

Protecting the Hands that Built ‘Australia’s Own Car’: Health and Safety at General Motors-Holden

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General Motors-Holden (GMH) frequently asserted that workplace safety was the company’s foremost priority. Nevertheless, in its factories throughout Australia major accidents did occur and many workers were exposed to the risk of hearing loss and repetitive strain and posture-related injuries. Drawing upon oral history interviews with almost 100 former employees who worked at GMH factories between 1945 and 2017, this article examines the evolution of the company’s approach to occupational health and safety, and its workers’ memories of safety culture and the injuries they sustained or witnessed occurring whilst at work. Company-produced literature primarily focuses on metrics such as ‘time lost’ due to accidents and injuries, as well as worker compensation cases, obscuring the individual experiences of workplace safety. While workers’ narratives are

inherently subjective, a careful analysis of their accounts, considering both what is said and unsaid, reveals nuanced details about workplace culture not captured in official statistics.

INTRODUCTION

Cam Johnson worked for General Motors-Holden (GMH) for 30 years after joining its Woodville factory as an apprentice at the end of World War Two. He recalled factory safety being drummed into young apprentices but not all the risks were obvious. When Johnson was 71 years old, his doctor told him his heart was ‘shrivelling’ and that his lungs were irrevocably damaged, probably due to years of exposure to fumes from a cyanide furnace that was employed in the early days of automotive manufacturing to harden the steel that was used to make car bodies. In an oral history recorded in late 2019, with the sound of his oxygen machine clearly audible in the background, Johnson recalled attending a GMH reunion shortly after his diagnosis and subsequent heart surgery:

Johnson: I hadn’t told anybody but I went along to the golf course where we used to meet. And I walked through the door and everybody’s saying ‘G’day Cam’, you know, like they did. Suddenly I got alongside of a table where there were blokes that were the same age as me and in my [apprentice] year and one of them got up and said, ‘Righto, Cam, undo your shirt’. And I knew what he wanted because, you know, that huge mark from there to there.

Interviewer: Your scar?

Johnson: Yes, scar’s still there where they cut you straight up, open you up. And three big holes that are still there from where they had to get at my lungs and take bits out my lungs. Anyway, I won’t go through all that, but it’s all part of being poisoned. And they were all exactly the same. Undid their shirts. And the poor waitresses were doing a tizzy ’cause they were trying

to serve meals. But they all had the same problem...so we've all suffered from it.¹

This anecdote reveals not only the toll factory work could have on workers' health and their bodies but also hints at the ways they coped with it. Johnson subsequently learned that his former workmates shared not only the same scars but the same doctor, who, according to Johnson, had no doubt that the men's condition was work-related even if it could never be proven in a court of law. The fact that the men still attended GMH reunions, continuing to relive happier memories of their working days together, suggests a certain acceptance of their fate and the inherent risks, known and unknown, of the work they did ('Nobody knew whatsoever', Johnson says later). There is a sense of camaraderie, too, and of comfort in not suffering alone as his fellow workers welcomed him into their fold ('we *all* suffered from it', he said). The story is also infused with humour that serves to deflect from the dreadfulness of their collective injuries: a group of older men undressing in a public place, sending the waitresses into 'a tizzy'.

General Motors- Holden and its cars have been an integral part of Australia's cultural and economic history since the mid-twentieth century, and the subject of numerous publications, most of them celebratory or nostalgic.² Barely any of them devote much space to discussing the people who actually made the vehicles: those who pressed and bent the metal, moulded the bumpers, cut and sewed the fabric trim, and applied the paint. Those that do are completely silent on a crucial aspect of the workplace and working experience: health and safety. This article seeks, at least partially, to rectify that, using oral history to deepen our understanding of GMH workers' lived experience of their workplaces. Drawing on interviews with almost 100 former GMH employees, it explores the ways workers remember and retell stories

1 Cameron Johnson, interviewed by Carolyn Collins, Adelaide, 18 October 2019, National Library of Australia (hereafter NLA), TRC 7250/3.

2 See, for example, Will Hagon and Toby Hagon, *Holden: Our Car 1856–2017* (Sydney: Macmillan, 2016); John Wright, *Heart of a Lion: The 50 Year History of Australia's Holden* (Sydney: Allen & Unwin, 1998); Don Loffler, *She's a Beauty: The Story of the First Holdens* (Adelaide: Wakefield Press, 1998). A recent exception is Royce Kurmelovs, *The Death of Holden: The End of an Australian Dream* (Sydney: Hachette, updated edition 2017).

about workplace health and safety, of injuries suffered by themselves and others, and of efforts to improve safety and mitigate risk on the factory floor. Company archives tend to obscure the individual experience in documents that emphasise the numbers – of reportable incidents, cases of worker’s compensation and lost production hours. While workers’ stories are subjective and not always verifiable, paying careful attention to what they say, and sometimes do not say, can reveal details about workplace culture that is not evident in official statistics. Using a personal lens also has the potential to expand our knowledge of the history of occupational health and safety more broadly.

According to oral historians Michelle Winslow and Graham Smith, the use of oral testimony in contemporary histories of health and medicine has become more widely accepted, to the point that ‘studies located within living memory are open to criticism if they fail to include oral history’.³ UK oral historian Arthur McIvor has been at the forefront of these efforts in the field of occupational health and safety, illuminating the benefits of applying an oral history methodology to studies of workers’ health. In ground-breaking work in the early 2000s, he and Ronald Johnston used oral histories of dust disease in twentieth-century Scotland to illustrate how the working environment and work cultures affected coal workers’ bodies and, moreover, how workers came to terms with the ill-health caused by their employment.⁴ McIvor expanded this research to examine other workplaces in Britain, inspiring other oral historians to follow his lead.⁵ Some of the more recent work includes William Burns’ exploration of the ‘hidden history’ of work-induced illness and disability over the long term from the perspective of women who worked in thread mills in Paisley, Scotland,⁶ and Jane Greenlees’ study of workplace health and gender among cotton

3 Michelle Winslow and Graham Smith, ‘Ethical Challenges in the Oral History of Medicine’, in Donald A. Ritchie (ed.), *The Oxford Handbook of Oral History* (Oxford: Oxford University Press, 2010), 372.

4 Arthur McIvor and Ronald Johnston, *Miners’ Lung: A History of Dust Disease in British Coal Mining* (Aldershot, UK: Ashgate, 2007).

5 Arthur McIvor, *Working Lives: Work in Britain Since 1945* (Basingstoke UK: Palgrave Macmillan, 2013); Arthur McIvor, *Jobs and Bodies: An Oral History of Health and Safety in Britain* (London: Bloomsbury, 2024).

6 William Burns, “‘We just thought we were superhuman’: An Oral History of Noise and Piecework in Paisley’s Thread Mills”, *Labour History* 119 (2020): 173–196.

workers in America and Britain, which showed that workers' understandings of, and responses to, workplace hazards were individual and related to knowledge about risk, ill-health and socioeconomic factors.⁷

Industrial-based health and safety research has often dovetailed with histories of deindustrialisation and labour history.⁸ In the 1970s, historian Sven Lindquist launched a movement in Sweden when he urged workers to investigate their own factory histories, 'to dig where you stand', including records and experiences of safety and industrial accidents.⁹ In Australia, by contrast, labour and social historians have been slower to commit to research into workplace health and safety, except as it pertains to mining.¹⁰ In 1997, Michael Quinlan called on labour historians 'to see the history of OHS [occupational health and safety] itself as a legitimate area for them to address'. More than 20 years later he and Sarah Gregson lamented 'the same sense of urgency' and need for critical research remained.¹¹ One notable exception is Roy Kriegler's 1980 study of Whyalla shipbuilders. Kriegler applied an anthropological lens, spending three months 'under cover' working alongside the men he later interviewed on a range of subjects including health and safety. Interestingly, unlike the GMH workers we interviewed, these employees did not hold back when it came to criticising their employer's safety record.¹² Since then, Michael Quinlan, Lenore Layman, Sarah Gregson, Criena Fitzgerald, Beris Penrose and Bobbie Oliver have

7 Jane Greenlees, 'Workplace Health and Gender among Cotton Workers in America and Britain, c.1880s–1940s', *International Review of Social History* 61, no. 3 (2016): 459–485.

8 See, for example, Steven High, *Industrial Sunset: The Making of North America's Rust Belt, 1969–1984* (Toronto: University of Toronto Press, 2003); Arthur McIvor, 'Guardians of Workers' Bodies? Trade Unions and the History of Occupational Health and Safety', *Labour History* 119 (2020): 1–30; Pam de Silva, *Science at Work: A History of Occupational Health in Victoria* (Melbourne: Penfolk Publishing, 2000); Michael Quinlan and David Walters, 'Knowledge Activists on Health and Safety: Workmen-Inspectors in Metalliferous Mining in Australia 1901–24', *Labour History* 119 (2020): 31–58; Neil Gunningham, 'Occupational Health and Safety, Worker Participation and the Mining Industry in a Changing World of Work', *Economic and Industrial Democracy* 29 (2008): 336–361.

9 Sven Lindquist, 'Dig Where you Stand', *Oral History* 7, no. 2 (1979): 24–30.

10 Michael Quinlan, 'The Toll from Toil Does Matter: Occupational Health and Labour History', *Labour History* 73 (1997): 1–29. For an earlier survey of the field, with a similar conclusion, see Lenore Layman, 'The Study of Occupational Health in Australia', *Labour History* 52 (1987): 1–14.

11 Michael Quinlan and Sarah Gregson, 'Editorial', *Labour History* 119 (2020): v–xiv.

12 Roy J. Kriegler, *Working for the Company: Work and Control in the Whyalla Shipyard* (Melbourne: Oxford University Press, 1980).

made important contributions to the field but oral history remains an underutilised methodology.¹³ This is unfortunate for, as McIvor notes, ‘we can learn much about the complex relationships between work and the body and work-health cultures by listening closely to those who directly experienced or bore witness to these events’.¹⁴

THE HOLDEN PROJECT

The history of General Motors-Holden was long and illustrious, but it is now over. The company initially built car bodies for overseas brands, but after World War Two it focused on producing ‘Australia’s own car’ – partly designed and entirely built in Australia – which rolled off the assembly line in 1948 to instant acclaim. By 1959, Holden factories were operating in all mainland states, producing almost 500 vehicles a day, exporting to 25 countries, and employing 18,919 workers.¹⁵ Times changed. Financial difficulties caused by lower tariffs, a global recession, industrial disputes and changing consumer tastes saw GMH’s fortunes fluctuate. In 2017, the last GMH factory, in Adelaide’s northern suburb of Elizabeth, closed. Three years later the American owner General Motors announced the Holden brand would be officially retired.

The impending closure of the Elizabeth factory was the impetus for researchers from the University of Adelaide and Monash University to begin a project to investigate the social history of working life and workplace culture at GMH since World War Two.¹⁶ We have drawn extensively on GMH’s ‘paper’ archive, which was deposited in the State Library of South Australia, and have conducted (to date) 94 oral history

13 See, for example, Quinlan and Walters, ‘Knowledge Activists’, 31–58; Lenore Layman, ‘Mine Fumings and Miners’ Ill Health, 1880s–1910s: The Hazard of Nitroglycerine Fumes’, *Journal of Australasian Mining History* 10, October (2012): 72–87; Criena Fitzgerald, *Turning Men into Stone: A Social and Medical History of Silicosis in Western Australia 1890–1970* (Perth: Hesperian Press, 2015); Beris Penrose, ‘Re-Emergence of Silicosis and Coal Workers Pneumoconiosis in Australia’, *Labour History* 119 (2020): 65–92; Bobbie Oliver, ‘No Place for Tourists: Deaths on Western Australian Construction Sites’, *Labour History* 119 (2020): 119–146.

14 Arthur McIvor, *Jobs and Bodies: An Oral History of Health and Safety in Britain* (London: Bloomsbury, 2024), 4.

15 General Motors-Holden, *Annual Report*, 1959, 3.

16 The project, ‘People, Places and Promises: Social Histories of Holden’, has been funded by the Australian Research Council (LP170100860), General Motors-Holden, the National Library of Australia, and the National Motor Museum.

interviews, which are now held by the National Library of Australia. The men and women interviewed represent a broad range of jobs and workplaces within GMH and were employed for varying lengths of time over the company's history. Some started as teenagers and worked their way up the company chain of command; for them, GMH was 'a job for life'.¹⁷ Others worked for only brief periods with some having their employment prematurely ended by factory closures or redundancies. Designed as 'whole of life' interviews, we followed our interviewees from their early years to school to the factory and beyond, covering a wide range of topics designed to tease out many different aspects of working life at GMH, of which health and safety was just one part.

Pertinent to this article, workers were asked about general health and safety issues in their workplaces, and specific risks pertaining to the work they did and how these were, or were not, mitigated. We also asked them to describe any accidents or injuries they had witnessed or experienced and how these had been managed. As we discuss here, we were fascinated by how they accounted for improvements in workplace health and safety, the types of accidents and injuries they focused on (and what they failed to mention), and how they ascribed blame or responsibility.

IMPROVEMENTS OVER TIME

The first and perhaps most obvious conclusion we drew from our interviews was that there was an improved focus on, and practice of, safety at GMH over time. We were fortunate to interview a number of men who had worked at GMH for more than 40, and in some cases 50, years, including a couple who started during or immediately after World War Two, who testified to this. Harold Onley, who worked at GMH from 1941 until 1982, said that the workplace certainly became safer, which he put down to innovations in protective equipment and technology. He recalled, for example, the time before high vis fluorescent coloured clothing was available; when basic safety equipment such as gloves, safety glasses and ear protectors were not routinely supplied; and the days before forklifts were fitted with sounds and lights

17 Carolyn Collins, 'Keeping Time: General Motors-Holden's Gold Watch Reward Scheme, 1949-2017', *Australian Historical Studies* 55, no. .3 (2024): 585-603.

indicating operation and direction of travel.¹⁸ (Forklifts were mentioned by many of our interviewees as one of the most dangerous elements on the factory floor because they were constantly moving about, difficult to hear above the industrial noise and because the drivers' vision was obscured at the front by the load and drivers' reluctance to awkwardly or painfully rotate their spine and neck to look behind when driving backwards. One of our interviewees, Greg Mills, also mentioned drivers racing their forklifts and lifting their front wheels off the ground.¹⁹

Stories told by the workers made it clear that improvements in safety often came in response to serious incidents. Brian Barnes, who started as an apprentice fitter and turner in 1946 when he was just 16, recalled being given a leather apron and 'put straight to work on the hood of a utility':

And my job was...to lean upside down and I had to put this black tar stuff all in it and then I laid this sound deadener on top of it and it became stuck there. And this was very flammable this stuff, and of course after a while you're getting black stuff all over you and not very far away was a fellow spot-welding things and in the early days the sparks were flying everywhere and all of a sudden – boom – I went up. I was alight and the [car] body was alight as well, the thing was alight. And the foreman and some other blokes rushed over. I don't know what they used to put it out but I was laughing. I thought it was funny.²⁰

In telling the story, Barnes invites his listeners to laugh along; clearly it is one he has told many times over his life. Evidently, however, management did not share the joke. Barnes, who became a manager himself during his 45 years with company, noted: 'Things did change then. They immediately moved me further apart and put a screen across. Safety, you know, it was something that grew'.²¹

18 Harold Onley, interviewed by Paul Sendziuk, Adelaide, 18 November 2019, NLA, TRC 7250/36.

19 Greg Mills, interviewed by Carolyn Collins, Broadview SA, 15 November 2019, 7 and 21 February 2020, NLA, TRC 7250/27.

20 Brian Barnes, interviewed by Carolyn Collins, Littlehampton SA, 6 November 2019, NLA, TRC 7250/9.

21 Brian Barnes interview, 6 November 2019.

Regardless of when they started, a worker's first days could be particularly hazardous, especially when they involved learning to use heavy machinery. Stories told by workers revealed many did not feel they had either enough training or personal protection for the jobs they were being asked to take on (although GMH's commitment to both improved over time). Take Bob Both's introduction to factory life, for example. The former farmer had never been inside a factory before his first day on afternoon shift at the Elizabeth factory in 1963. After four hours talking to the foreman and being shown around the factory, he was put to work on one of the presses:

Both: And then he put me to work at nine o'clock at night and I was on a 50-ton press. And, yeah, that was my first night there.

Interviewer: Did you get much training on that press?

Both: Oh, I was told to get material on my right-hand side, put it in the die, put my foot on the pedal, and then take it out and put it in a tray on this side. Yeah, I wasn't given much instruction whatsoever. But safety was paramount there. Everybody was expected to wear glasses and, later on too, earplugs.²²

Judith Daenke joined the Elizabeth factory in 1973 as a sewing machinist in the trim fabrication plant where the majority of the workers were women. She recalled that the 'trim fab girls' all came into work 'looking quite nice with their make-up and hair done' but during slow periods some of the women would be deployed to other areas of the factory. On one occasion she refused to work until she was provided with protective clothing:

They actually put me on this welding machine, which was probably about 10-foot-high, but probably only about a metre wide, you know, and you had to put a piece of metal in to, for it to join this other piece to and if it didn't strike square, then sparks flew out everywhere. And that's pretty

22 Bob Both, interviewed by Carolyn Collins, Encounter Bay SA, 16 December 2019, NLA, TRC 7250/29.

intimidating, you know. So, I had a Crimplene, do you remember Crimplene? I had a Crimplene dress on, quite a pretty dress, navy blue pleats and white at the top and red trim and stockings of course. Well there I am, sitting at this press with it spitting at me. So, I just went, 'No. Stop'. So finally, the supervisor came and I said, 'Look, I need a leather apron and some leather gloves or something. I'm not doing this job. I'm getting burnt. My dress has got specks all over it from being burnt and my stockings.' He went, 'Oh here's some safety glasses'. So, he gave me some safety glasses...I said, 'I'm not doing this until I get some safety equipment'. So finally, he brought me back a leather apron and leather gloves.²³

In addition to innovations in technology and personal protection, and an increase over time of company-mandated safety briefings and training prior to beginning a new role, our interviewees mentioned occasional award incentives for safety performance and a company-run scheme by which workers received cash rewards for submitting suggestions that resulted in improved workplace safety.²⁴ Keith Hamilton also recalled a supervisor who would put on a barbecue for his workers if they achieved a certain number of accident-free days. 'But it didn't happen too often as there were always accidents', he said.²⁵ Interestingly, our interviewees rarely pointed to other factors that we know gradually improved health and safety in the factory such as the advocacy of the various unions that acted in the interest of workers to cajole the company into improving workplace conditions, or advancements in the occupational health and safety regulatory environment.²⁶ That 'behind the scenes' toil seems

23 Judith Daenke, interviewed by Carolyn Collins, Hillbank SA, 11 and 23 March 2021, NLA, TRC 7250/58.

24 In 1972, GMH introduced a Safety Award for the plant producing the best safety performance during the year. The objective of the program was to 'make GMH the safest place to work', thus maintaining its reputation as a leader in the field of industrial safety (GMH, *Annual Report*, 1972, 7). Most of our interviewees did not, however, recall similar award incentives being offered.

25 Keith Hamilton, interviewed by Carolyn Collins, Munno Para SA, 19 October 2019, NLA, TRC 7250/4.

26 For examples of union influence on workplace safety see: Michael Quinlan, Philip Bohle and Felicity Lamm, *Managing Occupational Health and Safety: A Multidisciplinary Approach* (Melbourne: Palgrave Macmillan, 2010); McIvor, 'Guardians of Workers' Bodies?', 1–30.

to have escaped the attention of workers on the factory floor. Interviewees who did mention it had usually been union stewards or safety representatives themselves.

A REPUTATION FOR SAFETY

GMH's annual reports and employee magazines consistently highlighted the company's commitment to industrial safety and 'maintaining a healthful environment for every employee on the job'.²⁷ The company's 1951 annual report, for example, stated 'GMH holds employee safety to be a management responsibility of first importance'.²⁸ Company initiatives included modern medical centres at each of its factories, staffed by full-time doctors and nurses, and the employment of 'qualified safety engineers' who, according to the company, 'devote their whole time to the many problems associated with the prevention of accidents of any time'.²⁹ GMH's employee magazine, *People*, carried regular articles about workplace safety, particularly in relation to the potential for eye injuries (a particular hazard in GMH's factories); employees were trained for new roles and using new equipment (although, as noted, assessments of the standard of training differed among our interviewees); and the company conducted rolling safety campaigns that urged workers to take responsibility and eliminate hazards in their own work areas.³⁰ The majority of our interviewees concurred with the company's self-assessment of its culture, and expressed pride in GMH's reputation as a 'leader in the field of industrial safety'.³¹ 'Safety was number one', recalled Garth Knowles, who worked at GMH from 1957 until 1996, first as an apprentice fitter and turner and later as production foreman at the Woodville and Elizabeth factories. 'Safety was before anything else. Urgency or time didn't matter providing it was safe.'³² Anthony Leggatt, who worked at GMH, mainly fixing and maintaining machines and robots, for almost 40 years (1974–2013), felt that:

27 GMH, *Annual Report*, 1951, 10.

28 GMH, *Annual Report*, 1951, 10.

29 GMH, *Annual Report*, 1951, 10; GMH, *Annual Report*, 1952, 8.

30 'A Place for Everything...', *People*, February 1950, 18.

31 GMH, *Annual Report*, 1972, 7.

32 Garth Knowles, interviewed by Carolyn Collins, North Haven SA, 25 May and 1 June 2021, NLA, TRC 7250/67.

Holden's had a very good safety record. You know, safety was drummed into you right from the word go. And it wasn't just paperwork safety, it was actual safety. So, ah, at the university, where I'm working at now, they have what I consider a paper safety trail, but in actual safety they're lacking well behind.³³

His view that GMH's culture far surpassed other places he worked was echoed by a number of our other interviewees as well. It was thus possible for our narrators to describe some dangerous situations, as detailed above and below, but still conclude that GMH prioritised safety and was, relatively, a safe place to work.

There was also an awareness that while the promotion of safety at GMH protected workers, it also protected company profits. Employees who could not work and were absent caused problems for shift supervisors who had to fill the roster, and if they failed production volumes could be affected. And when major accidents happened, the line had to be stopped to tend to the injured and to allow for an investigation to take place regarding the cause and culpability. It was very much in the company's best interest for its workers to remain healthy and at their stations. It is probably not a coincidence that as the company's operations in Australia became more tenuous – when profit margins tightened due to economic downturns – the company doubled down on promoting safety.

MAJOR ACCIDENTS

Despite the company's and its employees' commitment to safety, workers still sustained injuries or came down with industrial illnesses that impacted upon their lives long after their working days ended. This became immediately clear from listening to the first handful of former employees that we interviewed. Duncan Hockley, for example, who worked as an electrician for 12 years at Holden between 1956 and 1968, recalled the day a colleague was electrocuted and killed when his spanner dropped across live wires while he was working in a power substation.³⁴ Mark Horan, who worked on the final assembly line at Holden Elizabeth between

33 Anthony Leggatt, interviewed by Paul Sendziuk, Adelaide, 3 February 2020, NLA, TRC 7250/40.

34 Duncan Hockley, interviewed by Paul Sendziuk, Adelaide, 29 January and 4 February 2020, NLA, TRC 7250/39.

1997 and 2005, had one of his teeth knocked out at work, and saw a member of his team partially scalped when his hair got caught in a tool powered by compressed air.³⁵ David Brown, who started at Holden as a machine operator as a 19-year-old in 1976 and finished up 43 years later when Holden's last factory closed, recalled the fingers of a man's hand being severed when he accidentally placed them on top of a die that was pressed.³⁶ Paul Noack, who worked as a press operator at Holden's factories in Woodville and Elizabeth between 1976 and 1986, also recalled a man losing his fingers, among other accidents:

Noack: There was one person, I didn't see it, it was down further, put his hand on the top of the die. And when they pressed the pins, it pushed the die straight up and he squashed all his fingers, and his fingers were ruined for life, so that was a terrible situation, you know...that was very horrific. We had a guy come out – he was actually a shop steward – he was a crane driver. And he had a drop out of the crane. And the equipment that he had broke, so he actually fell from the crane down on the floor. So he now has a permanent injury on his foot. He was lucky to be alive. But that was an horrific accident.

Interviewer: Yeah. So they'd be many metres up in the air, I imagine.

Noack: Oh, absolutely. Absolutely. He was lucky to come away still alive.

Interviewer: Yeah. And he's meant to be connected by a belt or something?

Noack: Yeah. He had a belt. And he connected the belt, but the belt snapped. So, ah, it was a defect in the belt. So that became the subject of massive investigations.³⁷

Robert Smith was 19 years old and just out of his apprenticeship when he witnessed a fatality at work:

35 Mark Horan, interviewed by Paul Sendziuk, Newcastle, 17 June 2021, NLA, TRC 7250/71.

36 David Brown, interviewed by Paul Sendziuk, Adelaide, 24 February 2020, NLA, TRC 7250/45.

37 Paul Noack, interviewed by Paul Sendziuk, Sydney, 15 June 2021, NLA, TRC 7250/68.

I was doing a welding job and I had screens all around me to stop the flash from the welding affect other personnel. An overhead crane was above me working and while I was welding there was a huge thud on the ground and I turned around and there was a man lying on the ground who'd electrocuted himself and died on impact or probably died that day. Personnel grabbed hold of me and took me away and had a talk to me and found out or made sure that I was all right, handling it okay.³⁸

He is the only person who mentioned any concern being expressed for his mental wellbeing.

George Vassallo's father rushed to the aid of another worker and ended up being crushed by a forklift himself. He lost one leg and badly damaged the other. The family never blamed the company. Indeed, Vassallo could not speak more highly of the support his father and family received from the company over the subsequent years, including paying for a cleaner when his mother had to give up work to become her husband's full-time carer. 'Holden's were very, very good', he recalled. 'It was the first time they've ever had an accident like that so they were a bit dumbfounded what they could do. So they offered him and gave him everything he wanted. They paid for, obviously, all his medical [bills], they gave him a 'gopher', they remodelled the inside of the house so that he could get his wheelchair in, and they gave him a wheelchair...they modified his car.'³⁹

Accidents need not have been so gruesome to result in long-term pain or discomfort. And they involved more than just production workers. Matt Goodwins, who began as an engineer at Holden Elizabeth in 1989 and rose to become director of the plant's entire manufacturing operations by the time of its closure, told us about a time he slipped on some oil, which was ubiquitous in the plant, while walking down some

38 Robert Smith, interviewed by Carolyn Collins, Wallaroo SA, 9 November 2019, NLA, TRC 7250/10.

39 George Vassallo, interviewed by Carolyn Collins, Seaton SA, 10 and 11 February 2020, NLA, TRC 7250/31.

stairs on the factory floor. In falling and landing awkwardly across the metal step, he badly hurt his back, which gave him grief for the next 25 years.⁴⁰

'MINOR' INJURIES

When asked if they had been injured on the job, many interviewees first replied in the negative before mentioning, almost as an afterthought, 'minor' lacerations from sharp metal edges and visits to the medical centre to remove metal shards from their eyes. Most seemed to regard these injuries as commonplace; inherent risks of the jobs they did or the result of mistakes they made. Stephen Furber, for example, did not recall 'any real major incidents' during his eight years at GMH between 1978 and 1986. He told us:

I'm not saying there weren't any but I don't recall them. When you think how many people are there, and how much is going on, how much activity, it's pretty remarkable really. I had a couple of minor things myself. Once I had a decent sort of cut on one of my fingers which I had to go to the [Queen Elizabeth Hospital] to get stitched up, only because the doctor in the medical centre was a bit worried that there was some tendon damage otherwise he would have stitched it up himself. And then a couple of times I got something in my eyes.⁴¹

On one of those occasions, Furber was sent to an eye specialist in Adelaide (at the company's expense) to remove a paint chip from his eye. 'I got straight in', Furber recalled. 'He looks at me in his little microscope thing that he had. "Oh Yeah". Pulls it out. Put some drops in. Says, "Put these in for a week", or something. Puts a patch on. "Go home". So, I caught the train home from there.'⁴²

Eye injuries were common among our interviewees, and usually involved metallic dust or tiny shards of metal in areas of the factory where metal was being worked.

40 Matt Goodwins, interviewed by Paul Sendziuk, Adelaide, 9 February 2020, NLA, TRC 7250/42.

41 Stephen Furber, interviewed by Carolyn Collins, Hawthorn SA, 10 and 11 November 2021, NLA, TRC 7250/77.

42 Stephen Furber interview, 10 and 11 November 2021.

Our interviewees explained that safety glasses did not completely alleviate the risk, and that metallic dust stuck to everything, necessitating trips to the medical centre to have it removed with tweezers or magnets. Their attitude to eye injuries was surprising as most non-factory workers would not consider metal in the eye a ‘minor’ injury! Certainly, having it removed was not pleasant. Bob Both recalled having to make two trips to the medical centre before one piece of metal was successfully extracted: ‘The doctor actually had to cut it out’, he explained. ‘Apparently, your skin grows over your eye every night and of course the skin had grown over it and he had to cut the skin and get the flash out, the little piece of steel’.⁴³

Predictably, eye protection was a specific focus of company safety campaigns over the years which included the establishment of a ‘Wise Eye’ club, described as ‘a Club exclusively for those whose safety glasses prevent injury’.⁴⁴ On the other hand, it was surprising that for much of GMH’s history, wearing safety glasses was optional. Bob Both talked about the importance of wearing glasses while working the presses yet concedes he did not always wear them himself:

Both: Anything can happen. Bits of metal can fly out. And also in welders too. I got a flash of steel in my eye from a welder because I never had my glasses on.

Interviewer: Were they optional to wear? Why didn’t you have them on?

Both: Well, they weren’t that strict on it. You could wear them if you wanted to. But really it should have been mandatory.⁴⁵

Workers did not need to be working with metal to suffer an eye injury. Geoff Rilling recalled an incident where safety glasses saved an apprentice electrician’s eye:

He was in the tool room – a huge cavernous building – and he was up on a ladder, up in space virtually, probably 30 feet up in the air and he had his

43 Bob Both interview, 16 December 2019.

44 ‘Wise Eye Recruit’, *People*, June 1974, 6.

45 Bob Both interview, 16 December 2019.

glasses on because it had all been drummed in: wear your safety glasses. And a piece of metal came flying out of nowhere, hit him in the middle of the glasses. So that saved him.⁴⁶

Yet, despite having witnessed this near-miss, Rilling concedes he became 'a bit lackadaisical' toward his own eye safety after his apprenticeship finished:

I always wore glasses so it was no big deal for me. I had prescription glasses that were like Coke bottles, so I was fine but when you got into the workshop proper, depending on what sort of work you were doing, I mean you've got to be able to see properly, right? So, these things, most of them were a kind of a plastic material and they'd get scratched, they'd get greasy and so on. And on a hot day you'd sweat and so people would get a little bit less inclined to wear them.⁴⁷

John Mason, a manager in the paint shop, spoke of his frustration in trying to convince spray painters in the old paint shop at Elizabeth to wear masks and helmets to protect them from inhaling paint fumes. When the new paint shop opened, the workers suddenly all started asking for the equipment. Mason was delighted his safety message seemed to have finally gotten through until he was informed that the workers wanted it to prevent sticky lacquer spray getting into their hair.⁴⁸ Reluctance to use personal protection equipment, like safety glasses, high-visibility clothing, hearing protection and even breathing apparatus in the paint shop suggested there were certain risks workers were prepared to take for the sake of comfort even when they were aware of the dangers.

UNSEEN INJURIES OF LABOUR

When asked about safety, our interviewees invariably focused on accidents, rather than talking about what we might call the unseen injuries of labour, such as hearing

46 Geoff Rilling, interviewed by Carolyn Collins, Golden Grove SA, 7 and 8 April 2021, NLA, TRC 7250/60.

47 Geoff Rilling interview, 7 and 8 April 2021.

48 John Mason, interviewed by Carolyn Collins, Adelaide, 14 November 2019, NLA, TRC 7250/22.

loss caused by industrial noise or repetitive strain injuries, posture-related injuries or inhaling paint fumes. Industrial noise was spoken about during other parts of the interview, such as when the former workers were asked to describe the sights, smells and sounds of their workplace. Stephen Hack, for example, who worked as an electrician at the Woodville factory between the 1950s and 1980s, recalled:

[It was] very loud, very noisy...You'd go into the plating plant and it smelt of acid and [was] noisy with whistles and sirens going off. The press shop was massive, HUGE machines in there, huge machines, which I ended up working on, and noisy. Very, very noisy. You had to wear earmuffs.⁴⁹

Don McDonald who did his apprenticeship at GMH Woodville in the 1940s and stayed until 1986 told us: 'It was very noisy, so noisy in fact that a couple of times I went and knocked off at lunchtime and went home, I couldn't tolerate the noise'.⁵⁰ At work 50 years later, in the final assembly plant that did not even have big pressing machines, Mark Horan described leaving each shift and entering the carpark and becoming aware of a ringing in his ears, like he had just been to a rock concert or night club.⁵¹ Thus, GMH workers were clearly affected by noise and yet it is interesting that very few of them linked it to the possibility or likelihood of hearing loss when it came to talking about health and safety.

Like safety glasses, hearing protection was optional for much of the company's history. Even when it became mandated, some workers continued to resist using ear plugs or ear muffs. Judith Daenke, who became a supervisor with responsibility for safety, concedes she was one of them:

Hearing protection was the worst thing. Because I was guilty of it. How the hell can you talk to people if you've got earplugs in? You know, and it was the noise. I did mention in an earlier part about Plant 1. It was boom, boom, boom, the whole time you're in there, it was just that repetitive banging. And

49 Stephen Hack, interviewed by Carolyn Collins, Normanville SA, 26 October 2019, NLA, TRC 7250/6

50 Don McDonald, interviewed by Carolyn Collins, Williamstown SA, 22 and 23 February 2020, NLA, TRC 7250/31.

51 Mark Horan interview, 17 June 2021.

there's little hairs, you probably know there's little hairs on your ear drum on the inside. And that continually pushes those hairs down. They never come standing up again once they go flat. They're like an elastic in your knickers. You can't make it go back. It doesn't work, won't get fixed. And no one knew about this.⁵²

As dangers of factory noise became more well-known and employers began to be held responsible for their workers' hearing loss, GMH management started to take a tougher line on ear protection. Melanie Penglis recalled that by the early 2000s, workers' hearing was tested when they started and then periodically to check for hearing loss. Hearing protection was no longer optional: 'Yeah, you were picked up by the supervisor if you didn't have it on. You had to have ear plugs or ear muffs'.⁵³

It was also rare for our interviewees to mention the effects of heavy or repetitive work. Those who worked on the presses, which moulded large sheets of metal into the shape of roofs or doors and bonnets, spoke of receiving lacerations from the sharp metal edges. But very few mentioned the strain of performing the same placement, pressing and release movements over and over again at regular rapid intervals, or craning one's neck and twisting one's back in a particular manner over and over again as the metal sheet was loaded on the die, pressed and then discharged. It is possible that they did not mention this because it was an intrinsic aspect of the job; these were movements that must be performed, they could not be avoided. The toll on one's body was the evitable consequence of agreeing to work at Holden and to receive a pay packet. Sarah Barr, an occupational nurse at the Elizabeth factory from 1973 to 1985, recalled the medical centre there having an X-ray machine, a rehabilitation centre, a hearing department and visiting physiotherapists. She estimated that the centre treated about 300 patients a month. While our other interviewees rarely mentioned them, Barr said the vast majority of cases involved back strains and repetitive injuries such as 'tennis elbow'. Workers would be issued with 'pink slips' requiring them to be placed on 'lighter duties' until they recovered. Part of Barr's job

52 Judith Daenke interview, 11 and 23 March 2021.

53 Melanie Penglis, interviewed by Carolyn Collins, Adelaide, 19 April 2021, NLA, TRC 7250/64.

involved onsite inspections to ensure workstations were 'safe' and that workers were bending and lifting correctly. She also spoke of blood tests to check workers' lead levels 'because we had people working with lead'.⁵⁴

The debilitating mental or psychological impact of having to complete repetitive tasks under the pressure of time might also be considered another of the unseen injuries of labour. Never let it be said that manual work is not mental labour. Mark Horan worked in the final assembly plant at Elizabeth, fitting components to the chassis of different model vehicles that came down the line every 73 seconds. This is how he described the process and its effects on him:

Horan: So, when I first started I'd approximate there would have been about between 95 and 100 seconds between cycles. At the end, I think it was down to 73.

Interviewer: And that means you've got that much time to fit the particular parts or...

Horan: You've got your standardised procedures, which involve all different parts that you have to apply to the vehicle in a sequence and in an order and you have to do that in that timeframe.

Interviewer: And that might be easy enough to do on a standard model car...

Horan: Exactly.

Interviewer: But Holden wasn't just producing standard model cars. They had variations on all their models didn't they?

Horan: When I first started, you'd have a Holden: you'd have an Executive, an Acclaim, an SS or an S Pack sort of thing. That's your sedan. And then you'd have your wagon, you'd have your ute and then you'd have your Statesman. There'd be variants and that you know what I mean. That was it. At the end,

54 Sarah Barr, interviewed by Carolyn Collins, Happy Valley SA, 25 November 2019, NLA, TRC 7250/24.

they had sedans, coupes, dual cab utes, Statesmans. And then you'd have variants of left-hand drive of those, variants of [cars sent to] Brazil, Saudi Arabia, England, and every different car that was a variant going overseas had something different than the standard, and not something different to swap over, something different on top of that. But the problem was that with the [time of the] line cycle going down, the options on the cars went up, so you might have a 73 second timeframe for a sedan, which is standard. But [then] you'd have a full chock-a-block Statesman going over to the Middle East, that would probably take you 85, 86 seconds. Now that's alright, if you throw one of them in every five. But it had a point there, that the odd car out was the normal [basic car]. And it physically got very mentally draining and physically demanding for a lot of people...

Interviewer: I can imagine...

Horan: Yep. And, believe it or not, that is psychology that you, it's just like, come on, give me a break. Come on already! Because, like I said, it just gets to a saturation point where something is going to have to give here. Either the job is not going to be done to the standard that I loved, I was a perfectionist. I couldn't let anything go, I couldn't, I had pride in my work, I couldn't let anything go down. You know what I mean? Not for the sake of getting in trouble, just pride in its sake. But you eventually get to the point you go: I physically cannot do this to...the standard that I would have liked.⁵⁵

Mark enjoyed working as part of a team in final assembly, but he longed for a less mentally stressful and less frustrating job off the line, in the quality assurance section, for example, or driving one of the carts that ferried components to and from the storeroom and the operators on the line.

55 Mark Horan interview, 17 June 2021.

THE CULT OF SELF-RESPONSIBILITY

When accidents or injuries did occur, it was generally the workers who held themselves or each other responsible. And, certainly, sometimes they were responsible, especially when they engaged in a bit of horseplay or took shortcuts. Most of the accidents or serious injuries, such as walking into the path of a forklift or machine operators having their fingers crushed, generally occurred because of inattention, and thus, our interviewees suggested, were the fault of inattentive or absent-minded workers placing their bodies in harm's way: they had not done as they were told. But we might also ask what causes this inattention or absent-mindedness? To what extent should an injured worker be held truly responsible when they were being required, say, to work an eight-hour night shift starting at 11pm, or on mundane and repetitive tasks in a noisy environment where it was impossible to talk to a fellow worker and hence keep one's mind engaged and focused? Geoff Rilling, for instance, recalled a leading hand (that is, a work group leader) who made a critical error and almost killed himself. 'He felt a bit of pressure to keep the job going', he said. 'He was one of these guys, he worked seven days a week and I think he was just physically and mentally completely stuffed, to be honest.'⁵⁶

Clearly, the work environment and safety improved over the company's history. In its final decade of operations, GMH certainly had a better understanding of repetitive strain and posture-related injuries – and its role in facilitating the prevention of these – so that employees were asked to cycle through various work tasks and stations, so as not to be performing the same repetitive action for too long. Yet some workers still found themselves in awkward postures performing repetitive tasks for long periods of time in the 2000s, even if they were periodically shifted to different tasks. According to interviewees such as Brian Noone, in the late-1970s, GMH was still resisting the demand by unions for workers to cycle through different tasks, and, to Noone's dismay, returned injured workers back to roles and workstations where they acquired the repetitive strain and posture-related injuries in the first place.⁵⁷ In this case, it is difficult to see how workers can be held responsible for their

56 Geoff Rilling interview, 7 and 8 April 2021.

57 Brian Noone, interviewed by Paul Sendziuk, Adelaide, 5 February 2020, NLA, TRC 7250/41.

injuries and dismiss them as just inevitable and unavoidable consequences of the industrial workplace.

CONTRASTING NARRATIVES

GMH promotional material and the company's leaders, some of whom we interviewed, including a former General Manager, asserted that workplace safety was the company's foremost priority. But the company's narrative around safety was framed very differently than that offered by its workers. In company literature – such as annual general reports, internal memos, and data files sent to General Motors' headquarters in Detroit – GMH spoke about the number of reportable incidents and accidents that occurred in a given period, workers' compensation claims, and workdays lost due to injury-induced worker absenteeism. This was, of course, aggregated data: numbers in columns in a spreadsheet or a report, which did not reveal the names or faces of the injured. In 1954, for example, it was reported that accident frequency had improved (down to 12.6 'lost time accidents per million man hours worked' compared to 81.1 in 1950). During 1963, '998 out of every 1000 GMH employees went through the entire year without lost time resulting from injuries', while the 'excellent' safety results of 1971 included two consecutive months of 'no disabling injuries recorded in any of the company's plants' ('a total of 8,900,000 disabling injury free hours'). It is revealing that the company *only* reported accidents that resulted in 'lost time'. During cases of unfair dismissal, in defence of sacking workers, the company also sometimes spoke of employees exaggerating or faking the extent of their injuries and incapacitation; claims that it occasionally supported with evidence commissioned from private investigators. The company's narrative around workplace health and safety thus largely focused on time (and profit) lost due to worker absenteeism occasioned by injury, real or exaggerated.

Workers themselves spoke about health and safety very differently. They spoke of pain, debilitation, and loss of mobility that lingered long after their employment ended. For some, such as Cam Johnson, their injuries or debilitation only became truly apparent after they left Holden, and hence could not have been recorded in the company's spreadsheets. As we listened to our interviewees recount some of the accidents they witnessed, such as men having their hands crushed, or being

electrocuted, it is clear some still exhibited signs of trauma. Moreover, the repercussions of workers' injuries extended beyond the individuals themselves, affecting their partners and children. This is not to suggest that the company and its leaders did not care or were unconcerned about these consequences as well. But if we were to write the history of health and safety at GMH using only the company's archive of documents and utterances from company leaders, we would end up telling a very different story. This is why collecting the former workers' perspectives, hitherto largely neglected, is so important.

CONCLUSION

The testimony of GMH's former workers provides valuable insight into the formation, maintenance and consequences of the company's safety culture. At first glance, their narratives are surprising and somewhat contradictory. On one level they reinforce the notion that factory work was risky and dangerous, yet the vast majority of our interviewees indicated that they felt safe at work. With some notable exceptions, most viewed their own work injuries as 'minor' and 'commonplace' when, compared to the incidence and severity of accidents in other employment sectors, they were anything but. They recalled accidents and injuries, torn flesh and bone, but often entirely failed to mention the unseen injuries of labour, such as hearing loss and repetitive strain and posture-related injuries, which were more pervasive and sometimes equally debilitating. Nearly all of our interviewees perceived GMH's safety record positively and with pride, noting the company's efforts to adopt and enforce safe practice and procedures, which partly accounts for why they tended to blame themselves or their workmates for accidents and injuries that might otherwise be explained by the conditions of work, unreasonable demands by the company, and the factory environment itself. Company archives tend to obscure these individual and complex experiences of workplace safety in documents that focus on metrics such as 'time lost' to accidents and injuries. While GMH workers' narratives are subjective, a careful analysis of their accounts, considering both what is said and unsaid, reveals nuanced details about workplace culture not captured in official statistics.