

CORRECTED VERSION

STANDING COMMITTEE ON ENVIRONMENT AND PLANNING

REFERENCES COMMITTEE

Inquiry into environmental design and public health

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Professor A. Capon, National Centre for Epidemiology and Population Health, Australian National University

The CHAIR — Welcome, Tony, and it was fortuitous that you were here a little bit earlier and we were able to have at least have some informal discussion with you over the luncheon break. For Hansard purposes, we have with us here this afternoon Professor Anthony Capon, and the organisation that you are representing today is?

Prof. CAPON — I am with the Australian National University in Canberra.

The CHAIR — I need to go through some formalities with you, which is essentially to advise you that you are protected by parliamentary privilege during the course of this hearing, and that is provided by the Constitution Act 1975 and further provisions of the Legislative Council standing orders. Essentially you are protected against any action for what you might say here today, but if you go outside and repeat the same things, all those comments may not be protected by this privilege. As you know, all evidence is recorded by Hansard, and you will be provided with a proof version of the transcript over the next couple of days. It will be sent to the address you are going to give in a moment, and you need to check it and send it back. We have allowed 5 to 10 minutes for you to make a presentation, but with the rest of the time we would really like to ask questions and these are some of the really important issues that you have laid before us. However, before we begin, can you please for the record introduce yourself and also provide your mailing address so that we can send you a copy of the transcript.

Prof. CAPON — I am Professor Anthony Capon from Australian National University.

It is a great pleasure to be here at the Victorian Parliament today. The first thing I would like to say is that I think it is tremendous that you are doing this inquiry into the links between environmental design and public health. I think the fact that you are doing it is another indication that Victoria is a leader on this topic in this country and internationally. Certainly there remains a lot to do in Victoria, and there remains a lot to do elsewhere, but I think you are lining up the ducks here in Victoria, and I think that needs to be acknowledged. Of course the history in Victoria is a stronger history of thoughtful built environment development and environmental design. I live in Sydney, and you would be well aware that there is a competition between Sydney and Melbourne about which is the best city.

Mr ONDARCHIE — When did that begin?

Prof. CAPON — I think from a built environment point of view there is no argument that Melbourne is historically better, and it continues to be more progressive. I think examples more recently would be the work of the City of Melbourne, Rob Adams and others there, where they have made a transformation, particularly in this inner core in the City of Melbourne, to a more healthy city, a city where you can get around by walking or cycling and you are not as impeded as you are in many other Australian cities by the motor car. That is the good, that is the positive tick, and I think that needs to be acknowledged.

From the point of view of institutions here in Victoria, I see that you are going to be speaking to the Heart Foundation later this afternoon. Again, they have been national leaders as an NGO in connecting the built environment to human health.

I guess a challenge for us here in Victoria and elsewhere is how we go to the next level with this work and really make a difference at scale, not so much in demonstration projects. In my submission I have essentially highlighted what I see as three main opportunities. There are many that will be put before you, but the first one is about connecting thinking about sustainable urban development with thinking about healthy urban development, because with the passage of legislation — a carbon tax nationally, which will happen; there will be a carbon price of some sort at some point — built environment professionals around the country, land developers and others will have to move to make low-carbon built environments a priority. As sure as the day is long, that is where we are headed at some point no matter who is in power in Canberra.

The consequence of that is that we will continue to refashion our cities and built environment in the interests of making them low-carbon. Of course at the same time we can make them healthy, because the key message I want to put in front of you today is that low carbon is healthy provided we address the equity issues that track with that. A low-carbon way of living is a healthier way of living, and that was the theme of this conference at the Australian Academy of Science last year. I chaired that conference. It brought together researchers, policy-makers and people from industry from both built environment and public health perspectives to explore the thesis that low-carbon ways of living are healthy ways of living. A classic example is walking and cycling.

If you walk, cycle or use mass transit to get around, there are lower greenhouse gas emissions from that transport task and it is healthier. That is one good example of this idea of what we call co-benefits for health from acting on climate change. That is really my first point there on page 2 of my submission.

The second point is about mobilising professions — mobilising a workforce to enable this transition in government and in the industry, because we must remember that most decisions about the built environment are made in the industry. They are not made in government, so we need to engage directly with industry, not just with government. I attached a copy of this document, this collection of essays on healthy city design that was launched in Boston at the beginning of July. This commissioned set of essays is from a group called the International Academy for Design and Health. That academy was established about 10 years ago at the Karolinska Institute in Sweden by an architect who had a Ph.D. in public health. His name is Alan Dilani.

Initially the work of that academy focused on doing better with hospitals and health-care facilities, so designing those buildings and environments to make them healthier places to be in, but it has decided it wants to move up to the city scale — neighbourhoods and cities — and it asked me to edit this collection of essays that again brought these perspectives together from the different disciplines. You will see on the back there the advertisement for Arup. You would be familiar with that — Arup, the design and engineering consultancy. We partner with it in some of our research in western Sydney. That is funded by the CSIRO's climate flagship. The point of this collection is about engaging those professions — getting architects, planners and engineers working with public health people to make a difference in a built environment.

I brought along this today as well, which is relevant here. It is a new book that will be coming out next month from Island Press in the United States, and it is called *Making Healthy Places — Designing and Building for Health, Wellbeing and Sustainability*. It has been led by our colleagues from the Centers for Disease Control in Atlanta in the United States, and I was asked to do the final chapter of the book on built environments of the future and what we need to aspire to in this transition. I will send you a copy of this when it is released next month for your files. The book is designed as a textbook for postgraduate courses that brings together, again, the built environment professions and the health professions.

This morning I had some discussions with Colin Fudge, who heads up design at RMIT, and he is very interested in how we can cooperate better. This afternoon I will be giving a seminar over at the Nossal institute at the University of Melbourne about this topic. What this shows is that there is a need for improved professional development so the workforce is re-enabled. It is not just people who are training at universities now; we need professional development for people who are doing the job already, obviously. This book is designed to be another step in that pathway.

My final point — point 3 there — is a plea really for the academic community in the country to focus more on systems methods in doing this sort of research. Conventionally in public health we use epidemiological methods to understand cause and effect — the links between A and B. That is enormously important, but we also need improved methods of understanding the range of connections between the built environment and health and the resistance that can be in the urban system to making that healthy. We are working currently with the International Council for Science on a new program of using these systems methods to understand human health problems in cities and to respond to them.

Those are my introductory comments at this stage. I would be very happy to explore any of that or any other questions that you might have.

The CHAIR — Thank you.

Mrs PEULICH — As a health professional, how strong do you believe the evidence base is for the impact of the urban environment on physical health and wellbeing, and how does that compare with the evidence that indicates a relationship between physical infrastructure or physical environment and mental health and wellbeing? Are those two necessarily consistent?

Prof. CAPON — That is a very important question. The first thing I would say is that at the moment our built environments — in a country like Australia, our cities — put barriers in the way of people making healthy choices. Essentially what we are doing is building environments that work for the motor car; we are not building cities that work for people. You are making changes in Melbourne to overcome that in the city of Melbourne, but we need to do that throughout our cities. That is kind of coming at the question from another point of view,

but there is certainly mounting evidence from the epidemiologic perspective that there are links between the built environment and physical activity. You heard from Billie Giles-Corti this morning, and she is perhaps Australia's leading researcher on those links and is internationally regarded for the work she has done. There is no doubt that there are links between the built environment and physical activity.

Mrs PEULICH — At all ages and all demographics?

Prof. CAPON — Yes. The links between the built environment and mental health are more complicated. There are potentially two main areas to explore. One relates to physical activity, because if you are physically active, you are less likely to get depressed. If you do get depressed and embark on an intensive program of physical activity, you may well overcome the depression without the need for antidepressants. If a built environment encourages physical activity, it is also encouraging mental wellbeing because of that link. There are other links to mental health in terms of social capital, community connection and community participation. Again, Billie Giles-Corti is working in this space, and it is an area in which we need more investment. Those links are quite poorly understood at the moment.

Mrs PEULICH — From the point of view of an individual who may suffer from a mental health problem or issue, a psychiatric disorder or whatever, there is obviously a benefit from having connections, naturally — they prevent isolation, people being forgotten and so forth — but how about the concentration of people with similar problems? In particular, what should our public housing policy be looking at?

Prof. CAPON — In many ways what happens with public housing is that you get a concentration of disadvantage, and that can make things worse for people, so we do have to be very careful about that. In this collection of essays I think it is the final one that talks about what happened with some of the housing developments in the United Kingdom, and we all know the negative consequences of those historically. The other thing that has happened around Australia is that we have essentially emptied the psychiatric institutions and we have people free ranging, and that is really positive, but we have not provided the follow-through in terms of the home-based support and other community support we need to enable people with mental health problems to live active, engaged lives in the city. There are very important issues there.

Ms PENNICUIK — I was listening to you talking just then, and I have two things I want to raise with you about systems thinking. About 20 years ago I was involved in exploring the concept of general systems theory, and I wonder whether that is what you are referring to as needing to be incorporated into our philosophy behind environmental planning and planning for health et cetera. Also, we have heard a lot today about the design of places — that is, cities, urban environments et cetera — and your collection of papers, particularly the last one, talks about the actual building, the housing itself, and health. I also wonder whether you can talk a bit more about the actual house, the dwelling, you live in.

Prof. CAPON — As to the first question, yes, there are many different ways that people use the terms systems methods and systems thinking. In the work we did with the International Council for Science there was a contest of ideas about what we meant by that. There were some folks who thought we were fundamentally looking at systems theory and others who were looking at it perhaps more from an ecological and human ecological perspective. I am probably thinking about this more from a human ecology perspective, and I will give you one example of the way in which I think we need to think differently about human health and the built environment. It is in the area of thinking about energy and energy futures.

At the moment when we talk about a low-carbon future, renewable energy and the transitions we need to make we are principally talking about extrasomatic energy. By that I mean energy outside the human body — 'soma' being the body. What we overlook in talking about that is body energy, our human body and the energy store around my waistline over this side of the table and around many Australian people's waistlines. It is a carbon store around the waistline. If we think about an energy system from that perspective, we are thinking about the people in that environment. That enables us to reframe thinking about a low-carbon future, bring the people into it and acknowledge those positives of using the energy store that is accumulating around Australian waistlines to move us around in Australia. That is an example of reframing it in a systems way. Regarding the second question, can you remind me of the sense of that?

Ms PENNICUIK — Today we have heard a lot from landscape architects et cetera.

Prof. CAPON — That is right; the building scale. This is a really important area of thinking about housing and health. One way that I like to remember the spectrum of linkages that we need to be thinking through is that it is relevant at all scales. When we think about an environmental design and public health, it is relevant to the chair I am sitting in — because this chair is designed — to the room we are in at the moment, to the building, to the neighbourhood, to the city region and to the whole of the city. We need to remember that there are potential links between human health and the built environment at all those scales. And examples in housing of course relate to the sorts of materials that the house is constructed from. Does it protect the people who live in it from extremes of weather? Does it do that without the need for air conditioning? Are we exposed to chemicals and toxins in that building, whether it is from the paint or from the furniture? How do we move around the building? Is it designed for people with disabilities to enable them to move around? In a two-storey building, are the stairs prominent so that people can use them rather than the lift? There are many different connections that we often overlook.

Ms PENNICUIK — I suppose my question, if I may, Chair, is: if you look around at the housing estate developments and to that aspect of thinking in terms of design of buildings, to have those co-benefits — the health benefits and the low-carbon benefits — et cetera in the way buildings are designed to be —

Prof. CAPON — Are we doing that yet?

Ms PENNICUIK — Are we doing it?

Prof. CAPON — No, we are not doing it yet. That is the short answer. We can do better. In the long term it will be better for people and for the environment and it will cost less to run those buildings, because at the moment we are principally focusing on the cost of getting the housing ready for market. We are not thinking about the long-term cost of living in that house and the transport task and all of the additional costs that are imposed on the people who will live in those places long term.

Mr ONDARCHIE — Thank you for that, and thank you for making me feel so good about myself, because I have just realised I have a whole lot of carbon credits around my waistline. In your document you say that by 2030, 60 per cent of the population will be living in cities. How then do we design inner-city buildings that encourage and promote healthy lifestyles?

Prof. CAPON — Inner-city buildings and their neighbourhoods?

Mr ONDARCHIE — Sure.

Prof. CAPON — Yes, and in a place like Melbourne perhaps?

Mr ONDARCHIE — Yes.

Prof. CAPON — Essentially the key message would be that there are three broad areas that we need to think through: how do we house people, how do we feed them and how do we move them. So, housing, feeding and moving in cities is the nub of the physical outside of the relationship, and that is in the final chapter of my book. I can send you a pdf copy of that chapter. We need to think about those links; they are interdependent. How are people going to move in their building or in this room? How are they going to move and traverse the neighbourhood, whether it is getting to work or getting to university or getting to the soccer on the weekend? How are they going to get around? There are those dimensions of it. There is: what are people are eating, where are the food outlets and what are those food outlets? Can we enable people to have access to readily available healthy food, or are people constrained in terms of the food choices they make?

In terms of the housing itself, what is the mix of housing? In that neighbourhood does it suit people throughout the life course? Are there a mix of apartments and detached houses and townhouses so that you can, if you choose, maintain your social links in that community throughout the life course. I will give an example of older people. In the suburb where I live in Sydney across the road there was a woman who was in her 90s and who was living in a detached house. She was able to live there into her 90s because there was a set of shops just around the corner where there was a grocer, there was a fruit shop, there was a butcher, there was a physiotherapist and there was a doctor. She did not have to go far. She could push her walking frame 300 metres around the corner. She was able to die in that house rather than move to an over-55s residential community.

I would say that in imagining the built environments of the future we have to imagine places that are going to suit throughout the life course whether or not people choose to live there. They need to suit children, they need to suit young adults, they need to suit families, they need to suit older people and people with disabilities.

Mr ONDARCHIE — Are you talking about mandating the sorts of food outlets that are in precincts?

Prof. CAPON — No, not necessarily mandating things. What we need is to have local economies in Australian suburbs. I think what has happened in the last few decades is that our suburbs have developed essentially as residential places. They are places where people go to sleep or to watch telly in the family room. They are not places where people are living and working, because essentially we have put the economies of the city in one place and the residential areas in another. But of course the built environment professionals are trying to get these mixed juices happening so there is local activity and local economies. That is not about mandating; it is about ensuring there is mass transit to bring a market of people to buy those goods in the shops. Have a rail stop and then you will get shops and outlets around it. You only have to look at what has happened historically to see that that is possible.

Mr SCHEFFER — Thanks, Tony. You talked about the importance of getting sustainable development on the one hand and health outcomes integrated in the context of a low emissions economy, which we are sort of on the cusp of.

Prof. CAPON — Yes.

Mr SCHEFFER — My question to you is: how might government — state, central or local, but I guess state government is our focus — set in place structures that match its planning functions with its community and wellbeing imperatives to bring them together? As you know in Victoria we have the Urban Renewal Authority and the Growth Areas Authority, government departments and various pieces of legislation of course. How might all those come together? What should a good government do?

Prof. CAPON — It is probably the million-dollar question, is it not: how do we bring effect to that integration? Integrated planning is an aspiration, but we are not achieving it, realistically, in any part of Australia at the moment. I think there are models from South Australia in their integrated planning commission that would be worth looking at. Essentially what you are aspiring to, in doing that, is more of a whole-of-government approach, for want of a better term, ensuring that we are thinking about health, social and economic outcomes in a more integrated way.

Mr SCHEFFER — What does that mean in a practical sense? With the authorities, departmental committees and structures that I mentioned, if tomorrow morning you have your pencil sharpened and you are setting one up, what do you do to get that whole-of-government integration?

Prof. CAPON — I mentioned the model from South Australia, the integrated planning commission. That is one possible approach. I do not say it is the only approach. The governance of this is not my area of expertise. I would set the challenge and be happy to work with people in terms of exploring it, but without ensuring that the voice of public health is at the table I think we are missing opportunities left, right and centre. We have been doing so and will continue to do so.

When you think of the proportion of the Australian gross domestic product that is spent on health and health services, it is approximately 10 per cent. That is rising at a much faster rate than the whole of the GDP, so that gradually it is going to take more and more of all our money, not just our public money but also our private money. It has crept up on us. We now spend more on health than we do on education. That transition has happened in this country. With the epidemic of chronic diseases associated with the carbon stores around the human waistline it is only going to get worse unless we redouble our efforts in prevention, and we cannot prevent it if the built environment does not enable people to be healthy and to make those choices.

Mr SCHEFFER — Lined up against the picture that you have painted are community members' aspirations in having, for example, a larger house on a freestanding block at a density of 15 dwellings per hectare — that is what they want — and the imperatives of dwellers to, as you said, get the building finished for sale. You have very powerful forces there aligned against what you are describing as the imperatives for community wellbeing and good design. Can you point us to some work that has been done on that, on how you start reconciling those tensions?

Prof. CAPON — I think from your Grattan Institute here at the University of Melbourne there has been some recent work to show that Australians are choosing mainly apartments, townhouses and smaller houses. I do not know that we can say that that continues to absolutely dominate in what is available. In many ways it reflects what has been built and what people are buying.

There are a few things I would say about it. In Australia there has not been a culture of the public domain, unlike in other parts of the world. Historically, because we have been able to have backyards and open space, then we have not needed to invest so much in the public domain. What is happening, when you look around Australia, is that we are building apartments apace in many of our large cities but we are not investing in the public domain, so we are doing part of the transition. If the public domain is attractive and it is a place you want to be, then that becomes part of your habitat. You can inhabit the public space, engage with other people, be active — enjoy all that — without having to maintain that yourself, and you are maintaining a smaller bit at home.

I think that has to be the way we are headed, for many reasons, not just environmental reasons, but human health and economic ones. With 9 billion people on the planet by the middle of this century, they will not all be living on 1000-square-metre blocks.

Mr ELSBURY — In the outer northern and western suburbs we are seeing a massive increase in the number of children suffering from asthma. Once upon a time this would have been attributed to inner city living. What can you see as being the factor? Is it the increased density that they are now living in or is it the fact that they are not getting the exercise they would once have got, with mum and dad having to trundle all the way in to Melbourne to work and then go all the way back out again? Are dormitory suburbs becoming a problem?

Prof. CAPON — Asthma is a really interesting one. I am very happy to make some general comments about it, but I would again say that I am not an expert on that particular topic. I think there is quite a bit of evidence that one of the reasons for the increase in asthma, allergies and a range of other disorders, including autoimmune disorders, relates to our very hygienic way of living. My kids do not make mud pies like I used to make when I was a child. We often spray the bench tops at home to get rid of the bacteria.

Mrs PEULICH — Now they are junior master chefs.

Prof. CAPON — Yes. Really there are a lot of healthy germs that we need to be exposed to throughout the life cycle. Maybe we all need to have some worms in our guts for a period of time to make sure that we have a healthy immune system.

Mr ELSBURY — I am more inclined to let my kids eat sand than to put some sort of creature inside them, but anyway.

Prof. CAPON — No, I am not meaning that we should drink worm eggs. I am just meaning that we are obsessed with hygiene; it is part of our modern life. So that is one part of why we are seeing an increase in these conditions. Importantly, though, in Australia's large cities, like the parts of outer Melbourne you were referring to and the parts of western Sydney where I worked for 15 years as director of public health, air pollution is an issue. We know from the work we have done there that air pollution levels in western Sydney on some days of the year are so bad that asthmatics are using their puffers more, they are going to their GPs more and they are ending up in hospital more often. People are dying from air pollution in this country. Indeed more people die from air pollution and its health effects than die from motor vehicle injuries every year in this country, but we hear about the motor vehicle injuries. Asthma is part of that spectrum of chronic respiratory problems, so we should not underestimate the importance of urban air pollution in the asthma story.

Mrs PEULICH — This may be out of your area of expertise, but you may have an opinion. It has been something that has been raised with me by some parents. A common design is now being pursued at schools where there are shared spaces with multiple classes and teachers sharing a single space and focusing on group work and so forth. The concern that has been raised with me is that some of these designs, into which we are investing multiple millions of dollars in development, do not cater particularly well for children with attention deficit disorders, hearing impairments and perhaps other health conditions. Are you aware of any research that might have been done in that regard anywhere?

Prof. CAPON — So this is essentially the learning environment, like the classroom — —

Mrs PEULICH — It goes back to Sue's point about construction of buildings. We were talking about the construction of private buildings, the construction of public housing and the construction of various specific buildings that governments may put resources into. Has any research been done on that?

Prof. CAPON — No, I have not personally read about it. There is a chapter in this book on healthy schools. I could have a specific look at that and send you that chapter. It might be of interest to you. But it is not an area in which I have expertise.

Mrs PEULICH — That would be of interest. I just thought you may have known someone in the research field.

Prof. CAPON — No.

The CHAIR — Thank you very much. We are very much looking forward to the book being published, particularly your section and also the section before that on the toolkit. I think that will have tremendous relevance to the practical outcomes for which this committee will be looking. Thank you again and please keep up the relationship as the inquiry continues. Keir would be your first point of contact.

Mrs PEULICH — You did not tell us who was launching your book?

Prof. CAPON — We have not organised an Australian launch yet, as we are not editing the book; we have a component of it.

The CHAIR — Thank you.

Prof. CAPON — You are very welcome.

Witness withdrew.