

Concluding Thoughts

- A time of many projects... and not much (uncommitted) money.
- The ELTs are dominating long-term strategies, but... this should not preclude smaller-scale facilities that would ultimately enhance their best use.
- Scientific demand for a wide-field, 10m MOS is greater than ever before.
 - coldness/clumpiness of stellar streams, tests of LCDM on galaxy scales, calibration of photo-zs, dual halos, spectroscopic follow-up of transients, mass of the MW and orbits of satellites, clump giants as probes of fossil relics of the early disk, tidal stripping via lensing signatures, a protogalactic track?, serendipitous SN, etc.
 - having wide-field MOS access to both hemispheres is crucial.
 - so too is collecting area \Rightarrow 10m is the minimum.
 - there are many more projects than there is time available \Rightarrow a dedicated facility.
 - the case for a spectral resolution of $\sim 20,000$ (and even higher) is stronger than ever.
 - breadth of science.

Representative Surveys (from Nov. 2013)

Survey	u_{sky}	Area (deg ²)	Resolution	λ (nm)	g_{lim} (mag)	T (ngts)
Multiplicity and Exoplanets	bright	115	20,000	425-491; 585-675	16.0	110
			2,000	0.37-1.3		
ISM Survey	bright	5,000	20,000	369-425; 761-879	16.0	140
Galactic Archaeology I	bright/grey	10,000	20,000	425-491; 585-675	20.4	1150
Galactic Archaeology II	grey	10,000	6,500	381-439; 770-889	21.4	290
Andromeda	grey/dark	350	6,500	436-504; 770-889	23.0	50
LOWZ	dark	1,000	2,000	0.37-1.3	i=22	190
Rich Clusters	dark	30	2,000	0.37-1.3	r=22	45
Virgo Cluster	dark	100	6,500	436-504; 770-889	23.6	30
			2,000	0.37-1.3		
Dark-Wide	dark	4,300	2,000	0.37-1.3	i=23.5	520
Dark-Medium	dark	100	2,000	0.37-1.3	i=24.25	480
Dark-Deep	dark	1.5	2,000	0.37-1.3	i=26	105
Quasar Reverb. Mapping	dark	1.5	2,000	0.37-1.3	i=22.7	105
Cosmological Cluster	dark	750	2,000	0.37-1.3	i=23.5	195
BAO/Cosmology	dark/grey	10,000	2,000	0.37-1.3	r=23.7	600

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- For several communities, a need to **balance their optical/IR portfolio** in terms of intermediate-sized telescopes as the era of ELTs approaches is a priority.
 - don't forget that a dedicated, 10m-class spectroscopic facility could be an attractive element in such plans.
- Mauna Kea remains the world's preeminent observing site (at ~equatorial latitudes) and the portfolio of facilities is evolving rapidly (i.e., CFHT + UKIRT).
- A number of important issues raised during the workshop:
 - choice of optical design, S/N-resolution balance for GA, planning for transient follow-up, optimization of wavelength channels, ultra-high-resolution mode?, "chemistry is hard" → collaboration and planning, upgrade paths, deep imaging for $z>1$ redshift surveys, data distribution policies, spectrophotometric calibration and sky subtraction, etc.
 - Who can answer these questions?

Concluding Thoughts

- ngCFHT needs champions in the various communities.
- The timing is excellent for a number of upcoming community “strategic plans”.
- The workshop talks will be made available online.
- Please share and discuss with your communities. Feedback would be welcome.
- Recall the two-stage development plan from D. Crampton:
 1. **2014-2015:** ngCFHT project office (level ~\$100-200k per year). Chinese willing to send a senior scientist.
 2. **2015 onwards:** partnership created and design/construction begins.
- Plans are already underway for a technical meeting in the fall. Please stay tuned.

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CFHT Users' Meeting: May 6-8, 2013, Campbell River, BC, Canada.

- A key step in consolidating community support.
- Attendance would be invaluable.
- Letters to the director expressing potential interest from other communities would be most welcome.
- The project must maintain momentum and the lines of communication → project office.
- **Partnership:**
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