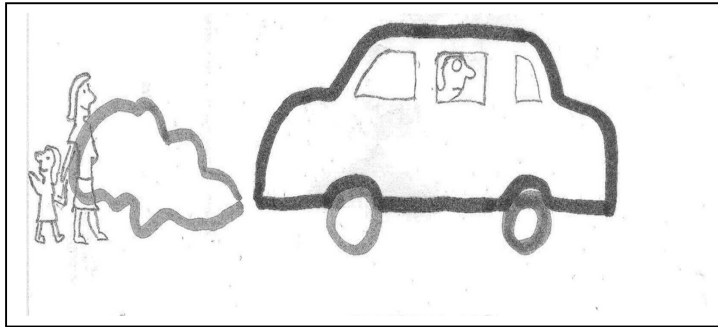


**BREATHING CAR
FUMES CAN DAMAGE
YOUR HEALTH**



Is this just a load of hot air?

NIALL WALKER

A load of hot air

Britain has recently been fined by the European Union for failing to tackle air pollution; we have become “The Dirty Man of Europe”.

A recent study of 50, 000 Americans has concluded that vehicle emissions cause early death from heart disease and lung cancer. In Britain, things are no better. Our cities are as polluted as anywhere, and my home city, Glasgow, is one of the worst offenders. We have around the highest incidence of heart and lung disease in the world.

Our politicians only pay lip service to the problem. They swan about in limousines, whilst encouraging the electorate to walk and cycle. In Glasgow, the Council has supported the building of another motorway, the M74; this will bring more cars and more disease into the city.

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Chapter 1

There has been much talk recently about banning chewing gum and putting health warnings on chocolate. Chewing gum seems to me to be a minor inconvenience; so what if you get a few splodges on the pavement. And there are many health benefits to eating chocolate, we don't all gorge ourselves. In all of this political correctness, the one major villain has been conveniently ignored. The motor car.

Surely the most worthy candidate for health warnings is the family car. It is linked to obesity. Many people seem to have forgotten the ancient skill of walking; instead they jump into their car for every journey, even nipping to the local shop for milk. As a result they don't get enough exercise and pile on the pounds. A suitable health warning could be part of the paintwork of all cars. It could say something like "Driving this vehicle causes air pollution which can damage your lungs and shorten your life". After all they put similar warnings on a packet of cigarettes. My understanding is that a car produces many more fumes than a cigarette, and smoking has been banned indoors on health grounds. The problem is that the chattering classes mostly drive cars and not many of them smoke any more. The government also gets huge amounts of revenue from vehicle excise duty, value added tax and a host of other taxes on cars. On top of these taxes, the profits of oil companies are taxed and the government charges for licences to explore for oil. Quite simply our government has little financial incentive to wean us off oil.

Now you might think that I am being unduly cynical about our elected representatives. I may be, but I spent four years as a local councillor and tried my best to get something done about air quality. What I came across was a total lack of interest in health issues among my colleagues. You might have thought that they would be interested in the health of the electorate, but at every turn, I found that money was more important. To be honest, our politicians are a pretty unhealthy lot of specimens.

The main constituents in vehicle emissions are Nitrogen Dioxide, Carbon Monoxide and microscopic particulates. These tiny particles get into your lungs and cause damage. Where I live there has been an increase in Asthma, especially among children, and this is entirely consistent with scientific predictions on air pollution. The sinister thing is that because it cannot be seen, people don't take it seriously. When I was a child we used to get "pea soup smog" caused by smoke from industry. People could also see that the tenements in Glasgow turned black with the soot. That was something tangible and encouraged our politicians to pass various clean air legislation.

Politicians like to blame busses for belching out fumes; bus companies make suitable whipping boys for local councillors, due to the fact that many of them are private businesses. The truth is that many of the new busses are much cleaner than cars. They have particulate traps installed which filter out some of the real nasties. In any case, busses take cars off the road; it is the inexorable rise in cars that is the problem. In Glasgow there are traffic jams everywhere. These are long queues of traffic sitting belching out fumes. In my time as a councillor I pushed through a local bye law, giving the council power to fine drivers for sitting idling with their engines on. The media made much of it, however in reality it was just a small step.

Over the last decade or so, cars have been getting bigger. You can witness the huge increase in the number of four by fours. These have larger engines and therefore pump out even more emissions than a small car. Mainly they are for mums to run their

little darlings to school, however I know that some of them are bought as a social statement, "I am a success, aren't I?" Men also like big flashy cars; personally I believe that the bigger the car, the smaller the man.

If you look around the city, it strikes me that the majority of cars are occupied by only one person. We seem to have got out of the habit of trying to plan our routes and offering to pick up our friends if we are going the same way. Driving has obviously become too cheap when we no longer have to be concerned about the costs.

Much of the blame for this lack of progress over air pollution can be pinned on this current government. One minute they are green warriors, promising tough action on climate change, the next minute they are railing at oil companies for putting up the price of petrol. Well you can't have it both ways. They talked tough about putting up car tax for "gas guzzlers", but when it came to the crunch they backed off. We now have a regime which scarcely penalises the profligate and does little to encourage drivers of environmentally friendly cars. I suggested to our local council that they charge extra for parking permits if the vehicle has high emissions and give cheap deals for ones with low emissions. Well, the bureaucrats in the roads department told me that would cause too much work.

I mustn't tar all politicians with the same brush, there are some exceptions. My local councillor travels by public transport and generally practices what she preaches. She seems to be genuinely interested in air quality. She has my sympathy; it can be demoralising working with the main parties in Scotland who apparently have little interest in the health of their constituents.

It seems to me to be a bit rich for the car manufacturers to be asking the government for a bail out. This is the industry that has been happy to make money out of pandering to people's desire for larger and more powerful cars. If they are to get financial support it should come with strict conditions; it should only be given for research and development for non-polluting vehicles. For example funding could be given towards the cost of building the infrastructure for nationwide stations for charging up batteries of electric cars. One proviso should be that this would only work if we are able to generate the extra electricity in a way that doesn't use fossil fuels. I believe that would mean either nuclear fission or nuclear fusion.

In our urban areas it is now almost impossible to enjoy the smell of nature. Everywhere is cloaked in a blanket of petrol vapour; the pleasure of walking through the woods smelling the fresh scent of pine is disappearing. It will soon be only a distant memory. But we are also poisoning the birds, insects and animals with whom we share the planet. Take for example the plight of the bumble bee: it is known that they are susceptible to air pollution. I know that in Glasgow, people who keep bees are seeing their colonies decimated. I have noticed a steady decline in the number coming into my garden, which used to be teeming with them. If we wipe them out, who will pollinate our fruit, flowers and vegetables?

It is not only our towns and cities that are being slowly suffocated; the car has become king in our countryside. Some rural roads have no pavements and people scarcely walk any more. Farmers all use subsidised diesel in their machinery and people mow their lawns with petrol mowers. The all-pervading smell of progress knows no boundaries.

Chapter 2

Our government's position over air travel is even more hypocritical. They go on about us being signatories to the Kyoto Protocol on climate change. In fact they boast that we have gone further than that, we have made binding commitments to reduce our greenhouse gas emissions. These are very laudable and I support initiatives to combat global warming. Airlines however belch out enormous quantities of exhaust fumes, these fall to earth as acid rain and add to air pollution. What action has our government taken? Well they have continued to subsidise air travel by allowing them tax free fuel, so no progress there. They have also supported the expansion of our airports and the creation of new runways.

As is normal for the authorities in this country, they have recognized that we have a problem. In fact a long report has been written and considerable research has been done to investigate the impact of air pollution. The Department of Health has produced a paper titled "Cardiovascular Disease and Air Pollution". It is over two hundred pages long, so I won't bore you with the details. They examine the health impacts of exposure to Nitrogen Dioxide (NO₂), Sulphur Dioxide (SO₂), Carbon Monoxide (CO) and microscopic particulates (PM₁₀). They find a link between these gasses and cardiac disease. More research was done on PM₁₀ than the others. They conclude that it affects the heart in two ways. First, it encourages the growth of blood clots and secondly it causes inflammation. Urban dwellers are the most affected, however suburbanians don't escape. Kerbside concentrations are strongest; however roadside levels are almost as high. There is some evidence that the elderly suffer most, though that is not certain. Like in smoking, young people's health can be damaged.

Tunncliffe and Hilton, show that exposure to Sulphur Dioxide can result in narrowing of the airways and can affect the nervous system. Routledge and Manney demonstrate that this exposure can also increase the chances of irregular heartbeats.

The table below is an extract showing that the four pollutants each have a significant impact on cardiovascular deaths and hospital admissions.

Pollutant	Mortality	Admissions	Significant
PM ₁₀	X	X	Yes
SO ₂	X	X	Yes
CO	X	X	Yes
NO ₂	X	X	Yes

In my four years as a local councillor I learned that governments like to produce long reports about problems; it makes them feel good and they can demonstrate to the media and electorate that they are taking the issue seriously. The trouble is that producing a report is all very well, but that is only the first stage in tackling a problem. As often as not that is as far as it ever gets. The report is filed and a few people will read it.

That is what has happened in this case. Since the report was written, the problem of congestion and air pollution has only got worse.

Something else that points the finger at vehicle emissions is the effect they have on lichens. Lichens are similar to mosses and grow on trees and rocks. It is known that they are unable to grow where air is polluted. I have surveyed the trees in the West End of Glasgow, looking at lichens. On trees set back from the streets and in parks I noticed considerable amount of Lungwort growing. This lichen was used for healing lungs, hence the name; wort is the Gaelic for healing. Incidentally my mother tells me it was used for dyeing kilts. Another lichen that grows on trees is Parmelia, it is much finer than Lungwort. It is also unable to withstand air pollution. My mother tells me that when she worked in the Kelvingrove Museum, she brought some in from the country, and it shrivelled up and died.



I decided to examine trees nearer to busy roads and chose Great Western Road. This road has heavy traffic much of the day and the trees had no lichen growing on them, furthermore they looked quite unhealthy. If the pollution can kill off lichen one has to be concerned about the impact on our bodies.

Chapter 3

You may be wondering what I would do to reduce these harmful emissions. Well I believe that without too much effort or expense our politicians could make the air safe to breathe. However they need to have the will, and to have that, you would need to demand that they take action.

The first thing I would suggest is that all vehicles be fitted with filters to capture the particulate matter. Councils like Glasgow could also speed up efforts to create low emission zones; these are areas where only low emission vehicles are allowed to enter. Parking charges could be increased for high polluting vehicles and reduced for low polluting ones. Congestion charging has been used in London successfully to reduce traffic and pollution. In Scotland the scheme to provide free bus passes to pensioners could be extended to the whole population, to encourage people to use public transport. The government could greatly increase the road tax on large gas guzzlers; the charge is not nearly high enough. If it was, we would not see so many large four by fours on the roads.

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