released

1968.

- Mahalia Jackson sings at MLK's funeral service
- Nina Simone and her band perform *Why? (The King of Love is Dead)* several days after MLK's assassination
- "The Black Arts Movement" (essay) by Larry Neal is published in a special issue of *The Drama Review*, whose cover announced a benefit for the Black Panther Party
- *Black Fire: An Anthology of Afro-American Writing* edited by Baraka and Neal is published
- *In the Mecca* by Gwendolyn Brooks is published
- Suzanne Jackson opens Gallery 32 in San Francisco, a community-oriented space that hosts exhibitions by emerging Black artists
- *The Electric Nigger and Others*, a play trilogy by Ed Bullins, opens at New Lafayette Players (later renamed *Ed Bullins Plays* for what Bullins called "financial reasons")
- Miles Davis leads the way for electric jazz with his release of *In a Silent Way*
- The single *Invitation to Black Power* by Shahid Quintet is released by S and M Records

1969.

- Carolyn Rodgers's essay "Black Poetry -- Where It's At" appears in *Negro Digest*
- Elaine Brown releases the album *Seize the Time*, dubbed "the first songs of the American revolution" by the Black Panther's newspaper
- *Early Black American Poets* edited by William H. Robinson is published
- Malcolm X Liberation University opens in Dunham, North Carolina by Howard Fuller, whose goal is "to provide a framework within which black education can become relevant to the needs of the black community and the struggle for black liberation"
- *To Be Young, Gifted and Black* opens at the Cherry Lane Theatre in NYC; compiled by Robert Nemiroff, Lorraine Hansberry's former husband, it's a collection of her writings as a posthumous autobiographical play
- Maya Angelou's autobiography *I Know Why the Caged Bird Sings* is published
- Pharoah Sanders releases the album *Karma*, still considered a "high point of African American artistic production during the Black Arts era"
- Miles Davis completely transforms jazz with the album *Bitches Brew*

1970.

- *We a BaddDDD People* by Sonia Sanchez is published
- *Cables to Rage* by Audre Lorde is published
- *The Bluest Eye* by Toni Morrison is published
- Gil Scott-Heron releases *Small Talk at 125th and Lennox*, opening the album with an early version of "The Revolution Will Not Be Televised"
- *Negro Digest* becomes *Black World* in May
- *The Third Life of Grange Copeland* by Alice Walker is published

1971.

- *Pieces of a Man* by Gil Scott-Heron is released
- *The Black Poets: A New Anthology* edited by Dudley Randall is published
- *Black Literature in America* edited by Houston Baker is published
- *It's a New Day: Poems for Young Brothas and Sistuhz* by Sonia Sanchez is published by Broadside Press; children's book
- *Reppin' Black in a White World* by the Watts Prophets released; "rap" is coined as a term

1972.

- *Mumbo Jumbo* by Ishmael Reed is published
- *New Black Voices: An Anthology of Afro-American Literature* edited by Abraham Chapman is published
- *Black World* runs a special issue on poetry in September
- Amiri Baraka releases an album, *It's Nation Time*, with the Motown label

1973.

- *Sula* by Toni Morrison is published
- Margaret Walker organizes the Phillis Wheatley Poetry Festival at Jackson State University
- *From a Land Where Other People Live* by Audre Lorde is published
- The film "The Spook Who Sat By the Door" written by Sam Greenlee, directed by Ivan Dixon, is released as an attempt to bring BAM and the Black Power Movement into mass media
- *Understanding the New Black Poetry* edited by Stephen Handerson is published

1974.

- *Celebrations and Solitudes* (recording) by Jayne Cortez is released
- *The Black Book* edited by Middleton Harris is published
- *The Autobiography of Miss Jane Pittman* is broadcast on CBS
- *Keeping the Faith: Writings by Contemporary Black American Women* edited by Pat Crutchfield Exum is published

Does It Just End?

It was around the mid-1970s that the formal Black Arts Movement began to dissipate, as Baraka and other leaders of the movement shifted their focus from Black Nationalism to Marxism.

Of course, many of these creations were incredibly profound and innovative, but it would be remiss not to mention that the movement was incredibly male-dominated, perhaps contributing to some of the major works to be considered racist, homophobic, anti-Semitic, and/or sexist. In the timeline compiled above, there was a distinct effort made to bring out some of the female artists also creating work during this period who can sometimes be overlooked.

Through the shift away from the Black Arts Movement as a collective, several of the artists began to receive cultural recognition as they were brought into and celebrated by white mainstream audiences. Some of these artists included Gil Scott-Heron, Amiri Baraka, Maya Angelou (pictured), Nikki Giovanni, and James Baldwin.

The music created during this period was truly revolutionary, and laid the groundwork for new genres, such as modern-day spoken word, rap, and hip-hop to emerge.





The Space Race

“Space Race” refers to the competition between the United States and the Soviet Union during the Cold War to develop aerospace capabilities and technology. It lasted for just under two decades, beginning in 1957 when the USSR launched the first artificial satellite, and symbolically ending in 1975 with a cooperative space mission.

It is unclear who the “winner” of the Space Race was. Below is a timeline of certain events.

10/4/57: USSR launches Sputnik 1, the first satellite to orbit Earth

1/21/58: US enters Space Race; launches Explorer 1, first US satellite to reach orbit

8/2/59: US launches Explorer 6, world’s first weather satellite; first pics of Earth from space

10/4/59: USSR launches Luna 3, orbits Moon; first images of the far side of the Moon

5/25/61: JFK proposes putting a man on the Moon before the end of the decade

12/21/68: US Apollo 8 is first human-crewed Spacecraft to orbit Moon and return to Earth

3/19/71: USSR launches the first space station, later to create the International Space Station

11/3/57: USSR launches Sputnik 2, carrying first living organism into space, a dog, Laika

10/1/58: The National Aeronautics and Space Administration (NASA) is created

9/12/59: USSR launches Luna 2; first spacecraft to reach the surface of the Moon

3/12/61: Yuri Gagarin is first man to reach space and orbit the Earth on Vostok 1 (USSR)

3/18/65: Alexei Leonov conducts the first-ever spacewalk, which lasts twelve minutes

7/20/69: Neil Armstrong and Edwin “Buzz” Aldrin become first two men to walk on Moon

7/15/75: First cooperative mission between the US and USSR is launched. Tom Stafford and Alexei Leonov exchange a handshake, symbolically ending the Space Race

Intro to Apollo 11: The Crew

Neil Armstrong was the Commander, Michael Collins was the Command Module Pilot, and Edwin “Buzz” Aldrin was the Lunar Module Pilot on the Apollo 11 mission. The Lunar Module (LM) was named Eagle, and the Command and Service Module (CSM) was named Columbia. It launched from the Kennedy Space Center on July 16, 1969. More on the next page:



Neil Armstrong was born in Wapakoneta, OH on August 5, 1930. He was the first man to walk on the moon.

Education: B.S. in aeronautical engineering from Purdue University in 1955, M.S. in aeronautical engineering from University of Southern California in 1970. Selected with second group of astronauts in 1962.

Other Missions: Backup Command Pilot, Gemini 5

Command Pilot, Gemini 8

Backup Command Pilot, Gemini 11

Backup Commander, Apollo 8

Later Career: July 1970, he became Deputy Associate Administrator for Aeronautics at NASA; retired in August 1971.

1971-79, taught Aerospace Engineering at the University of Cincinnati

Personal Life: Married Janet Shearon on January 28, 1956. Their son

Eric was born in 1957, followed by their daughter Karen in 1959. Sadly, Karen died of complications related to an inoperable brain tumor in January of 1962. Janet and Neil divorced in 1944.

Following Apollo 11, Neil shied away from the public eye, becoming something of a recluse. He gave only a few very rare interviews. He died at age 82 on August 25, 2012 in Indian Hill, Ohio beside his second wife, Carol.

Michael Collins was born in Rome, Italy on October 31, 1930.

Education: B.S. from West Point in New York in 1953. Selected with the third group of astronauts in October 1963.

Other Missions: Backup Pilot, Gemini 7

Pilot, Gemini 8

Assigned to Apollo 8; removed to undergo surgery

Later Career: Resigned from NASA and the Air Force in 1970. Served as the Assistant Secretary of State for Public Affairs for one year, then moved on to be the Director of the National Air and Space Museum until 1978. Appointed the Vice President of LTV Aerospace in Arlington, Virginia until his resignation in 1985 to begin his own consulting firm.

Personal Life: Happily married to his wife, Pat, until her death in 2014. He is still alive today.



On the mission, Collins was left to pilot Columbia while Armstrong and Collins landed with the LM. In a 2009 interview, he shared that he wrote a note before they touched down that read “My secret terror for the last six months has been leaving them on the Moon and returning to Earth alone; now I am within minutes of finding out the truth of the matter. If they fail to rise from the surface, or crash back into it, I am not going to commit suicide; I am coming home, forthwith, and well.”



Eldwin “Buzz” Aldrin was born in Montclair, New Jersey on January 20, 1930. He was the second man to walk on the moon. Education: B.S. from West Point in New York, 1953. D.S. in Aeronomics from MIT in 1963. Selected with the third group of astronauts in October 1963.

Other Missions: Backup Pilot, Gemini 9
Pilot, Gemini 12 (took first “selfie” in space)
Backup Command Module Pilot, Apollo 8

Later Career: Retired from NASA July 1971. He has authored nine books, including one for children. His nonprofit, the Human SpaceFlight Institute, is set to be launching soon. His docking and rendezvous techniques developed for NASA are still used today.

Personal Life: Married to Joan Archer at the time of the Apollo 11 mission; they divorced in 1974. He has since been married twice more. Upon returning from the Moon, he battled depression and alcoholism, but has been sober since 1979. He is still alive today.

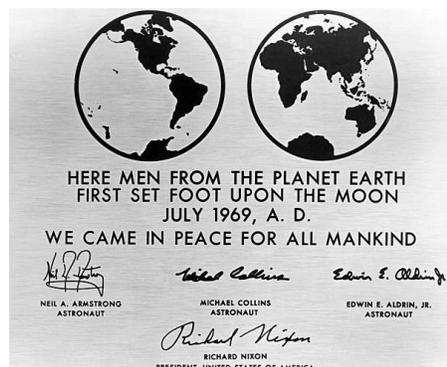
Apollo 11 Mission Timeline

<u>Event</u>	<u>Date & Time (EST)</u>	<u>Mission Time</u>
Launch	July 16 - 08:32:00	00:00:00
Translunar injection	11:16:16	02:44:16
CSM-LM docking	11:56:03	03:24:03
Lunar orbit insertion	July 19 - 12:21:50	75:49:50
CSM-LM separation	July 20 - 13:11:53	100:39:53
Lunar landing	15:17:40	102:45:40
Begin EVA	21:39:33	109:07:33
First step on lunar surface	21:56:15	109:24:15
Lunar liftoff	July 21 - 12:54:01	124:22:01
LM-CSM docking	16:34:00	128:03:00
Transearth injection	23:54:42	135:23:42
Splashdown	July 24 - 11:50:35	195:18:35

The landing site was the Pacific Ocean; the three men were picked up by the U.S.S. Hornet and brought back to shore.

The image on the right shows a plaque installed on the lunar landing vehicle, the reads:

“HERE MEN FROM THE PLANET EARTH
FIRST SET FOOT UPON THE MOON
JULY 1969, A. D.
WE CAME IN PEACE FOR ALL MANKIND”



Influence of the Space Race: Today's Inventions

Communication - The technologies used for broadband communications, high-definition television, collecting data for weather reporting and GPS are all provided by the network of satellites that now surround Earth.

Medical - Image processing used in CAT scans and radiology were first developed for deep space photography and imaging. NASA's innovations for shock absorbent materials also led to more functionally dynamic artificial limbs.



Technology - The world's first portable computer and mouse were created for space exploration, later adapted to the consumer market. Wireless headset and the technology used in camera phones were first developed for pilots and astronauts, as well. Plus, NASA created the first ball-point pen for use of writing in space (the USSR was more cost-effective and used pencils).

Other inventions include: scratch-resistant lenses, LED lights, safe land mine removal, athletic shoes, foil blankets, water purification systems, Dust Busters, ear thermometers, home insulation, the Jaws of Life, memory foam, freeze-dried foods, adjustable smoke detectors, and baby formula, just to name a few.

How Much Did All This Cost?

Casey Dreir of the Planetary Society recently did some digging into the specifics of NASA's Space Race costs, which wasn't as straightforward as you might think. Below are his findings, including 2020's inflation rate and relative Gross Domestic Product (GDP), the value of all goods and services at the time.

Space Program Total:

	<u>Original \$</u>	<u>Adjusted 2020 \$</u>	<u>GDP \$</u>
Spacecraft	8.1 billion	79.9 billion	194.8 billion
Launch Vehicles	9.4 billion	97.3 billion	234.4 billion
Development & Operations	3.1 billion	28.2 billion	66.9 billion
Direct Costs	20.6 billion	205.3 billion	505.2 billion
Facilities, Salaries, & Overhead	5.2 billion	53.8 billion	136.2 billion
Total Apollo Costs	25.8 billion	259.1 billion	641.4 billion
Robotic Lunar Program	907.0 million	10.1 billion	26.1 billion
Project Gemini Costs	1.3 billion	13.8 billion	38.4 billion
<u>Total Lunar Effort</u>	<u>28.0 billion</u>	<u>283.0 billion</u>	<u>702.3 billion</u>

The benefits from the space program are numerous and lasting, but the monetary cost was incredibly steep, especially during a time that was financially fraught for so many Americans.

Juxtaposing Black Life with the Space Race

Poverty level for African Americans in 1969: **31.1%**

Poverty level for White Americans in 1969: **9.5%**

Abernathy led a march of 25 poor families to the Kennedy Space Center to protest (pictured right) what he called a “distorted sense of national priorities” on the day of the Apollo 11 launch. He urged NASA administrator Thomas Paine to put their technologies in service to the poor.

Throughout the 1960s, a consistent number of Americans “did not believe Apollo was worth the cost.” There was only one poll in July of 1969, that the smallest of majorities was supporting it.

A July 27, 1969 New York Times headline read: **“Black and Apollo, Most Couldn’t Have Cared Less.”** On the same day as the Moon landing, around 50,000 people were in attendance at the Harlem Cultural Soul Music Festival. The article cited a man at a bar saying, “We’re earth-bound... The whole thing uses money that should be spent right here on earth and I don’t like them saying ‘all good Americans are happy about it’--I damn sure ain’t happy about it.” It was argued that the money poured into the space program could have been used to rehabilitate cities, feed the hungry, provide shelter for the poor.



Sylvia Drew, the attorney for the NAACP Legal Defense and Educational Fund in 1969, said, “It proves that white America will do whatever it is committed to doing. If America fails to end discrimination, hunger and malnutrition then we must conclude that America is not committed to ending discrimination, hunger and malnutrition. Walking on the moon proves that we do what we want to do as a nation.”

Most Black newspapers published cartoons attacking the space program. *Jet* magazine cited NASA in 1969 as having “the poorest minority hiring records among U.S. agencies.” Thanks to the popularization of *Hidden Figures*, many know more about the role that Katherine Johnson and other African American women “computers” played to orchestrate the Space Race. NASA’s website now calls her calculations “critical to the success of the Apollo Moon landing.” You can bet that line was a recent addition.

Sylvia Drew Ivie went on to become the assistant at Charles R. Drew University of Medicine, named after her father. In 2019 she said, “It wasn’t that we didn’t have enough money... we just didn’t have a desire to do both [Space Race and end poverty]. And I think we are still lacking that will, though there is more interest in it today. In Watts, when we had the revolt in ’65, we had one grocery store. This is 2019. We still have one grocery store in Watts ... the Earth and the stars are as mysterious and wonderful to us as they are to every other group, and we can learn about them and we can learn from them. We’re all members of the planet Earth together. That’s a huge message... But it doesn’t help us get a grocery store in Watts.”

New York Amsterdam News, a Black newspaper, concluded their coverage of the Moon landing with,

“Yesterday the moon. Tomorrow, maybe us.”

Post-Listening Discussion Questions

- What moments stood out to you the most as you listened, and for what reasons?
- Sound engineering is incredibly important when it comes to a radio play. What stood out to you in the way you heard the performance? What sort of images did the sound invoke?
- What are some parallels between this story and what is happening in the United States today, in 2020?
- Look at some of Gil's lyrics, particularly from "The Revolution Will Not Be Televised." How do you relate to these lyrics today, and which references are still resonant? Which don't you know?
- How would you say Gil's music continues to influence rap and other musical artists today?
- Every memory that Gil visits in this play really happened, and can be read about in his memoir, *The Last Holiday*. What from Gil's life surprised you the most? Why?
- Gil Scott-Heron died in 2011. What do you think he'd be writing about if he were alive today? Try to be as precise as possible with your example(s), and explain why you chose those specific topics/events.
- The Space Race helped define an era that included the Civil Rights Movement and the Cold War. In your opinion, why was the Space Race important? Why -- and to whom -- was it important in the 60s?
- The Apollo missions were unpopular with a significant number of Americans at the time they occurred. Were you surprised to learn of the unrest at the time of the missions? How has the narrative of Apollo 11 shifted over time?
- Consider the lyrics to "Whitey On the Moon." What thoughts or emotions came up while you listened to it? Take a moment to reflect on how the color of your skin and lived experiences may have impacted this.
- What revolution "takes place in your head" as you listen to the radio play?