Amgueddfa Cymru - National Museum Wales

Preparing for the Global Citizenship Mini Challenge

SOURCE PACK

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We can learn a lot about the issue of migration, poverty and child labour by studying Welsh history.

Study these sources about life and work in the copper industry in Swansea in the 19th century. The sources will help you to understand why people moved or migrated to the area. They will give you information about what they did at work, the conditions they endured and how they felt about it all. The sources will help you to investigate the extent of the poverty which existed in the Swansea area in the 19th century.

If you would like to know more why not visit the National Waterfront Museum in Swansea. You can also research websites such as 'A World of Welsh Copper' and follow the progress of an exciting project by Swansea University and Swansea council to preserve and bring back to life the Hafod/ Morfa copper works. Primary sources like the Mines Report of 1842 also tell us much about the copper industry in the 19th century. You can find the Mines reports for South Wales, on the website of the Coalmining History Resource Centre. At BBC online you can find useful information and video clips on sanitation and living conditions in British industrial towns in the 19th century. The BBC Bitesize website 'Changing Britain' contains more clips about public health issues in British towns during the Industrial Revolution.

ISSUE: MIGRATION AND POVERTY
FOCUS: CHILD LABOUR

SOURCE 1: Adapted from *From the Cradle to the Coalmine*, C. Thompson (University of Wales Press, 2014)

Children have been employed in agriculture and industry in Wales for centuries. Before the nineteenth century, child labour was not always seen as a bad thing. For example, when Daniel Defoe wrote about his visit to Lancashire in 1724, he saw four year olds working in the cotton industry and was pleased that they were gainfully employed. Childhood was generally seen as a time when skills were learned in preparation for adult employment.

By the 1840s it was common for children to work in coal mines, iron or copper works. Working class children were regarded as 'little adults' and expected to contribute to their family's income. There were few schools available so work kept children out of mischief. Many industrialists saw the employment of children as a cheap source of labour that kept them competitive. Children were regarded as ideal industrial workers; they did as they were told and were small and nimble and suited to the technology of the factories or mines. They could work amongst machinery in a textile mill or in narrow underground roadways.

Some social reformers like Elizabeth Barrett, wanted child labour stopped, arguing children were little more than slaves. They accused parents of sending their children to work either to get more money for themselves or because they were so poor they did it to make ends meet. They accused rich mine owners who employed children of being greedy and living fine lives on the profits gained from child labour.

The Factory Act of 1833 placed restrictions on the ages and hours which children were allowed to work but did not cover the mines. In 1840, Lord Ashley (later the Earl of Shaftesbury) managed to persuade Parliament to set up a Royal Commission to investigate the age, sex, number and the working conditions of children employed in the mining industry. Evidence was taken from employers, doctors, teachers, clergymen, parents, adult miners and the children themselves. The commissioners found evidence of brutality, accidents, long hours, associated lung diseases, and horrific conditions of work.

The final Report of the Commissioners, the first government report to use pictures, shocked the public. In Parliament, MPs called for new laws to protect children in the mines. Some coal owners fought hard against this. In the House of Lords, the coal owner, Lord Londonderry, argued that some seams were so thin

SOURCE 1

that they could only be worked by children. In addition he said, no one was forced to work underground and it was the parents themselves who wanted their women and children to work; the poor would suffer if the law was changed.

In 1842 a new law, the Mines Act, was passed banning all females and boys under ten from working in the mines. The Act also ordered a system of inspection of the mines to make sure that the Act was obeyed. However, the Act did not restrict working hours and did not apply to children or women working on the surface of collieries.

SOURCE 2: Adapted from the article on the website *A World of Welsh Copper*

It was the establishment of copper smelting works in South Wales that made Wales, by 1851, not only the centre of the copper industry but the world's first industrialised nation. With access to coal to drive machinery and ports for exports, towns like Swansea were ideally placed for copper smelting. Attracted by the riches to be made, mining magnates such as the Vivians, invested in and established huge and successful smelting works in Swansea Neath and Llanelli.

The growing demand for copper encouraged prospecting overseas and by the mid-19thcentury new ores were being brought to Wales for smelting, from as far away as Chile, Cuba and South Australia.

Swansea was at the centre of this industrial development and became known as 'Copperopolis'. By the 1820s the copper industry provided work for 1,000 men with others working in coal and shipping industries that supported the copper works. The population grew to over 10,000.

SOURCE 2

What impact did the copper industry have on Wales and the rest of the world?

As the Industrial Revolution gathered pace, the demand for copper products increased. The refined copper was essential to other industries such as tinplating (which also took place in south Wales, centred at Llanelli). The copper slag that was produced after smelting formed useful building materials as it was dense and hard. You can see this dark, hard stone in many of the walls and houses in and around Swansea, for example.

New mass production techniques developing elsewhere in Britain led to a new demand for consumer products, especially among the growing middle classes of the Industrial Revolution period. Birmingham and Sheffield for example, produced items such as moulded copper saucepans, brass buttons and silver plated cutlery, sold across Britain and exported abroad.

Planned workers' housing, provided by copper magnates or owners for their workers is still lived in today. Singleton Abbey, was originally built as a mansion for well-known copper magnate John Henry Vivian and the Glynn Vivian Art Gallery in Swansea city centre was founded by John's fourth son, Richard in 1911.

Unfortunately the demand for copper also fuelled the Atlantic Slave Trade. Slave labour was employed in New World mines, particularly in Cuba, many of which were financed by Welsh industrialists who demanded cheaper ores for import to the smelting works in Wales.

When and why did the copper industry decline?

Towards the end of the 19th century, new coal sources were discovered overseas and new smelting centres were set up nearer to the sources of copper ore, particularly in North and South America, South Africa and Australia.
As the quantities of ore coming into Wales for processing began to decline the copper industry in Wales suffered and there was unemployment. Welsh copper workers were however in great demand in other parts of the world, particularly in the state of Pennsylvania in the United States. Many Welsh copper workers and owners left Wales and emigrated, taking their skills with them. The decline though was gradual and the Hafod Copperworks did not close its doors at site until 1981.

SOURCE 2

What was the impact on the environment?

Not everything about the copper industry was positive. Working and living conditions for those involved, particularly in the 19th century, were harsh and the impact on the environment shocking. The air was thick with smoke and the environment scarred by the industrial sites. Today you can see conifer plantations and lush green grass covering once parched hills and river banks. The river is home to fish and aquatic species again, and is no longer the orange slick it once was. A few remains of the old copper workings in the city can still be seen and there is renewed interest in preserving them as important historical sites.

SOURCE 3: Migration and the copper industry in 19th century (Amgueddfa Cymru – National Museum of Wales)

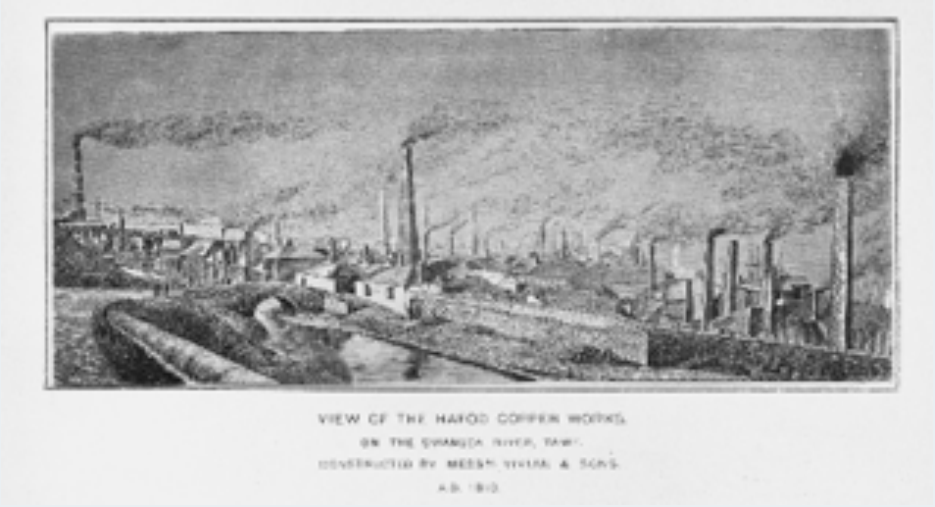
Prior to the 19th century the major industries in and around Swansea were farming, fishing and trade. Gradually though during the 19th century people began to migrate from the countryside to the industrial towns. There were a number of reasons for this:

- Those working on farms were paid low wages and lived in poor and basic housing. They often suffered from bad harvests and high food prices. Copper workers were paid much more and usually at weekly intervals as unskilled labourers in the town. Farm labourers were only paid annually. As a result people flocked from the countryside attracted by the copper jobs in the town
- Many of the Copper masters established local schools for the workforce's children, this was before the time of compulsory or free education. Many also built houses for their workers - John Morris who inherited his father's Forest Copper Works at Morris Town built a block of flats for colliers, which can still be seen today

SOURCE 3

- In 1846 there was a terrible potato famine in Ireland. Thousands of Irish people left their homeland for work in industrial south Wales and many successfully found work in the copper works in the Swansea area

SOURCE 4: Life and work in the copper industry (Amgueddfa Cymru)



AMGUEDDFA CYMRU

Housing

During the 19th century many copper works owners began to build impressive new houses for themselves; these were usually on the outskirts of the town.

Furthest from the water were the houses of the colliers and copper workers, built on hill or valley sides, sometimes winding up beside a tram or wagon road. Copper workers and colliers tended to live separately. Copper workers tended to live in houses nearer the works that were built by the Copper masters.

SOURCE 4

In Swansea, as elsewhere, workers' houses were usually badly ventilated and damp, and had no running water or drains. If built below the surface of a road or a canal, or against a steep slope, back walls were often windowless and running with moisture.

Pigsties and rubbish heaps in the backyard were a common site. This was in the main, due to the fact that people who had lived in the country were adapting to town life; many of the copper workers and virtually all of the colliers were migrants from country places. By 1845 Swansea's Waterworks Company was only connected to some 470 out of a total of 3,369 houses.

Hafod in 1840, according to one modern writer, was a rash of stone and slag-built houses, devouring the countryside: 'serried rows of back to back houses that eat their way through hedge and field, to climb and spread as best they may, unplanned, throughout the Vale. Hastily built, ugly, insanitary and overcrowded, these were the homes of the people.

Working conditions and Child Labour

Working conditions were also harsh. Boys as young as 8 cleaned ash-pits, greased wheels and machinery, wheeled coal and ore to the furnaces and, as 'cobbers', broke the slag to find copper for re-melting. Others helped to pickle (clean), sort and shear the sheets of copper. Women and girls broke the ore into manageable lumps, separated the ore from the gangue and wheeled both ore and coal to the calciners and furnaces. Others collected urine from surrounding houses, carrying it to the works – where it was used to clean or 'pickle' the copper sheets – in narrow tubs resting on their heads.

The greatest impact on the workers' health was the fumes given off by the process of refining the copper – sulphuric acid, arsenic and fumes produced by the burning of coal for smelting were the major pollutants.

SOURCE 5: Adapted from an article that appeared on the *Wales Online* website, 31 March, 2011

Migration from Ireland to Wales in the 19th century

Migration across the Irish Sea has been taking place for centuries. But were these migrants greeted as Celtic cousins or regarded as unwelcome intruders?

For centuries, the Welsh considered the Irish to be an uncivilised people. They looked down their noses at their neighbours on the other side of the sea and their attitudes can be summed up as a mixture of distrust and fear. Take, for example, the radical stonemason, antiquarian and poet Edward Williams (Iolo Morgannwg) who wrote in 1799 that: "An Irishman's loves are three: violence, deception and poetry."

From the 1820s Irish migrants began to appear in the new and growing industrial settlements of the country, including the Swansea area where many were employed in the copper industry. Bad feeling against the Irish led to as many as 20 serious anti-Irish riots in Wales during the 19th century. Ethnic tensions were particularly bad in Glamorgan, where the incomers were accused of working for lower wages. In reality, there's no concrete evidence to show that the Irish actually undercut the wage rates of native workers and it's likely that the outsiders were simply convenient scapegoats, easy to blame when times were bad.

Disease and famine

During the period 1845-50, there was a great famine in Ireland following the failure of the potato crop. About a million refugees fled the country. Many of these refugees diseased and starving, came to Wales in search of a better life. They endured cramped and appalling conditions during the crossings. As one commentator put it, the destitute newcomers arrived with nothing more than "pestilence on their backs, famine in their stomachs".

In a vain attempt to stem the flow of people, officials prosecuted ship captains for carrying too many passengers. The captains responded by avoiding the unpopular reception waiting for them at the main ports and unloaded their human cargo on beaches

in small inlets along the coast. In one tragic case in May 1847, an Irishman who had been landed away from the port of Cardiff drowned in the mudflats near Penarth in the face of an oncoming tide.

'Irish barbarism'

The combination of the arrival of poor and needy refugees, the outbreak of epidemic disease, the disruption to the local economy, and increased demands on poor relief all created a feeling of urban crisis. And the Irish were fingered as the scapegoats, a group who could be blamed for all the problems. This was exemplified by the riot that broke out at Cardiff in November 1848. A drunken weekend brawl led to the fatal stabbing of a Welshman by an Irishman. This crime led to a wholesale community assault on Irish homes and St David's Catholic chapel. Many Irish people and the Catholic priest fled the town in fear of their lives. Although innocent of any crime, they were described by the local press as "the worst specimens of Irish barbarism".

The decades after the famine were a difficult time for the Irish community in Wales. Many lived in poverty in the poorest parts of towns, set apart from the rest of society by their distinctive habits and the Catholic religion. They committed a disproportionate number of petty crimes, and in parts of rural Wales the phrase "thieving like an Irishman" was in common use at this time. Some racist publications portrayed the Irish as lazy drunkards and used ape-like images to portray them.

Changing attitudes

However, not all Irish migrants were poor and needy, even during the famine years. Many did not fit the stereotype of poor, unskilled and drunken outcasts. While the majority lacked the kind of skills that might have got them better jobs, a significant minority were employed in skilled occupations and the professions, some in the copper industry.

Some individuals achieved prominence in public life e.g. becoming mayors in their towns. Some Irish doctors were at the centre of medical care in a number of towns and industrial settlements. Irish coal merchants and other business people also played a key part in Welsh life.

Gradually by promoting positive images of their life and

culture, the Irish were able to show that they were a caring and religious people who could enrich society in Wales. Welsh people were impressed by a network of Hibernian societies established in towns across South Wales from the 1830s. These were voluntary benefit societies that provided insurance for members against ill-health, unemployment and death. The societies also had their own bands and took part in public processions through the streets to mark St Patrick's Day, Whitsun, and other public celebrations. Such occasions were opportunities for members of the Irish community to demonstrate their "respectability" to their neighbours.

Politics and trade unions

During the 1860s and 1870s many Irish migrants living in Wales, began to support a revolutionary and often violent organisation called the Fenians. The Fenians called for an independent Ireland and several of their leaders were arrested for their activities. The arrests and high profile trials of several Fenian leaders in Swansea in 1868, helped to spread the idea that the Irish were dangerous and untrustworthy and made some Welsh people suspicious of and hostile towards Irish people who lived and worked close to them. The Cardiff and Merthyr Guardian (August 1850) writing about the execution by hanging of two Irishmen who had murdered a Welshmen in Monmouth, referred to the Irish as having 'the animal lips of the Irish Celt' and 'not a single redeeming feature.'

Gradually Irish political leaders who believed in more peaceful protest and change became more popular and the Welsh began to see that the Irish who lived amongst them were not violent revolutionaries. By the 1880s relations between the Irish migrants and the local community in towns like Swansea began to improve. It was also at this time that trade unions were developing and becoming powerful voices for industrial workers. Welsh and Irish workers stood side by side as members and leaders of the new organizations.

SOURCE 6: Child Labour and the *Mines Report* 1842

Extract 1: John Thomas, aged 59, and George Hughes, aged 46, foremen at Hafod Copper Works, Swansea

We look after the boys and girls that are labouring about the works…There are about 60 boys and 70 girls, about one half on them under 13. The hardest work to which the boys are put is working "the calciners," (furnaces). Next to the calciners the hardest work is wheeling coal and ashes to and from the smelting furnaces. This is mostly done by girls from 13 to 18 years old. They begin their work at six in the morning and if they can finish wheeling enough for their furnace they leave from three to four in the afternoon but some stay as late as six or after.

We do not consider the children are over worked here, but … we should not like to bring our daughters up in the works. Boys and girls, seem to have good health and very seldom lose a day from illness. …There is a surgeon regularly paid by the works. The men pay him 1d. per week each and the girls and boys 1/2d. per week each. The men are rather fond of drink and the women are bad managers.

Extract 2: William Rees aged about 16, calciner at Whiterock Copper smelting works, Swansea

I have been working since I was 12 years of age. I am now labouring and filling the roasting furnaces, I work from six to six and have time for meals. I have been in a school and can read and write. I still go to Sunday School I have good heath now but I have been working a calciner and was not well then, the smoke and sulphur from the furnace affected my breast and made me ill. I get 7s. 7d. per week.

Extract 3: Charles Evans, aged 14, calciner at the Hafod Copper works, Swansea

I began work when I was nine years old. I wheel the copper ore and throw it in to the furnace. The work is hard as we have to stand it for 24 hours altogether…. I have met with but one serious accident which occurred within the last years which threw me three weeks off work. The crane, while at work lifting ore, cut through the muscles of my arm.

He never was at any school.

SOURCE 6

Extract 4: Isaac Davies, aged 15 worker at Hafod Copper works Swansea

I am labouring this week. I am kept as a spare hand. I was working a calciner last week. That is the hardest work. I have never met with any accident. My father is dead and my mother has six children, I am the youngest. I have two brothers working here. I get 5s. per week.

Extract 5: Thomas Hopkins, aged 16, copper worker at Hafod

I have been working for seven or eight years. I have good health and have met with no accidents.

(The commissioner noted 'He fell off the stage about four months ago and broke his leg. He is now well and at work again.')

Extract 6: Weekly earnings and spending of a copper family

William Jones aged 36, copper men at Llanelly, Carmarthenshire, has a wife, aged 47, with four children aged 16, 10, 4 and 1 years. Earnings 15s, wife 2s. Total earnings 17s.

Weekly Expenditure.

	£	s.	d.
24 lbs. of flour at 2½d.	0	4	6
15 lbs. of barley at 1½d.	0	1	10½
Cheese 7 lbs. at 4d.	0	2	4
Butter 2 lbs. at 11d.	0	1	10
2 lbs. sugar at 8d.	0	1	4
1 oz. tea at 6d.	0	0	6
1 oz. of coffee	0	0	2
1 lb. of salt	0	0	0½
Oatmeal	0	0	2
½ lb. candles at 7½d.	0	0	3¾
Blue and starch	0	0	1
2 ozs. of tobacco	0	0	7½
Rent per week	0	1	6
	0	15	10¾

Feeds pig worth £4 and grows his own potatoes, has his coal from the works in addition to wages.

Extract 7: Mr. Edward Brown, clerk and cashier, Whiterock Copper Smelting Works, Swansea

There is nothing in our works which can be said to be dangerous either to the health or the persons engaged in the different departments. Boys under 13 years of age are seldom employed but this is left, in great measure, to the discretion of the parents

SOURCE 6

and they rarely bring their children before 10 years of age. A prohibition of night work for children and young persons …would occasion difficulty, their labour being required at some of the processes and men not being always to be had to fill those places.

The proprietors of these works have established an infant school and a school for boys…where the children of the workmen receive instruction at the charge of 1d. per week. There is also a sick fund to which each member pays 3d. per week.

The general character of out men does not much differ from that of others in the surrounding district, either as to morals or education but the great increase of beer shops and public houses have tended to demoralise the children and workmen.

Extract 8: David Rees, aged 36, agent. Cambrian Copper Works, Llanelly

The boys are seldom beaten at the works when they wilfully neglect their work or fight or use bad language. They are occasionally beaten with a rod by the steward but by no other person.

The works are well ventilated. All the smoke and vapour form the furnaces is collected into one great chimney or stack which is nearly 200 feet high and there is no oppressive heat where the boys work. There is not much sickness among either the men or boys and I know of no particular complaint arising from their employment. Very few accidents have occurred within the last two years and none serious.

Extract 9: Mr Edward Budd, agent of the Hafod Copper Works, Swansea

They (the workers) are generally very healthy, seldom or never attached by epidemics or agues (illnesses). Many live to a great age, some over 90 and the deaths among the workmen in this establishment in the last four years did not exceed 1.25 per cent per annum.

Extract 10: Statement of Mr W. P. Evans, surgeon to the Hafod Copper Works

The physical condition of the children employed in the Hafod Works is ….healthy, robust and well formed.

SOURCE 6

The children have four meals in the day. The quality of their food is almost always of the very best and the times allowed for eating are adequate to maintain the health and strength of children employed in constant labour. The children are well clothed. On the whole they enjoy good health. During the five years of my surgency to the works I have not met with a case of maladies (illnesses) which are ….the result of early and excessive work or of an unfavourable posture of the body during a large portion of the day.

Extract 11: Evidence of Dr Andrew Ure an independent expert

The exhalations from the copper smelting works are very detrimental to both vegetable and animal life. They consist of sulphurous acid, sulphuric acid, arsenic and arsenous acids, various gases and fluoric vapours with solid particles mechanically swept into the air besides the coal smoke. This is particularly to be remarked in the neighbourhood of Swansea where for miles round vegetation is destroyed. The windows of the houses are covered with a thick deposit and the air infected.

SOURCE 7: Emigration of Welsh copper workers in the 19th century (Amgueddfa Cymru – National Museum of Wales)

The world of copper smelting was led by Wales in the 19th century. The works around Swansea and Holywell supplied over 50% of the world's copper.

Gradually however, other countries with huge copper deposits, began to catch up and overtake Wales. Faced with heavy competition, the Welsh copper industry became less profitable and many workers found themselves unemployed.

Many of those who emigrated to Australia made a great success of their venture. In Australia there were huge deposits of copper ore which led to the growth of smelting towns around the Spencer Gulf, South Australia from the 1860s relying early on almost exclusively on Welsh migrant workers. The mine and smelting works in Burra Burra, South Australia were Welsh owned with workers recruited in the Loughor and Llanelli area. It was the establishment of these smelters that eventually broke Swansea's undisputed dominance over the world's copper markets.

While many were successful, many of the Welsh copper workers who emigrated did not find that their lives and work were any better abroad. The image below shows 'breaker boys' working in the coal industry in Hughestown, Pennsylvania in 1911.

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SOURCE 7

A breaker boy's job was to separate impurities from coal by hand in a coal breaker. This was hard, unpleasant and often hazardous work with injuries to hands and fingers common. At the time there were no child labour laws in the United States.

Emigration was often but not always a successful option. When people moved abroad there was often, but not always, a job guaranteed for them with family and friends already there in a community of people from their home country. Wives and children often travelled several months or even years after the men. Some emigrants led eventful lives. Abraham T. Lewis born in Brymbo in 1840, moved to find work in the coal industry in Hanley, Staffordshire, then Shenandoah, Pennsylvania. In 1879 he moved to the silver mining town of Russell Gulch in Colorado, then to Washington Territory before being killed in a colliery explosion in Canada in 1887.

Some Welsh emigrants found fame, made or lost huge fortunes. Some eventually returned to Wales, others never did.

TO EMIGRANTS

TO AMERICA.

The fine fast-sailing first class Ship,

TRITON,

Of Cardigan, (David Rees, Master,) burthen 400 Tons, will be fitted out for Emigrants, with every necessary accommodations, and will sail on or about the latter end of February, 1841,

FROM

CARDIGAN FOR NEW YORK,

UNITED STATES OF AMERICA.

She will be found very convenient for the Inhabitants of South Wales, who intend going to that Country.

Those, therefore, desirous of securing a passage on Board, are requested to apply immediately, or transmit their names to the Office of the Owner, Mr. D. Davies, Merchant, Bridgend, Cardigan.

Ymfudwyr i America.

Y Llong dda hwylus, TRITON, o Aberteifi, (David Rees, Meistr,) 400 o Dunelli, a wneir yn gyfleus o bob peth angheuheidiol i Ymfudwyr i America, ar i hwylio oddeutu diwedd Chwefror, 1841, o Aberteifi am Unol Daleithau Caerefrog Newydd. Bydd y Llong hon yn gyfleus neillduol i Drigolion Deheu Cymru.

Isaac Thomas, Printer, St. Mary-street, Cardigan.

SOURCE 8: Extracts from the BBC History Magazine book *100 Places that made Britain*, by David Musgrove, published on 2 June 2011

Chris Evans, professor of history at the University of Glamorgan explains how to research the history of the copper industry by visiting the site of the ***White Rock Copper Works*** *and the* **National Waterfront Museum**.

Sandwiched between the centre of Swansea and the city's Liberty sports stadium is a little haven of greenery. A couple of centuries ago it was more smoke and industry as the former site of the White Rock Copper Works. As geography was the key factor in deciding the location of smelting furnaces, all the copper works were hemmed into a tightly confined area. You could have walked across this globally important industrial area in a day, reckons Evans, and you can do the same now, though you have to use your imagination a little to conjure up what was once there.

You should start your visit at Swansea's National Waterfront Museum on the quayside. Pop in for a look around and you can get a bit of background on the Industrial Revolution in Wales. While you're in the museum, see if you can spot a print of the painting of the White Rock Copper Works by Henri Gastineau (c.1830), which gives you a taste of what the landscape once looked like.

Then set off alongside the river, heading north towards the city; cross over at the Sail Bridge and walk a little way along the side of the Tawe on cycle route 43. It's a pleasant woody stroll that will shortly take you to the remains of the White Rock works. Be warned: although the place has been designated an Industrial Heritage Park by Swansea Council, there is precious little in the way of signage or information. If you get to the car park by the roundabout with the Liberty Stadium looming up in front of you, turn around – you've just missed it.

Evans explains what you can see: "There are the ruined wharves, which pretty much date back to the foundation of the works, and there are old abandoned kilns and storage works. There's also a massive ramp that used to carry the slag up to Kilvey Hill. If you gaze up Kilvey Hill and run your eye across the contours, you can see patches of slag where it's still recovering from the very toxic nature of copper smelting."

SOURCE 8

The works closed in 1929 because by then it was more economic to smelt the ore where it was mined, but the waste tips were not cleared away until 1967. Perhaps the most atmospheric site is the old dock on the river, where it doesn't take much imagination to picture the copper barges bringing in the ore and shipping away the finished copper products.

The White Rock works were started by a Bristol company in 1737. Continuing a little further north along the river, crossing over just before the stadium and doubling back takes you to the Hafod Copper Works buildings, which are currently the focus of a re-generation project.

MIGRATION AND CHILD LABOUR IN MODERN GOLD MINING

SOURCE 1: Extracts from an *International Organisation for Migration* report March, 2012

The rising price of gold has attracted increasing numbers of migrants from Mali, Guinea, Gambia, Ghana, Burkina Faso, Togo and Nigeria looking for work on small-scale mines in Kédougou and other areas along the West African gold belt.

Working conditions

In contrast to the modern technologies employed by private foreign companies, miners on these traditional artisanal mines… perform hazardous work. Small groups of men and children work approximately 10 hours a day, digging 10- to 15-metre shafts, using makeshift pulleys to haul up bucket fulls of ore and pounding it to pan for gold using highly toxic mercury.

Ineffective laws

Migrants working in artisanal mining are extremely mobile and continuously move to new sites with an absolute minimum of personal belongings. Despite an existing law with provisions to protect artisanal miners, the sector is not being officially regulated by the Senegalese Government. Owing to the difficulty of accessing mining sites, labour inspections do not take place and miners have little or no access to basic public services, including health care.

Health consequences

Miners suffer from headaches; back, shoulder and muscle pain; fatigue; and stomach aches. Women and children, who perform most of the gold washing, are at risk of being poisoned by toxic mercury absorbed through their skin or inhaled. This toxin attacks the central nervous system and can also damage the lungs, kidneys, gastrointestinal tract and immune system.

SOURCE 2: Extracts from *Ghana Web Regional News*, Monday, 27 April 2015

Illegal mining activity is robbing children of a brighter future in education in some parts of the Upper East Region. TV3's Narkwor Kwabla reports that in one of three communities she visited, no child had completed Junior High School. A handful of children are in school, while majority work with their parents in illegal mining (galamsey) pits.

(Parents)….were unaware education offers their children the opportunity and confidence to build a future for themselves, their families and their communities. The teachers say efforts to get parents to understand that education will enable the community reduce poverty by engaging in better paying jobs has fallen on deaf ears.

SOURCE 3: Extracts from a report by Jessica Hopper of *NBC TV news* online, December 2011.

Samba Diarra, 15, is one of at least 20,000 children working in Mali's artisanal mines. He migrated and journeyed 200 miles to live in a plastic hut alone and work in an artisanal gold mine in Mali. The teen came to the mine to help support his five younger brothers and sisters.

A recent Human Rights Watch report entitled, "A Poisonous Mix: Child Labor, Mercury and Artisanal Gold Mining in Mali," details abysmal working conditions

...The children working in the mines, some as young as six years old, help dig shafts with pickaxes, lift and carry heavy bags of ore and pan the gold with a process involving mercury. "Not only is it hard work and then you're tired from it, but it is hard work that everyday gives you pain: headaches, back pain, joint aches and it will create long-term spinal injury for some of these children who are carrying very heavy loads and they are very small," said Juliane Kippenberg of HRW.

Diarra spent his first day pulling up gold ore that was mined by men working deep underground. At the end of his first day, he was paid with a bag of dirt. Gold is currently trading at around $1,742 an ounce.

"After I wash and refine it, I'll get paid for the gold that might be inside," he said. Some children working in the mines never get paid. Those who do, get just a few dollars a week.

SOURCE 4: Report on gold mining in Peru by Deborah Hastings, *New York Daily News* February 2011

Held as slaves, children in Peru are forced to work in mines that produce much of world's gold. Disease, maiming, poisoning are all part of work life for youngsters mining gold. Girls are used as sex slaves, according to new report.

There is the story of "Gordo, whose family was run off their farm by Peruvian drug traffickers, leaving him with no choice at age 12 but to go down in the mines or face starvation. He toiled for six years. His salary? Food and a mat to sleep on.

A gripping new report from US labour-rights group 'Verite' tells those horror stories and others in an 18-month survey conducted in Peru's mining regions. The country is one of the world's top producers of gold, but Verite's research shows more than 20 percent of the precious metal is mined illegally, under slave conditions, by children and others who receive no pay. Often, workers receive no pay…Whatever gold they can find constitutes their payment, the report said.

Peru is the world's fourth-largest producer of gold…Gold is $3 billion annual business in the South American country.

Besides sub-standard pay, or no pay at all, miners also face health issues in the isolated jungle mines including industrial accidents that cause severe injuries, malaria and mercury poisoning.

SOURCE 5: From an article by Larry C Price, independent Pulitzer Prize winning photo journalist, for the *Pulitzer Centre* April, 2013

In just a quarter century, Burkina Faso, one of the world's poorest countries has transformed itself into Africa's fourth-largest producer of gold. But at what cost to the children who labour in the mines?

Landlocked, Burkina Faso is wedged between Mali and Niger to the northwest and east, and borders Ghana on the north. It wasn't until the famines of the 1980s forced families off their farms that artisanal or small-scale mining took root.

LARRY C. PRICE / PULITZER CENTER ON CRISIS REPORTING

Since then, thousands have migrated to the gold fields, abandoning their agrarian (*farming*) roots to toil in the small-scale mining operations that dot the countryside.

To maximize profits, entire families work. And this means putting children to work as child labourers. Children…are exposed to chemical hazards, hazardous machinery and heavy labour.

Officially, child labour is against the law but small-scale gold mining has evolved…. to the nation's third largest export. Leaders and entrepreneurs, eager to tap the vast reserves, often look the other way or even welcome the extra labour the children provide.

SOURCE 6: *Interpol, International Police Force* media release, 5 November 2010

Burkina Faso police rescue more than 100 child trafficking victims during INTERPOL-supported operation

Lyon, France – More than 100 suspected child trafficking victims have been identified and taken into care and 11 individuals arrested following an operation led by police in Burkina Faso and supported by INTERPOL. Dozens more children have also now been returned to their families following child labour investigations.

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Involving nearly 100 police officers, Operation Cascades (25-27 October) took place across Burkina Faso's western Cascades region and in the capital Ouagadougou.

During the three-day operation, police officers checked highways linking Burkina Faso's capital to other regions in the country and to adjoining countries, and also raided illegally-operated gold mining quarries in the Cascades region. Authorities took 177 children into their charge, of which 103 suspected trafficked children were taken into care by social services, while another 74 were returned to their families as part of an awareness campaign ….against children being subject to violence, forced labour, sexual abuse, and deprived of food, shelter, schooling and medical care.