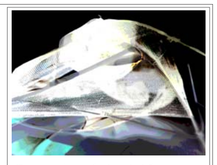
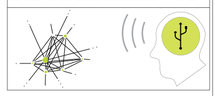
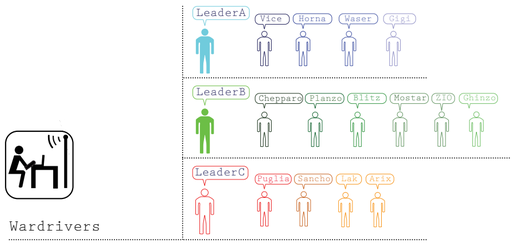
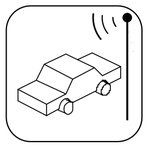


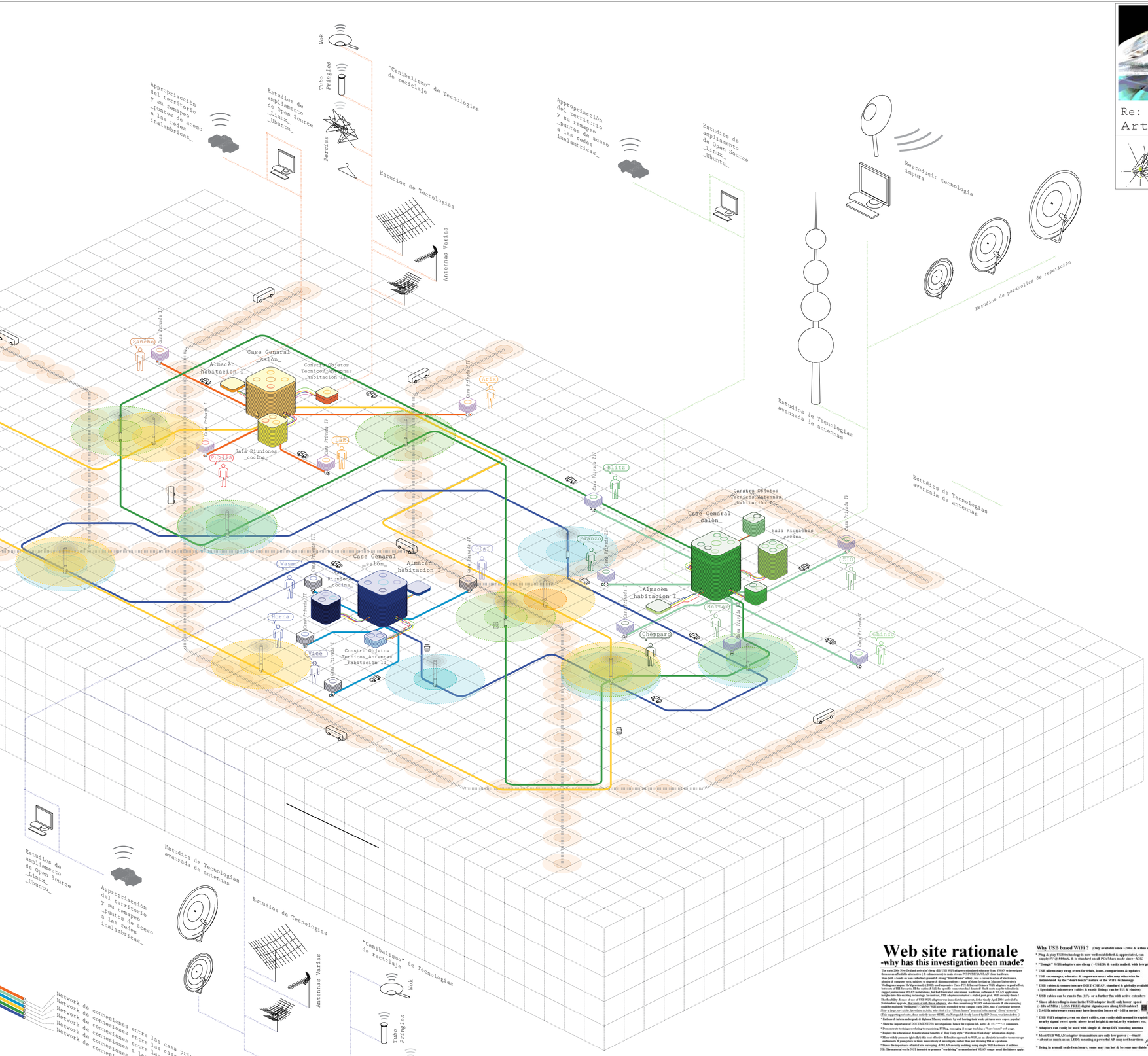
Re: Archipiélago Artificial 01

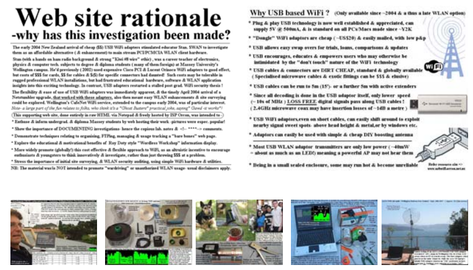


Wardrivers









Web site rationale
-why has this investigation been made?

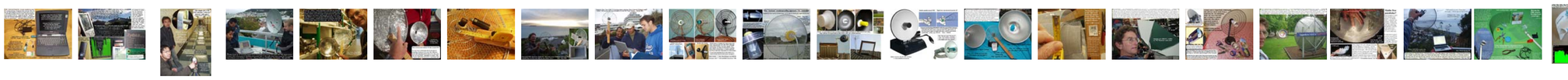
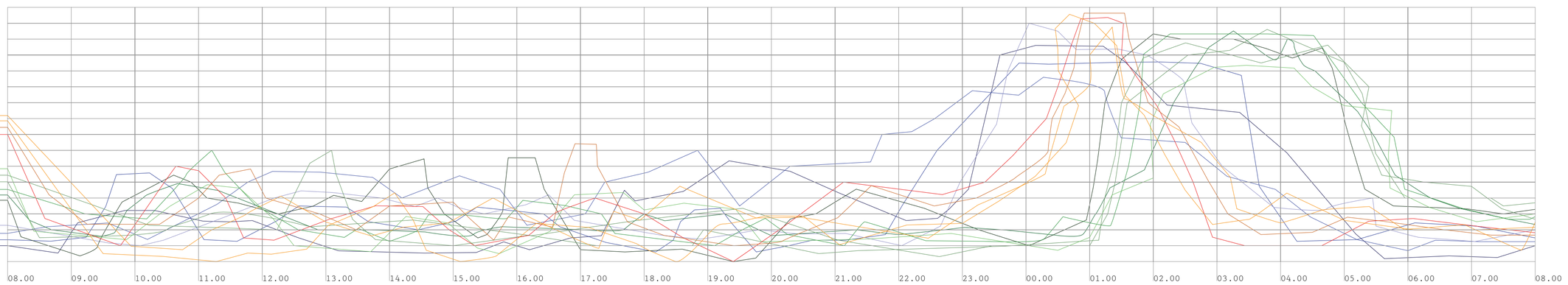
The early 2004 New Zealand arrival of cheap IEE USB WiFi adapters stimulated educator Stan. SWAN to investigate them as an affordable alternative LR enhancement to train relevant PC/IBCM/IA WLAN client hardware.

Stan. SWAN is a computer technician at Victoria University of Wellington's School of Electronics, physics & computer tech. subjects to degree & diploma students (some of them foreign at Massey University's Wellington campus. He'd previously (2002) used expensive Cisco PCI & Lucent Orinoco WiFi adapters to good effect, but costs of $$$ for each, $$ for cables & $$$ for specific connectors had daunted. Such costs may be tolerable in rugged professional WLAN installations, but had frustrated educational hardware, software & WLAN applications development. Stan. SWAN had also found PCI adapters unsuitable for installation in many laptops & desktop PCs.

The flexibility & ease of use of USB WiFi adapters was immediately apparent. & the timely April 2004 arrival of a Notemobility upgrade, that worked with these adapters, also then meant easy WLAN enhancements & site surveying could be explored. Wellington's CityOne WiFi service, extended to the campus early 2004, was of particular interest. (Here a large part of the fun relates to folks, who cited it's a "Cheat Feature" practical joke, saying "Good it works!".

* Stan. SWAN's investigations, from mid 2004, were hampered & limited by ISP Orcon, who installed ADSL* * Business & diploma students at Victoria University by web hosting their work. patience were super, popular!
* Here the importance of DOCUMENTING investigations & learnings requires both, notes & """ + comments.
* Demonstrate techniques relating to organizing, FTPing, managing & usage tracking a "new luxury" web page.
* Stan. SWAN's web site was also used to demonstrate the "Art of FTP" Bag, Drop & Delete techniques.
* Many widely promote, globally!) this cost-effective & flexible approach to WiFi, so an absolute necessity is to encourage enthusiasts & youngsters to think innovatively & investigate, rather than just throwing $$$ at a problem.
* Stress the importance of initial site surveying, & WLAN security auditing, using simple WiFi hardware & utilities.

NB: The material was/is NOT intended to promote "wardriving" or unauthorized WLAN usage. usual disclaimers apply.

Why USB based WiFi ? (Only available since ~2004 & a thus a late WLAN option)

* Plug & play USB technology is now well established & appreciated, can supply 5V @ 500mA, & is standard on all PCs/Macs made since ~Y2K
* "Dongle" WiFi adapters are cheap (~US$20) & easily mailed, with low p&p
* USB allows easy swap overs for trials, loans, comparisons & updates
* USB encourages, educates & empowers users who may otherwise be intimidated by the "don't touch" nature of the WiFi technology
* USB cables & connectors are DIRT CHEAP, standard & globally available (Specialised microwave cables & exotic fittings can be $$ & elusive)
* USB cables can be run to 5m (15') or a further 5m with active extenders
* Since all decoding is done in the USB adapter itself, only lower speed (~ 10s of MHz (LOSS FREE) digital signals pass along USB cables (2.4GHz microwave cons may have insertion losses of ~ 1dB a meter)
* USB WiFi adapters,even on short cables, can easily shift around to exploit nearby signal sweet spots above head height & metaLar by windows etc,
* Adaptors can easily be used with simple & cheap DX boosting antenna
* Most USB WLAN adapter transmitters are only low power (~40mW = about as much as an LED) meaning a powerful AP may not hear them
* Being in a small sealed enclosure, some may run hot & become unreliable