Radium Girls

Theatre to Present Radium Girls

Show Dates & Times

October 29 & 30, 2015—7:30 pm
October 31, 2015—2:00 pm
November 5 & 6, 2015—7:30 pm

By D.W. Gregory
Study Guide by Chris Fritzges & Cody Charles Douell
Directed by Chris Fritzges
I. **Radium Girls—The Play**
II. The World of *Radium Girls*
III. Who were the *Radium Girls*?
IV. Other Real People of *Radium Girls*
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**Plot Summary of *Radium Girls***

“In 1926, radium was a miracle cure, Madame Curie an international celebrity, and luminous watches the latest rage—until the girls who painted them began to fall ill with a mysterious disease. Inspired by a true story, *Radium Girls* traces the efforts of Grace Fryer, a dial painter, as she fights for her day in court. Her chief adversary is her former employer, Arthur Roeder, an idealistic man who cannot bring himself to believe that the same element that shrinks tumors could have anything to do with the terrifying rash of illnesses among his employees. As the case goes on, however, Grace finds herself battling not just with the U.S. Radium Corporation, but with her own family and friends, who fear that her campaign for justice will backfire…”

D.W. Gregory
She writes about the exploration of political issues through a personal lens within her plays. The New York Times called her “a playwright with a talent to enlighten and provoke” for her most produced play, “Radium Girls.”

**Themes, Symbols, & Motifs**

**Themes**
Corporate World vs. the Worker, Role of the Press & Media, Consumerism, Worker’s Rights, Female Rights, Value of Hard Work, Justice & Peace

**Symbols**
Bright light of factory windows

**Motifs (support themes):**
Fighting time, Reporter & Sob Sister, Flowers, Painting, Selling radium products

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**The Cast of Radium Girls**

**D.W. Gregory**
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**Karina Martinez**
Diane Roeder/ Madame Curie/ Customer

**Xander Udochi**
Edward Markley/Von Sochocky/ Elderly Widower/ Photographer

**Brent Welch**
Tom Kreider/ Reporter/ Joseph Knef/ Venecine Salesman

**Jordyn Daniels**
Sob Sister/ Alma Macneil/ Clerk/ Anna Fryer

**Zoe Allison**
Kathryn Schaub/Society woman/ Harriet Roeder/ Shop girl

**Kayla Williams**
Grace Fryer

**Taylor Fulgham**
Arthur Roeder

**Jared Curtis**
C.B. “Charlie” Lee/ William J.A. Bailey/ Cecil Drinker/ Lovesick Cowboy/Male Shopper

**Levi Smith**
Raymond Berry/ Harrison Martland/ Frederick Flinn/ Store Owner

**Sydney Stoner**
Irene Rudolph/ Harrison Martland/ Frederick Flinn/ Store Owner
The World of Radium Girls

World War I (1914-1918)

What is Radium?
A rare radioactive metal used as a source of radiation for radiotherapy; before it was found out it was toxic, it was used for: “improving bones”, a better tasting chocolate, in toys and nightlights, in toothpaste, in cosmetics, in heating pads and suppositories, and in clocks and watches among many examples.

Films (silent and talking) & War Propaganda!

Woman’s Lives during the War and Suffrage

Women served multiple purposes during the war. They were directly involved with the war by serving as volunteer nurses on the battle fields and corporation factory workers. Amongst the factory positions that women held, all were nearly seven day employment with extremely low wages and safety conditions. An example would be in the ammunition field, with woman getting led and mercury poisoning from the shelling case. In addition, dial-painting was another way woman both “helped” soldiers in the field and got shorter lives from Radium Poisoning. In all, woman who were worked at a factory during and immediately after the First World War were likely to not live long. From 1848 to 1920, Woman fought for the equal right to vote; this was granted in the United States in 1919 as the 19th amendment to the US Constitution.

Yellow Journalism (bold headlines & fights to “get the scoop”)
Who Were The Radium Girls?

The name Radium Girls was coined by media of the 1920s to describe the plight of five girls as they sued their previous employer, the United States Radium Corporation. The five girls involved were: Grace Fryer, Katherine Schaub, Edna Hussman, Quinta McDonald, and Albina Larice. In addition to these five women, three others, Amelia Maggia, Irene Rudolph, and Hazel Kuser helped spark the ensuing lawsuit after their death. The girls were poisoned by the element, Radium, while they were employed as dial painters at US Radium in Orange, New Jersey during World War I. The woman would paint watch dials using Undark paint (developed by Dr. Von Sochocky), which had small traces of pure radium in it; the woman would wet the brush they used by dipping it in their mouth for a pointed end (this is called lip-dip). In total, 50 women died of Radium poisoning as they lived. Not very long after the case was settled, only years, Fryer succumbed to radium poisoning at the age of 34 (died October 27, 1933).

Grace Fryer

Grace Fryer was a bank teller in 1922 who wore a back-brace when she became concerned when her teeth began to fall out for no reason. After an examination using x-ray, it was determined that her jaw had serious decay. Using the information that her doctor suggested (1925), she linked her ailment with her former job. She spent two years finding a lawyer to challenge the corporation, along with many formal colleges; the lawyer who took-up the case was Raymond Berry. All four of the other radium-injured dial painter and Fryer sought $250,000 apiece and where dubbed the Radium Girls. After nearly two years of stalling by the company, a settlement of $10,000 and all medical and legal expenses were paid to the girls plus $600 per year annuity for as long as they lived. Not very long after the case was settled, only years, Fryer succumbed to radium poisoning at the age of 34 (died October 27, 1933).

Katherine Schaub

Kathryn was born in 1902 and died on February 18, 1933 at exactly 30 years, 11 months, and 8 days. She was the cousin of Irene Rudolph; her family took Irene in after her parents died. After her death, she offered her body to science in hopes that a cure for the co-victims of radium poisoning could be found.

Irene Rudolph

Kathryn Schaub’s cousin who was the exact same age as her. No description or photograph of her is known to survive. The second woman, in 1922, to see a dentist in regards to a rotten jaw that sparked concern over the local women. She died in July 1923 of what Kathryn called, “a most terrible and mysterious illness.” She is the first known victim to succumb to radium poisoning of the modern industrialized era.

Radium Girls

The University of Central Arkansas - Since 1907

[Image of a radium emanation water advertisement]
## Other Real People of Radium Girls

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Arthur Roeder</strong></td>
<td>President of the US Radium Corporation at the time of the Radium Girls scandal. Claimed Cecil Drinker had agreed to confidentiality about the condition of the girls who were falling victim in order to protect the interest of the corporation; he was the one that employed Drinker in the first place. He was fired after it was known that he had hid Drinker’s report.</td>
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<tr>
<td><strong>Cecil Drinker</strong></td>
<td>He visited the factory at the request of Arthur Roeder and was appalled by the conditions there, especially by the supervisors assuring the all-female workforce that the paint was safe, and even beautifying. He was the first one to directly link the ingesting of the paint by the girls as the cause of their problems, with him issuing an official report. Thanks to this report and the case, Radium-based paint was banned in the 1960s.</td>
</tr>
<tr>
<td><strong>Madame Curie</strong></td>
<td>A polish physicist that discovered Radium and Polonium. In addition to discovering both, she developed methods for the separation of radium from radioactive residues to test its properties. Ironically, she promoted the miracle therapeutic uses of radium, but exposers to high levels of it at the age of 66 in 1934.</td>
</tr>
<tr>
<td><strong>Harrison Martland</strong></td>
<td>In 1924, he began research on the effects of radioactive material on the human body; he determined that minute traces of radioactivity caused the death of the dial painters.</td>
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<td><strong>Katherine Wiley</strong></td>
<td>Chairwoman of the National Consumers League during the Radium Girls case. She told The New York World about the plight of the girls; she is the one responsible for causing the fascination of the case for the general public.</td>
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<tr>
<td><strong>Sabin Arnold von Sochocky</strong></td>
<td>Known for creating the world’s first radium-based luminescent paint, called Undark that would be used by the Radium Girls; he was also the original president of the company.</td>
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<tr>
<td><strong>Frederick Flinn</strong></td>
<td>He was disguised as a specialist who declared Grace Fryer in being in fine health after examining her. In actuality, he was a toxicologist on the company’s payroll who was the one to blame cases of radium poisoning as being caused by syphilis.</td>
</tr>
</tbody>
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Impact of the Case

Discovery of Radium Necrosis

Defined as: the necrosis (death) of bone tissue due to exposure to radium. The most common type is Radium Jaw, which was brought on by the ingestion and subsequent absorption of radium. In the above photo of Amelia Maggia (one of the dial painters), Radium Jaw can clearly be seen.

P.P.E.

The United States Department of Labor started regulation of PPE (personal protection equipment) and “speak-out” campaigns after this case settled.

Worker’s Comp—Journalist of the early 20th century in the United States were the first to campaign for worker’s composition. Most of the journalist who campaigned for this did so voluntary. Thanks to this case, among others, worker’s composition has been molded into the modern-day guidelines.
Dial Painter Facts
Made $.05 per watch, which is about $.27 today
Painter upwards of 200 watches per day
Pointed the brush with paint using their lips to sharpen the tip after painting each number - 12 numbers per watch
Dawn of the 1920’s had about 4000 dial painters
Appendix Questions

Can you think of a modern day story similar to the *Radium Girls*?

Can you think of other instances where corporations have taken advantage of workers?

What other fictional stories of seeking justice have you seen or read?

What do you think the news media is still sensationalized today?

How would you feel if you were one of the *Radium Girls*?
Activities

Color your own radiation symbol!
Activities

Create your own Radiation add! Bring it for us to look at when you come see the show!
Activities

Matching: Match the name of the person to the person

Sabin Arnold von Sochocky
Katherine Schaub
Katherine Wiley
Grace Fryer
Madam Curie
Arthur Roeder
Cecil Drinker
Source Materials

no.203.078

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Radium Girls: Women and Industrial Health Reform, 1910-1935 by Claudia Clark

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http://hsph.harvard.edu/news/centennial-lab-partners-life-partners/

http://www.orau.org/ptp/collection/radioluminescent/radioluminescentinfo.htm

http://www.damninteresting.com/undark-and-the-radium-girls/

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http://www.hg.org/litigation-law.html


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