The End of Suburbia, oil depletion and collapse
"The End of Suburbia, Oil depletion and the collapse of the American dream."
A film review (DVD) by Bill Hill

"The End of Suburbia, Oil depletion and the collapse of the American dream," is an insightful look at the impact of energy descent on the lifestyle of the 50% of Americans that live in suburbia.
The video begins with a powerful metaphor for energy descent, that of a fuel gauge running on empty.
A quote from Thomas Hardy appears, " if a path to a better there be, it begins with a full look at the worst" with the film makers inviting us to understand the present situation, how we got there and some possible solutions.
James Howard Kunstler maintains that suburbia, since WW2, was "the greatest misallocation of resources in the developed world, America took all its post war wealth and wasted it in a living arrangement that has no future". He goes on to paint a grim picture of the future of suburbia, post the fossil fuel era.

We are then taken back in time, through wonderful archival film footage, to understand the drivers of the suburban dream.
In the mid 19th century industrial cities were dirty, smelly horrible places to live.
The workforce was housed in crowded tenements that quickly turned the inner city into slums.

During the 1870-90's, it was only the wealthy elite, who could afford cars, that could live out in the countryside in beautiful mansions surrounded by lovely gardens.
However with the advent of tramcars and light rail, the opportunity for workers to own their own home in the inner suburbs became a possibility.
In the early part of the twentieth century, the developers of these inner suburbs were required to provide public transport to service these vibrant new communities that developed around a main street running off main arterials. [1}

Unfortunately public transport did not keep pace with the suburban sprawl and General Motors, Firestone tyres and Standard oil bought up the mass transit systems and removed them, so that people would need to ride in General Motors buses and cars, running on Firestone tyres and using Standard oil.
Although they were convicted of this in the courts and General Motors was fined $5000 [2], and its executives $1 each, the damage had been done and the course set.
For a pittance and a smack on the wrist, Americans were denied the opportunity of an effective mass transit system.

With the advent of the mass produced car, suburban sprawl followed the highways and expressways, eventually creating a continuous suburb stretching along interstate highway 95 from Maine to Florida. (Michael Klare, E of S)
It now seemed that everyone could have a house in the suburbs complete

with kids and a dog, flowers and lawn out the front, a vegetable garden and BBQ in the backyard.
They will probably have two cars in the garage, one for the inevitable commute to work, the other for shopping and carting the kids around.
Population within 50 miles of an interstate highway increased and over 50 miles decreased, the county was emptying into the suburbs!
After World War 2, America was awash with oil; in Texas it was cheaper than drinking water.

Cheap energy fuelled unprecedented expansion and productivity in everything from houses to agriculture.
Between 1945 and 1947 2.7 million houses were built, many to house ex service men and their young families.

Since the 1960's we have seen the cul-de-sac developments of sprawling dormitory suburbs, with street after street of ticky-tacky McMansions, absolutely dependent on a car for everything that they need.
These sprawling suburbs will become bare the brunt of energy descent with few options to retrofit them for era of expensive and increasingly scarce fossil fuel.

During 1956, a famous geologist M. King Hubbert [3], forecast an American oil peak in 1970-71 and a global oil peak in the mid 1990's, although this forecast peak, was delayed as a result of the oil crisis in the mid 1970's.
"The 1973 "oil crisis" [4] dramatically reduced oil consumption and got the world thinking about energy conservation and use." (Dr.Colin Campbell, 2004)
Probably delaying the world oil peak for ten to fifteen years.

As soon as the Alaskan and North Sea oil fields came on stream, OPEC lost power and coherence, there was a subsequent glut and oil prices dropped sharply and stayed down for most of the next twenty years with minor fluctuations.

The energy peak will be reached sometime between 2004 and 2007, history will tell us exactly when that was, but when Saudi Arabia peaks the world will peak.
The point is that future growth is not possible without cheap fossil fuel and electricity for energy.

Nagging doubts are starting to surface, the "great blackout of August 14, 2003" affecting up to 57 million people, really jolted the American population out of their comfort zone.

When, on a very hot summer afternoon, with seemingly, all the air conditioners going full blast, the power went out.
The power went out about 4.13pm [5] , the black out lasted for three days in some areas.
Officially the outage was blamed on a branch falling on a power line, but it was as a result of switches tripping as consumption neared 100% capacity.
This was a massive collective wake-up call and the beginning of a realisation

that "crisis is a problem ignored." (Matthew Simmons, E of S).
This was not a yellow light; this was a massive red light.

Economic growth is predicated on more electricity and electricity is dependent on natural gas, 15% of the natural gas used in the US comes from Canada, that 15% equating to half of Canada's total production.
The cost of energy descent on the US economy is estimated at "$7 trillion out of the stock market, 2 million lost jobs, federal and state budget surpluses gone and the middle class disappearing, along with their unsustainable lifestyle." (Kenneth Deffeyes, E of S)

At least 60% of the remaining recoverable oil is in the Gulf; in the hands of Arabs that do not like the way America is conducting itself on the world stage.
The United States have become involved in a war in Iraq, that is expected to be drawn out and bloody and they may still not secure their oil needs.

The "neo cons" (neo conservatives) are entrenched in the American political system and are already having an undesirable effect on the civil rights of its population.
Civil liberty and free speech will be drastically curtailed, this is already happening as a result of the recently introduced "US Patriot Act." (Richard Heinberg, E of S)

We will need to adjust to a new age, post-cheap fossil fuel, politically, economically and socially.

Most of the world economy is absolutely dependent upon oil, with 600 [6] million cars on the planet and 200 million in the U.S.
With an increasing demand for energy in China and South East Asia, America's share of the total oil available will inevitably be reduced.
Optimistic forecasters believe that America can eventually produce 25% of its energy needs from renewable energy sources.
That still leaves a huge deficit to be accounted for to maintain the status quo.

Without cars, the suburban dream will become a nightmare, unsustainable, untenable and unliveable.
The more we look, the worse it gets.
The green revolution of the 1940's and '50's was petroleum driven, pesticides are derived from natural gas, the soil has been degraded to such an extent it is treated like dirt, its only role is to hold the plants up.
The sowing, spraying, irrigating, harvesting and transport of food, is almost totally dependent on fossil fuel.
Agriculture in the US has been industrialised and is energy dependent, it takes 10 calories of oil to produce one calorie of food and most fertilizers and chemicals are oil based.
The day of the three thousand mile Caesar salad [7] is limited; food will necessarily need to be produced close to the market.
Communities will need to become interdependent and self sufficient in food and energy.

Railways will need to replace roads to efficiently move freight and people. American society is addicted to fossil fuel and most people don't want to hear that we are quickly running out of cheap, abundant oil.

With 60%of the recoverable oil in the Middle East and Asia, particularly China becoming the powerhouse economies that produce much of the western world's consumables, there will be an intolerable pressure on the remaining oil and gas supplies.

As we begin to look at alternatives to fossil fuel we begin to understand how fossil fuel dependent we are and how daunting our future looks.
Hydrogen has been mooted as the resource of the future, however it is takes more energy to produce it than it delivers.
We start to see that hydrogen is more of a storage system, than and energy system to be used to propel cars.
The cost of replacing fossil fuel powered cars with hydrogen fuel cell cars is prohibitive and energy negative .[8]
Julian Darley discussed Biofuels, (E o S) he maintains it is mathematically and agriculturally impossible to produce sufficient crops to "grow" our fuel needs.
The only bright spot on the horizon is the inevitable end of globalisation that will be the inevitable consequence of the end of the fossil fuel era.

New urbanism as seen as a new direction in town planning and architecture, where medium and high-density housing is developed adjacent public transport, where living spaces are quieter, walkable and friendly with a sense of community and civic pride.
The redevelopment of the urban strips fronting the freeways into high-density living is seen as focus for the urban sprawl to link into for vibrant walkable communities.
Redevelopment of shopping malls into multi-use living areas is another inspired solution, encouraging people to live work and shop in a functional and attractive environment.

Peter Calthorpe, an urban designer, discusses a redevelopment in Stapleton, in Denver, Colorado that has been retrofitted using "new urbanism" design principles. People seeking a more vibrant have enthusiastically embraced Stapleton,

liveable and walkable community and are prepared to pay a 25% premium over nearby developments, to live there.

An exciting of example of self-sufficiency, sustainability and a living with a small environmental footprint are the "earth ships" of Toas, New Mexico. (see photos)
Made of old tyres, rammed with earth and backfilled with earth, built on passive solar design.
They have windows facing the sun, with a greenhouse at the front, solar heating, photovoltaic arrays for electricity, water tanks and grey water systems that make them almost totally self sufficient.

They cost effectively reuse and recycle unwanted tyres in their quest to live in harmony with nature.

Another sustainable alternative suggested by Japanese researcher, Takeshi Kaneda, has outlined a "Proposal for a renewable- based hydrogen energy system," using excess power from a community wind turbine, domestic photovoltaic units in a small rural community in Japan. [9] (David Elliott 2003) This is an inspired visionary project that gives hope for future sustainable self-contained communities that have vibrant, supportive local communities.

As to whether this portrayal of the End of Suburbia [10] , is a responsible, totally objective documentary, is open to conjecture.
Sure it tells a compelling story, but it is a story told by predominately middle aged, middle class, Anglo-Saxon [11], university educated, white males.

They are ideologically driven to deliver a powerful message that has the intention to jolt Middle America [12] out of its complacency through a well-argued point of view.
It has quite a few similarities to the Mike Moore film, "Fahrenheit 911" and will perhaps have a similar audience and impact.
It speaks to the intellectual left wing democrats and liberals (American) who seem to be in decline politically, leaving the right wing republicans to take the rednecks and conservatives to hell in a hand-cart.
Wedge politics will polarise the electorate even more, dividing American people and marginalising America in the eyes of a more enlightened and egalitarian European world power.

When I visited the End of Suburbia website, I discovered that the documentary was made by Canadians, who risked prosecution, by making a bold foray into the US to make this provocative film.
Fortune favoured the brave and their timing was impeccable.
I would love to see them make a complimentary documentary concentrating on sustainable energy use and living environments that nurture and grow supportive communities showing what our future could be like.

They could use this film to inform those people who resonate with their message.
Ordinary people who want to do something positive about living more sustainably could be inspired by possibility.
To live in harmony with mother-nature and her cycles in a responsible and ethical manner.

Footnotes
1.These were medium - high density, walkable, neighbourly, civic minded, well-designed living spaces that supported their growing populations with suitable and effective infrastructure.
2.Quote from the director Gregory Greene, in the commentary section of the DVD.
3.www. hubbertpeak.com
4.This crisis was a political response to the "Yom Kippur" war between the

Egyptians and the Israelis, by the Arabian dominated OPEC consortium.
5. Peak demand for power is between 4-5pm, when industrial, commercial and residential use coincides.
6.The energy required to build a car is equivalent to 90 barrels of oil.
7.Produced in Central California and delivered to Toronto, Canada
Net energy equation, energy used for energy returned
8.Not allowing for the major infrastructure costs to build the cars and fueling stations.
9.They plan to generate back up hydrogen supplies for use directly and for trading via the gas grid. The co-operative would be 50 households, each using 400 kWh per day, with 3kWh rooftop solar panels on each house and one 200kWh wind power generator.
10. A metaphor for how western society will cope with the inevitable decline of cheap, abundant energy
11. Ali Samsam Bakhtiari Senior Expert in the Corporate Planning Directorate of the National Iranian OIl Company. Was the "token arab" but was speaking from the same script (point of view)
12. And the rest of the western world

"We're literally stuck up a cul-de-sac in a cement SUV without a fill-up" - James Howard Kunstler