Making the ordinary Extraordinary

Objective: To use bubbles as a spiritual tool

Lesson Plan:

- Using the highlighted material, talk about the different characteristics of bubbles involving participants in the discussion
- Distribute handouts for participants to use as a guide during the discussion
- Give out bubbles and ask participants to share something they learned about themselves and their recovery as they take their bubbles.

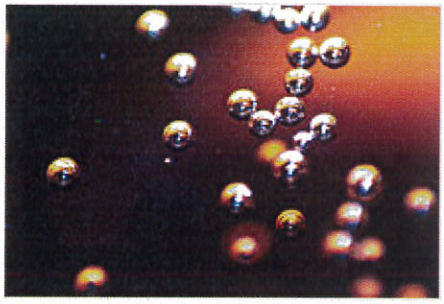
Liquid bubble

From Wikipedia, the free encyclopedia

A **bubble** is a globule of one substance in another, usually gas in a liquid. Due to the Marangoni effect, bubbles may remain intact when they reach the surface of the immersive substance.

Air bubbles as a man surfaces in a pool.

Contents



Bubbles of gas in a soft drink

Common examples

Bubbles are seen in many places in everyday life, for example:

- As spontaneous nucleation of supersaturated carbon dioxide in soft drinks
- As water vapor in boiling water
- As air mixed into agitated water, such as below a waterfall
- As sea foam
- As a soap bubble
- As given off in chemical reactions, e.g., baking soda + vinegar
- As a gas trapped in glass during its manufacture
- An air bubble in a solution of fluorescein and water (or alcohol) is the essential part of a spirit level

Bubble of gas in a mudpot

Physics and chemistry

Bubbles form, and coalesce, into globular shapes, because those shapes are at a lower energy state. For the physics and chemistry behind it, see nucleation.

Appearance

Humans can see bubbles because they have a different refractive index (IR) than the surrounding substance. For example, the IR of air is approximately 1.0003 and the IR of water is approximately 1.333. Snell's Law describes how electromagnetic waves change direction at the interface between two mediums

with different IR; thus bubbles can be identified from the accompanying refraction and internal reflection even though both the immersed and immersing mediums are transparent.

The above explanation only holds for bubbles of one medium submerged in another medium (e.g. bubbles of air in a soft drink); the volume of a membrane bubble (e.g. soap bubble) will not distort light very much, and one can only see a membrane bubble due to thin-film diffraction and reflection.

A bubble of gas in a tar pit

Applications

Nucleation can be intentionally induced, for example to create bubblegram.

Frostedbubble

In medical ultrasound imaging, small encapsulated bubbles called contrast agent are used to enhance the contrast.

In thermal inkjet printing, vapor bubbles are used as actuators. They are occasionally used in other microfluidics applications as actuators.[1]

The violent collapse of bubbles (cavitation) near solid surfaces and the resulting impinging jet constitute the mechanism used in ultrasonic cleaning. The same effect, but on a larger scale, is used in focused energy weapons such as the bazooka and the torpedo. Pistol shrimp also use a collapsing cavitation bubble as a weapon. The same effect is used to treat kidney stones in a lithotripter. Marine mammals such as dolphins and whales use bubbles for entertainment or as hunting tools. Aerators cause dissolution of gas in the liquid by injecting bubbles.

Chemical and metallurgic engineers rely on bubbles for operations such as distillation, absorption, flotation and spray drying. The complex processes involved often require consideration for mass and heat transfer, and are modelled using fluid dynamics.[2]

The star-nosed mole and the American water shrew can smell underwater by rapidly breathing through their nostrils and creating a bubble. [3]

Pulsation

When bubbles are disturbed, they pulsate (that is, they oscillate in size) at their natural frequency. Large bubbles (negligible surface tension and thermal conductivity) undergo adiabatic pulsations, which means that no heat is transferred either from the liquid to the gas or vice versa. The natural frequency of such bubbles is determined by the equation:[4][5]

where:

- is the specific heat ratio of the gas
- is the steady state radius
- is the steady state pressure
- is the mass density of the surrounding liquid

Smaller bubbles undergo isothermal pulsations. The corresponding equation for small bubbles of surface tension σ (and negligible liquid viscosity) is[5]

Excited bubbles trapped underwater are the major source of liquid sounds, such as when a rain droplet impacts a surface of water.[6][7]

Physiology and medicine

Injury by bubble formation and growth in body tissues is the mechanism of decompression sickness, which occurs when supersaturated dissolved inert gases leave solution as bubbles during decompression. The damage can be due to mechanical deformation of tissues due to bubble growth in situ, or by blocking blood vessels where the bubble has lodged.

Arterial gas embolism can occur when a gas bubble is introduced to the circulatory system and it lodges in a blood vessel which is too small for it to pass through under the available pressure difference. This can occur as a result of decompression after hyperbaric exposure, a lung overexpansion injury, during intravenous fluid administration, or during surgery.

See also

- Sonoluminescence
- Bubble fusion
- Underwater acoustics
- Minnaert resonance

Wikimedia Commons has media related to ***Bubbles***.

References

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2. Weber; et al. (1978). *Bubbles, Drops and Particles*. New York: Dover Publications. ISBN 0-486-44580-1.
3. Roxanne Khamsi. "Star-nosed mole can sniff underwater, videos reveal".
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6. Prosperetti, Andrea; Oguz, Hasan N. (1993). "The impact of drops on liquid surfaces and the underwater noise of rain" (PDF). *Annual Review of Fluid Mechanics* **25**: 577–602. Bibcode:1993AnRFM..25..577P. doi:10.1146/annurev.fl.25.010193.003045. Retrieved 2006-12-09.
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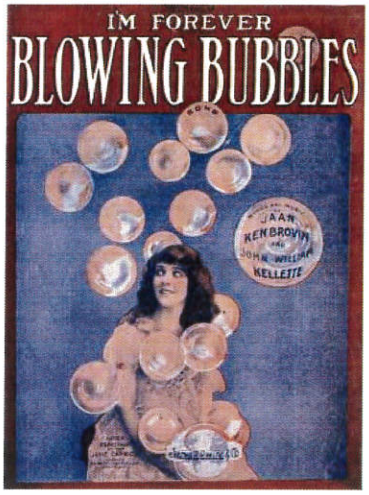
I'm Forever Blowing Bubbles ...

Why West Ham Fans sing 'I'm Forever Blowing Bubbles'
by JOHN NORTHCUTT



Generations of West Ham fans have sung I'm Forever Blowing Bubbles ' on the terraces at Upton Park but how many are aware of how it became a West Ham anthem?

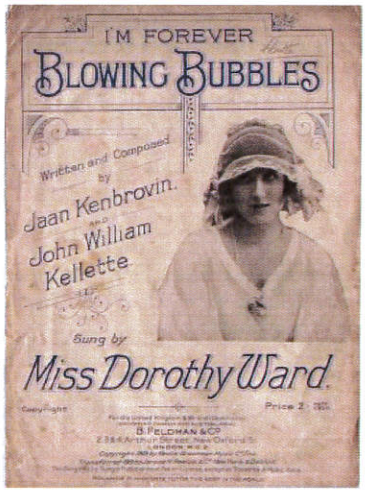
The song was written in 1919 in the United States by a group of composers and became a hit on both sides of the Atlantic. The composers were James Kendis, James Brockman and Nat Vincent who formed their names into Jaan Kenbrovin, a pseudonym that appeared on the original sheet music. The lyrics were added by John William Kellette.

How Bubbles came to be associated with West Ham has been the subject of many a debate over the years. The popular theory is that the singing of this song came together with the unlikely ingredients of a soap advert and a young curly headed footballer.

In 1829 Sir John Millais painted a portrait of his grandson watching a soap bubble he had just blown through a clay pipe. The painting was exhibited at the Royal Academy. Later the Pears Soap Works used the painting as an advertisement and displayed posters throughout the East End of London. As the soap works was situated in Canning Town the West Ham supporters would have been familiar with the posters.

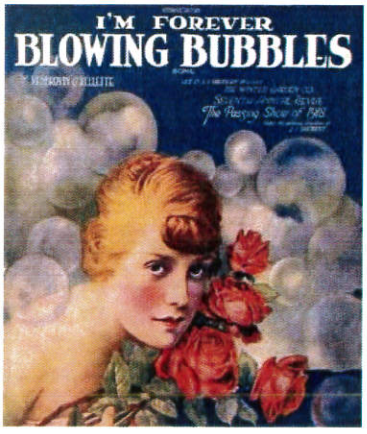
"Bubbles" Murray : West Ham Boys

The West Ham Boys team often played their home games at Upton Park in front of huge crowds and one of their team. Will Murray. having fair curly hair resembled the boy in the advert. He soon gained the nickname 'Bubbles' Murray and whenever he played the crowd would sing I'm Forever Blowing Bubble's, this being the popular song of the day. "Bubbles' Murray became well known and his nickname is mentioned in the programme for the 1921 English Schools Trophy final when he appeared at right half for West Ham Boys against Liverpool Boys. Amongst the crowd of 30,000 that came to the Boleyn Ground that day was the Duke of York, later to become King George VI. Around that time the Beckton Gas Works Band used to play Bubbles before the kick off and this tradition continued up until the 1970s through the Metropolitan Police Band, the Leyton Silver Band and finally the British Legion Band. Although the song became popular all around the ground there was particular affinity with the fans who stood in what was known as the Chicken Run. It was an encouraging sight to the team as the supporters sang Bubbles and swayed from side to side.



Verse 1
I'm dreaming dreams,
I'm scheming schemes,
I'm building castles high.
They're born anew,
Their days are few,
Just like a sweet butterfly.
And as the daylight is dawning,
They come again in the morning.

Chorus
I'm forever blowing bubbles,
Pretty bubbles in the air.
They fly so high,
Nearly reach the sky,
Then like my dreams,
They fade and die.
Fortune's always hiding,
I've looked everywhere,
I'm forever blowing bubbles,
Pretty bubbles in the air.



Verse 2
When cattle creep,
When I'm asleep,
To lands of hope I stray.
Then at daybreak,
When I awake,
My bluebird flutters away.
Happiness, you seem so near me,
Happiness, come forth and cheer me.

Chorus
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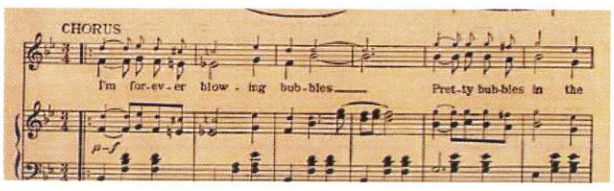

Remember blowing soap bubbles as a child? Wasn't it a magical experience filled with joy and wonder? The fragile beauty of a rainbow colored liquid orb floating through the air was both fascinating and fun! Think back to those happy times as we explore the spiritual symbolism of bubbles.

Fleeting and Fragile

When bubbles are around, they provide rare moments of magic.

You know from past experience that creating bubbles is an experiment that's both fleeting and fragile. As you blow the mixture through the wand, you see something delicate take shape. Once that bubble is launched out into the world, it only has a certain lifespan before it bursts.

That bubble can serve as a spiritual metaphor for life. Our lives can also be fleeting and fragile. As we grow in awareness, we realize how fast time flies and we come to understand how precious our existence really is. Like an exquisite iridescent bubble, each person's life is uniquely beautiful. For a short time it's a floating miracle for all to behold, until it is no more. Once the bubble bursts and the liquid disperses, it becomes part of the earth, the air and the greater whole. And so do we once our time on this planet ends. It is a thing of beauty.

Hopes and Dreams

Bubbles also represent hopes and dreams. No doubt you've experienced "having your bubble burst" throughout your life. We all have, but that doesn't mean you stop and quit. After all, what's the first thing you do after those bubbles pop in the air? You blow more bubbles!

When hopes and dreams are dashed like short-lived bubbles, don't give up. Create new ones! As a bubble maker you strive to create a bubble that will be bigger and last longer. Take that same determination and apply it to your life's goals. Know that you have the power to create and improve upon your creations.

Rare Moments of Magic

When bubbles are around, they provide rare moments of magic. They serve as reminders to appreciate the charm and grace of the present moment. They also symbolize childhood innocence, merriment and fun. When you see these glass-like orbs dancing in the air, you can't help but lose all your cares and worries—even if it is for just a brief moment.

Let the images of bubbles inspire you to appreciate life and live it to the fullest!

More Articles You May Like:

The fragile beauty of a rainbow colored liquid bubble is magical.

Can I see fragility as beautiful?_____

Can I see the various colors in me?_____

Can these colors be changing and transparent?_____

The process of blowing bubbles involves:

1...keeping the bubble solution free of excessive shaking

2... modulating your breath when blowing through the wand

3...watching the bubble leave the wand

4...watching the bubble fly away

How is the process of living like blowing bubbles?_____

Where are you having difficulty in the process?_____

Some bubbles fly away seemingly endlessly.

Some burst almost instantly.

What do you do when a bubble leaves your control?_____

Bubbles are reminders to appreciate the charm and grace of the present moment.

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What do bubbles remind you of?

Use bubbles in times of emotional discomfort.

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Making the Ordinary Extraordinary Class 8

Goal: to see recovery in the ordinary aspects of everyday life

Objective: To use the image of a safety pin to talk about medication and recovery coping tools as paths to freedom.

At the outbreak of Second World War in 1939, the Netherlands declared itself neutral once again as it had done during World War I. Even so, on May 10, 1940, Germany invaded the Netherlands.

One of the purposes of the German invasion of the Netherlands was to draw away attention from operations in the Ardennes and to lure British and French forces deeper into Belgium as well as to pre-empt a possible British invasion in North Holland. Also, the Luftwaffe had insisted on seizing the Dutch soil for they were in need of airfields near the North Sea coast.

The German forces faced little resistance at first, but their advance was eventually slowed by the Dutch army. At the Afsluitdijk, the Grebbeberg, Rotterdam and Dordrecht the Dutch army offered strong resistance. A German airborne landing at The Hague, intended to capture the Dutch royal family and the government, turned into a disaster for the Germans, and about 1,500 of the paratroopers and airlanding troops that had not been killed were captured and shipped to Britain. Additionally about 280 Ju-52 transports were destroyed on the airfields of Ypenburg, Valkenburg and Ockenburg or shot down, with the consequence that the German airborne forces were not available for the planned invasion of Britain. In all, the invasion of Holland cost the Germans some 520 airplanes, the highest losses of the war in such a short period. Queen Wilhelmina, her family and the government evacuated to Britain, but during the Battle of Britain her daughter Princess Juliana and her children proceeded to Ottawa, Canada.

The bloody invasion of the Netherlands resulted in 2,300 dead, and 7,000 wounded Dutch soldiers.also dead were over 3000 civilians. The German army lost 2,200 men, suffered around 7,000 wounded... 700 troops reported missing... 1,300 were captured and shipped to Britain.

Dutch resistance collapsed under the weight of the German war machine but her people never gave up their loyalty to Queen Wilhelmina....

That is where the "Safety Pin" comes in...

Open rebellion was a sure way to find yourself hauled up on a gallows or simply shot outright. But the Dutch people found a much more subtle way to express their solitary.... with the common ordinary "Safety Pin"...

Worn so it lay hidden under a collar or the hem of a skirt, then only brought out, quickly flashed as a means to identify each other. Quickly the "Safety Pin" was adopted by the Dutch underground as their unofficial insignia. But it wasn't just limited to the fighting resistance... Children, grandmothers, nursing mothers, everyone who struggled for their freedom wore the "Safety Pin" not just as an act of defiance but a symbol of hope and freedom.

So there you have the story of the common Safety Pin... A story that has faded into obscurity.... relatively few of us know this story... now you do as well... Still there are lessons from history that should not be forgotten and this is one of those....

So with that mouthful said... I humbly recommend to all here... We here at ATS adopt the "Safety Pin" as our symbol of unity and promise to watch each other's backs....

edit on 30-7-2011 by DaddyBare because fixing my horrible spelling
edit on 30-7-2011 by DaddyBare because (no reason given)

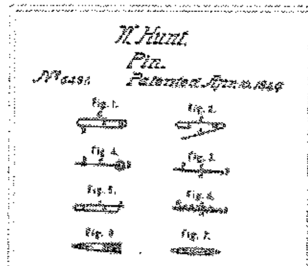
Starwise

Invention of the safety pin

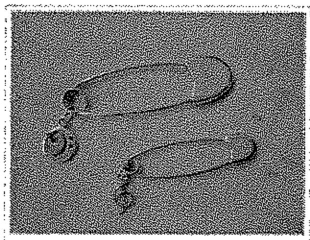
American mechanic Walter Hunt is regarded as the inventor of the safety pin that bears resemblance to those used today. The safety pin included a clasp that covered the point and kept it from opening, and a circular twist at the bend to act as a spring and hold it in place.[2] Charles Rowley (Birmingham, England) independently patented a similar safety pin in October 1849,[3] although the company no longer makes these.

Needing to settle a $15 debt with a friend, Hunt one day decided to invent something new in order to pay off his friend. He used a piece of brass wire that was about 8 inches long and made a coil in the center of the wire so it would open up when released. The clasp at one end, was devised in order to shield the sharp edge from the user.[4]

After being issued U.S. patent #6,281 on April 10, 1849,[5] Hunt sold the patent to W. R. Grace and Company for $400 (roughly $10,000 in 2008 dollars). Using that money, Hunt then paid the $15 owed to a friend and kept the remaining amount of $385 for himself. What Hunt failed to realize is that in the years to follow, W.R. Grace and Company would make millions of dollars in profits from his invention.[6]



Hunt's 1849 patent on the safety pin, U.S. patent #6,281


Silver safety pins

promise not to kill self
lunar eclip [illegible]

The safety pin is a symbol for people who are struggling for their freedom. Where in your life are you struggling for freedom?

Wearing the safety pin was an act of defiance for the soldiers but also a symbol of hope and freedom for their family members. How does your family respond to the limiting effects of mental illness?

The clasp at the end of the safety pin has two purposes. It holds the pin in place and It protects the user from the sharp point of the pin.
How is your medication like the clasp of the pin?

What else in your recovery is like the clasp of the pin?

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