

# mercury

Presented by Paper Monkey Theatre



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## The Japan Post

26 September 1968

### Minamata Disease Comes to Light



Minamata, Japan - 12 years since the discovery of the Minamata disease, the Japanese government has finally issued an official conclusion as to its cause. This announcement addresses possibly the most dramatic cases of industrial pollution and environmental catastrophe in history.

Researchers working at Kumamoto University have found traces of methyl mercury in the tissues of fish and shellfish of Minamata Bay in the western coast of Kyushu, Japan's southernmost island. The consumption of sea creatures that had been infected with heavy metal poisoning certainly leads to damage to the central nervous system of humans resulting what is now known as the Minamata disease or poisoning of people through the aquatic food chain.

Investigations for the source of methyl mercury lead to the waste waters discharged by Chisso Corporation's chemical factor which has been producing acetaldehyde acetic acid - a substance used in making plastics, drugs, perfumes and photographic chemicals. The chemical reaction used to produce the acetaldehyde led to the production of a small amount of an organic mercury compound, namely methyl mercury, which was discreetly discharged in the factory's effluent into Minamata Bay.

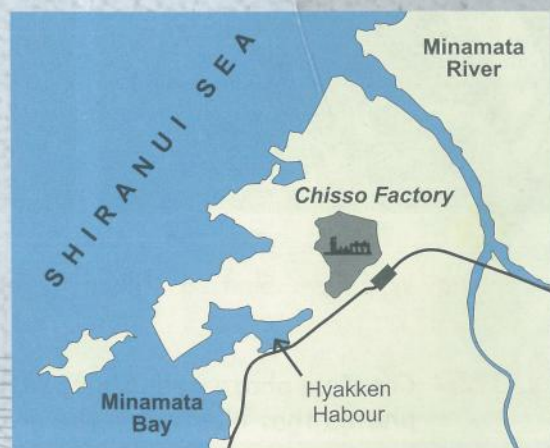
Due to toxins accumulating in plankton and other microorganisms of the aquatic food chain, bizarre changes began to occur not only in marine life but in domestic animals as well. Minamata residents initially relied almost exclusively on fish and shellfish from the bay as a source of protein, and were inevitably poisoned slowly.

The first few cases were discovered on April 21, 1956, when patients faced difficulty walking, difficulty speaking and convulsions. In turn, they were ostracised and faced discrimination by their communities because it was feared the strange disease was contagious.

The town "sacrificed itself for Japan's postwar reconstruction and economic development," with Chisso being one of the companies that built the foundation for the nation's growth and prosperity. But this was done at the expense of the people's health and well-being.

Families of the Minamata disease victims are now taking legal actions towards Chisso Corporation for compensation. Nonetheless, it is too late as the effects of the mercury poisoning prevail in the waters of Minamata and the blood of the villagers.

"We must not forget those who were sacrificed in our search for material prosperity, the destruction of our ties to nature and to always consider what we should do in the future," said a victim of the Minamata disease.





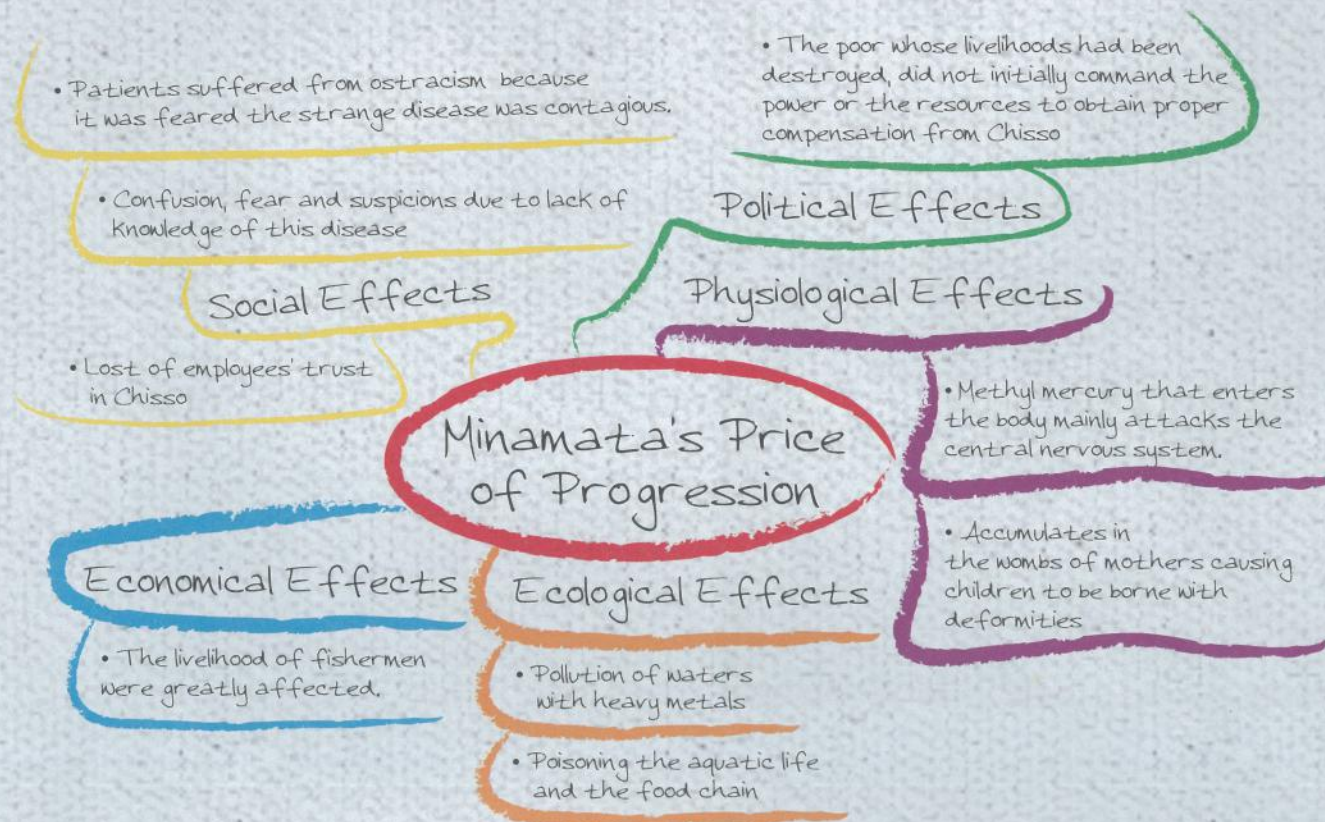
## about the play

Mercury is a "mirror" of a development-environment conflict that happened in the past. It is still relevant in today's context as we continue to seek for progress.

## the rippling effect

Minamata is a classic case of a thoughtless choice which resulted in multi-levels of tragic unforeseen consequences. This is known as a negative rippling effect.

**do this:** Draw a relationship map that illustrates the effects of the Minamata disease. Below are some examples, are there any more that you can add on to?



## a picture tells a thousand words

Are there other cases of industrial pollution that has caught your attention?



**Minamata**

Photographs by W. Eugene Smith & Aileen M. Smith



**do this:** Create a photo wall. Share with your peers other cases of industrial pollution with photos that illustrates the gravity of unsafe practices and human irresponsibility.

## start a "Green" habit

Saving Gaia is a huge project, but we can do it in our own little ways. Start from our daily lives, is there something you can change to reduce the amount of energy or material usage?

**do this:** Visit <http://storyofstuff.org>, watch *The Story of Stuff* by Annie Leonard and learn about where does all the stuff we buy come from, and where does it go when we throw it out.

Get creative and create a "Green" habit! It could be as simple as spending less time on the computer and spending more time with family and friends in other activities. Initiate a "Green" habit in your homes, schools and among your peers.

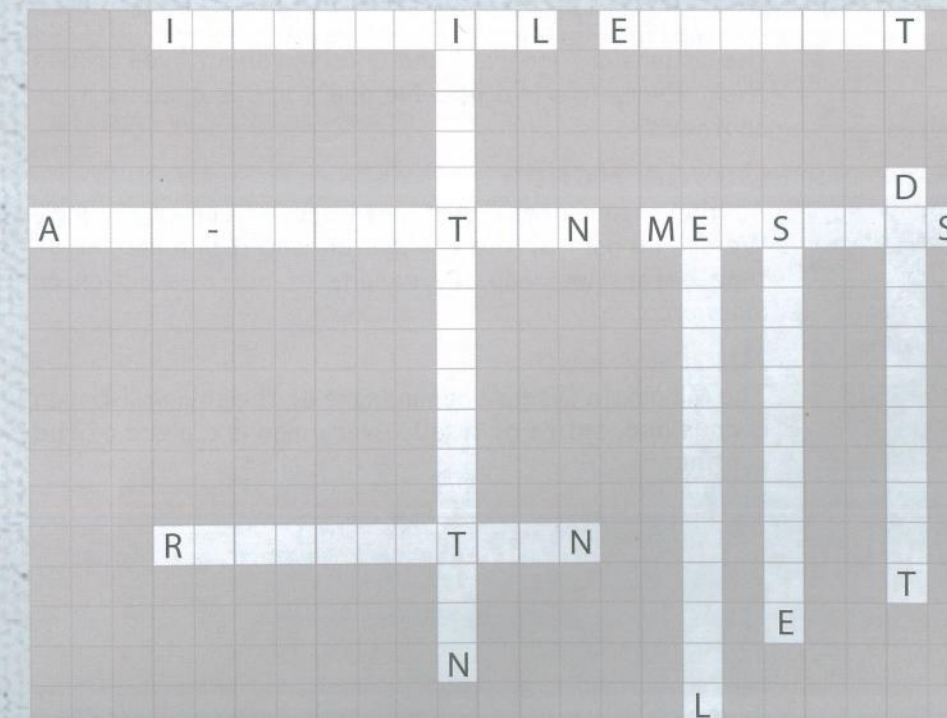
Email us your "Green" habit idea and stand a chance to win tickets to Paper Monkey Theatre's next production! Email: [regina@papermonkey.com.sg](mailto:regina@papermonkey.com.sg)

**Deadline 30 August 2010**

## word up

Find the key words from the show in the crossword below!

- Industrialisation:**  
The process of social and economic change transforming a community
- Industrial Effluent:**  
Materials discarded from industrial operations or derived from manufacturing processes.
- Anti-Pollution Measures:**  
Policies (eg. taxes, restriction or prohibition of activities, research & development etc.) to reduce pollution
- Environmental Restoration:**  
The act of repairing a site caused by human activity, industry or natural disasters as closely as possible to its natural condition before it was disturbed
- Sustainable Development:**  
An approach to progress that meets the needs of the present without compromising the ability of future generations to meet their needs.





Hi there!

I hope that you have enjoyed watching *Mercury*, as much as I had staging it.

The Minamata disease was one event that I remember distinctively as a young boy. Although this issue happened almost five decades ago, the news in the 1970s still frequently covered the lawsuits and actions taken upon the Chisso Corporation as the victims' families fought relentlessly over decades for compensation. What I remembered vividly about these reports were the photos that reflected the effects of mercury poisoning: families mourning for those who died, victims with permanent physiological damage and the next generation born with physical deformities.

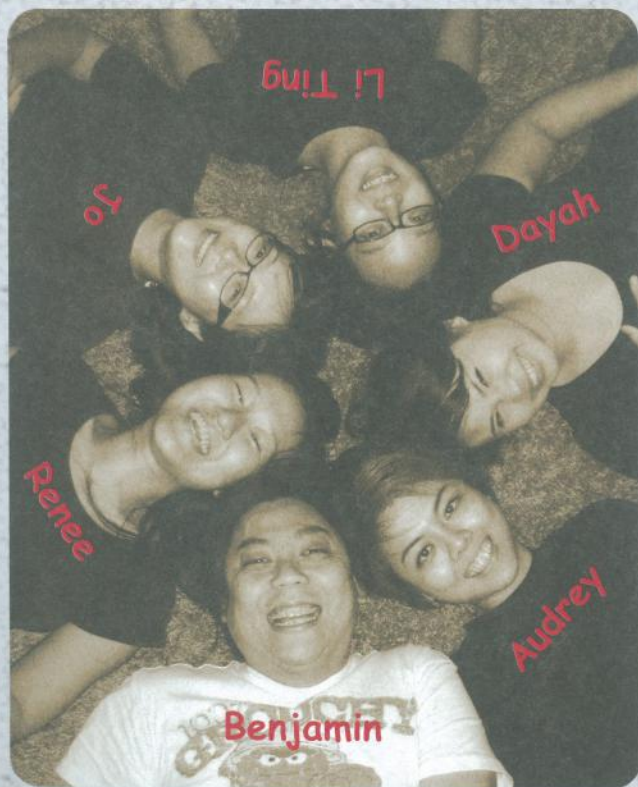
The Minamata case exemplified a relatively closed system where Mankind's desire for progression, led gradually but inevitably back to humans resulting in tragic physiological, ecological, economic and political consequences. Therefore, the Minamata case and other cases of industrial pollution that happened in the past should not be seen in isolation. If we continue to be ignorant about these historical events, in the years to come, what would happen to us?

So shouldn't corporations and companies be making more careful considerations towards the environment? How does this affect me? Well it's the decision that you and I make every day. The decision we make to the kind of lifestyle we want, our consumption of items that these corporations produce; things that we buy in excess not because we need to but rather we want to, which results in wastage.

This seems to be too huge of a problem for one to handle. Though it is tough, still we can do it in our own unique way. Otherwise, though we may not be the first living thing that will be extinct, we would be the first of the kind to do it knowingly.

**Benjamin Ho**  
Artistic Director of Paper Monkey  
Playwright and Director of *Mercury*

## the cast share their thoughts on the minamata disease and saving our planet...



### **Renee Chua**

Humans should band together and take action for what we truly should care for.

### **Jo Kwek**

Is civilization really necessary if we had to poison the earth, diminish our mental capacities, numb our senses, stifle our emotions, and destroy all things natural?

### **Liew Li Ting**

I was appalled by how the people involved who started the actions are ignorant and uncaring about lives around them. Every life is a life. No one's life is cheaper than another's.

### **Dayah Rahim**

As the saying goes "what goes around comes around". We are all part of the eco system and it is a matter of time before we reap the results of our own action or inaction.

### **Audrey Luo**

The Minamata Disease reminds me of the saying "No man is an island, entire of itself; every man is a piece of the continent."

## About Paper Monkey Theatre

Paper Monkey Theatre Ltd is a non-profit theatre company formed in April 2008. Helmed by well known puppeteer/playwright Benjamin Ho, the Artistic Director of the company, Paper Monkey Theatre focuses on providing quality drama programmes such as puppet making workshops and theatre productions for children and family entertainment, encourage artistic development and enrich learning experiences.

[www.papermonkey.com.sg](http://www.papermonkey.com.sg)