Chapter 5

# Social contexts of responses to bushfire threat

## A case study of the Wangary fire[1]

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## Chapter summary

Using the Wangary fire in South Australia (January 2005) as a case study, we aim to deepen our understanding of how families respond to a bushfire event. This chapter focuses on gender and relationships including the following specific issues:

- What influences the decisions and actions of families when threatened by bushfire?
- Was the 'prepare, stay and defend or leave early' policy a feature in the accounts householders gave of their decision-making on the day?[2]
- How does the presence of children influence preparedness and response to bushfire?

Semi-structured interviews were conducted six months after the Wangary fire by three researchers from the Bushfire Co-operative Research Centre at 17 households across the fire-affected region.

This chapter proposes that concepts of role and identity within the broader framework of 'community' can be useful lenses through which to examine issues of community safety in relation to the threat of bushfire. Community safety messages, while often aimed at individuals, need to take into account social interactions at the household and neighbourhood level. Some households managed to remain more cohesive in their fire response, thus reducing their exposure to the threat of the fire.

This research supports the expansion of initiatives which enhance community members' capacity to come together in groups to develop and expand their responses to the threat of fire. Volunteer firefighters, who are also farmers, are looked to by some community members for guidance. In the main, they did not voice the language of the 'prepare, stay and defend or leave early' policy which suggests scope for more discussion to understand the reason for this and to explore how it might be altered. In addition, the desire to remove children from perceived danger can be overwhelming and may result in high-risk behaviour.

## Introduction

This chapter reports some of the findings from our analysis of 17 household interviews (35 participants) carried out in July 2005, six months after the Wangary fire.[3] Three interrelated issues are discussed: different fire experiences among residents, the relative absence of the 'home as refuge' idea and the influence of children's presence when thinking about preparedness and response. Implications from these three themes are presented for their contribution to dialogue within and between end-users, researchers, community services and community members.[4]

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Issues of role and identity are informed by the contexts in which we live, and by our own histories. They contribute to our sense of social belonging and affect the choices we make. The chapter seeks to deepen an understanding of the complexities of preparedness and response to fire in a particular geographic locality and social context. In highlighting some results of exploratory social research of the lived experience and the reflections of 35 residents who faced the threat of fire, we note our respect for those who shared their experiences and reflections. We hope to gain insight into their decision-making in the face of extreme pressure, and to pass on some of that learning to others.

The fire event is known as the Wangary fire. Wangary is on the Lower Eyre Peninsula of South Australia. Its main town, Port Lincoln, has a population of approximately 14 000 people and is 676 km west of Adelaide – it is described as 'remote' by the Australian Bureau of Statistics. The surrounding landscape is largely agricultural, supporting a substantial number of grain businesses and grazing. It also includes a considerable amount of native scrub and forest. The coastal areas support a large fishing and tourist population, and there are several smaller townships inland.

The fire began on Monday 10 January 2005 and was declared contained that evening. On Tuesday morning, ('Black Tuesday') the fire broke containment lines, and claimed nine lives. Two of the nine were men on a private fire unit; seven were women and children, six of whom were fleeing the fire in cars. Ninety-three homes were destroyed, along with numerous other buildings, vehicles and equipment. Over 46 000 livestock were destroyed (Smith 2005). The Wangary fire was a severe fire event, with the grassland fire danger index peaking at over 350 (Gould 2005).

## Methodology

A survey carried out by Rhodes for the coroner (Rhodes 2005) gathered 288 responses from residents of the fire-affected area. Two hundred and sixty-two residents were asked if they were willing to speak to Bushfire CRC researchers, 191 agreed. The aim was to interview residents, of diverse age groups, from across the fire-affected region. Two months after the telephone survey, households were contacted and appointments made to conduct the interviews, resulting in a sample of 17 households. The interviews were semi-structured and all began with a request for a summary of what they had experienced on 11 January 2005. Ten of the interviews were with couples (husband/wife), two were with individuals (women with absent husbands) and the remaining five were with families (where adult children/brother were present). Three interviewers were present at 15 of the interviews (two females and a male) while two interviews were conducted by the female interviewers.

**Table 5.1** Key descriptors of the 17 households interviewed

| | No of households | Renting (R) or Owning (O) | Primary Income: farming (F), retired (R), other (O) | Households with school-age or younger children |
|---|---|---|---|---|
| Under 30 | 2 | R (1), O (1) | O (2) | 1 |
| 30–39 | 1 | O | O (1) | 1 |
| 40–49 | 3 | O | F (1), O(2) | 2 |
| 50–59 | 8 | O | F(5), R(1), O(2) | 2 |
| 60–69 | 2 | O | R(2) | |
| 70+ | 1 | O | F(1) | |
| *Total* | *17* | *17* | *17* | *6* |

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## Household characteristics

Of the 17 households, 15 were located within the fire ground. Two were in nearby towns but had farming/business interests, and were on those farms at the time of the fire.

Table 5.1 summarises some of the key descriptors of this group of 17 households. Members of two households were under 30 and one was over 70, with the remainder spread between 40 and 60. Five households had school-aged children or younger, but none of the children were home when the fire-front arrived. Members of one household were renting their property; the others all owned or were buying their property. Eight households derived their primary income from farming, and nine did not. Among the nine were those with off-farm income and/or retirement income.

One theme which recurred through the interviews was the variation between the households in relation to experience of bushfire. The main bushfire experience in this context was also linked to household members being current or past members of the fire service.

**Table 5.2** Current or past fire service experience

| Association between residence and land | Current or past fire service experience | No fire service experience | Total |
|---|---|---|---|
| Full-time farming (owners) | 7 | 0 | 7 |
| Hobby farming (owners) | 4 | 5 | 9 |
| House rental on farm (non-owner) | 0 | 1 | 1 |
| *Total* | *11* | *6* | *17* |

Of the 11 households with fire experience, it was typically the male who was (or had been) a member of the Country Fire Service (CFS), the South Australian rural fire service. Five of the 17 households had members who had been part of a brigade response to the fire on the Monday evening (the day before the fire), and three included family members among the brigade's response the following day (Tuesday 11 January). Another two were active on farm firefighting units on properties other than their own on the Tuesday. Some interviewees spoke of tension between their brigade role and their community role, such as conflict between local and centralist decision-making in relation to the operational response to bushfire. Some referred to aspects of the operational response to this and a previous fire in the region, referred to as the 'Tulka fire' in 2001. This tension between roles was distressing to several people we interviewed.

In terms of losses experienced in the fire, no families interviewed had immediate members closely related to those who died in the fire. However, some knew the deceased personally, as neighbours, as co-workers, as parents and children of the same kindergarten or school. Some had been in contact with relatives of the deceased on the Tuesday, in their search for missing family members. Two households we interviewed had members who were in direct contact with the two firefighters who perished. Other losses included a home, fencing, sheds, personal belongings, tools of trade, wildlife, community symbols (e.g. Wanilla RSL Hall and a restored historic homestead), animals (mostly sheep), and deterioration in health and mental health. Some reported that the disaster had strengthened relationships and individual self-esteem.

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## Orienting values and concepts

Materials designed to assist people to prepare for a bushfire event often focus on tasks – the myriad of activities people can engage in, prior to and on the day of a fire, to mitigate the fire's impact. Not so readily available to us was the concept of role.[5] For some individuals, familiar patterns were partly informed by their past fire experience. As one of the female respondents said: 'the women get to do the food, to feed the fellas, you keep abreast of where they are, and the fellas go and fight it and, well, they come home in 24 hours and it's all out … but it wasn't the case for this one'.[6]

In some instances, the assumption of the (usually) male role as director of household actions in responding to the fire was clear and probably life-saving: 'command me what to do', one woman said to her husband, recognising she felt ill-equipped and there was no time for conversation. Other role relationships were more fluid, and men left the choice of what to do to the woman. A few men adopted roles they later regretted, either suggesting a certain course of action or not being more authoritative about the action that was taken.

One of the dilemmas in presenting research findings in this field, particularly where we attempt to understand action from a role perspective, is that role behaviour at the household and neighbourhood level is located at the border of private and public life. How individual households work on a day-to-day basis, or in a crisis, is very much part of the private domain. Yet the way households, neighbourhoods and services respond to the threat of fire is also linked to public consequences. This ushers in a raft of public interventions, seeking to determine different sets of accountabilities. This is most dramatically symbolised in the case of the Wangary fire, where the coronial inquiry (at the time of writing, February 2007) has just passed its 12th month of taking evidence. In this forum, some aspects of what might have been deliberated more privately in past years have become very public.

Role and identity are powerful ideas and result from conscious and unconscious states of mind as well as past and present historical, economic, cultural and social forces. What elements of the social and organisational systems we live and work in enable or constrain the enactment of work and community roles? What are the community safety implications when these enactments are enabled or constrained in these ways?[7]

### Responses to the direct threat of fire

Three key themes struck us as we worked to understand some of the issues presented during interviews. These themes are:

- the influence of participants' experience with fire
- the relative lack of discussing the 'home as a refuge' idea
- the presence of children as mediating factors in decision-making.

We discuss these three issues below.

## Differential experience with fire

### Relationship between experience, risk perception and preparedness

The high rate of association with the Country Fire Service as current or past volunteers among our 17 households meant that there were a number of households with fire experience. This group demonstrated an increased capacity to notice the visible cues of the fire and immediately tap into informal networks to obtain further information. They were more attuned to the weather pattern and its likely effect on the fire's progress.

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> We've been planning for fire ban days, and bad weather days, and very bad fire days, but we haven't been planning for *extreme* days … I could see the weather was getting extreme, and I could see it was going to be a horrific day, not just a bad day … My own experience tells me, and I've been fighting fires all my life … I could tell this was something we were really going to be struggling with.

One man who, in our assessment, was the most thorough in his preparation both in the preceding months and on the day of the fire, was not a farmer but had experienced years of responsibility for others in a high fire danger area.

> [Fire] puts the fear of God in you. It never leaves you … Once you've been touched by it, you are more receptive. You pick up on things. I have a pretty healthy respect for what fire can do and how quickly it can happen.

By contrast, one young woman who told us she was 'blissfully unaware' of any danger on the Tuesday morning: 'I knew there was a fire but having never been through a bushfire, it didn't really bother me. I figured – It would be OK. We'll be safe.' She went up Winter's Hill and took photographs before her husband alerted her to the imminent danger to the farm where they had business interests, then together they drove through the fire-affected area to get to the property.

### Capacity for allocating roles between household members

On the day of the fire, in some households the male was able to take the role of leader. Where other household members were willing to follow, there was a sense of a cohesive response. Women gave examples of being issued instructions by their husbands which enhanced the overall safety of the household.

> Though it was really something I'd never experienced before and with the trees all alight and everything but we were just so busy and I just had confidence in Bill really, so … that's all there was to it, you just had to get on and do what had to be done.[8]

Sometimes the cohesion seemed to extend the household's ability to assist non-household members, such as one partner leaving directions for the other while quickly checking on an elderly neighbour. Sometimes the serendipitous arrival of another person into this cohesive system further expanded what could be achieved. Our discussions included several instances of this. In one case a neighbour, who couldn't return to his own property due to the passage of the fire, assisted an elderly woman to protect her property. While she drove the tractor he extinguished spot fires with a fire unit on the back of the trailer.

Men sometimes explicitly valued the presence of their partner in defending the property. One man reflected on how he drew comfort from the knowledge that his wife was indoors; he would run in, take a break from the smoke and run out again. He was glad she was aware of his movements, just in case he passed out. Sometimes women ascribed themselves some value in this more intuitive and relational role.

> Every now and then if somebody went out of sight, I was … I reckon I took the role of making sure … nobody succumbed to smoke when we weren't looking sort of thing.

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One woman was instructed by her husband to take charge of the tenants in a rental home on their property. This role was difficult as the male tenant had a different opinion on what action to take. To her relief, the tenant complied.

Sometimes an instruction separated household members, such as when women were advised to leave the home and go into a neighbouring town. One woman who had been given this instruction told us she 'felt I would be in the way. I didn't argue with him. He's got enough to worry about'. Other rationalisations women reported were that this decision (being advised to leave) meant that they could keep company with another anxious family member in town. Another reason offered [by a departing woman] was that in taking a car away from their property the vehicle would be saved even if the property and belongings burnt. In a few cases both parties (husband and wife) seemed to convey a sense of ambivalence about their actions and rationales. In one case, nobody questioned the male view that the best advice was to leave.

One young woman told us of her unsuccessful efforts to carry out her own inclination, which was to keep family members together. One member decided he would go and move sheep, while another member in the same household tried (unsuccessfully) to fill the fire unit. The woman said:

> We didn't really have time to communicate … my concern right from the start is I don't think it's a good idea to separate because that's how accidents I felt happen … so I wanted to stay together … Barry obviously left and then Tom went down there to get the fire unit and I was just here by myself, so I got in the car and said … look it's not worth it.

In her journey through the smoke and flames she narrowly escaped losing her life.

## Fire experience and fire resources

Greater experience with fire generally meant a greater likelihood that households would have the resources to assist in home defence, such as fire units, appropriate protective dress, hoses which withstood ember attack, hose fittings which allowed rapid tank-filling, diesel or petrol pumps for when the electricity went off, and masks to assist breathing. Grain-growers use fire as a crop management tool, and often graze animals to reduce fuel. Fire is also a consequence of farming, with a high rate of fires from the use of harvesting machinery. One farmer summed up the interactive nature of land use and fire: 'We assume it [fire] as an ever present threat'.

## Fire experience and expectation of outside help

Those with more fire experience also had a more realistic approach to the likelihood that they would receive assistance from the fire service.

> I said to Mary at some stage, look we can't expect any help because the fire has travelled 25 km or so at this point, and there are so many farmhouses between here and there that the resources would be stretched to the limit and we couldn't expect any help.

This statement contrasts sharply with that by a younger woman with no fire experience:

> I've had the wrong idea … particularly being out here, I've never ever worried because I've always just thought if there's fire, there's a fire brigade, I never ever thought I'd ever face a fire on my own.

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## Socio-economics

However, viewing experience with fire without considering other factors would provide an unbalanced account. Socio-economics play a role in bushfire preparedness. Our data showed a relationship between skills and knowledge derived from agricultural work, but we also observed some households where the barrier to response capacity had socio-economic elements (precluding the acquisition of resources).

## Gender[9]

We also caught a glimpse in the group of 17 households that sometimes it is the women who are more regularly mindful of the threat of fire but, for various reasons, that awareness does not receive attention from their partners. Two women in our 17 households, whose partners' work took them away from home for considerable periods each year, told us that they had lived with a chronic state of anxiety about fires for many years. One woman said her family referred to her as paranoid, and conveyed the impression that they belittled her concern. Another woman said she was always checking with her husband as to whether the fire unit was full and ready. One of the two households had sold their property between the fire and our interview, and the other was talking seriously about selling.

### Box 5.1: Fire experience variability in the community – implications

Messages in relation to community safety often seem to be aimed at the individual, as if they act in isolation from others. It appears that we need to understand more about the various roles taken up in households in relation to community safety issues.

- If we did develop more understanding of these issues, what might this mean for community education approaches?

Some people could use their experience as farmers, hobby farmers and members of the fire service to assist others to prepare for the fire's arrival on Black Tuesday. This informal help suggests the role of civil society is critical to community safety but is often invisible in disaster management thinking and planning. A more diverse group at the emergency services table would be beneficial.

The expertise of volunteer brigade members is sometimes referred to in community education talks, when comments such as 'Why don't you go and have a talk to your local brigade?' (about local fuel issues, advice on purchasing pumps and hoses etc.) are made to the public.

- What are the pros and cons of this strategy from the public's point of view?

Community safety messages may also need to acknowledge the decision-making burden men (or is it 'society'?) place themselves under. South Australian research with women who wish to learn skills which have traditionally been considered male skills (such as firefighting) have expressed a preference to do this in a female-only learning environment (Long & Honner 2006).

- What principles would have to be implemented for this development to be carried out as a community development project? The writing of South Australian researcher Cheers (Cheers 2002) may assist with developing these ideas.

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## The relative absence of the 'home as refuge' idea

Despite the number of our households who were members of the CFS, only two interviewees spoke explicitly about the home as a refuge from the fire-front. One was a past member of the fire service (but not a farmer) and the other was a couple who are discussed in the next section. Some of those whom we have described as having 'bushfire experience' decided to shelter in their sheds rather than the house, and said they would do so again. In one case the shed was open on one side. Some people in this group were inclined to speak of cleared areas around a house or shed as areas in which to seek shelter. Sometimes the car was the 'shelter' associated with this idea of going to an open space. We did not push these discussions in our interviews, and there may be reasons for those decisions that were not apparent to us. Some aspects of the Australasian Fire Authorities Council policy of 'prepare, stay and defend or leave early' were not relevant to many farmers, for whom the presumption is already 'stay' (even if that presumption does not hold true for all members of their household). But there may be other beliefs which also mean that they do not differentiate between the 'home' and other farm dwellings in terms of taking shelter.

In two interviews (not involving individuals with fire experience) household members had drawn definite post-fire conclusions about not sheltering in the house. In one case, a husband was very regretful that he had asked his wife to leave the property as the fire approached. She drove into the smoke and crashed the car (but was unhurt), while her husband stayed at the property. The woman said that next time she wanted to stay inside the house, but her husband had argued that the best place for her would be in a car on the bare patch of ground outside the front fence.

**Box 5.2: The home as refuge – implications**

Some community members see farmers as having particular expertise in relation to response to fire. Yet the 'prepare, stay and defend or leave early' message may be targeted at a more urban-based population, with one main dwelling on their property. Facilitation of community groups may need to take into account the fact the behaviour of some community leaders, such as certain farmers, may be observed and emulated by others (see Rogers 1995 for these processes), yet the contexts in which decisions are taken may differ considerably. It may be necessary to be mindful of and tease out some of these differing contexts in group discussions in communities.

One of the dilemmas about the coronial process is that it ties up documents with scientific findings about many aspects of the fire, for far too long. Our experience showed that members of the public deliberate on their observations and what they hear in community discussion and draw conclusions from their local context of the fire event rather than from general findings from other events. The delay in releasing expert reports contributes to misinformation and the sometimes wrong conclusions drawn after these events.

Another household (father and adult daughter) came to the firm view that the house was not the place to shelter in. The daughter referred to 'those adverts on the TV that run all the time, "stay inside until the fire-front has passed"'. She added, 'But it didn't pan out like that at all'. We asked about their current understanding of that fire message. They both disagreed with it. The father added:

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> In quite a few cases I could name … people have in fact lost their houses either because they weren't there or they shielded inside the house and when they went out, the house was … alight … with burning in the ceiling and all this sort of thing which they weren't aware of.

We asked if they thought they saved the house because they were outside. One replied 'Definitely' and the other 'No question'.

## The influence of children in thinking about preparedness and response

The role of women as carers of children appeared to be a factor in decision-making about who should stay with the property and who should leave. One young woman gave a clear example of this. She was pregnant at the time of the fire and was in town, while her husband was involved fighting the fire on private fire units. At the time of the interview, six months after the fire, her baby was four months old. When asked whether they would do things differently next time, the husband commented, 'I think my plan here would be the same, would be just stay in the house until the fire has passed and then go out and assess the damage because it offers some sort of protection'. This case is cited above as one of the exceptions where the household members spoke explicitly about the home as a refuge. We asked his wife if she felt the same. She answered that generally houses could offer shelter and a place from which to fight the fire after the front passed, and that:

> From the stories that you hear, the more people that left in cars, either were injured or died, than people that stayed in their houses. So, I think I would be more scared to be caught in a car than to be caught in a house.

We asked if that would be her thinking now that her circumstances had changed and she had a baby. She then took the conversation in a different direction and started to talk about the foreshore and the jetty, or 'calling Jack and jumping in his boat'. Then she brought the conversation full circle again and knowingly finished with 'I think I'd just stay with the house'. We think this brief conversational outline offers a microcosmic perspective of the paradox that houses are the safest place to shelter, yet when it comes to children there is an understandable tendency to think of removing them from the possibility of a home coming under ember or direct flame attack. In an area such as the Eyre Peninsula the neighbouring sea holds great appeal. This is both understandable and problematic, given the research and common experience of the danger of driving during a bushfire.

In three other interviews, it was assumed that if the children were at home at the time of a fire (which they were not in the households we interviewed) efforts would be made to 'get them to safety' and that if the woman was present that would be her role. In one household, the woman left the property and travelled through the fire in order to get to her children, who were in a nearby town. She had formed the view that her husband (who remained on the property) might not survive and that she too might not if she stayed, and that her children 'needed at least one parent'. A father tried to return from the fire-affected area to a nearby town where his family resided, when it seemed that the town might be hit by the fire.

While we can say that the presence of children is a key factor in household decision-making, our own data lacks input from parents who had babies and young children at home on the day of the Wangary fire. Proudley's (2007) research will explore this theme, in her analysis of interviews conducted in spring 2006 across 39 households on the Lower Eyre Peninsula, in greater depth.

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**Box 5.3: Decision-making regarding children in fire response – implications**

Societal expectations about the role and responsibilities of the primary carer may overexpose women and children, in relation to fire, to dangerous outcomes. How might this issue be broached in discussion with community groups?

## Conclusion

This chapter highlights the importance of experience with firefighting as a core aspect of community safety, and queries the relative absence of 'home as a refuge' idea expressed by those with such experience. It demonstrated the value of exploring the concepts of role and identity, gender and relationships, in the context of community safety in relation to the threat of bushfire. All these issues warrant more dialogue. This needs to occur at multiple levels and in 'safe' household, community and organisational environments. At the household level, members need to feel able to raise issues and expect their viewpoints will be heard respectfully. At the community level, members can explore with each other how they might take up new roles in working toward safer communities. At the intra and inter-organisational level, fire services and other relevant organisations and groups would benefit from meeting with households and communities to mutually reflect on what has happened, and how the roles and tasks of improving community safety can be shared and taken further.

## Endnotes

1 We would like to acknowledge Alan Rhodes (CFA/RMIT/Bushfire CRC). He constructed and managed the telephone survey of fire-affected residents (Rhodes 2005), assisted our early learning in this complex field and conducted the majority of the interviews with us in July 2005.

2 The Australasian Fire Authorities Council provides advice to the public about what they should do during a bushfire. In this chapter we refer to the national policy position as the 'prepare, stay and defend or leave early' policy. The position is sometimes referred to as the 'stay and defend' or 'stay or go' position. The AFAC *Position paper on community safety and evacuation during bushfires* is available at: www.afac.com.au.

3 A more detailed analysis of aspects of this work is contained in Goodman, Healey and Boulet (2007).

4 The word 'dialogue' is used specifically as it involves frameworks for containing contentious and intrinsically emotionally charged issues (Issacs 1999).

5 Role as a concept arises largely from sociological literature (Turner 2002), where varying emphases mean that it can be prescribed and that it can be something people can step into and out of. It can also denote 'the meaning which the acts and symbols of actors in the process of interaction have for each other' (Conway 1978: 20). This idea overlaps with the idea of identity, which takes into account issues of social belonging and thus ideas of history and power relations, and issues of choices we make. Segerson (2002) draws on Sen's work and emphasises that choices can be understood as reasoned decisions reached from moral persuasions. Some of the data presented in this chapter shows that while safety messages might address individuals, 'individuals' can often be seen as operating from a more social, relational basis.

6 We acknowledge that a significant number of women have taken up operational rather than support roles in the fire services (Beatson & McLennan 2005).

7 What cultural values are attached to what roles? What changes in social and economic structures and values are we experiencing, and how do these changes affect our understanding of 'community' in 'community safety'? Who are the parties to the notion of 'shared responsibility' for community safety – shared responsibility between 'community' and 'government' – and what desirable practices might underpin such responsibility?

8 All interviewees have been assigned a pseudonym.

9 For general reading on the subject of gender and disaster see Enarson and Hearn Morrow (1998), Fothergill (1996) and Enarson and Meyreles (2004).

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