

Waste as a source of comfort, entertainment and education



BISWAS KARABI FARHANA

CAN garbage make our life comfortable? Can rubbish possibly educate or entertain us? Dear reader, if you wish to get an answer to these bizarre questions, let me take you to the centre of a furnace, where temperature reaches as high as 850 degrees Celsius. It may not sound like the most pleasant destination, but I promise, you will not be disappointed at the end of this journey!

I am going to tell you about what I think is the most intriguing waste treatment facility in the world. It is located in the Spittelau area of Vienna. During my recent trip to Austria, I got an opportunity to visit this facility operated by Wien Energie World Spittelau, commonly called just Spittelau. But first, let me recall the history of this establishment in brief. It started as a waste incineration plant. Incineration means destroying waste by burning over a very high heat in a secured facility. The Spittelau waste incineration plant was built between 1969 and 1971. Since then, a major share of Vienna's waste has been incinerated at this site in the 9th district of Vienna. In 1987, a fire destroyed major sections of the plant. Instead of tearing it down, it was rebuilt. The mayor of Vienna at that time, Helmut Zilk, wanted even more though: the new Spittelau waste incineration plant should be especially clean and set new standards in protecting the environment. In addition, the new Spittelau should be a work of art. Since then, the former utility building has combined waste, energy, art and education in a fascinating way.

The environmentalist, artist and architect



The Spittelau waste incinerator plant at Vienna, Austria.

COURTESY: BISWAS KARABI FARHANA

Friedensreich Hundertwasser was tasked with designing the new plant. The building was finished in 1992. The previously sober and functional structure was transformed into a unique work of art which is not only a successful example of a harmonious marriage of technology, ecology and art, but also makes a major contribution to the reduction of "visual pollution" of the urban environment.

It's colourful façade, irregular structures, the golden ball on the chimney, roof greenery and planted trees have made the new Spittelau unmistakable and a Viennese landmark at par with St Stephen's Cathedral and the Riesenrad Ferris wheel. Now, they proudly claim: in Vienna, waste is also art

and entertainment!

The colourful colossal façade was enough to draw attention because of its peculiar artwork. Nonetheless, during my visit, I also wanted to know what hides behind that façade, and I did not have to wait long. Four other visitors who joined me were postgraduate students of an Austrian engineering university. Domestic and commercial waste is delivered by up to 250 trucks per day. The waste is weighed by a platform scale and stored in a waste hopper with a capacity of around 7,000 cubic metres. Then, the waste is fed into two incinerator lines capable of handling 18 tons per hour. The plant incinerates some 250,000 tons of municipal waste a year.

Vienna's waste is well-utilised to ensure comfort and well-being for its citizens. The incineration of waste produces hot exhaust fumes which turn water in pipes into steam. The steam is fed into a turbine which drives a generator to produce electricity. Annually, this thermal waste treatment plant at Spittelau produces 120 gigawatt hours of electricity and 500 gigawatt hours of district heating, which means heating for more than 60,000 Vienna households and electricity for the equivalent of 50,000 households. District cooling is another environment-friendly facility offered by Spittelau for urban areas. The principle behind the production of district cooling is similar to that of district heating. The heat produced is converted into cooling energy by heat exchangers before being distributed to customers. Spittelau is one of largest producers of district cooling in Vienna, with a capacity of 17 megawatts.

The Spittelau facility has a series of hi-tech filter systems in order to clean the flue gases produced. The bulk of the plant is taken up by sophisticated flue gas scrubbing systems and an ultra-modern dioxin destruction facility. The first-phase scrubbers remove hydrogen chloride, hydrogen fluoride and dust, while the second phase removes sulphur dioxide before the flue gases go through the final stage of treatment, selective catalytic reduction. The purified flue gas is released from the chimney at a height of 126 meters.

The power plants of Spittelau do not only provide clean energy, but are also a part of Vienna's skyline, with their artistic and innovative designs. Tours are offered to let visitors take a peek behind the scenes of this technology and learn more about environmental and climate protection measures. On a tour of the plant, visitors get an insight into Vienna's waste, recycling and disposal system, as well as the environmentally-friendly generation of

thermal heat and hot water. During my tour, I came across several groups of school children learning about the basics and applications of energy science through interactive knowledge sessions and fun-filled games.

Wien Energie World Spittelau is a work of art that is full of life. It arranges events like art exhibitions and musical concerts. The district-heating open air event was first held here in 1998. Every year, this programme held on the forecourt of the thermal waste incineration plant is a must-go event for thousands of music lovers. The who's who in the international music scene like James Brown, Bob Geldof, Bonnie Tyler, Manfred Mann, Herbie Hancock, Sergio Menders and Joe Zawinul and many others have already played at Spittelau. The *Heiss und Kalt* (hot and cold) exhibition series hosted by Wien Energie provides the entire population of Vienna with free access to art. Artists from various genres have been publicly displaying their works here since 2006. The results are diverse—besides paintings and artwork, *Heiss und Kalt* also showcases less well-known forms of art, such as projections, video art, sculptures, sounds and installations. The message is clear: the waste problem can be managed artfully and artistically.

Thus, the Spittelau is more a landmark for Vienna than a waste incineration facility. Vienna was awarded with the prize "World City Closest to Sustainable Waste Management" in 2010 for its achievements in the area of sustainable waste management. The message from Vienna is that the waste problem can be managed successfully and that waste, in a country with much higher environmental standards than ours, is not a problem but a part of the solution and national pride.

Dr Biswas Karabi Farhana is an environmental scientist and a professor at the Department of Environmental Science and Management, North South University.

What's stopping us from improving our English skills?



RASIM ALAM

AG Stock was a visiting scholar at the Department of English at Dhaka University from 1947 to 1951. In her recollection of her time in Dhaka, she reminisced about befriending future luminaries such as poet Jasimuddin and professor Munier Choudhury. She also recalled the student agitations that would become the foundation of the Language Movement and foresaw much of the early rumblings that would lead to the Liberation War. However, her most incisive analysis of the time was about the inflexible education system of Dhaka University in the late 40s, which could be a lesson for our national education today.

Professor Stock served as the head examiner overseeing the Honours English exams for students in Dhaka and Kolkata. In her role at the university, she encountered a complex system of structural rigidity that churned out graduates with not much in the way of English skills but rather a defined set of skills to pass the final examinations. This process was enabled by an influential "help-book" (guidebook) publishing industry and examiners, some of whom participated in the help-book industry themselves, who relied on an anticipated array of questions. She discusses the obstacles that prevented improvements in education, let alone allow for any meaningful restructuring.

In the exams, creativity and originality were discouraged because it was simply safer to memorise and regurgitate answers learned from the guidebooks, answers which were expected by examiners as well. Common references such as "the way is not weary, the

ploughman is weary" and uninspired analysis of reference texts appeared verbatim on exam papers from different students across the exam centres, illustrating the ubiquity of the problem. Just as the students did not have the means or feel the need to be creative and genuine with answers, the examiners also, for lack of alternatives, graded students for their ability to best remember prepared answers. Professor Stock writes that, left to themselves, "hardly one candidate in a hundred could make sense of an average page of modern English or construct a simple sentence."

The cumulative effect of this process was that thousands of promising students were essentially asked to write not what they thought but what someone else, someone they believed more powerful, wished them to say. Great pains were taken to memorise answers of little analytic worth and diversity so that examiners could then struggle to find any criterion of worth from something that is by design worthless. The irony of the matter is that the survivors of the exams would be rewarded for this process and go on to repeat this performance many times, all the way up to the civil service examinations.

This problem, I would argue, persists today. English is taught mostly by teachers who cannot translate the magic of the language through interesting text, analysis, comparative literature, and relatable content. Rather, it is imposed as a difficult chore to be slogged through, a maze of grammatical exercises and meaningless structures. The teachers are not to blame since, as I have tried to explain, ineffective teaching practices are deeply rooted in our culture of education and have been difficult to reform from the start. The problem does not end with English either. On the other side of the aisle, in English-medium schools, the same problems arise with learning Bangla. Language, whether it is English or Bangla, is not strictly a



PHOTO: ABIR ABDULLAH/ADB

communicative medium. It is also a medium for reasoning and critical thinking, and a gateway to accessing resources for further learning.

However, ironically, proficiency in spoken English is often mistaken for intelligence in our country. Nevertheless, in examinations of nearly any subject—all the way up to the vital civil service examinations—we essentially are tested on our memory and not a deeper knowledge or understanding of the subject matter. The emergent professionals and administrators, who will occupy the highest posts in the country, are chosen for their

ability to repeat formula and not necessarily for their reasoning or inventive capacities.


Radical reform is difficult in our education system because it is not only a question of changing hard-wired tradition but of equality. The students have been trained to pass exams, and not understand their lessons comprehensively. Since the focus is so much on examination results, the focus of the students is also passing those exams regardless of personal development. This compulsion to succeed at any cost keeps the wheels of rote learning turning. By the time the students have graduated from high

school, it is already too late to build in them the foundation of a comprehensive and meaningful education.

Bangladesh's biggest success in its education sector has been vastly improving basic literacy across the country (literacy has risen by 26.1 percent since 2007, according to one account) and making education accessible to poorer students. To the government's credit, it has undertaken important steps in delivering free textbooks, nationalising primary schools in the villages, and investing heavily in early education. However, along with improving basic literacy, we must also invest in enhancing language capacity (English for instance) at a higher level. Otherwise, it would be an enormous waste of time for students as they will have 12 or more years of English learning and will still not be proficient enough in the language. Free and mandatory primary education has been a radical solution to our historically high illiteracy, and primary school is exactly where the first step for reform should be introduced.

Early education has been shown to provide better results in learning, when language acquisition is generally easier, than at the high school or university level. The curriculum must be radically modernised to involve digital tools and relevant content. However, even the best curriculum may fail to deliver if it is not made accessible by capable teachers. The teaching profession must be made into an attractive one, however difficult that process might be. Like Professor Stock has shown, reforms at a later stage, without preparing the students beforehand, will result in justified discontent. And to prepare the students for later examinations and curriculum reforms, the process must begin at the earliest stages.

Rasim Alam is a graduate of Tufts University in Massachusetts, USA, where he studied economics and international relations.



QUOTABLE Quote

F SCOTT FITZGERALD
(1896-1940)
(American fiction writer)

My idea is always to reach my generation. The wise writer writes for the youth of his own generation, the critics of the next, and the schoolmasters of ever afterward.

CROSSWORD BY THOMAS JOSEPH

ACROSS	28 Like a short play	7 Online icon
1 Hand unit	32 Cassis flavorer	8 Advice to a sinner
5 Russian ruler	34 Summer sign	9 "The Flash" character
9 Crime outing	35 Thurman of film	11 Bus Units
10 Humming homes	36 Field worker	15 "Good shot!"
12 Tony winner	38 Curses	19 Account
Worth	40 Social group	21 Berth place
13 Visibly shocked	41 Polygon corner	24 Tummy relief
14 Navigating aid	42 Signed	25 Diving gear
16 Pot brew	43 Sinuous fish	26 Compassionate
17 Bee follower	44 Precious	27 Juice choice
18 Remote	DOWN	29 "The last Frontier"
20 Without contract	1 Barrel along	30 Heart
22 Newspaper section	2 High points	31 Lugged
23 Exemplary	3 Tenant's fee	33 Church parts
25 Pump, e.g.	4 Fear-inducing	37 Reasonable
	5 Casual talks	39 Wing
	6 Make a sharp turn	

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BEETLE BAILEY

STOP, BEETLE!

I THINK YOU MADE A WRONG TURN SOMETIME LAST NIGHT

GREG+ MORT WALKER

BABY BLUES

WHAT DO YOU WANT FOR CHRISTMAS? A SNOWBLOWER!

DARRYL, WE GET MAYBE AN INCH OF SNOW HERE EVERY WINTER.

I'LL GET YOU A SNOW SHovel, AND YOU CAN MAKE MOTOR NOISES WITH YOUR MOUTH.

NOT THE SAME.

KIRKMAN & SCOTT

CROSSWORD ANSWERS

A	C	H	I	E	S	O	H	O
T	H	I	E	F	S	A	P	I
L	A	T	T	E	B	E	T	T
A	N	T	E	R	E	C	T	O
S	C	H	O	L	A	R	H	U
Y	E	M	E	N	H	E	R	S
J	A	R	P	A	C			
S	P	A	N	P	I	L	E	S
P	I	C	M	O	L	L	I	E
I	N	K	W	E	L	L	A	P
N	A	P	E	S	O	V	I	N
S	T	O	P	S	W	I	N	C
A	T	T	Y		A	G	E	D

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