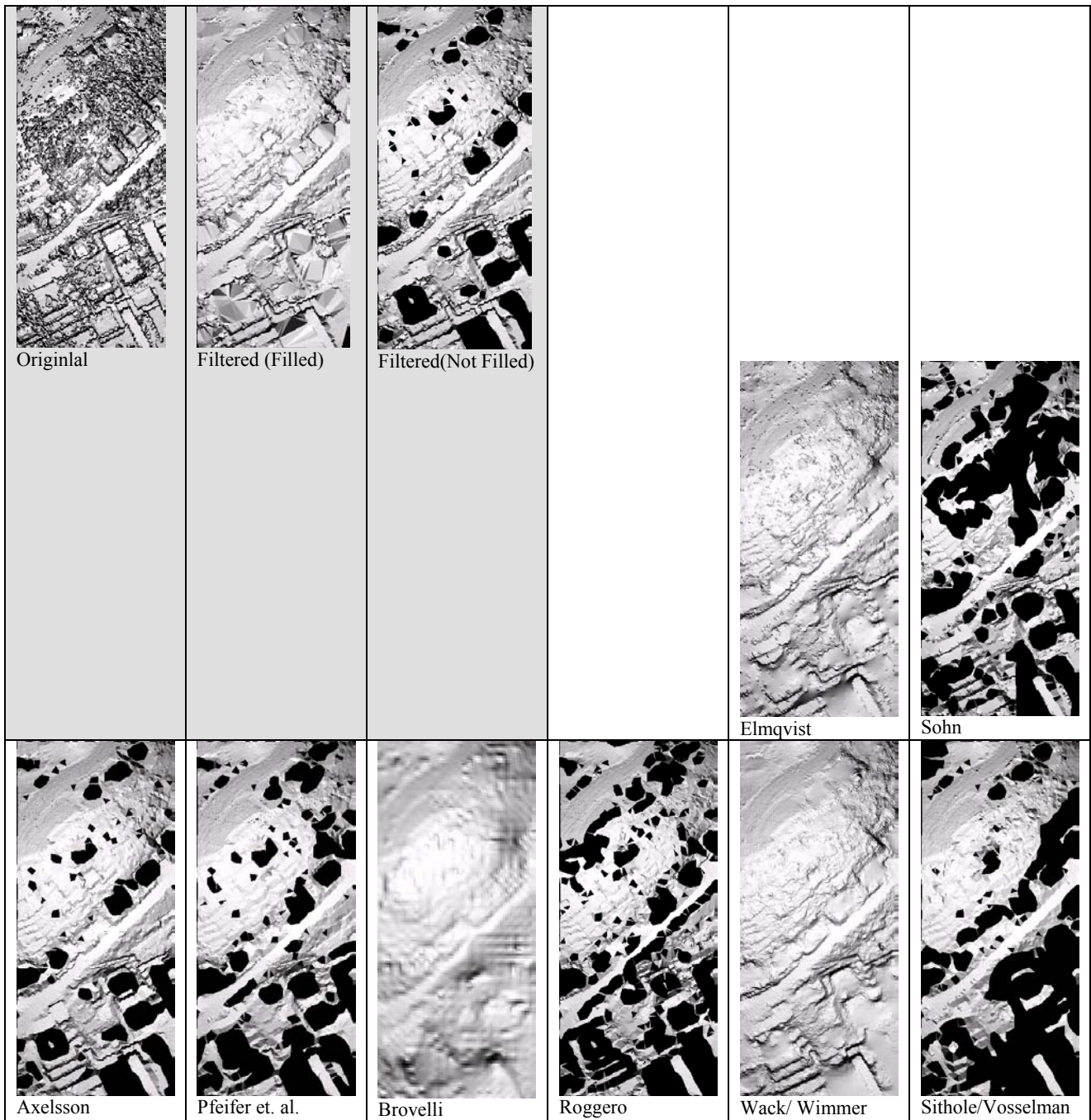
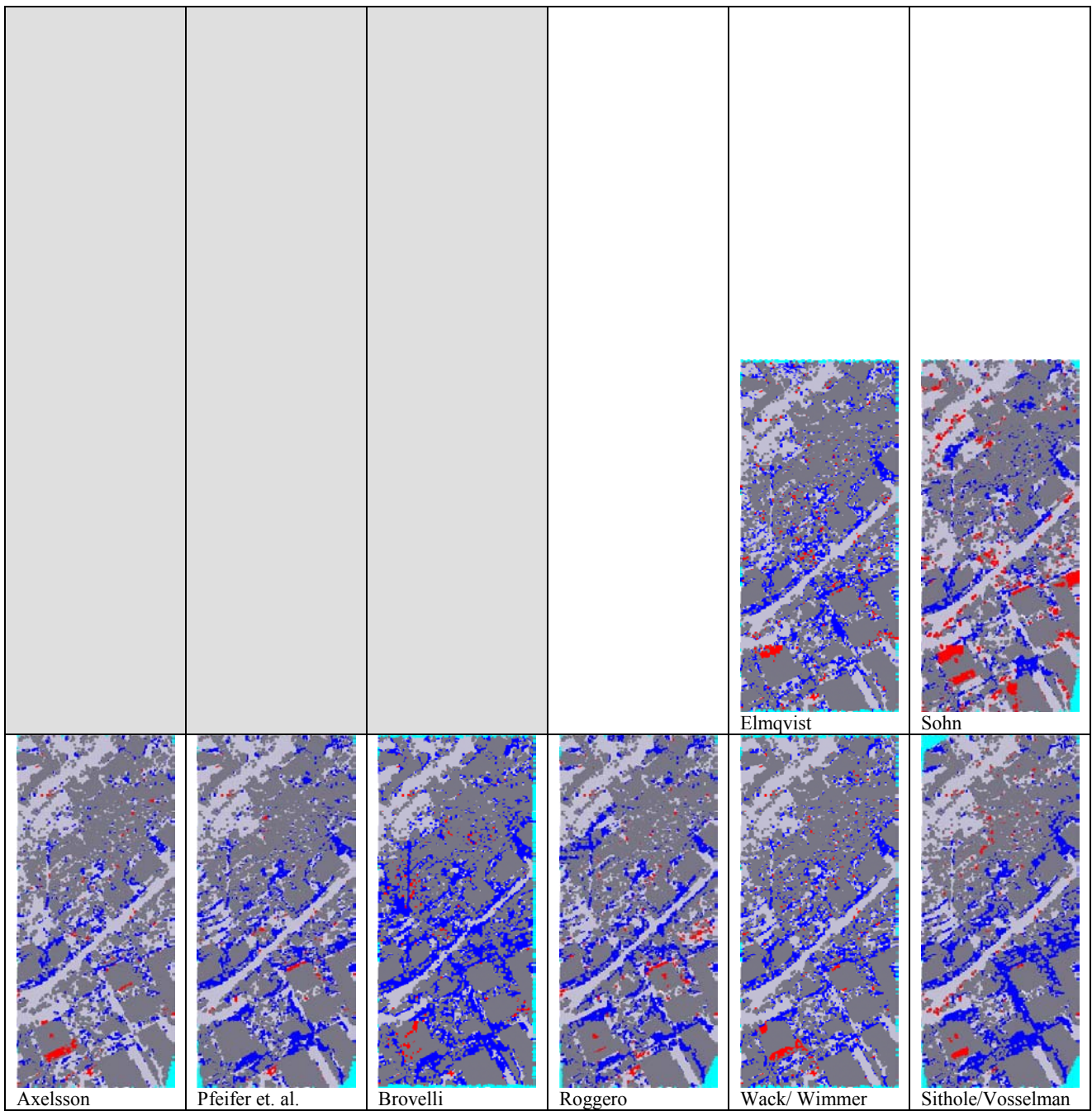


Appendix B – Qualitative and Quantitative Comparison

B.1 Sample 11



- Most objects filtered well.
- Road in the center filtered off by the Roggero filter.
- Very steep slopes filtered off by the Sohn and Sithole filter.
- Terraces (left bottom corner) filtered off by the Elmqvist, Pfeifer, Roggero, and Sithole filter.
- Artifacts in Brovelli filter – especially accentuated in gaps (created by filtered objects).
- Artifacts in Wack filter – rice paper effect.

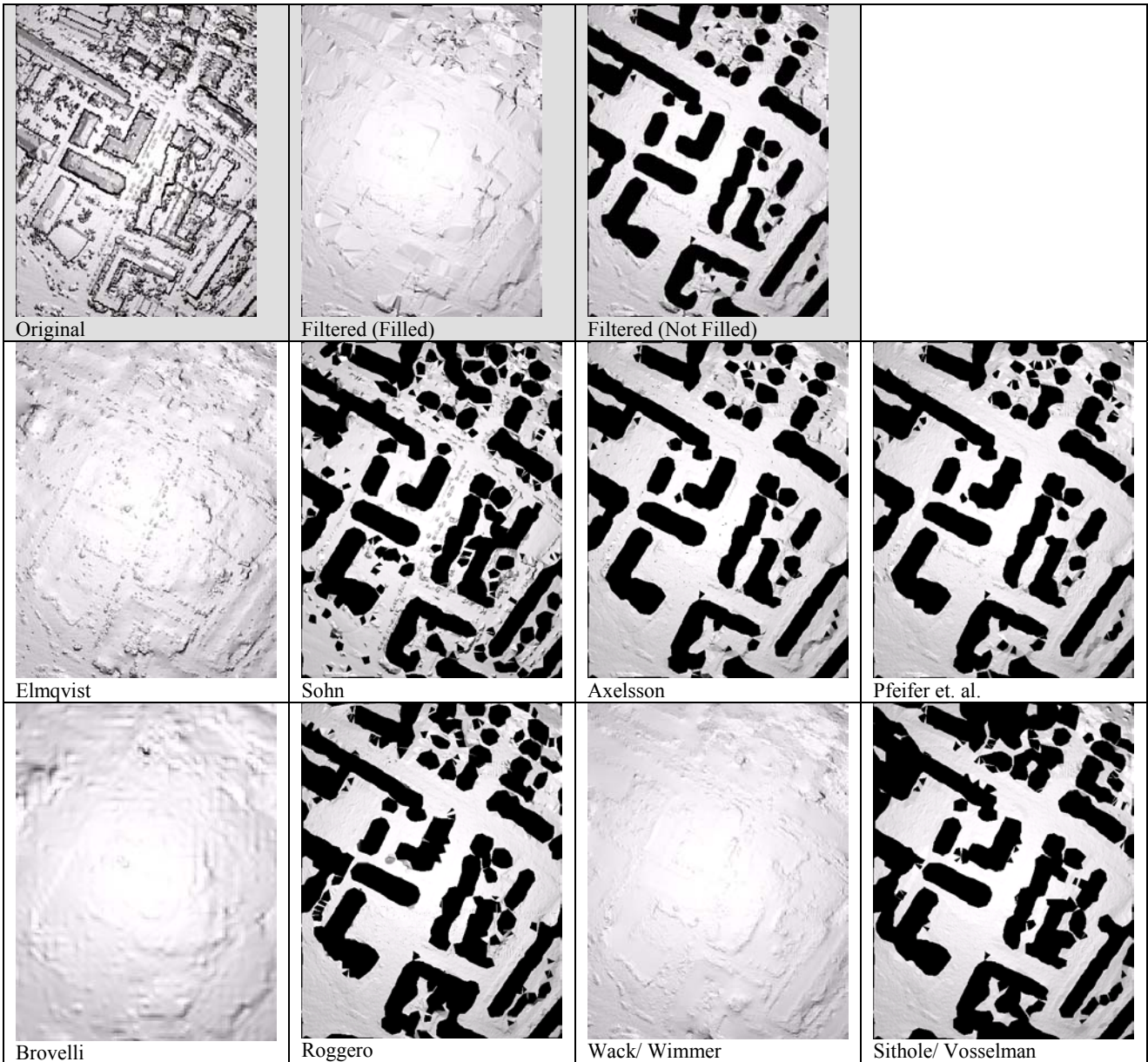


- Heavy bias towards Type II errors in Sohn filter.
- Heavy bias towards Type I errors in Pfeifer, Brovelli, Roggero, Wack and Sithole filter.

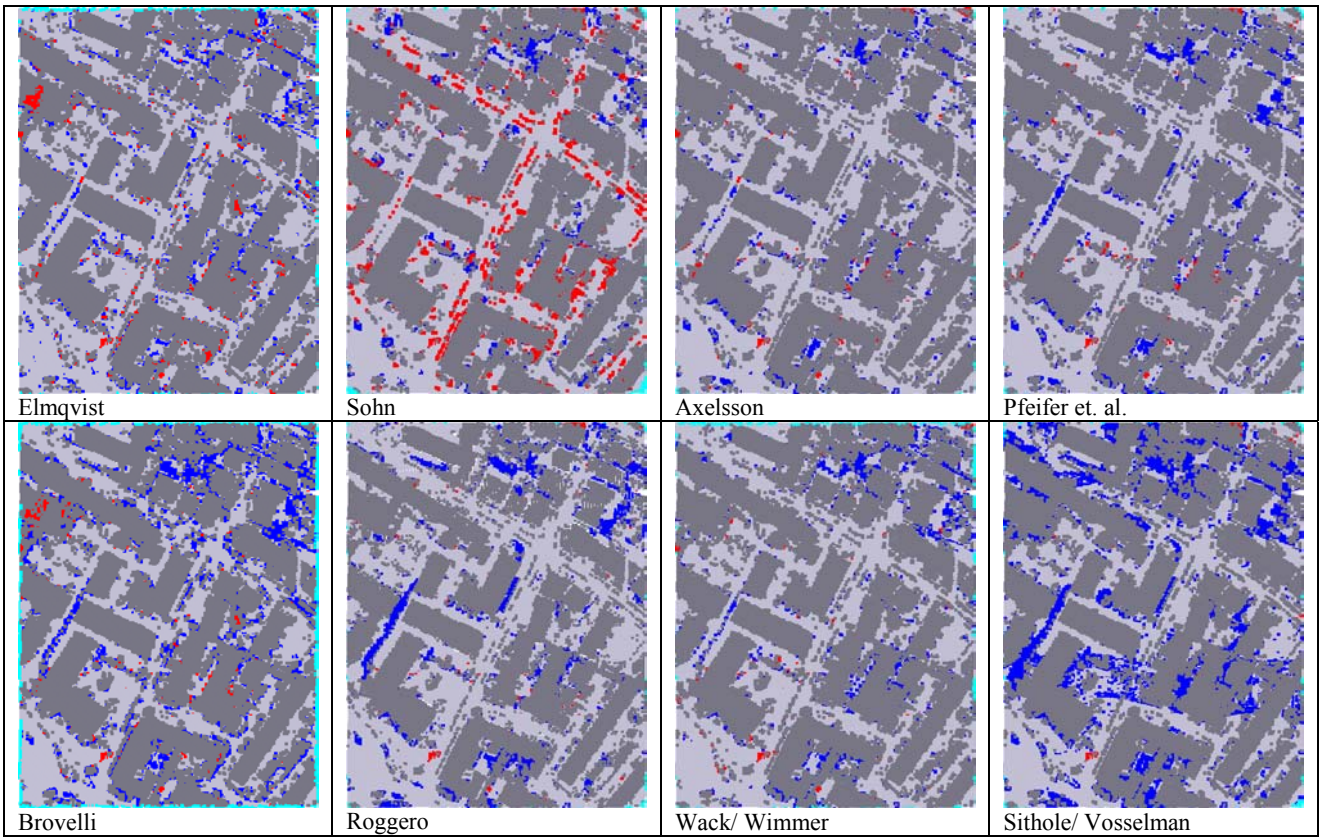
Total 38010

Elmqvist		Unused		554							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	15316	7762	23078	61.61%	Type I	33.63%	-9.4	9.91	-0.24	1.42	
Obj	630	13748	14378	38.39%	Type II	4.38%	-0.19	0.19	0.03	0.09	
	15946	21510	37456		Total	22.40%					
	42.57%	57.43%									
	ratio BE-Obj/ Obj-BE		12.32								
Sohn		Unused		370							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	15970	5776	21746	57.77%	Type I	26.56%	-13.33	12.34	-1.19	1.95	
Obj	1935	13959	15894	42.23%	Type II	12.17%	-13.24	3.5	-2.62	2.58	
	17905	19735	37640		Total	20.49%					
	47.57%	52.43%									
	ratio BE-Obj/ Obj-BE		2.99								
Axelsson		Unused		316							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	18290	3474	21764	57.74%	Type I	15.96%	-8.64	10.22	-1.54	1.38	
Obj	581	15349	15930	42.26%	Type II	3.65%	-6.4	3.8	-1.34	1.86	
	18871	18823	37694		Total	10.76%					
	50.06%	49.94%									
	ratio BE-Obj/ Obj-BE		5.98								
Pfeifer		Unused		397							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	15598	6144	21742	57.80%	Type I	28.26%	-13.57	10.22	-1.79	1.68	
Obj	383	15488	15871	42.20%	Type II	2.41%	-6.26	3.8	-0.3	0.88	
	15981	21632	37613		Total	17.35%					
	42.49%	57.51%									
	ratio BE-Obj/ Obj-BE		16.04								
Brovelli		Unused		1224							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	8093	13205	21298	57.90%	Type I	62.00%	-10.6	9.38	-0.34	1.92	
Obj	392	15096	15488	42.10%	Type II	2.53%	-9.29	0.39	-1.97	2.3	
	8485	28301	36786		Total	36.96%					
	23.07%	76.93%									
	ratio BE-Obj/ Obj-BE		33.69								
Roggero		Unused		405							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	14527	7208	21735	57.80%	Type I	33.16%	-14.99	2.47	-1.54	1.5	
Obj	615	15255	15870	42.20%	Type II	3.88%	-16.28	35.65	-0.65	3.12	
	15142	22463	37605		Total	20.80%					
	40.27%	59.73%									
	ratio BE-Obj/ Obj-BE		11.72								
Wack		Unused		750							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	13095	8415	21510	57.73%	Type I	39.12%	-6.31	7.36	-0.11	1.15	
Obj	533	15217	15750	42.27%	Type II	3.38%	-7.19	1.89	-1.47	1.63	
	13628	23632	37260		Total	24.02%					
	36.58%	63.42%									
	ratio BE-Obj/ Obj-BE		15.79								
Sithole		Unused		633							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	13459	8142	21601	57.79%	Type I	37.69%	-15.87	2.53	-3.15	2.73	
Obj	550	15226	15776	42.21%	Type II	3.49%	-9.27	11.48	-1.11	2.03	
	14009	23368	37377		Total	23.25%					
	37.48%	62.52%									
	ratio BE-Obj/ Obj-BE		14.80								

B.2 Sample 12



- Artifacts in Elmqvist filter – accentuated where cars used to be on the doors.
- Artifacts in Brovelli filter
- Cars not filtered in Sohn filter
- Cars (small objects) best filtered in Axelsson, Pfeifer, Roggero and Sithole filter

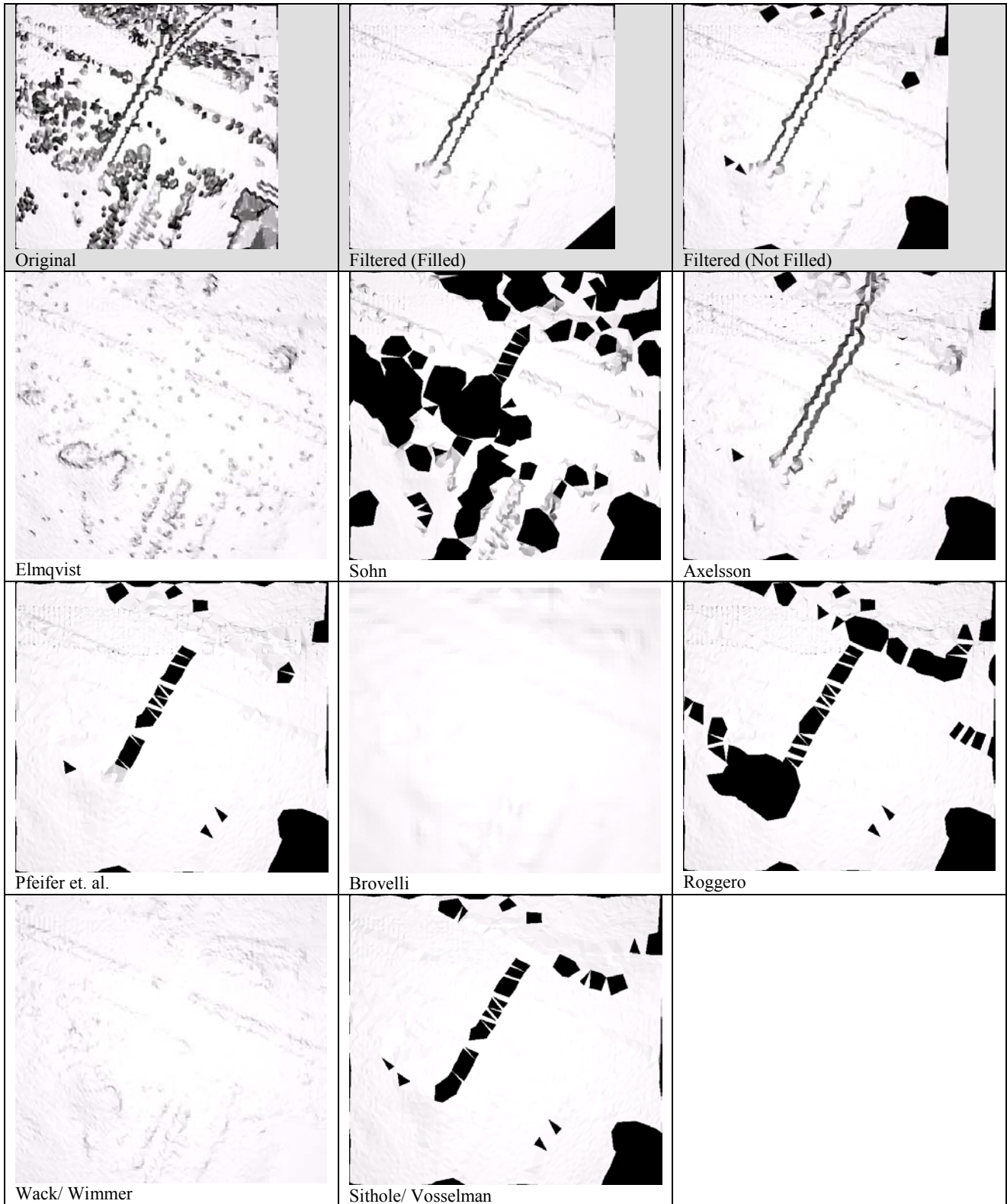


- Heavy bias towards Type II errors in Elmqvist and Sohn filter.
- Heavy bias towards Type I errors in Brovelli and Sithole filter.

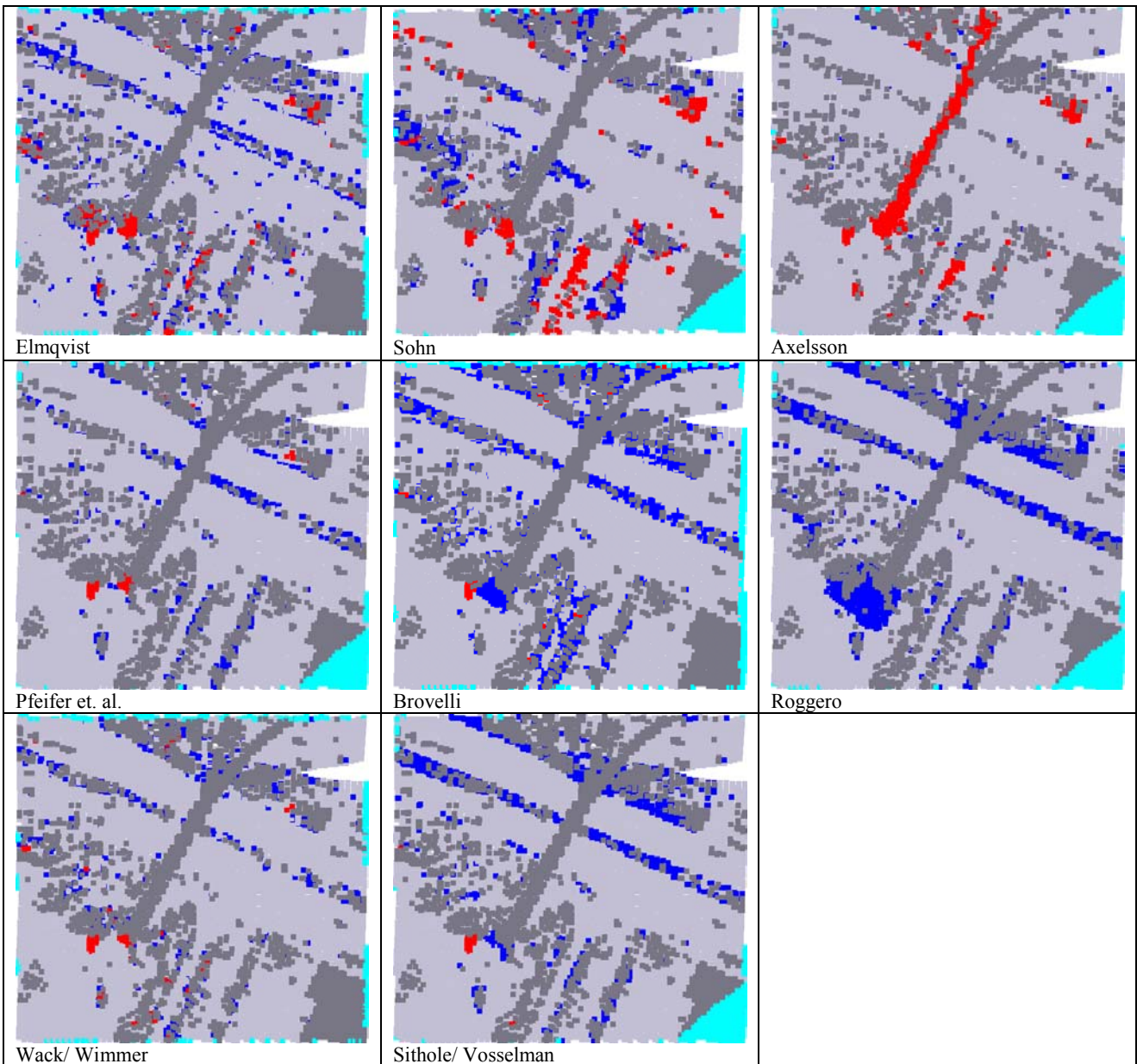
Total 52119

Elmqvist		Unused		346							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	24463	3449	27912	53.91%	Type I	12.36%	-3.3	3.95	0.13	0.7	
Obj	788	23073	23861	46.09%	Type II	3.30%	-0.18	0.19	0.05	0.09	
	25251	26522	51773		Total	8.18%					
	48.77%	51.23%									
	ratio BE-Obj/ Obj-BE		4.38								
Sohn		Unused		609							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	24297	2366	26663	51.76%	Type I	8.87%	-4.22	11.64	0.04	1.39	
Obj	1956	22891	24847	48.24%	Type II	7.87%	-19.65	3.65	-1.05	1.24	
	26253	25257	51510		Total	8.39%					
	50.97%	49.03%									
	ratio BE-Obj/ Obj-BE		1.21								
Axelsson		Unused		580							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	25374	1304	26678	51.76%	Type I	4.89%	-5.3	2.1	-0.94	0.95	
Obj	369	24492	24861	48.24%	Type II	1.48%	-3.86	1.15	-0.48	0.91	
	25743	25796	51539		Total	3.25%					
	49.95%	50.05%									
	ratio BE-Obj/ Obj-BE		3.53								
Pfeifer		Unused		586							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	24729	1944	26673	51.76%	Type I	7.29%	-5.52	-0.2	-1.1	0.98	
Obj	377	24483	24860	48.24%	Type II	1.52%	-1.51	2.28	-0.17	0.43	
	25106	26427	51533		Total	4.50%					
	48.72%	51.28%									
	ratio BE-Obj/ Obj-BE		5.16								
Brovelli		Unused		1405							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	18427	7758	26185	51.63%	Type I	29.63%	-3.43	3.63	0.26	0.56	
Obj	500	24029	24529	48.37%	Type II	2.04%	-4.54	0.3	-1.05	1.4	
	18927	31787	50714		Total	16.28%					
	37.32%	62.68%									
	ratio BE-Obj/ Obj-BE		15.52								
Roggero		Unused		599							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	23488	3179	26667	51.76%	Type I	11.92%	-81.22	0.42	-1.12	2.89	
Obj	225	24628	24853	48.24%	Type II	0.91%	-2.58	81.57	1.19	6.62	
	23713	27807	51520		Total	6.61%					
	46.03%	53.97%									
	ratio BE-Obj/ Obj-BE		14.13								
Wack		Unused		831							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	23354	3168	26522	51.71%	Type I	11.94%	-5.21	2.03	-0.4	0.87	
Obj	221	24545	24766	48.29%	Type II	0.89%	-3.93	0.8	-0.32	0.75	
	23575	27713	51288		Total	6.61%					
	45.97%	54.03%									
	ratio BE-Obj/ Obj-BE		14.33								
Sithole		Unused		616							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	21540	5115	26655	51.75%	Type I	19.19%	-5.54	1.12	-1.04	0.9	
Obj	142	24706	24848	48.25%	Type II	0.57%	-1.8	2.87	0.13	0.61	
	21682	29821	51503		Total	10.21%					
	42.10%	57.90%									
	ratio BE-Obj/ Obj-BE		36.02								

B.3 Sample 21



- Bridge not filtered in Axelsson filter
- Artifacts in Elmqvist filter
- Some small objects not filtered off in Sohn filter

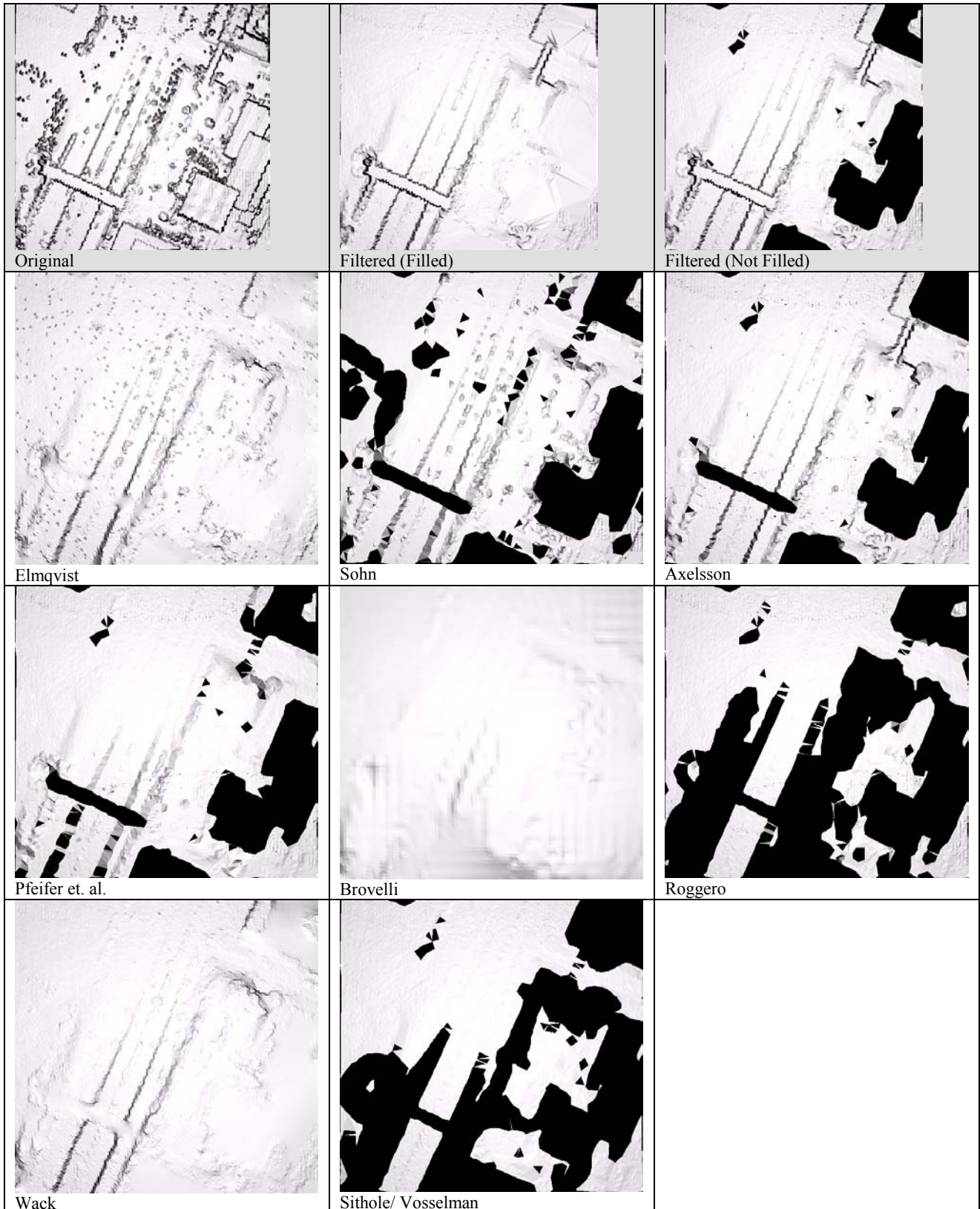


- Bridge not filtered in Axelsson filter.
- Heavy bias towards Type II errors in Sohn and Axelsson filter.
- Heavy bias towards Type I errors in Brovelli, Roggero, and Sithole filter.
- Base of bridge filtered in Roggero filter.

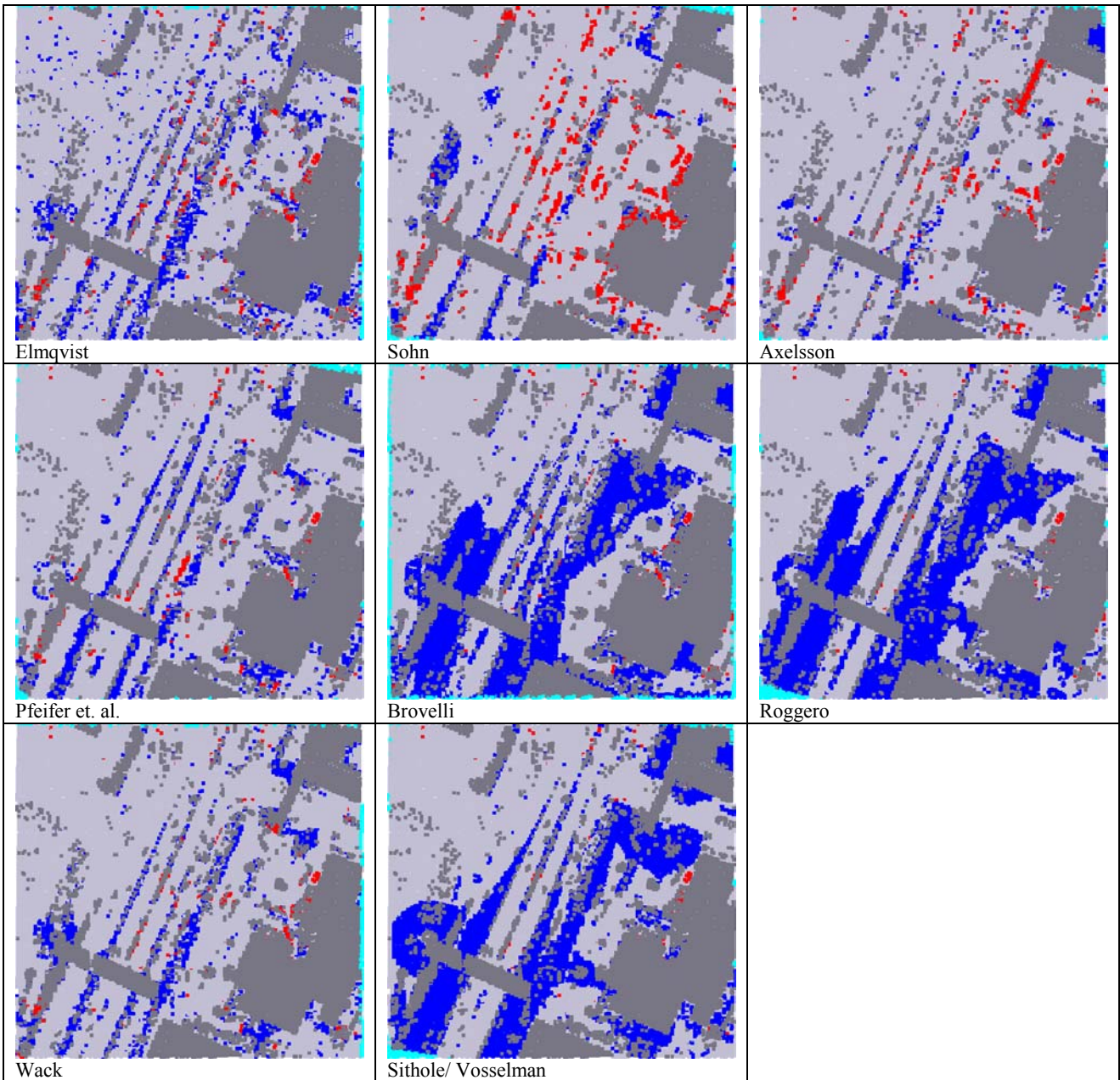
Total 12960

Elmqvist		Unused		175							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	2657	929	3586	28.05%	Type I	25.91%	-0.73	1.43	-0.04	0.37	
Obj	161	9038	9199	71.95%	Type II	1.75%	-0.18	0.19	0.04	0.1	
	2818	9967	12785		Total	8.53%					
	22.04%	77.96%									
	ratio BE-Obj/ Obj-BE		5.77								
Sohn		Unused		224							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	9221	843	10064	79.02%	Type I	8.38%	-0.76	2.85	0.26	0.5	
Obj	278	2394	2672	20.98%	Type II	10.40%	-4.06	0.16	-1.13	0.83	
	9499	3237	12736		Total	8.80%					
	74.58%	25.42%									
	ratio BE-Obj/ Obj-BE		3.03								
Axelsson		Unused		207							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	10030	46	10076	79.01%	Type I	0.46%	-0.83	-0.2	-0.34	0.15	
Obj	496	2181	2677	20.99%	Type II	18.53%	-5.73	0.09	-3.14	1.94	
	10526	2227	12753		Total	4.25%					
	82.54%	17.46%									
	ratio BE-Obj/ Obj-BE		0.09								
Pfeifer		Unused		214							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	9787	283	10070	79.01%	Type I	2.81%	-0.88	-0.2	-0.37	0.14	
Obj	44	2632	2676	20.99%	Type II	1.64%	-2.08	0.09	-0.36	0.57	
	9831	2915	12746		Total	2.57%					
	77.13%	22.87%									
	ratio BE-Obj/ Obj-BE		6.43								
Brovelli		Unused		412							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	8791	1126	9917	79.03%	Type I	11.35%	-1.08	2.33	0.05	0.37	
Obj	41	2590	2631	20.97%	Type II	1.56%	-2.58	0.23	-0.31	0.69	
	8832	3716	12548		Total	9.30%					
	70.39%	29.61%									
	ratio BE-Obj/ Obj-BE		27.46								
Roggero		Unused		224							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	8807	1253	10060	78.99%	Type I	12.46%	-1.96	0.2	-0.5	0.3	
Obj	0	2676	2676	21.01%	Type II	0.00%	0	0	-100000	-100000	
	8807	3929	12736		Total	9.84%					
	69.15%	30.85%									
	ratio BE-Obj/ Obj-BE										
Wack		Unused		353							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	9454	513	9967	79.06%	Type I	5.15%	-0.79	0.83	-0.03	0.31	
Obj	61	2579	2640	20.94%	Type II	2.31%	-1.29	0.08	-0.33	0.34	
	9515	3092	12607		Total	4.55%					
	75.47%	24.53%									
	ratio BE-Obj/ Obj-BE		8.41								
Sithole		Unused		213							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	9099	971	10070	79.00%	Type I	9.64%	-1	-0.2	-0.39	0.15	
Obj	18	2659	2677	21.00%	Type II	0.67%	-0.2	0.11	0.01	0.07	
	9117	3630	12747		Total	7.76%					
	71.52%	28.48%									
	ratio BE-Obj/ Obj-BE		53.94								

B.4 Sample 22



- Gangway not filtered in Axelsson filter.
- Bridge filtered in all filters
- Artifacts in Elmqvist filter – pock marked surface
- Artifacts in Brovelli filter – checkered pattern

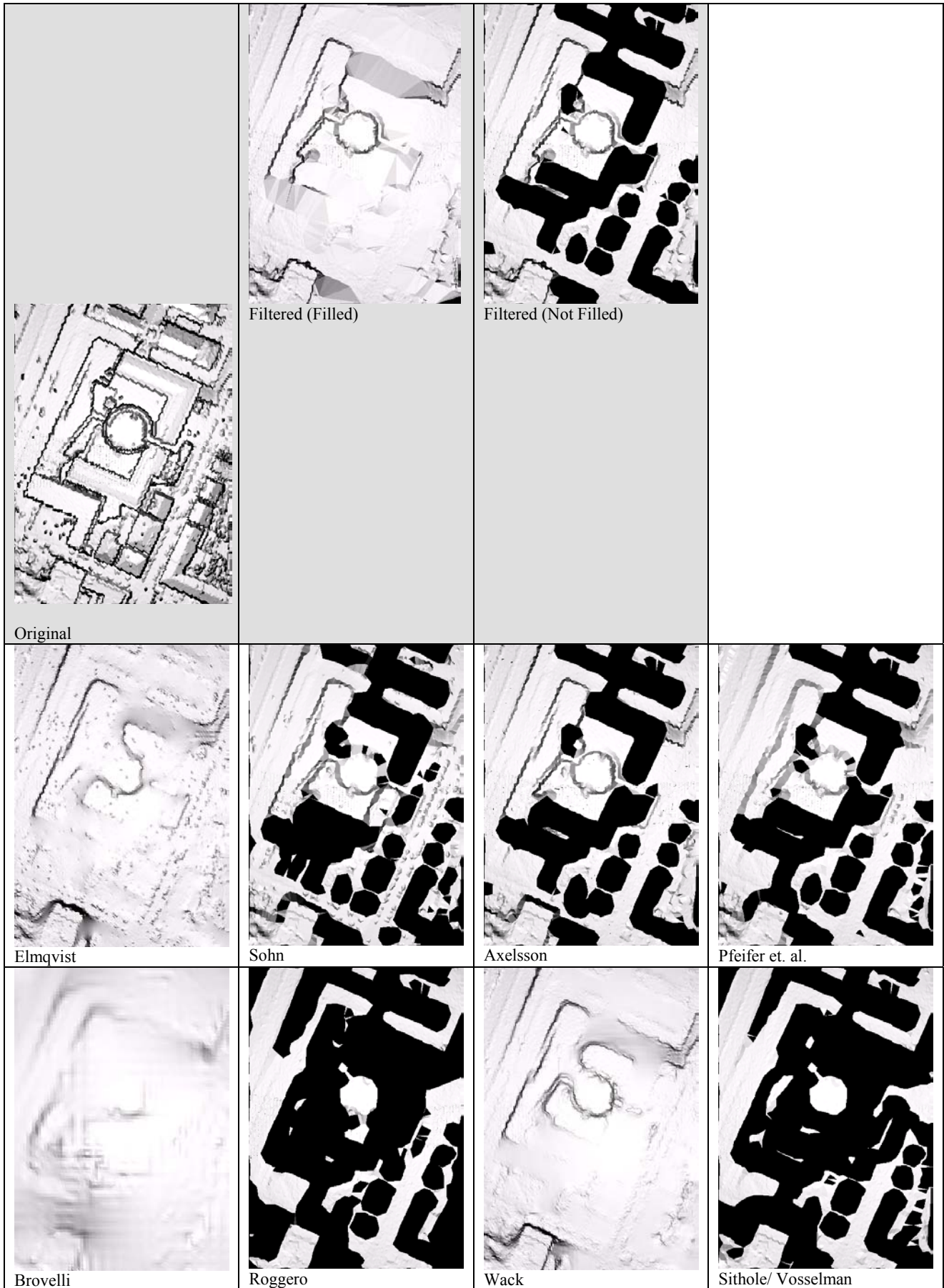


- Heavy bias towards Type II errors in Sohn and Axelsson filter.
- Heavy bias towards Type I errors in Brovelli, Roggero, and Sithole filter.
- Cars (small objects) not filtered in Sohn filter

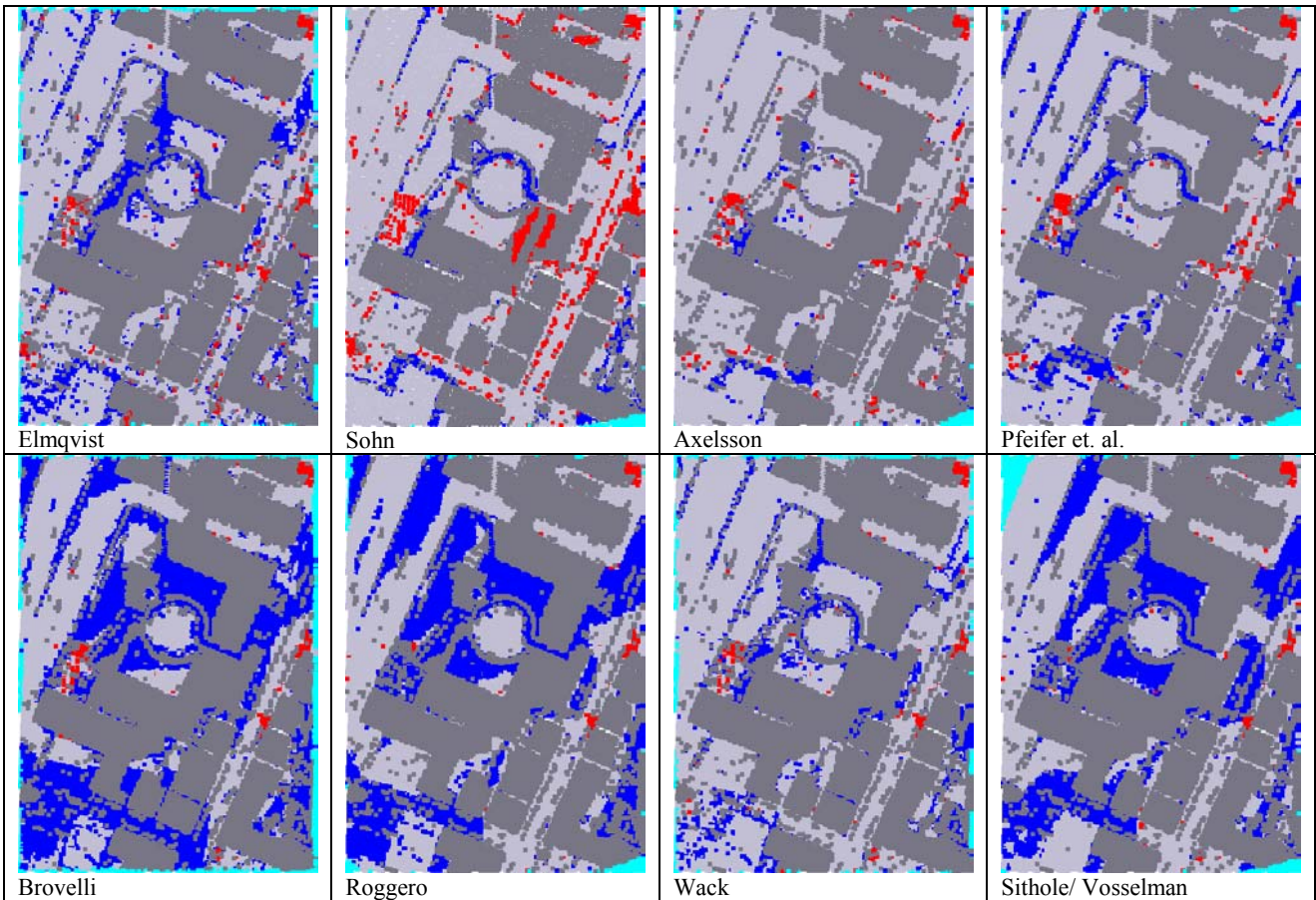
Total 32706

Elmqvist		Unused		197						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	9721	2515	12236	37.64%	Type I	20.55%	-6.24	5.66	-0.24	1
Obj	388	19885	20273	62.36%	Type II	1.91%	-0.18	0.19	0.06	0.09
	10109	22400	32509		Total	8.93%				
	31.10%	68.90%								
	ratio BE-Obj/ Obj-BE		6.48							
Sohn		Unused		689						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	21196	1277	22473	70.19%	Type I	5.68%	-6.96	6.28	-0.4	2.08
Obj	1137	8407	9544	29.81%	Type II	11.91%	-5.06	2.28	-1.39	1.38
	22333	9684	32017		Total	7.54%				
	69.75%	30.25%								
	ratio BE-Obj/ Obj-BE		1.12							
Axelsson		Unused		699						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	21880	602	22482	70.24%	Type I	2.68%	-14.27	-0.2	-2.67	3.2
Obj	559	8966	9525	29.76%	Type II	5.87%	-5.23	7.98	-0.91	1.65
	22439	9568	32007		Total	3.63%				
	70.11%	29.89%								
	ratio BE-Obj/ Obj-BE		1.08							
Pfeifer		Unused		703						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	20612	1854	22466	70.20%	Type I	8.25%	-7.36	0.51	-1.54	1.36
Obj	294	9243	9537	29.80%	Type II	3.08%	-1.69	6.37	-0.21	0.75
	20906	11097	32003		Total	6.71%				
	65.33%	34.67%								
	ratio BE-Obj/ Obj-BE		6.31							
Brovelli		Unused		891						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	15252	6914	22166	69.67%	Type I	31.19%	-9.26	3.49	-1.65	1.83
Obj	173	9476	9649	30.33%	Type II	1.79%	-1.57	0.18	-0.13	0.22
	15425	16390	31815		Total	22.28%				
	48.48%	51.52%								
	ratio BE-Obj/ Obj-BE		39.97							
Roggero		Unused		769						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	14932	7498	22430	70.23%	Type I	33.43%	-9.82	0.65	-2.14	1.67
Obj	96	9411	9507	29.77%	Type II	1.01%	-0.53	7.99	0.43	1.63
	15028	16909	31937		Total	23.78%				
	47.06%	52.94%								
	ratio BE-Obj/ Obj-BE		78.10							
Wack		Unused		612						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	20221	2179	22400	69.79%	Type I	9.73%	-4.2	4.83	-0.3	1.03
Obj	230	9464	9694	30.21%	Type II	2.37%	-2.74	0.19	-0.24	0.44
	20451	11643	32094		Total	7.51%				
	63.72%	36.28%								
	ratio BE-Obj/ Obj-BE		9.47							
Sithole		Unused		747						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	15870	6574	22444	70.23%	Type I	29.29%	-14.44	0.96	-2.01	1.82
Obj	93	9422	9515	29.77%	Type II	0.98%	-0.21	6.37	0.18	0.99
	15963	15996	31959		Total	20.86%				
	49.95%	50.05%								
	ratio BE-Obj/ Obj-BE		70.69							

B.5 Sample 23



- Artifacts in Elmqvist filter – especially were cars used to be.
- Artifacts in Brovelli filter
- Smoothing/ filling of gaps in urban areas lead to high unreliability. The success with which gaps are filled while dependent on the interpolation algorithm, is also heavily reliant on the amount of Type I errors round the gap. This can be seen from a comparison of the central courtyard in the Elmqvist, Brovelli and Wack filters.
- Cars (small objects) not filtered in Sohn filter
- A few cars not filtered in Pfeifer filter

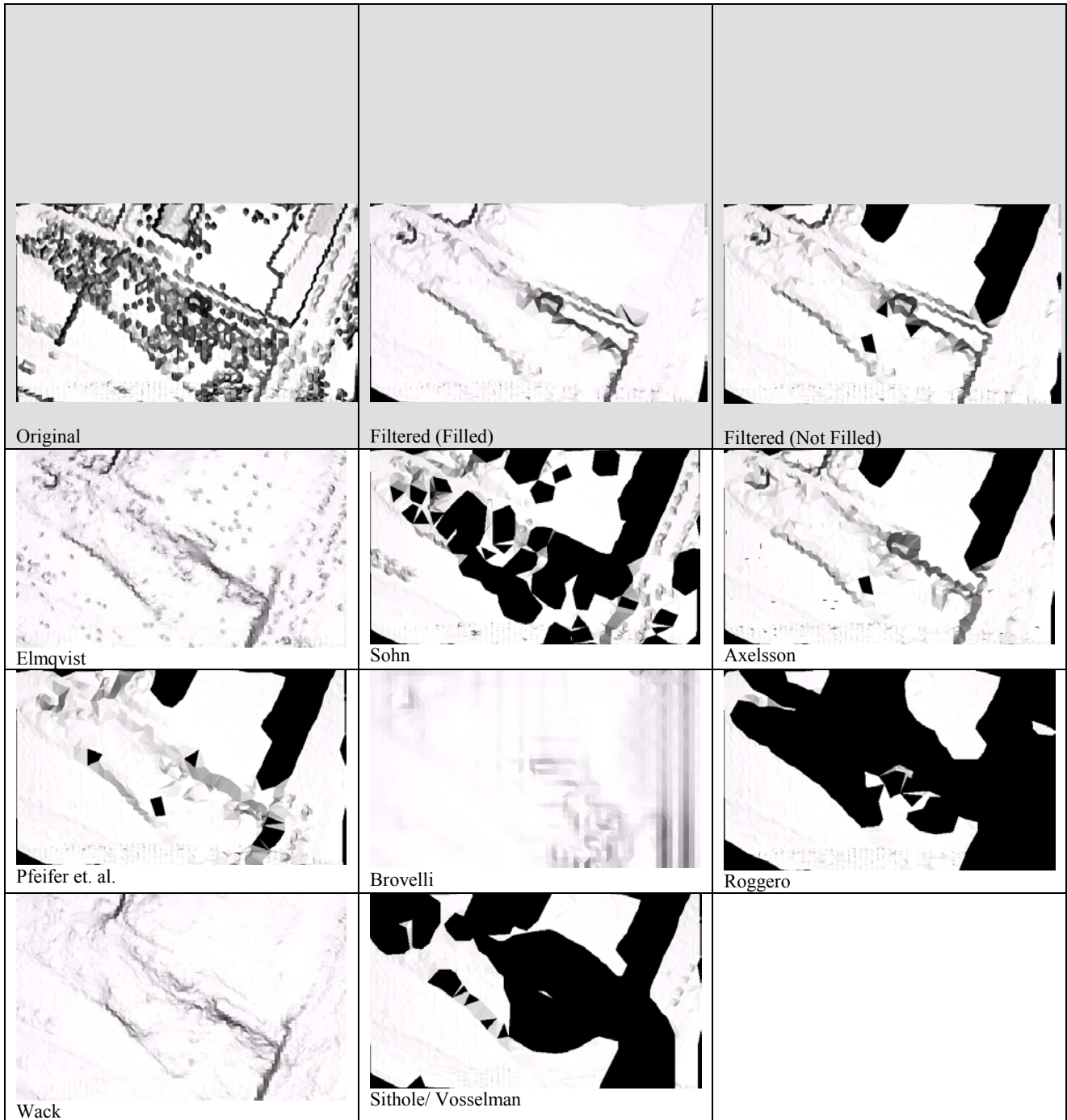


- Heavy bias towards Type II errors in Sohn filter.
- Heavy bias towards Type I errors in Brovelli, Roggero, and Sithole filter.

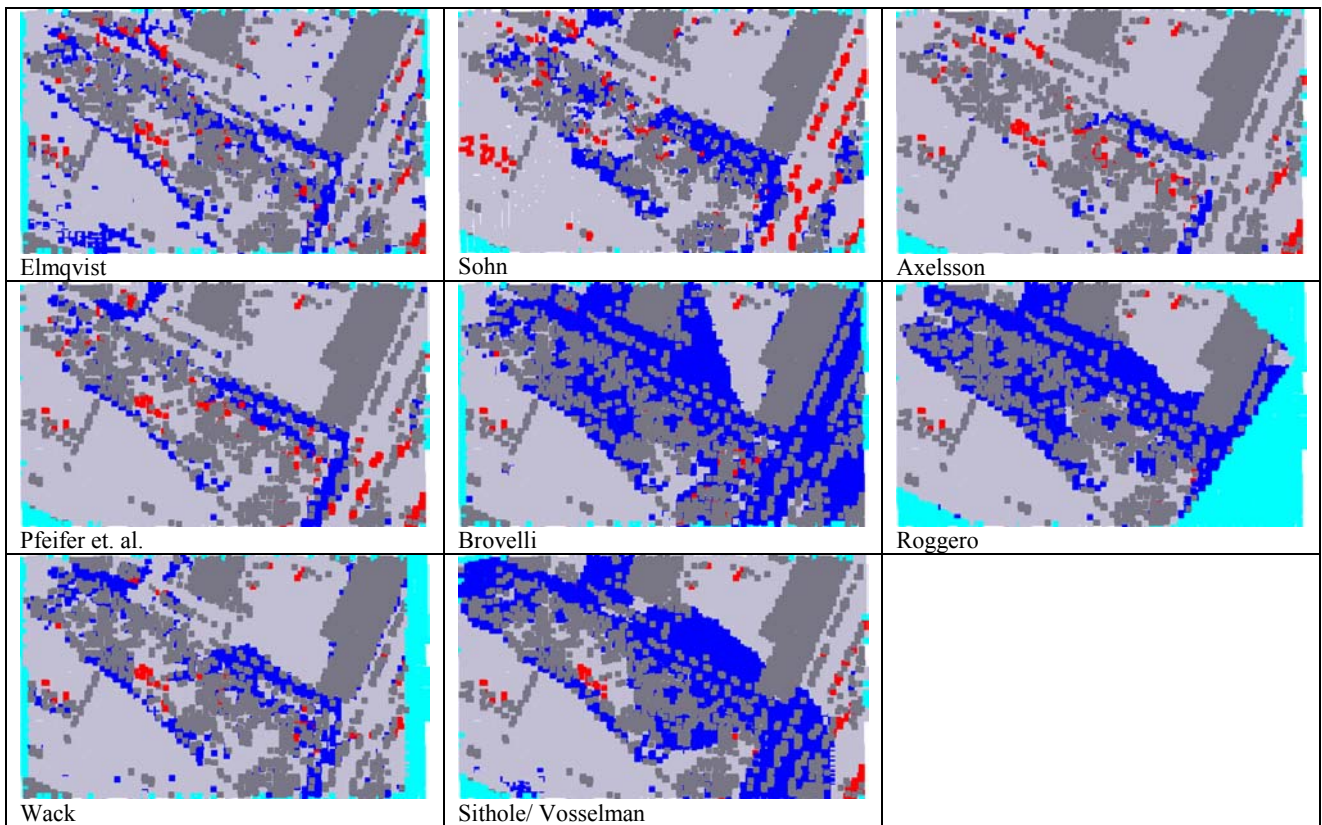
Total 25095

Elmqvist		Unused		332							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	11315	2609	13924	56.23%	Type I	18.74%	-8.84	6.64	-1.04	2.11	
Obj	432	10407	10839	43.77%	Type II	3.99%	-0.19	0.19	0.05	0.08	
	11747	13016	24763		Total	12.28%					
	47.44%	52.56%									
	ratio BE-Obj/ Obj-BE		6.04								
Sohn		Unused		322							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	12247	957	13204	53.30%	Type I	7.25%	-9.52	8.84	-2.08	2.46	
Obj	1480	10089	11569	46.70%	Type II	12.79%	-16.82	0.49	-3.13	3.54	
	13727	11046	24773		Total	9.84%					
	55.41%	44.59%									
	ratio BE-Obj/ Obj-BE		0.65								
Axelsson		Unused		303							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	12726	488	13214	53.30%	Type I	3.69%	-30.67	-0.2	-4.34	4.77	
Obj	503	11075	11578	46.70%	Type II	4.34%	-3.66	38.38	-0.31	1.83	
	13229	11563	24792		Total	4.00%					
	53.36%	46.64%									
	ratio BE-Obj/ Obj-BE		0.97								
Pfeifer		Unused		308							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	11613	1596	13209	53.29%	Type I	12.08%	-12.48	3.81	-2.38	2.19	
Obj	441	11137	11578	46.71%	Type II	3.81%	-1.71	1.99	-0.29	0.44	
	12054	12733	24787		Total	8.22%					
	48.63%	51.37%									
	ratio BE-Obj/ Obj-BE		3.62								
Brovelli		Unused		821							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	6413	6477	12890	53.10%	Type I	50.25%	-11.72	3.6	-1.96	2.28	
Obj	271	11113	11384	46.90%	Type II	2.38%	-4.46	1.22	-0.17	0.44	
	6684	17590	24274		Total	27.80%					
	27.54%	72.46%									
	ratio BE-Obj/ Obj-BE		23.90								
Roggero		Unused		360							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	7655	5515	13170	53.24%	Type I	41.88%	-12.84	0.82	-3.1	2.27	
Obj	224	11341	11565	46.76%	Type II	1.94%	-0.89	0.11	-0.07	0.1	
	7879	16856	24735		Total	23.20%					
	31.85%	68.15%									
	ratio BE-Obj/ Obj-BE		24.62								
Wack		Unused		555							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	10621	2395	13016	53.04%	Type I	18.40%	-7.08	7.18	-0.71	1.62	
Obj	297	11227	11524	46.96%	Type II	2.58%	-6.33	0.15	-0.13	0.57	
	10918	13622	24540		Total	10.97%					
	44.49%	55.51%									
	ratio BE-Obj/ Obj-BE		8.06								
Sithole		Unused		457							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	7731	5355	13086	53.11%	Type I	40.92%	-12.91	1.46	-2.57	2.03	
Obj	241	11311	11552	46.89%	Type II	2.09%	-0.79	1.15	-0.08	0.18	
	7972	16666	24638		Total	22.71%					
	32.36%	67.64%									
	ratio BE-Obj/ Obj-BE		22.22								

B.6 Sample 24



- Ramp filtered off by all filters
- Although removing the ramp the Elmqvist, Axelsson, Pfeifer, and Wack seem to retain some aspects of the original terrain, i.e. they avoid Type I errors in the neighborhood of the ramp.
- Some cars not filtered by Sohn filter

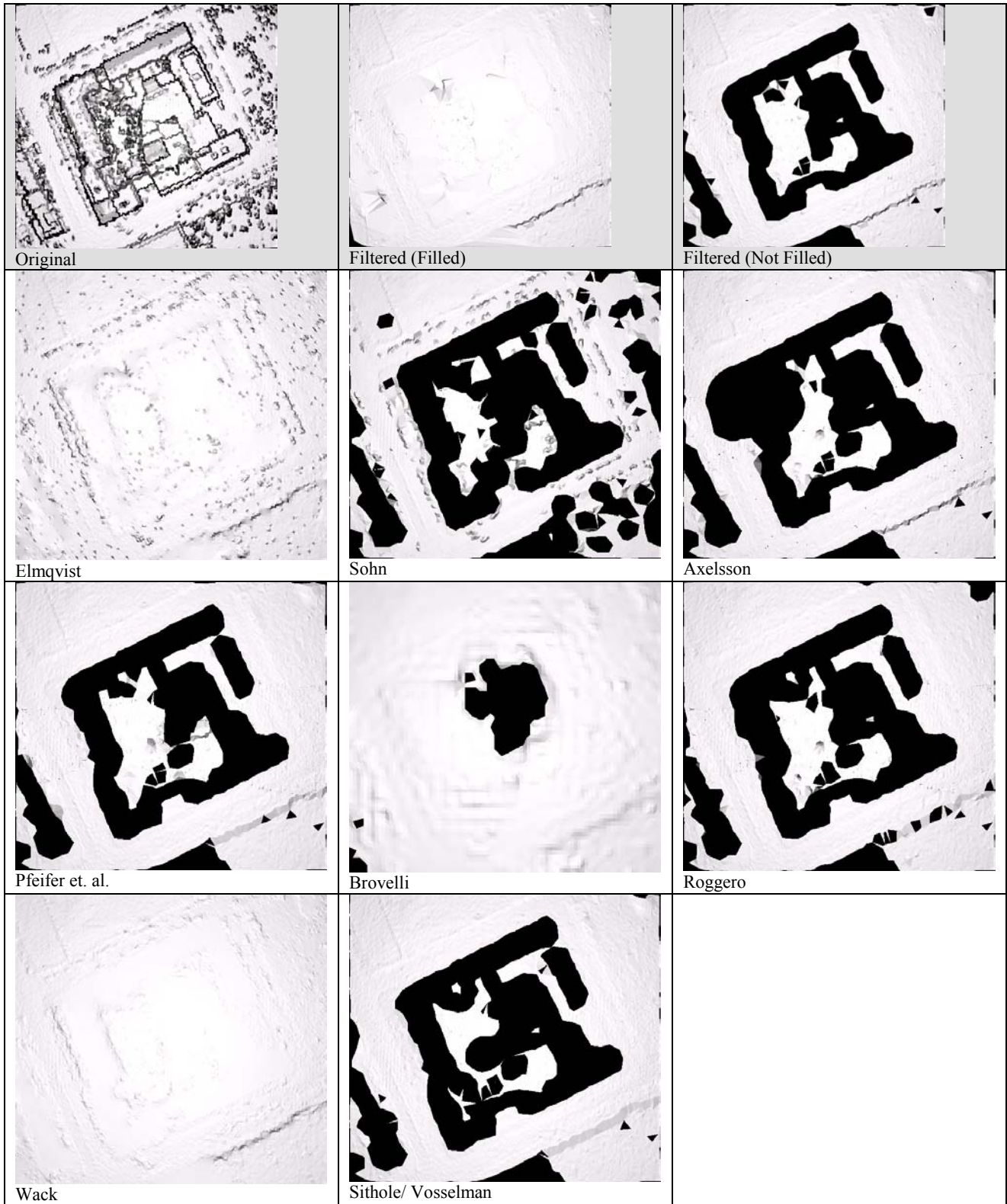


- Heavy bias towards Type II errors in Sohn filter.
- Heavy bias towards Type I errors in Brovelli, Roggero, and Sithole filter.
- For Roggero filter drastic Type I error on right edge of scene

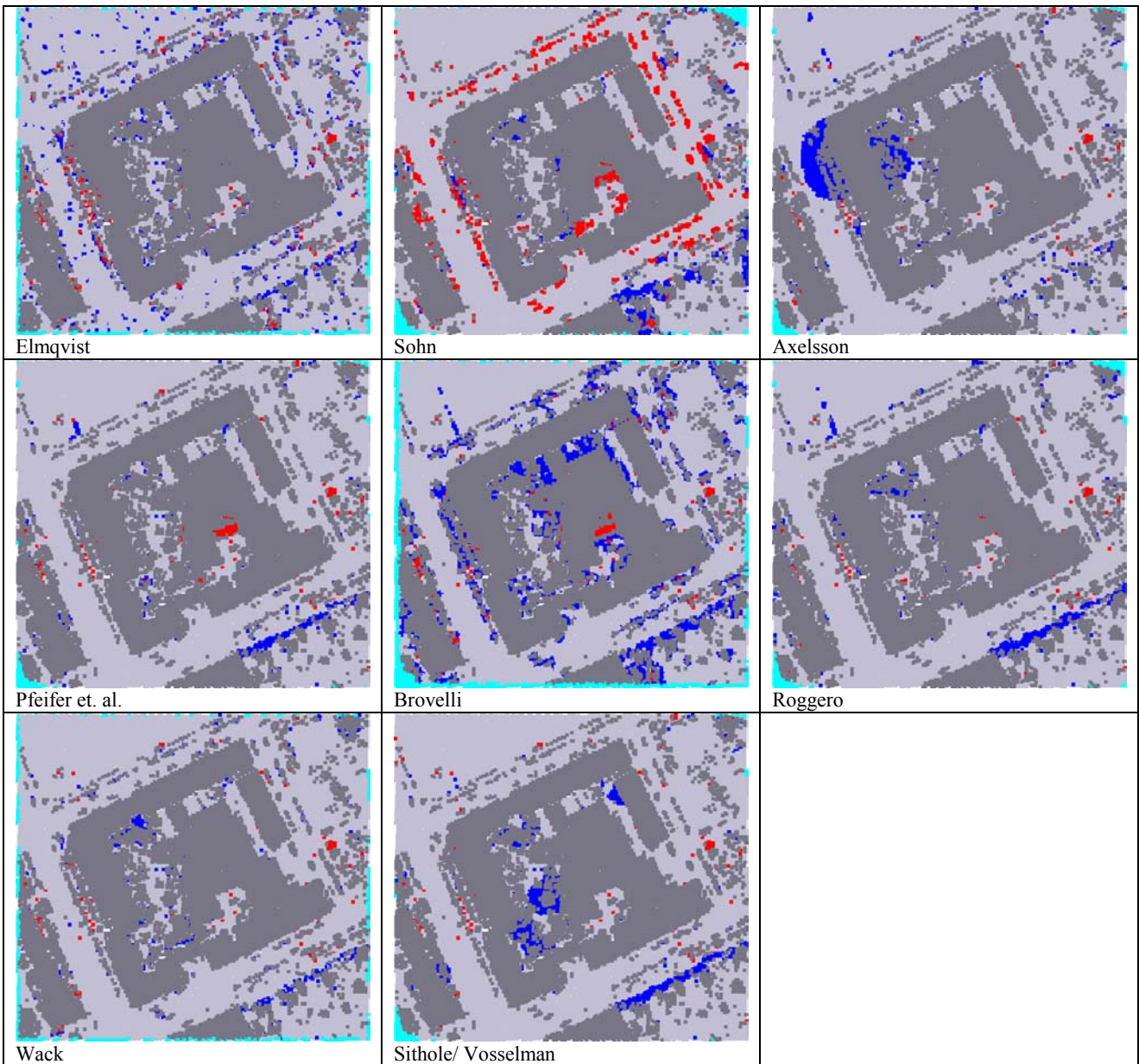
Total 7492

Elmqvist		Unused		174							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	1879	876	2755	37.65%	Type I	31.80%	-5.65	9.78	0.09	1.59	
Obj	136	4427	4563	62.35%	Type II	2.98%	-0.18	0.19	0.04	0.08	
	2015	5303	7318		Total	13.83%					
	27.53%	72.47%									
	ratio BE-Obj/ Obj-BE		6.44								
Sohn		Unused		231							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	4695	712	5407	74.47%	Type I	13.17%	-9.03	6.79	-1.04	2.21	
Obj	256	1598	1854	25.53%	Type II	13.81%	-4.35	3.64	-0.71	0.75	
	4951	2310	7261		Total	13.33%					
	68.19%	31.81%									
	ratio BE-Obj/ Obj-BE		2.78								
Axelsson		Unused		203							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	5239	183	5422	74.39%	Type I	3.38%	-8.8	2.07	-2.5	1.72	
Obj	139	1728	1867	25.61%	Type II	7.45%	-2.07	3.7	-0.2	0.83	
	5378	1911	7289		Total	4.42%					
	73.78%	26.22%									
	ratio BE-Obj/ Obj-BE		1.32								
Pfeifer		Unused		204							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	4959	463	5422	74.40%	Type I	8.54%	-9.13	8.84	-1.93	2.45	
Obj	167	1699	1866	25.60%	Type II	8.95%	-8.32	3.7	-0.4	1.04	
	5126	2162	7288		Total	8.64%					
	70.33%	29.67%									
	ratio BE-Obj/ Obj-BE		2.77								
Brovelli		Unused		341							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	2777	2526	5303	74.16%	Type I	47.63%	-13.2	6.27	-3.26	3.65	
Obj	53	1795	1848	25.84%	Type II	2.87%	-3.31	2.91	-0.88	1.27	
	2830	4321	7151		Total	36.06%					
	39.57%	60.43%									
	ratio BE-Obj/ Obj-BE		47.66								
Roggero		Unused		1603							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	3073	1344	4417	75.00%	Type I	30.43%	-10.71	-0.2	-2.71	2.13	
Obj	25	1447	1472	25.00%	Type II	1.70%	-0.42	3.03	0	0.65	
	3098	2791	5889		Total	23.25%					
	52.61%	47.39%									
	ratio BE-Obj/ Obj-BE		53.76								
Wack		Unused		591							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	4382	738	5120	74.19%	Type I	14.41%	-5.99	8.06	-0.24	1.65	
Obj	58	1723	1781	25.81%	Type II	3.26%	-1.03	0.97	-0.12	0.31	
	4440	2461	6901		Total	11.53%					
	64.34%	35.66%									
	ratio BE-Obj/ Obj-BE		12.72								
Sithole		Unused		210							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	3640	1776	5416	74.38%	Type I	32.79%	-11.4	0.62	-3.26	2.62	
Obj	65	1801	1866	25.62%	Type II	3.48%	-0.88	3.03	-0.11	0.46	
	3705	3577	7282		Total	25.28%					
	50.88%	49.12%									
	ratio BE-Obj/ Obj-BE		27.32								

B.7 Sample 31



- Cars not filtered in Sohn filter
- Artifacts in Elmqvist and Brovelli filter
- Erosion BARE EARTH because of low point influence in Axelsson and Sithole filter






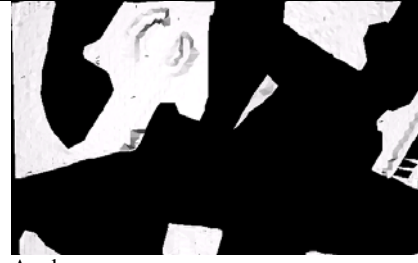
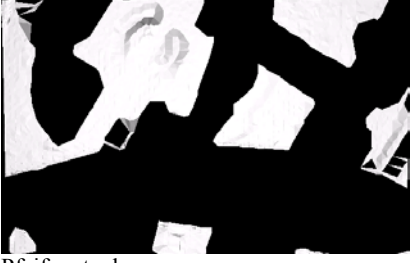






- Heavy bias towards Type II errors in Sohn filter.
- Type I error cause by influence of low point, visible in Axelsson and Sithole filter.
- All filters perform fairly well in flat landscape with relatively large buildings

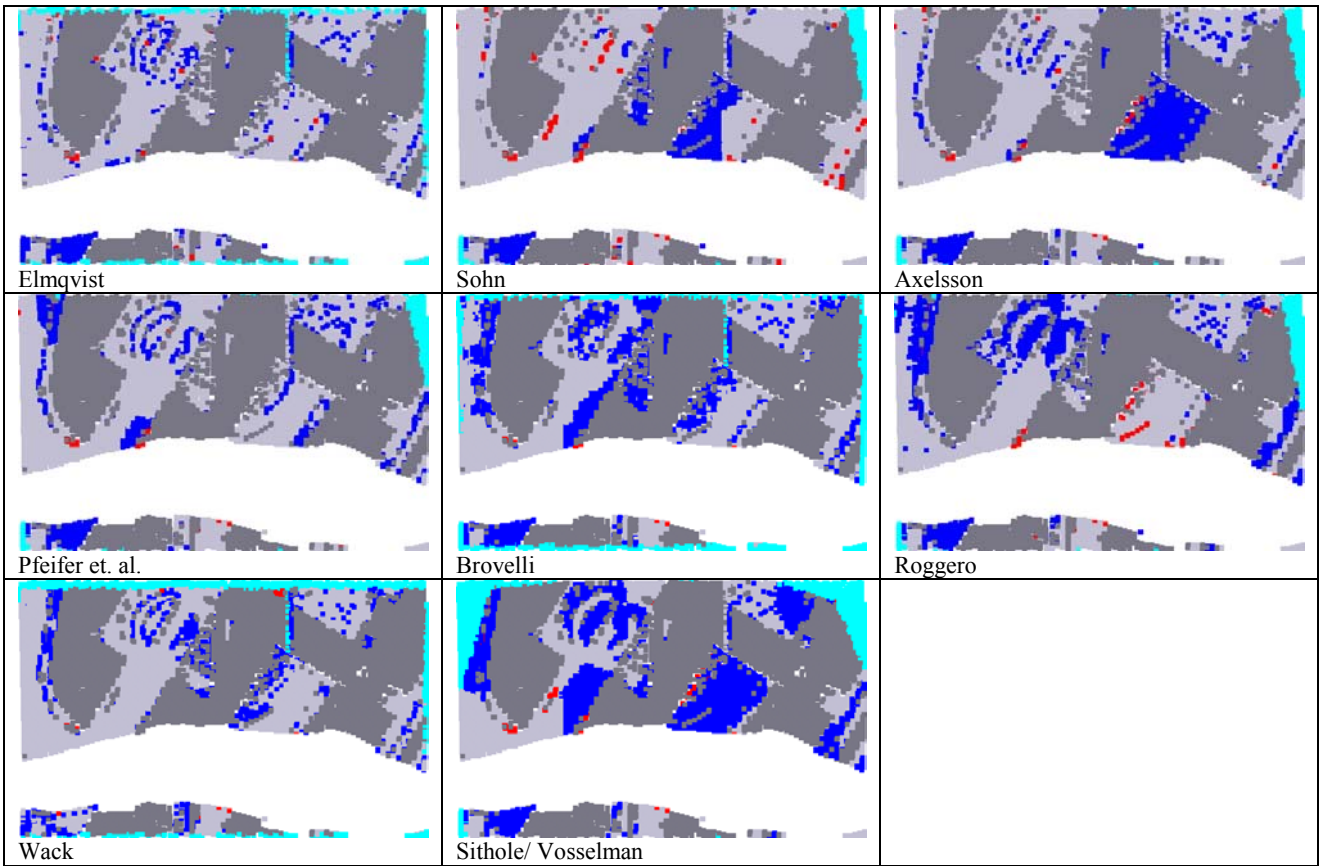
Total 28862

Elmqvist		Unused		337							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	12813	1185	13998	49.07%	Type I	8.47%	-1.13	2.37	0.05	0.42	
Obj	338	14189	14527	50.93%	Type II	2.33%	-0.19	0.19	0.06	0.09	
	13151	15374	28525		Total	5.34%					
	46.10%	53.90%									
	ratio BE-Obj/ Obj-BE			3.51							
Sohn		Unused		424							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	14757	746	15503	54.52%	Type I	4.81%	-2	3.17	0.35	0.61	
Obj	1071	11864	12935	45.48%	Type II	8.28%	-3.62	1.71	-1.04	0.66	
	15828	12610	28438		Total	6.39%					
	55.66%	44.34%									
	ratio BE-Obj/ Obj-BE			0.70							
Axelsson		Unused		321							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	14322	1230	15552	54.49%	Type I	7.91%	-77.21	2.43	-20.16	16.71	
Obj	134	12855	12989	45.51%	Type II	1.03%	-0.73	85.12	1.36	9.06	
	14456	14085	28541		Total	4.78%					
	50.65%	49.35%									
	ratio BE-Obj/ Obj-BE			9.18							
Pfeifer		Unused		331							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	15293	249	15542	54.47%	Type I	1.60%	-2.04	-0.2	-0.56	0.34	
Obj	265	12724	12989	45.53%	Type II	2.04%	-2.74	3.16	-0.82	1.12	
	15558	12973	28531		Total	1.80%					
	54.53%	45.47%									
	ratio BE-Obj/ Obj-BE			0.94							
Brovelli		Unused		858							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	11918	3313	15231	54.39%	Type I	21.75%	-1.05	2.86	0.37	0.33	
Obj	305	12468	12773	45.61%	Type II	2.39%	-2.8	0.07	-0.8	0.88	
	12223	15781	28004		Total	12.92%					
	43.65%	56.35%									
	ratio BE-Obj/ Obj-BE			10.86							
Roggero		Unused		365							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	15058	471	15529	54.49%	Type I	3.03%	-21.88	-0.2	-1.43	3.32	
Obj	140	12828	12968	45.51%	Type II	1.08%	-1.17	56.67	1.21	6.44	
	15198	13299	28497		Total	2.14%					
	53.33%	46.67%									
	ratio BE-Obj/ Obj-BE			3.36							
Wack		Unused		602							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	14890	484	15374	54.40%	Type I	3.15%	-1.39	2.53	0.04	0.55	
Obj	140	12746	12886	45.60%	Type II	1.09%	-0.88	0.67	-0.12	0.22	
	15030	13230	28260		Total	2.21%					
	53.18%	46.82%									
	ratio BE-Obj/ Obj-BE			3.46							
Sithole		Unused		320							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	14798	755	15553	54.49%	Type I	4.85%	-2.78	0.92	-0.81	0.54	
Obj	145	12844	12989	45.51%	Type II	1.12%	-0.82	3.16	-0.03	0.55	
	14943	13599	28542		Total	3.15%					
	52.35%	47.65%									
	ratio BE-Obj/ Obj-BE			5.21							

B.8 Sample 41

		
Original	Filtered (Filled)	Filtered (Not Filled)
		
Elmqvist	Sohn	Axelsson
		
Pfeifer et. al.	Brovelli	Roggero
		
Wack	Sithole/ Vosselman	

- Artifacts in Brovelli filter
- Filled gaps in Elmqvist filter are concave upwards
- Filled gaps in Wack are convex upwards

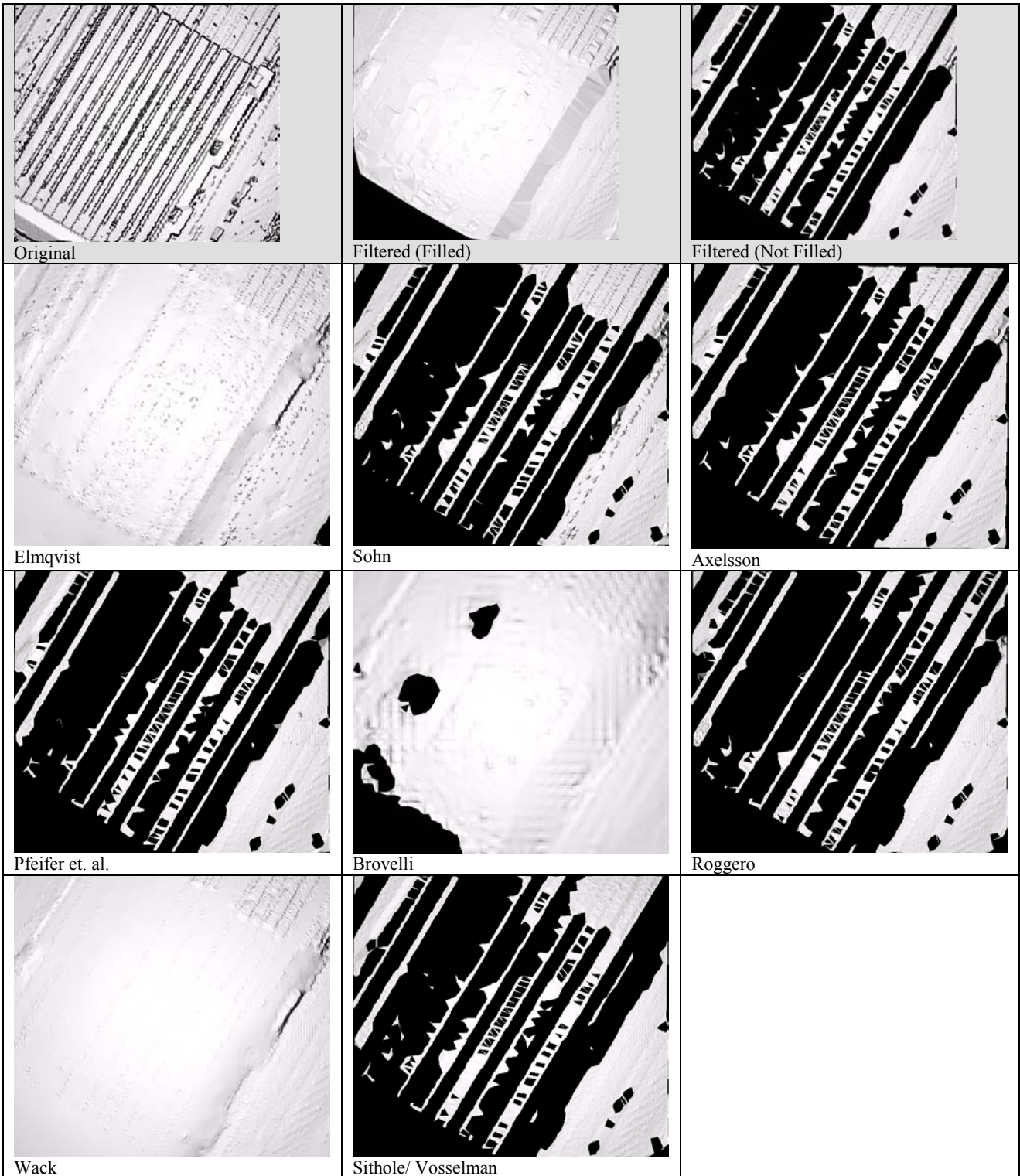


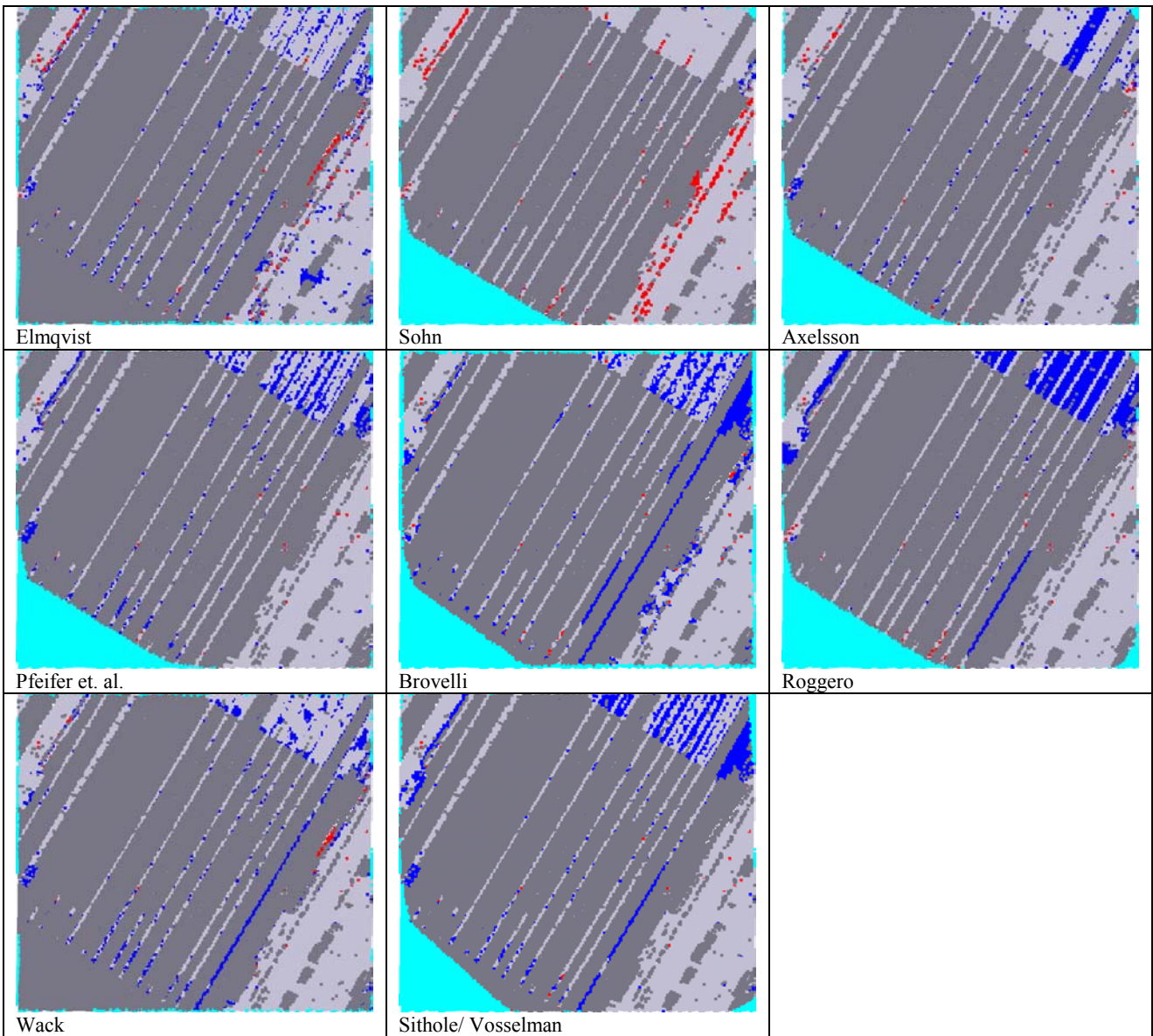
- Sohn, Axelsson and Sithole filter incorrectly filter courtyard

Total 11231

Elmqvist		Unused		470							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	5369	905	6274	58.30%	Type I	14.42%	-7.01	2.56	-2.29	2.56	
Obj	38	4449	4487	41.70%	Type II	0.85%	-0.15	0.19	0.09	0.08	
	5407	5354	10761		Total	8.76%					
	50.25%	49.75%									
	ratio BE-Obj/ Obj-BE		23.82								
Sohn		Unused		182							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	4483	1069	5552	50.25%	Type I	19.25%	-25.25	2.69	-8.2	5.94	
Obj	176	5321	5497	49.75%	Type II	3.20%	-7.28	25.31	0.71	5.08	
	4659	6390	11049		Total	11.27%					
	42.17%	57.83%									
	ratio BE-Obj/ Obj-BE		6.07								
Axelsson		Unused		178							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	4122	1434	5556	50.27%	Type I	25.81%	-25.3	-0.2	-11.96	7.49	
Obj	104	5393	5497	49.73%	Type II	1.89%	-0.96	25.89	9.86	10	
	4226	6827	11053		Total	13.91%					
	38.23%	61.77%									
	ratio BE-Obj/ Obj-BE		13.79								
Pfeifer		Unused		192							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	4446	1101	5547	50.25%	Type I	19.85%	-9.51	-0.2	-3.26	2.61	
Obj	86	5406	5492	49.75%	Type II	1.57%	-0.74	9.6	4.32	3.49	
	4532	6507	11039		Total	10.75%					
	41.05%	58.95%									
	ratio BE-Obj/ Obj-BE		12.80								
Brovelli		Unused		1337							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	3468	1663	5131	51.86%	Type I	32.41%	-16.23	2.17	-2.15	2.59	
Obj	22	4741	4763	48.14%	Type II	0.46%	-0.63	6.09	2.88	3.04	
	3490	6404	9894		Total	17.03%					
	35.27%	64.73%									
	ratio BE-Obj/ Obj-BE		75.59								
Roggero		Unused		272							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	4329	1189	5518	50.35%	Type I	21.55%	-9.34	2.15	-2.67	2.34	
Obj	149	5292	5441	49.65%	Type II	2.74%	-7.17	25.89	7.89	9.21	
	4478	6481	10959		Total	12.21%					
	40.86%	59.14%									
	ratio BE-Obj/ Obj-BE		7.98								
Wack		Unused		793							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	4270	914	5184	49.66%	Type I	17.63%	-4.84	4.6	-0.06	1.31	
Obj	26	5228	5254	50.34%	Type II	0.49%	-7.66	0.11	-1.66	3.06	
	4296	6142	10438		Total	9.01%					
	41.16%	58.84%									
	ratio BE-Obj/ Obj-BE		35.15								
Sithole		Unused		803							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	2669	2379	5048	48.41%	Type I	47.13%	-25.35	0.37	-5.75	6.07	
Obj	89	5291	5380	51.59%	Type II	1.65%	-1	25.89	10.97	10.03	
	2758	7670	10428		Total	23.67%					
	26.45%	73.55%									
	ratio BE-Obj/ Obj-BE		26.73								

B.9 Sample 42



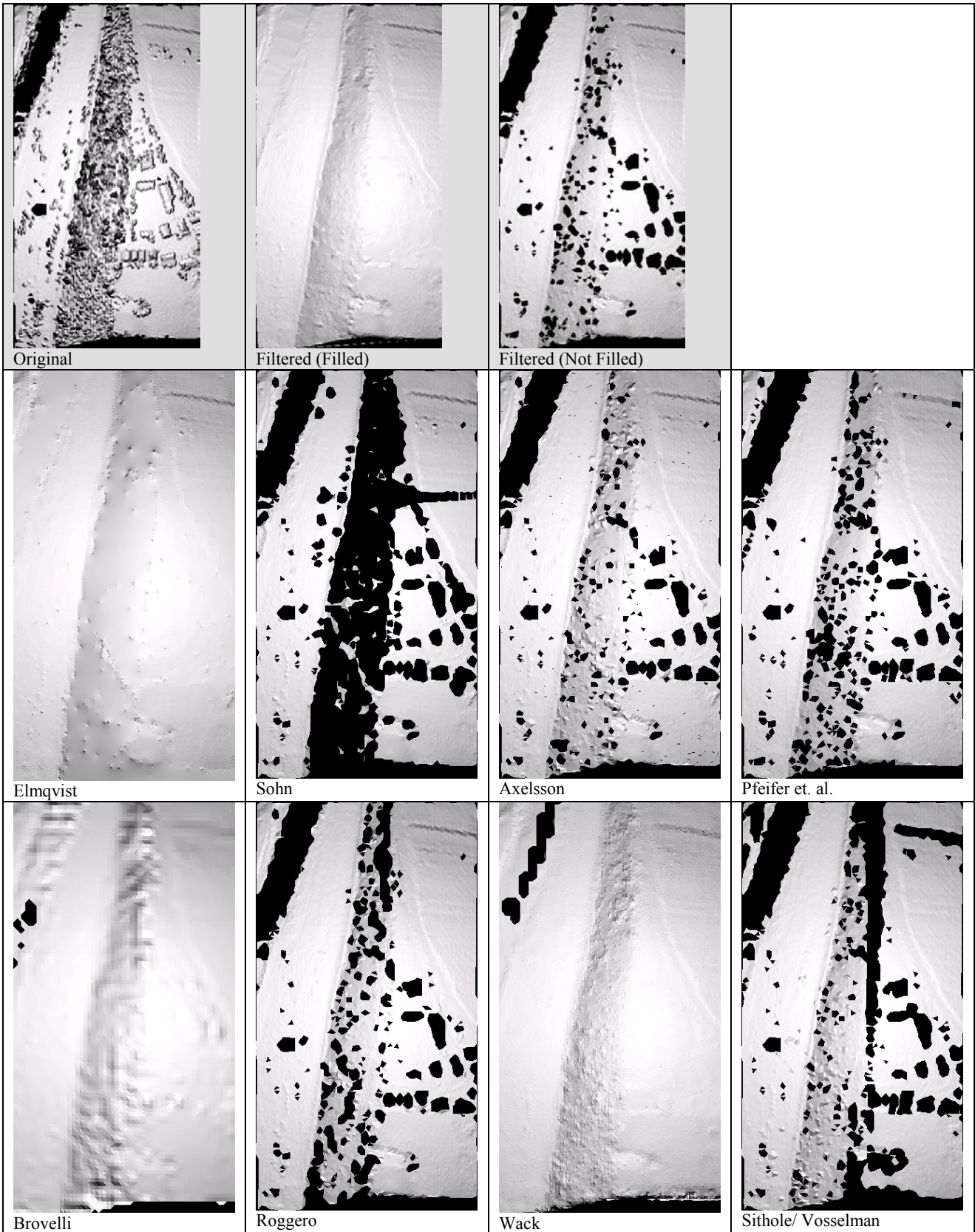


- Heavy bias towards Type I errors in Brovelli, Roggero and Sithole filter.
- Heavy bias towards Type II errors in Sohn filter.

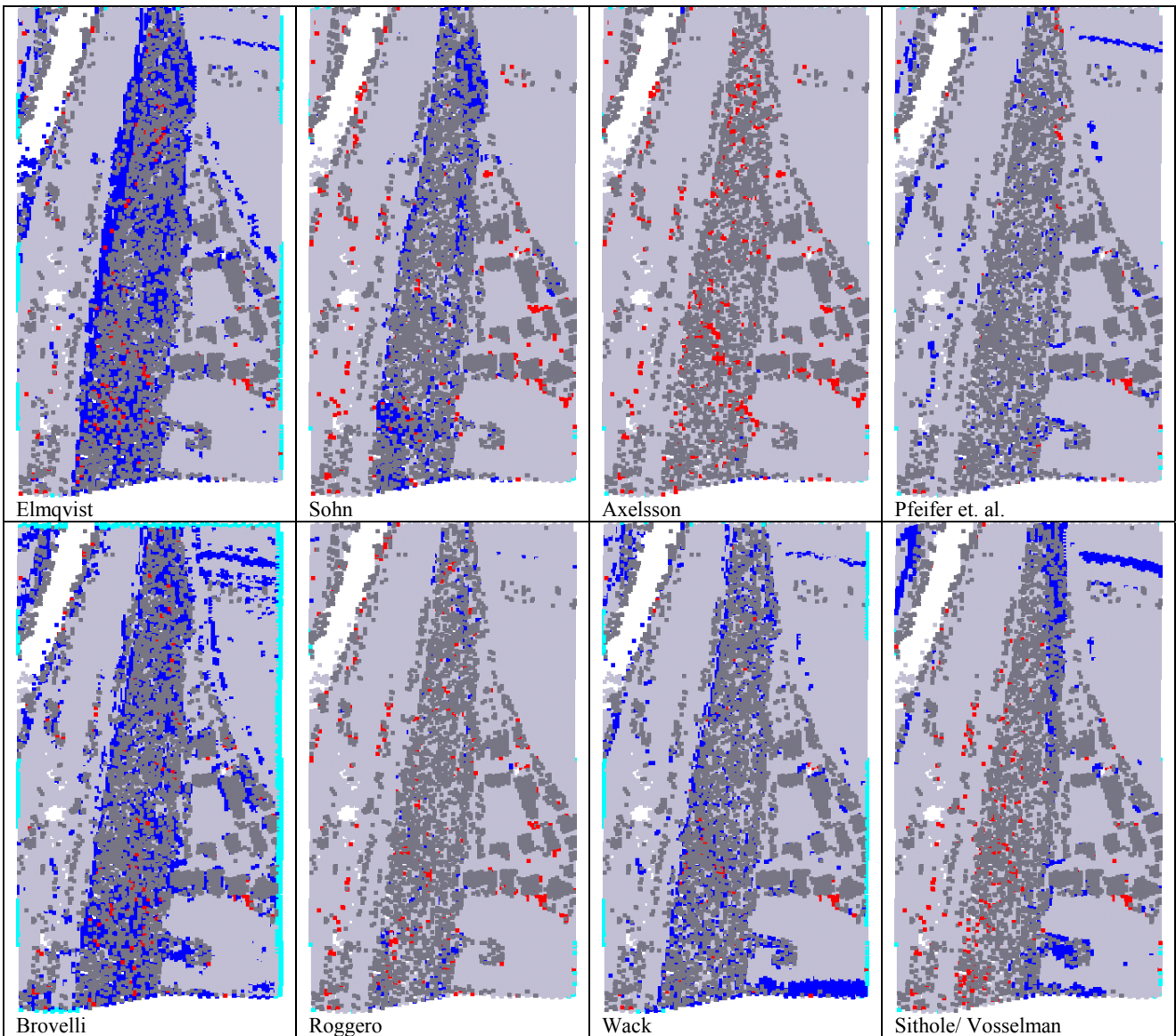
Total 42470

Elmqvist		Unused		339							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	29593	1330	30923	73.40%	Type I	4.30%	-2.75	1.67	-0.23	0.48	
Obj	222	10986	11208	26.60%	Type II	1.98%	-0.19	0.19	0.04	0.09	
	29815	12316	42131		Total	3.68%					
	70.77%	29.23%									
	ratio BE-Obj/ Obj-BE			5.99							
Sohn		Unused		2215							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	12290	125	12415	30.84%	Type I	1.01%	-3.08	1.14	-0.27	0.8	
Obj	590	27250	27840	69.16%	Type II	2.12%	-4.04	2.33	-0.93	0.77	
	12880	27375	40255		Total	1.78%					
	32.00%	68.00%									
	ratio BE-Obj/ Obj-BE			0.21							
Axelsson		Unused		2219							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	11842	582	12424	30.87%	Type I	4.68%	-3.11	0.53	-0.64	0.38	
Obj	72	27755	27827	69.13%	Type II	0.26%	-1.88	0.15	-0.35	0.42	
	11914	28337	40251		Total	1.62%					
	29.60%	70.40%									
	ratio BE-Obj/ Obj-BE			8.08							
Pfeifer		Unused		2251							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	11408	995	12403	30.84%	Type I	8.02%	-3.98	-0.2	-0.54	0.54	
Obj	68	27748	27816	69.16%	Type II	0.24%	-2.08	2.33	-0.23	0.73	
	11476	28743	40219		Total	2.64%					
	28.53%	71.47%									
	ratio BE-Obj/ Obj-BE			14.63							
Brovelli		Unused		2831							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	9596	2459	12055	30.41%	Type I	20.40%	-5.56	1.91	-0.54	1.2	
Obj	70	27514	27584	69.59%	Type II	0.25%	-1.09	0.76	-0.26	0.32	
	9666	29973	39639		Total	6.38%					
	24.39%	75.61%									
	ratio BE-Obj/ Obj-BE			35.13							
Roggero		Unused		2286							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	10734	1657	12391	30.84%	Type I	13.37%	-4.75	0.21	-0.9	0.67	
Obj	71	27722	27793	69.16%	Type II	0.26%	-1.39	5.23	0.06	1.07	
	10805	29379	40184		Total	4.30%					
	26.89%	73.11%									
	ratio BE-Obj/ Obj-BE			23.34							
Wack		Unused		2380							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	11004	1312	12316	30.72%	Type I	10.65%	-2.21	2.19	-0.38	0.5	
Obj	107	27667	27774	69.28%	Type II	0.39%	-3.8	0.68	-2.13	1.4	
	11111	28979	40090		Total	3.54%					
	27.72%	72.28%									
	ratio BE-Obj/ Obj-BE			12.26							
Sithole		Unused		2320							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	10858	1506	12364	30.79%	Type I	12.18%	-6.42	-0.2	-1.14	1.22	
Obj	41	27745	27786	69.21%	Type II	0.15%	-0.76	2.33	0.07	0.67	
	10899	29251	40150		Total	3.85%					
	27.15%	72.85%									
	ratio BE-Obj/ Obj-BE			36.73							

B.10 Sample 51



- Artifacts in Elmqvist filter.
- Artifacts in Brovelli filter
- Artifacts in Wack filter

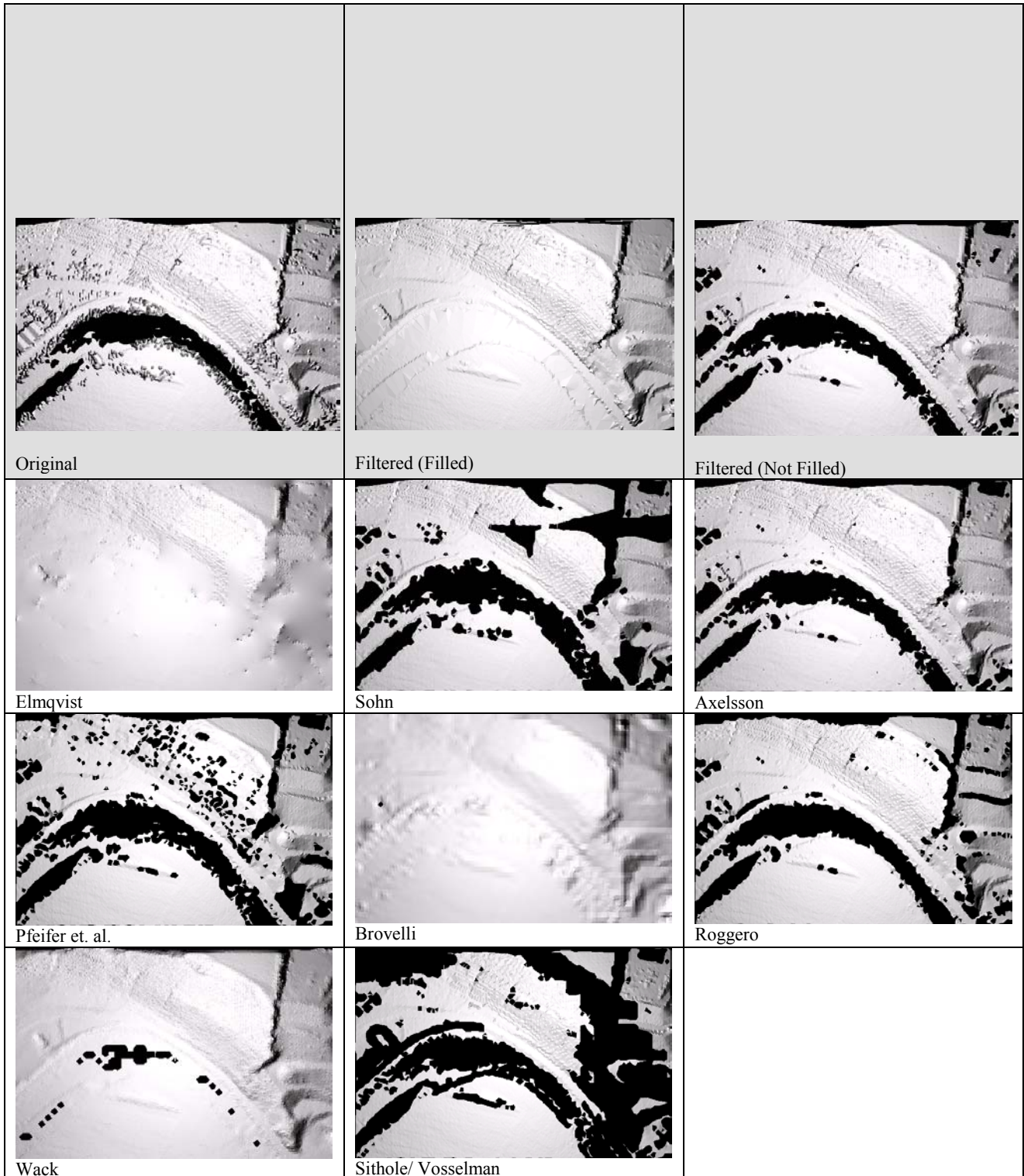


- Heavy bias towards Type I errors in Elmquist, Sohn, Brovelli and Wack filter
- Heavy bias towards Type II errors in Sohn, Axelsson, Roggero, and Sithole filter
- Pfeifer filter appears to handle the steep slope best.

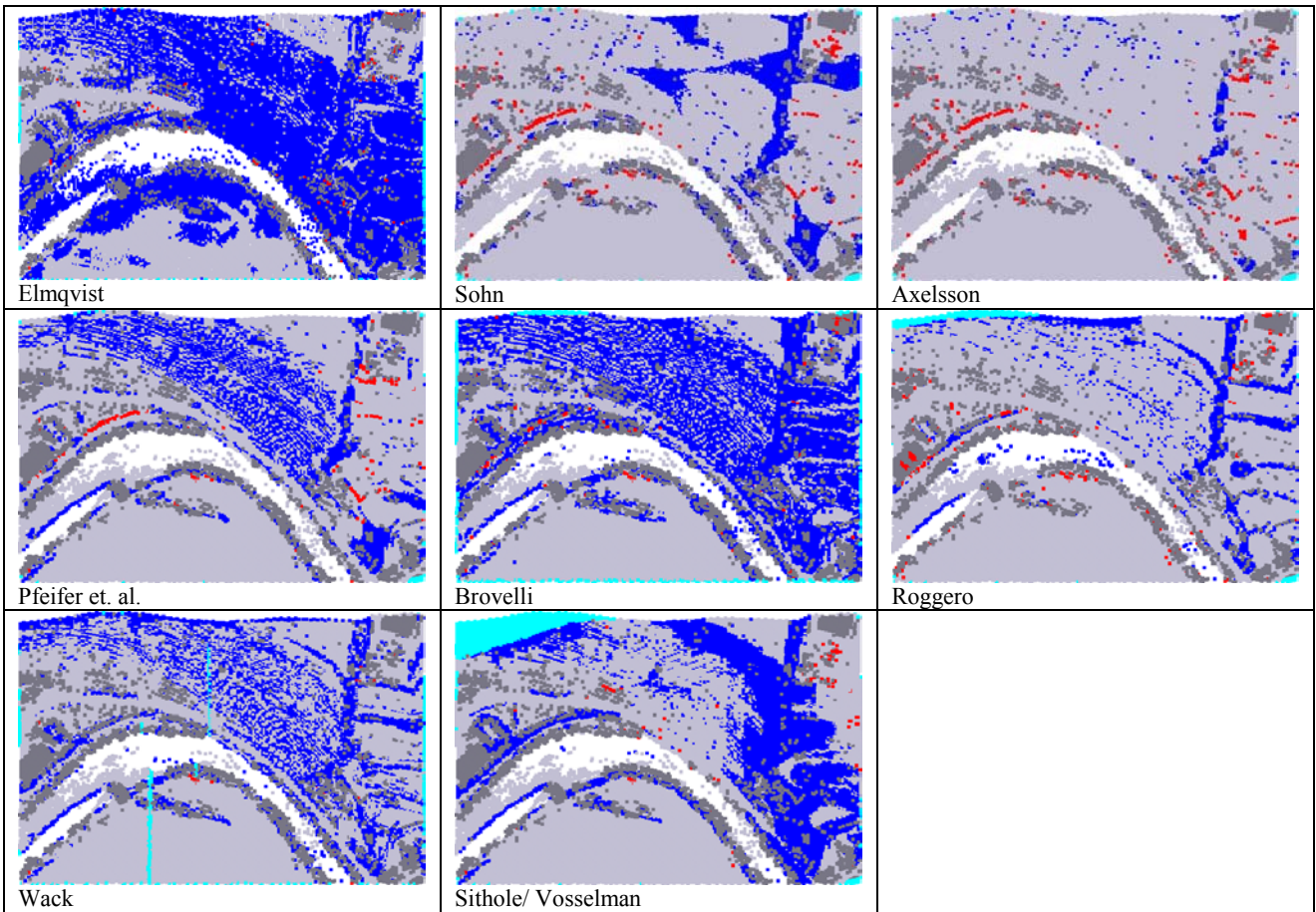
Total 17845

Elmqvist		Unused		162						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	3699	3603	7302	41.29%	Type I	49.34%	-5.03	5.17	0.28	1.28
Obj	166	10215	10381	58.71%	Type II	1.60%	-0.19	0.19	0.04	0.1
	3865	13818	17683		Total	21.31%				
	21.86%	78.14%								
	ratio BE-Obj/ Obj-BE		21.70							
Sohn		Unused		19						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	12496	1439	13935	78.17%	Type I	10.33%	-4.79	9.85	-0.04	1.44
Obj	221	3670	3891	21.83%	Type II	5.68%	-3.71	0.23	-0.67	0.57
	12717	5109	17826		Total	9.31%				
	71.34%	28.66%								
	ratio BE-Obj/ Obj-BE		6.51							
Axelsson		Unused		17						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	13919	18	13937	78.17%	Type I	0.13%	-1.52	0.91	-0.26	0.88
Obj	467	3424	3891	21.83%	Type II	12.00%	-3.61	0.25	-1.08	0.71
	14386	3442	17828		Total	2.72%				
	80.69%	19.31%								
	ratio BE-Obj/ Obj-BE		0.04							
Pfeifer		Unused		18						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	13349	587	13936	78.17%	Type I	4.21%	-2.17	0.75	-0.42	0.27
Obj	75	3816	3891	21.83%	Type II	1.93%	-2.58	0.25	-0.65	0.7
	13424	4403	17827		Total	3.71%				
	75.30%	24.70%								
	ratio BE-Obj/ Obj-BE		7.83							
Brovelli		Unused		505						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	9704	3817	13521	77.98%	Type I	28.23%	-3.62	11.51	0.79	1.35
Obj	139	3680	3819	22.02%	Type II	3.64%	-4.47	0.1	-1.26	1.07
	9843	7497	17340		Total	22.81%				
	56.76%	43.24%								
	ratio BE-Obj/ Obj-BE		27.46							
Roggero		Unused		16						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	13673	265	13938	78.18%	Type I	1.90%	-2.32	1.84	-0.29	0.6
Obj	271	3620	3891	21.82%	Type II	6.96%	-3.57	0.25	-0.87	0.74
	13944	3885	17829		Total	3.01%				
	78.21%	21.79%								
	ratio BE-Obj/ Obj-BE		0.98							
Wack		Unused		165						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	11879	1938	13817	78.15%	Type I	14.03%	-13.05	2.39	0.02	0.93
Obj	86	3777	3863	21.85%	Type II	2.23%	-2.39	0.09	-0.66	0.61
	11965	5715	17680		Total	11.45%				
	67.68%	32.32%								
	ratio BE-Obj/ Obj-BE		22.53							
Sithole		Unused		18						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	12956	980	13936	78.17%	Type I	7.03%	-3.83	0.51	-0.84	0.63
Obj	272	3619	3891	21.83%	Type II	6.99%	-4.42	0.08	-1.05	0.76
	13228	4599	17827		Total	7.02%				
	74.20%	25.80%								
	ratio BE-Obj/ Obj-BE		3.60							

B.11 Sample 52



- Artifacts in Elmqvist filter
- Ridges filtered in all cases.

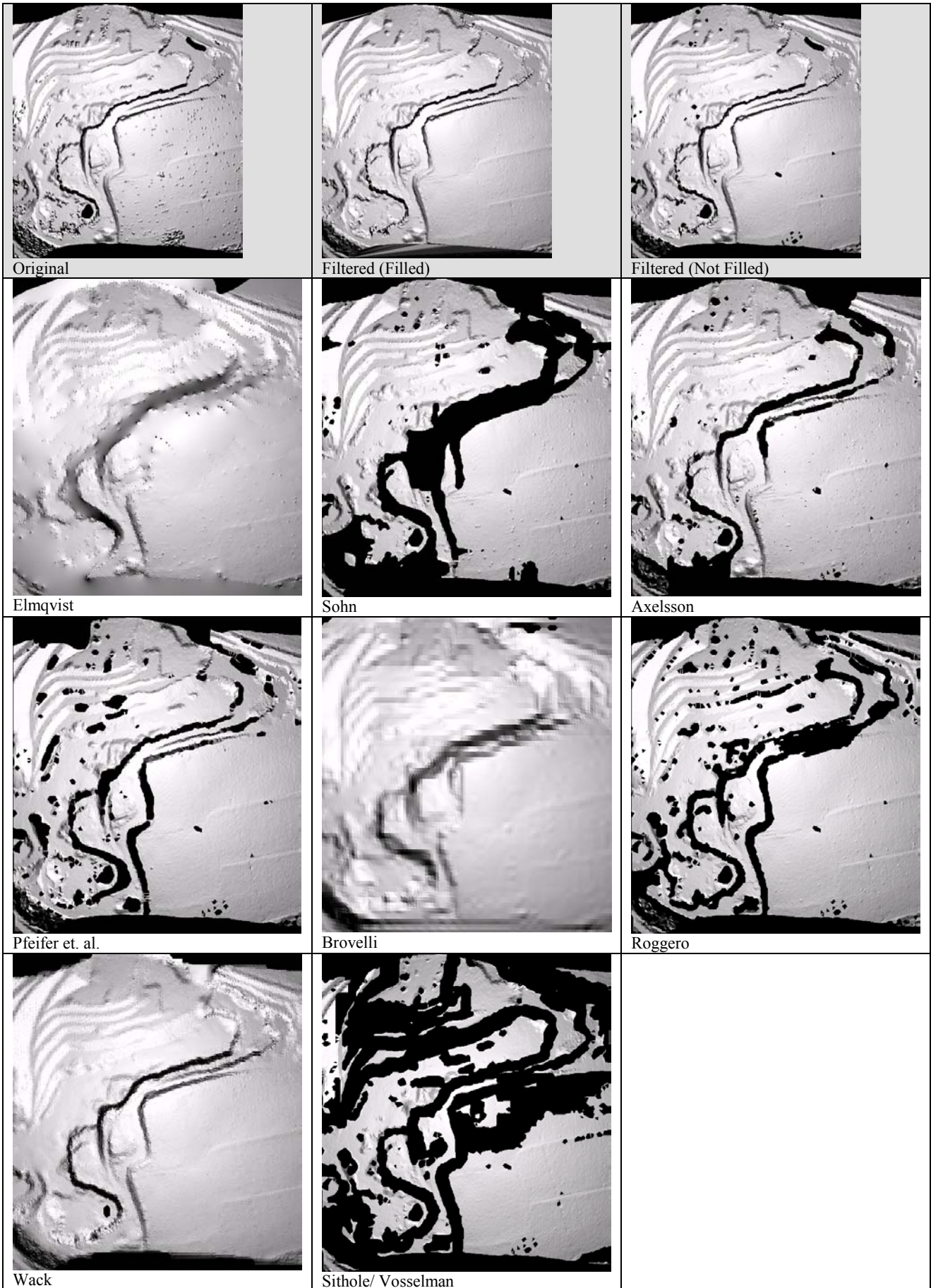


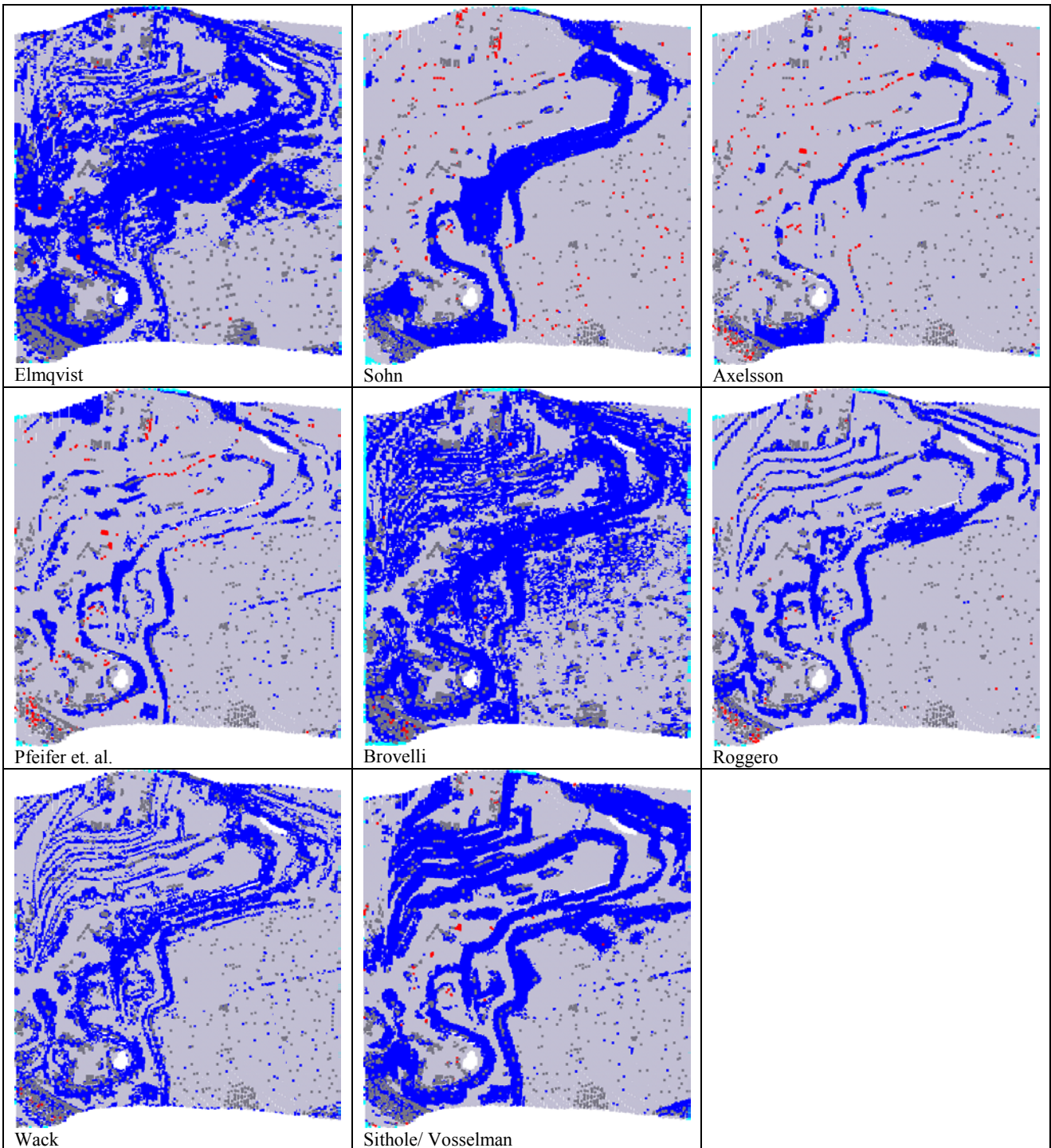
- Heavy bias towards Type I errors in Elmqvist, Pfeifer, Brovelli, Wack and Sithole filter.

Total 22474

Elmqvist		Unused		146						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	2259	12848	15107	67.66%	Type I	85.05%	-16.95	7.97	0.27	2.15
Obj	92	7129	7221	32.34%	Type II	1.27%	-0.19	0.19	0.04	0.1
	2351	19977	22328		Total					
	10.53%	89.47%			57.95%					
		ratio BE-Obj/ Obj-BE		139.65						
Sohn		Unused		44						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	17608	2479	20087	89.55%	Type I	12.34%	-17.09	3.45	-2.57	2.83
Obj	222	2121	2343	10.45%	Type II	9.48%	-6.83	0.29	-0.71	0.71
	17830	4600	22430		Total					
	79.49%	20.51%			12.04%					
		ratio BE-Obj/ Obj-BE		11.17						
Axelsson		Unused		27						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	19747	357	20104	89.56%	Type I	1.78%	-14.46	5.39	-3.14	2.87
Obj	333	2010	2343	10.44%	Type II	14.21%	-3.08	0.36	-0.73	0.51
	20080	2367	22447		Total					
	89.46%	10.54%			3.07%					
		ratio BE-Obj/ Obj-BE		1.07						
Pfeifer		Unused		35						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	15821	4275	20096	89.56%	Type I	21.27%	-16.18	4.88	-1.25	1.86
Obj	133	2210	2343	10.44%	Type II	5.68%	-1.95	0.44	-0.59	0.48
	15954	6485	22439		Total					
	71.10%	28.90%			19.64%					
		ratio BE-Obj/ Obj-BE		32.14						
Brovelli		Unused		350						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	9819	9990	19809	89.54%	Type I	50.43%	-14.77	12.4	0.02	1.58
Obj	89	2226	2315	10.46%	Type II	3.84%	-6.34	0.17	-1.32	1.8
	9908	12216	22124		Total					
	44.78%	55.22%			45.56%					
		ratio BE-Obj/ Obj-BE		112.25						
Roggero		Unused		215						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	17968	1952	19920	89.49%	Type I	9.80%	-10.79	5.69	-1.57	1.82
Obj	226	2113	2339	10.51%	Type II	9.66%	-7.14	0.37	-1.62	2.11
	18194	4065	22259		Total					
	81.74%	18.26%			9.78%					
		ratio BE-Obj/ Obj-BE		8.64						
Wack		Unused		300						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	14597	5259	19856	89.55%	Type I	26.49%	-9.57	4.55	-0.2	0.91
Obj	24	2294	2318	10.45%	Type II	1.04%	-1.56	0.34	-0.29	0.42
	14621	7553	22174		Total					
	65.94%	34.06%			23.83%					
		ratio BE-Obj/ Obj-BE		219.13						
Sithole		Unused		798						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	13467	5885	19352	89.28%	Type I	30.41%	-19.9	7.67	-2.77	3.36
Obj	83	2241	2324	10.72%	Type II	3.57%	-3.01	0.03	-0.84	0.59
	13550	8126	21676		Total					
	62.51%	37.49%			27.53%					
		ratio BE-Obj/ Obj-BE		70.90						

B.12 Sample 53



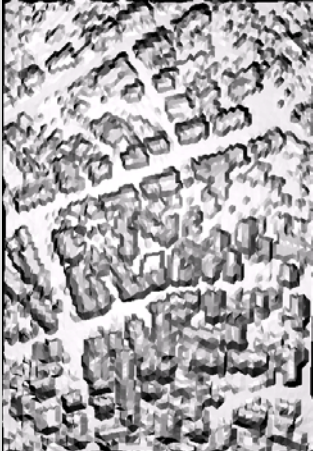








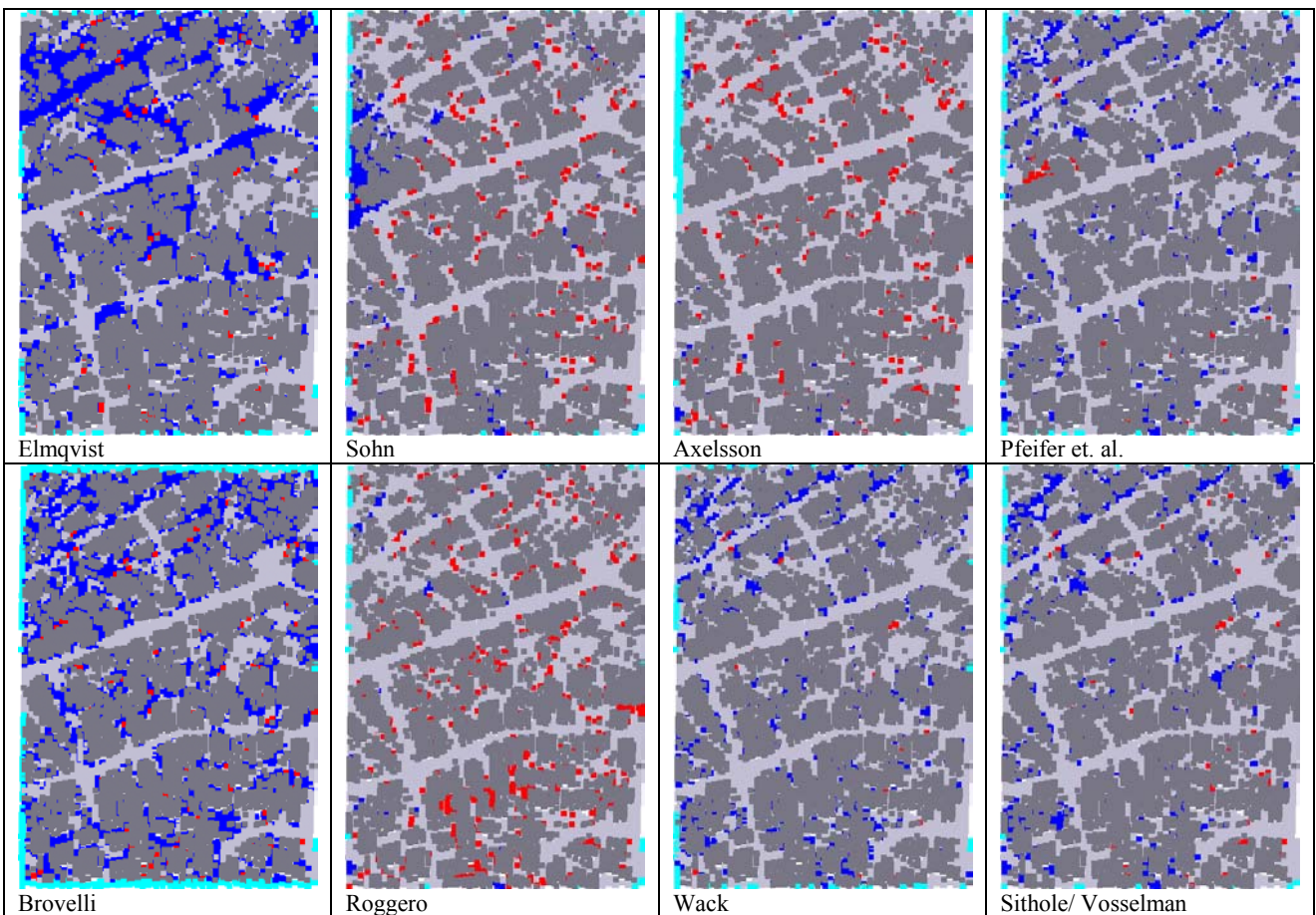
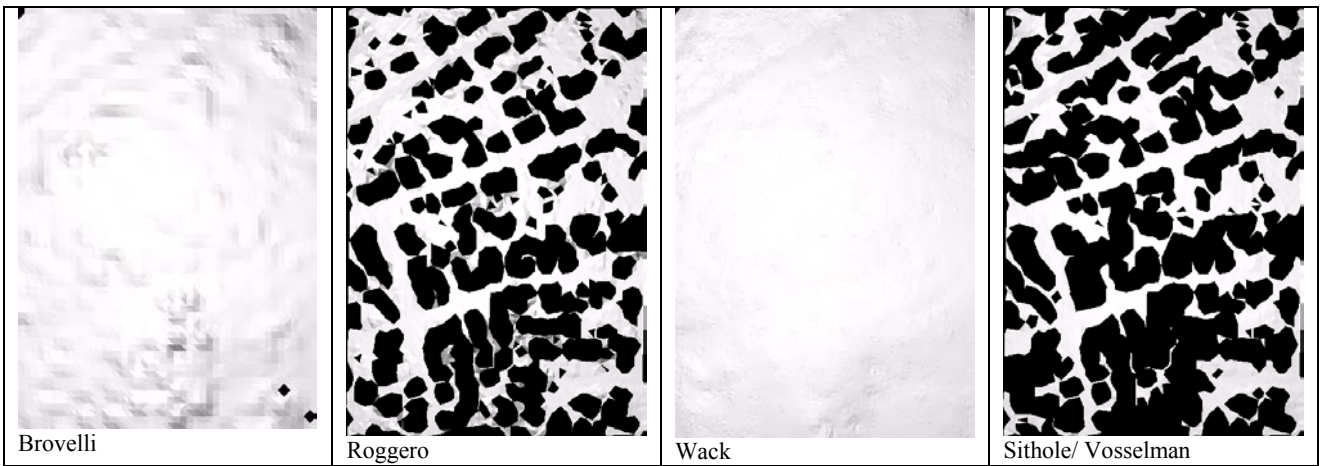
- Heavy bias towards Type I errors in Elmqvist, Sohn, Brovelli and Sithole filter
- In the Elmqvist and Brovelli filter Type I errors extend beyond discontinuity regions. This could indicate that large discontinuities have a strong influence on Type I errors in such filters.

Total 34378

Elmqvist		Unused		51							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	1355	16603	17958	52.31%	Type I	92.45%	-43.65	24.73	-1.63	5.3	
Obj	29	16340	16369	47.69%	Type II	0.18%	-0.15	0.19	0.09	0.09	
	1384	32943	34327		Total	48.45%					
	4.03%	95.97%									
	ratio BE-Obj/ Obj-BE		572.52								
Sohn		Unused		69							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	26195	6747	32942	96.02%	Type I	20.48%	-53.85	6.59	-10.16	8.58	
Obj	181	1186	1367	3.98%	Type II	13.24%	-3.43	0.06	-0.78	0.36	
	26376	7933	34309		Total	20.19%					
	76.88%	23.12%									
	ratio BE-Obj/ Obj-BE		37.28								
Axelsson		Unused		46							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	30131	2829	32960	96.00%	Type I	8.58%	-52.85	7.3	-10.54	9.54	
Obj	230	1142	1372	4.00%	Type II	16.76%	-6.09	4.49	-0.91	0.73	
	30361	3971	34332		Total	8.91%					
	88.43%	11.57%									
	ratio BE-Obj/ Obj-BE		12.30								
Pfeifer		Unused		71							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	28809	4128	32937	96.01%	Type I	12.53%	-51.74	22.06	-4.26	7.56	
Obj	195	1175	1370	3.99%	Type II	14.23%	-6.09	4.49	-1.16	0.95	
	29004	5303	34307		Total	12.60%					
	84.54%	15.46%									
	ratio BE-Obj/ Obj-BE		21.17								
Brovelli		Unused		295							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	14750	17977	32727	96.02%	Type I	54.93%	-46.49	11.06	-1.78	5.06	
Obj	22	1334	1356	3.98%	Type II	1.62%	-3.33	-0.24	-1.49	0.98	
	14772	19311	34083		Total	52.81%					
	43.34%	56.66%									
	ratio BE-Obj/ Obj-BE		817.14								
Roggero		Unused		67							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	27072	5867	32939	96.00%	Type I	17.81%	-47.7	9.77	-3.31	5.18	
Obj	65	1307	1372	4.00%	Type II	4.74%	-10.76	4.49	-0.97	1.56	
	27137	7174	34311		Total	17.29%					
	79.09%	20.91%									
	ratio BE-Obj/ Obj-BE		90.26								
Wack		Unused		65							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	23610	9332	32942	96.00%	Type I	28.33%	-49.48	12.25	-1.32	5.4	
Obj	14	1357	1371	4.00%	Type II	1.02%	-2.29	-0.4	-1.19	0.57	
	23624	10689	34313		Total	27.24%					
	68.85%	31.15%									
	ratio BE-Obj/ Obj-BE		666.57								
Sithole		Unused		58							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	20292	12657	32949	96.01%	Type I	38.41%	-49.38	4.64	-4.08	5.37	
Obj	66	1305	1371	3.99%	Type II	4.81%	-2.5	4.49	-0.92	0.93	
	20358	13962	34320		Total	37.07%					
	59.32%	40.68%									
	ratio BE-Obj/ Obj-BE		191.77								

B.13 Sample 54

			
Original	Filtered (Filled)	Filtered (Not Filled)	
			
Elmqvist	Sohn	Axelsson	Pfeifer et. al.

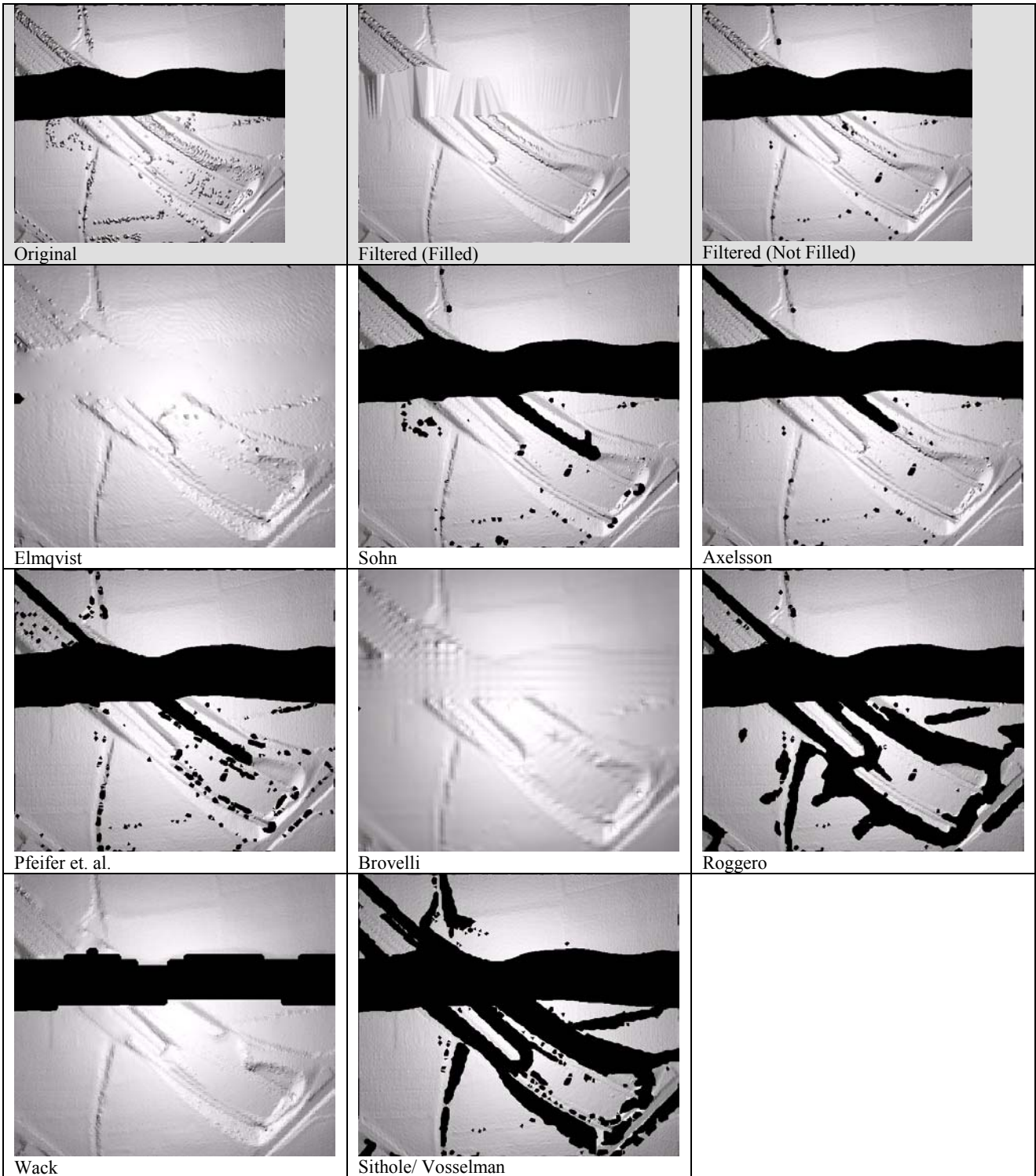


- Heavy bias towards Type II errors in Sohn, Axelsson and Roggero filter
- Heavy bias towards Type I errors in Elmqvist and Brovelli filter

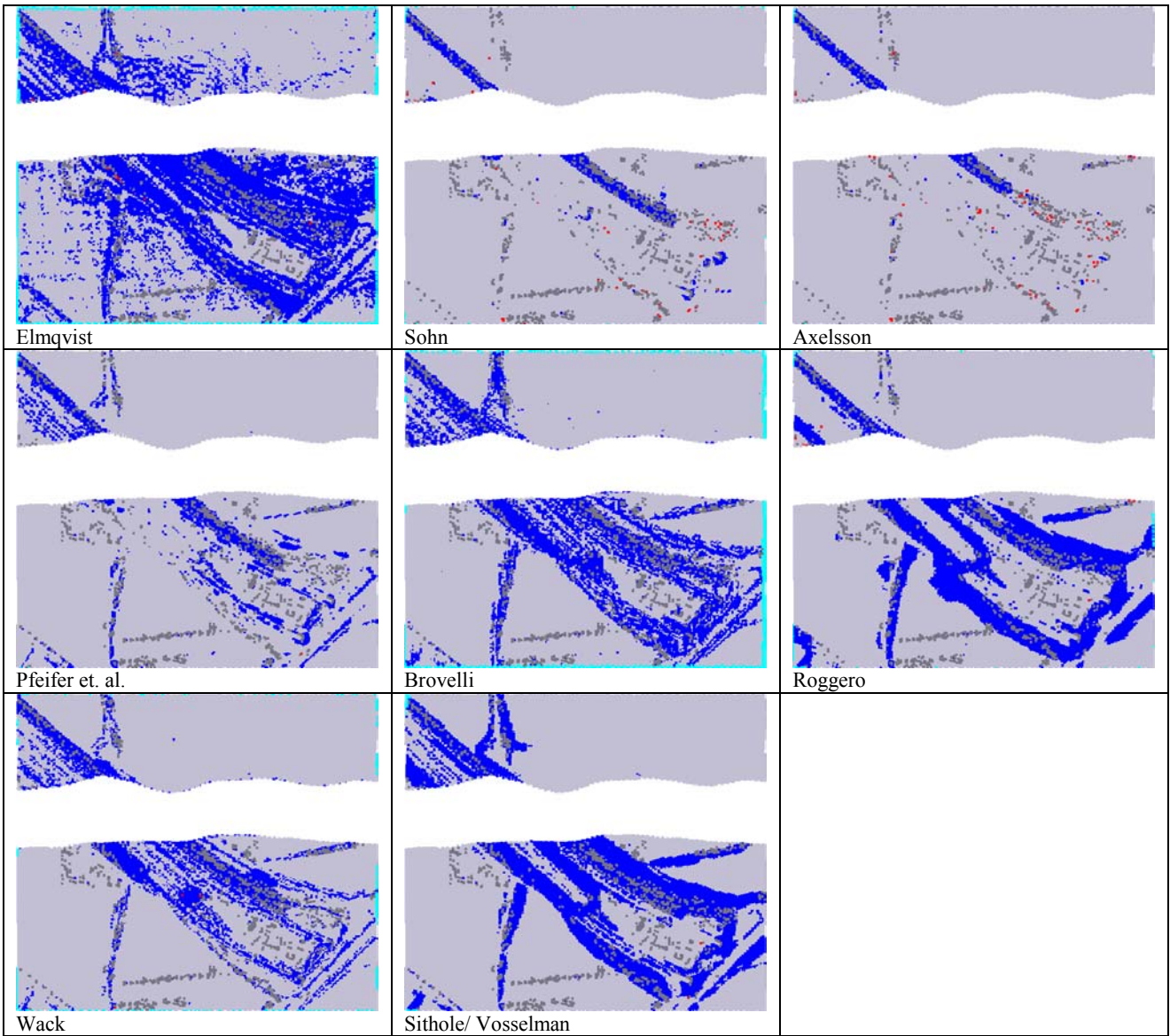
Total 8608

Elmqvist		Unused		71							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	4536	1756	6292	73.70%	Type I	27.91%	-2.96	2.23	0.26	0.62	
Obj	59	2186	2245	26.30%	Type II	2.63%	-0.19	0.19	0.06	0.11	
	4595	3942	8537		Total	21.26%					
	53.82%	46.18%									
	ratio BE-Obj/ Obj-BE		29.76								
Sohn		Unused		56							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	3692	266	3958	46.28%	Type I	6.72%	-3.19	2.14	0.05	1.08	
Obj	220	4374	4594	53.72%	Type II	4.79%	-7.56	1.13	-0.71	0.75	
	3912	4640	8552		Total	5.68%					
	45.74%	54.26%									
	ratio BE-Obj/ Obj-BE		1.21								
Axelsson		Unused		99							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	3878	49	3927	46.15%	Type I	1.25%	-3	2.5	-0.96	1.34	
Obj	226	4356	4582	53.85%	Type II	4.93%	-2.74	1.13	-0.71	0.6	
	4104	4405	8509		Total	3.23%					
	48.23%	51.77%									
	ratio BE-Obj/ Obj-BE		0.22								
Pfeifer		Unused		51							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	3538	422	3960	46.28%	Type I	10.66%	-3.33	0.2	-0.65	0.53	
Obj	46	4551	4597	53.72%	Type II	1.00%	-3.69	0.4	-1.23	1.37	
	3584	4973	8557		Total	5.47%					
	41.88%	58.12%									
	ratio BE-Obj/ Obj-BE		9.17								
Brovelli		Unused		330							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	1925	1890	3815	46.09%	Type I	49.54%	-2.46	4.16	0.48	0.58	
Obj	88	4375	4463	53.91%	Type II	1.97%	-3.21	0.33	-0.78	0.88	
	2013	6265	8278		Total	23.89%					
	24.32%	75.68%									
	ratio BE-Obj/ Obj-BE		21.48								
Roggero		Unused		36							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	3933	40	3973	46.35%	Type I	1.01%	-3.19	-0.34	-1.38	0.82	
Obj	385	4214	4599	53.65%	Type II	8.37%	-6.22	8.21	-1.48	1.39	
	4318	4254	8572		Total	4.96%					
	50.37%	49.63%									
	ratio BE-Obj/ Obj-BE		0.10								
Wack		Unused		85							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	3314	628	3942	46.25%	Type I	15.93%	-2.96	1.59	-0.16	0.57	
Obj	22	4559	4581	53.75%	Type II	0.48%	-0.69	0.37	-0.04	0.23	
	3336	5187	8523		Total	7.63%					
	39.14%	60.86%									
	ratio BE-Obj/ Obj-BE		28.55								
Sithole		Unused		43							
Filtered											
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	3476	491	3967	46.32%	Type I	12.38%	-4.25	-0.2	-0.78	0.58	
Obj	51	4547	4598	53.68%	Type II	1.11%	-1.63	1.03	-0.2	0.36	
	3527	5038	8565		Total	6.33%					
	41.18%	58.82%									
	ratio BE-Obj/ Obj-BE		9.63								

B.14 Sample 61



- Ridges strongly filtered off in Roggero and Sithole filter

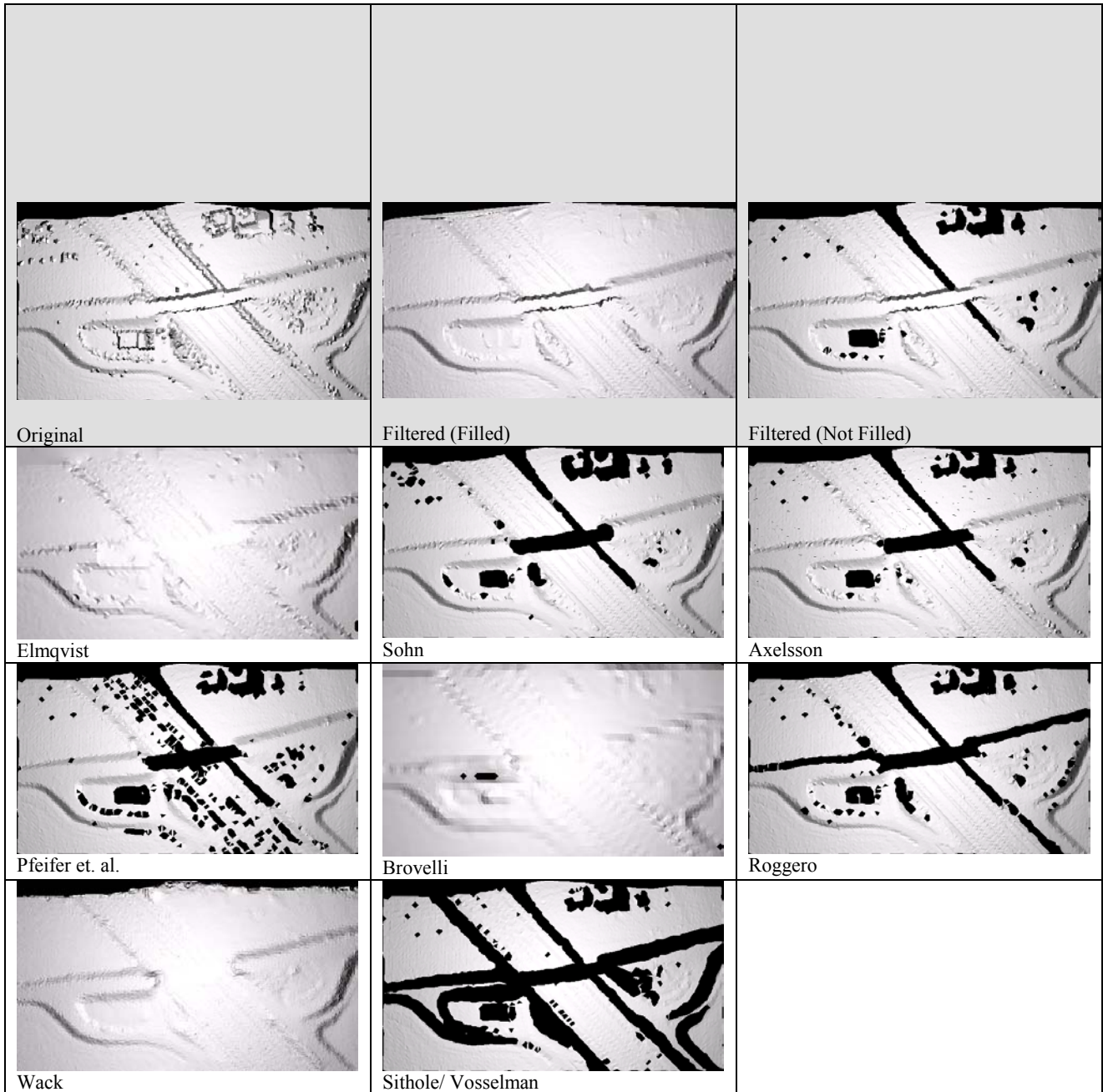


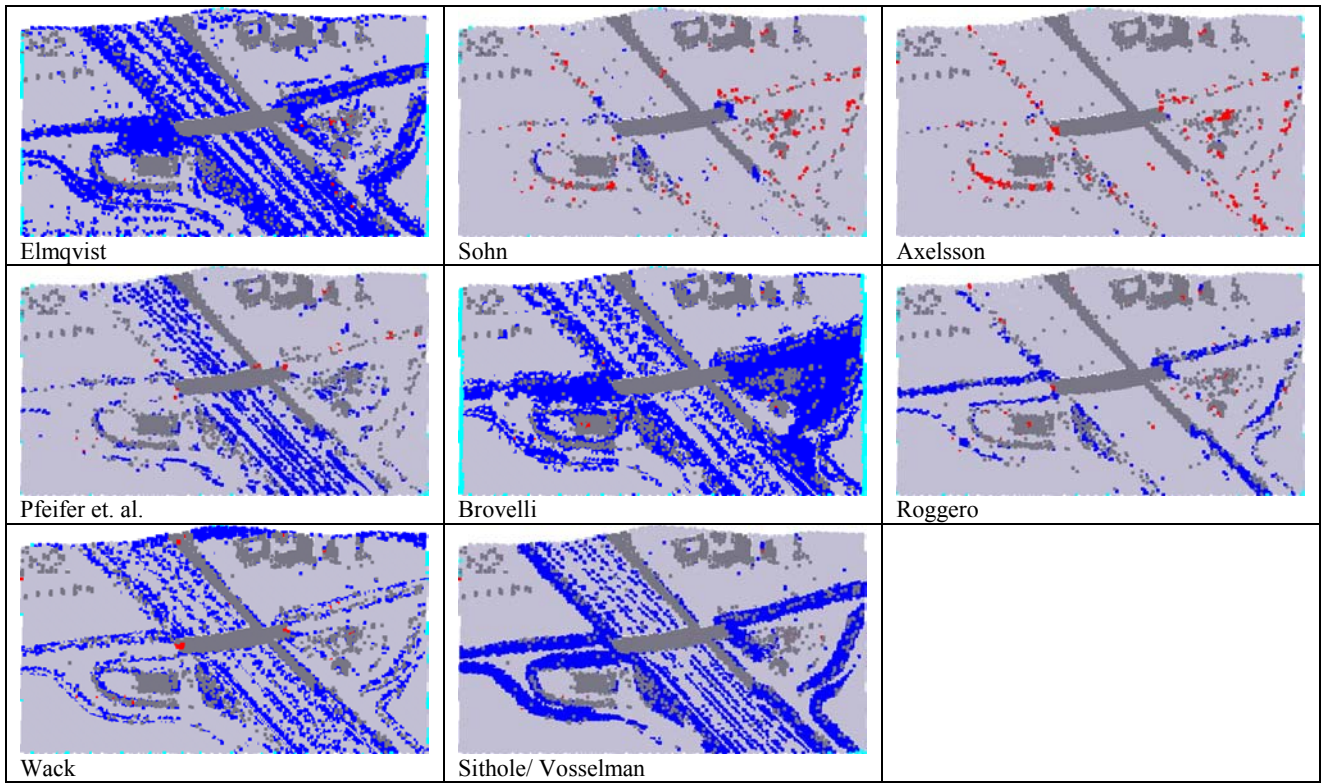
- Heavy bias towards Type I errors in Elmqvist, Brovelli, Roggero, Wack and Sithole filter.

Total 35060

Elmqvist		Unused		691						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	1176	12314	13490	39.25%	Type I	91.28%	-14.12	7.94	-1	2.01
Obj	14	20865	20879	60.75%	Type II	0.07%	-0.14	0.16	0.03	0.12
	1190	33179	34369		Total	35.87%				
	3.46%	96.54%								
	ratio BE-Obj/ Obj-BE		879.57							
Sohn		Unused		24						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	32830	1002	33832	96.56%	Type I	2.96%	-8.28	1.06	-4.31	1.95
Obj	44	1160	1204	3.44%	Type II	3.65%	-1.74	-0.11	-0.82	0.3
	32874	2162	35036		Total	2.99%				
	93.83%	6.17%								
	ratio BE-Obj/ Obj-BE		22.77							
Axelsson		Unused		8						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	33193	655	33848	96.57%	Type I	1.94%	-8.24	2.92	-4.81	1.99
Obj	75	1129	1204	3.43%	Type II	6.23%	-3.29	0.19	-1.08	0.6
	33268	1784	35052		Total	2.08%				
	94.91%	5.09%								
	ratio BE-Obj/ Obj-BE		8.73							
Pfeifer		Unused		9						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	31427	2420	33847	96.57%	Type I	7.15%	-8.54	0.4	-2.08	2.31
Obj	2	1202	1204	3.43%	Type II	0.17%	-0.56	-0.42	-0.49	0.1
	31429	3622	35051		Total	6.91%				
	89.67%	10.33%								
	ratio BE-Obj/ Obj-BE		1210.00							
Brovelli		Unused		693						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	25731	7451	33182	96.55%	Type I	22.45%	-8.33	4.18	-0.7	1.76
Obj	0	1185	1185	3.45%	Type II	0.00%	0	0	-100000	-100000
	25731	8636	34367		Total	21.68%				
	74.87%	25.13%								
	ratio BE-Obj/ Obj-BE									
Roggero		Unused		62						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	27157	6638	33795	96.56%	Type I	19.64%	-9.38	1.94	-2.39	2.04
Obj	7	1196	1203	3.44%	Type II	0.58%	-3.29	-0.46	-1.24	0.96
	27164	7834	34998		Total	18.99%				
	77.62%	22.38%								
	ratio BE-Obj/ Obj-BE		948.29							
Wack		Unused		194						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	28978	4692	33670	96.57%	Type I	13.94%	-11.23	8.69	-1.31	2.7
Obj	3	1193	1196	3.43%	Type II	0.25%	-3.14	-0.01	-1.65	1.57
	28981	5885	34866		Total	13.47%				
	83.12%	16.88%								
	ratio BE-Obj/ Obj-BE		1564.00							
Sithole		Unused		24						
Filtered										
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.		
BE	26257	7577	33834	96.57%	Type I	22.39%	-10.89	0.54	-2.5	2.29
Obj	3	1199	1202	3.43%	Type II	0.25%	-0.56	-0.38	-0.47	0.09
	26260	8776	35036		Total	21.63%				
	74.95%	25.05%								
	ratio BE-Obj/ Obj-BE		2525.67							

B.15 Sample 71

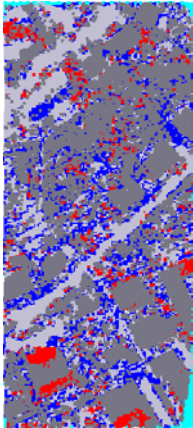
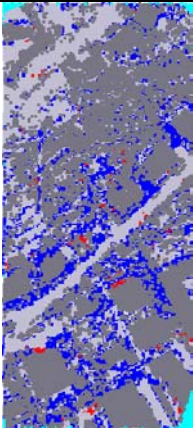
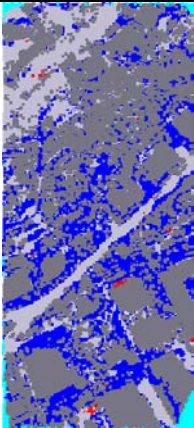
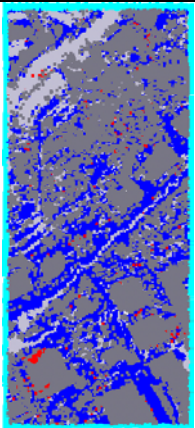
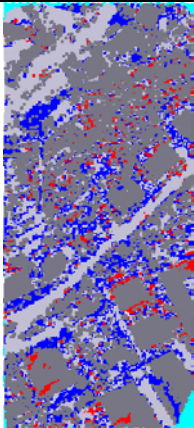
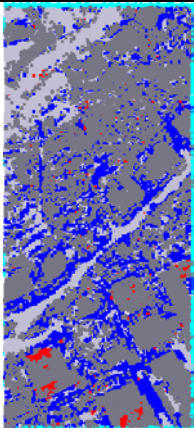
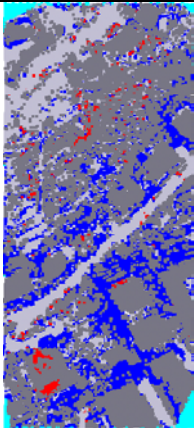




Total 15645

Elmqvist		Unused		142							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	1744	5286	7030	45.35%	Type I	75.19%	-8.05	2.7	-0.65	1.44	
Obj	19	8454	8473	54.65%	Type II	0.22%	-0.18	0.19	0.01	0.13	
	1763	13740	15503		Total	34.22%					
	11.37%	88.63%									
	ratio BE-Obj/ Obj-BE		278.21								
Sohn		Unused		23							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	13681	175	13856	88.70%	Type I	1.26%	-4.76	1.51	-1.17	1.19	
Obj	168	1598	1766	11.30%	Type II	9.51%	-6.19	1.5	-1.05	0.69	
	13849	1773	15622		Total	2.20%					
	88.65%	11.35%									
	ratio BE-Obj/ Obj-BE		1.04								
Axelsson		Unused		18							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	13841	20	13861	88.70%	Type I	0.14%	-1.8	-0.62	-1	0.29	
Obj	234	1532	1766	11.30%	Type II	13.25%	-5.67	1.5	-1.24	0.68	
	14075	1552	15627		Total	1.63%					
	90.07%	9.93%									
	ratio BE-Obj/ Obj-BE		0.09								
Pfeifer		Unused		23							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	12501	1355	13856	88.70%	Type I	9.78%	-4.08	3.23	-0.5	0.46	
Obj	28	1738	1766	11.30%	Type II	1.59%	-6.08	1.5	-1.07	1.55	
	12529	3093	15622		Total	8.85%					
	80.20%	19.80%									
	ratio BE-Obj/ Obj-BE		48.39								
Brovelli		Unused		293							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	8236	5356	13592	88.54%	Type I	39.41%	-7.51	2.43	-1.06	1.88	
Obj	14	1746	1760	11.46%	Type II	0.80%	-4.8	1.68	-1.81	2.29	
	8250	7102	15352		Total	34.98%					
	53.74%	46.26%									
	ratio BE-Obj/ Obj-BE		382.57								
Roggero		Unused		23							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	13107	749	13856	88.70%	Type I	5.41%	-3.99	1.32	-0.87	0.66	
Obj	49	1717	1766	11.30%	Type II	2.77%	-6.7	1.5	-1.43	1.77	
	13156	2466	15622		Total	5.11%					
	84.21%	15.79%									
	ratio BE-Obj/ Obj-BE		15.29								
Wack		Unused		63							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	11208	2609	13817	88.67%	Type I	18.88%	-5.25	3.01	-0.17	0.75	
Obj	35	1730	1765	11.33%	Type II	1.98%	-7.95	0.06	-2.56	2.34	
	11243	4339	15582		Total	16.97%					
	72.15%	27.85%									
	ratio BE-Obj/ Obj-BE		74.54								
Sithole		Unused		14							
Filtered											
Ref	BE	Obj				%	Min	Max	Mean	Std Dev.	
BE	10459	3406	13865	88.70%	Type I	24.57%	-6.1	1.9	-1.14	0.86	
Obj	6	1760	1766	11.30%	Type II	0.34%	-0.96	0.1	-0.42	0.47	
	10465	5166	15631		Total	21.83%					
	66.95%	33.05%									
	ratio BE-Obj/ Obj-BE		567.67								

B.16 Sample 11 (reduction 1)

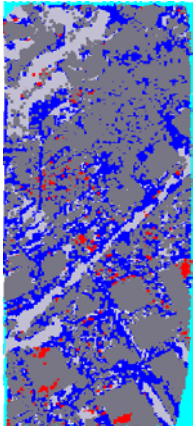
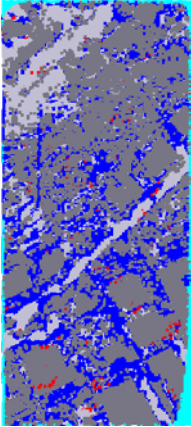
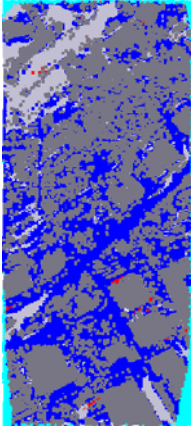
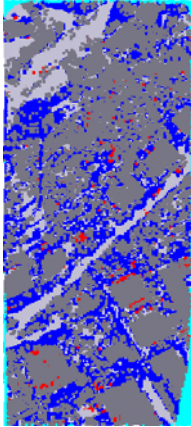
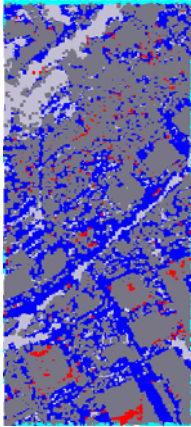
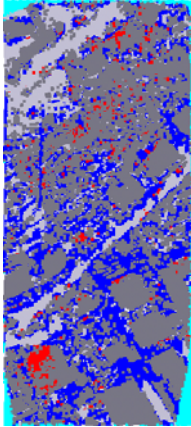
				<p>Elmqvist (Data not available)</p>	 <p>Sohn</p>
 <p>Axelsson</p>	 <p>Pfeifer et. al.</p>	 <p>Brovelli</p>	 <p>Roggero</p>	 <p>Wack/ Wimmer</p>	 <p>Sithole/Vosselman</p>

- Heavy bias towards Type II errors in Sohn filter.
- Heavy bias towards Type I errors in Pfeifer, Brovelli, Roggero, Wack and Sithole filter.

Total 0

Elmqvist		Unused		0				
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.
BE	0	0	0	Type I	0	0	0	0
Obj	0	0	0	Type II	0	0	0	0
	0	0	0	Total				
ratio BE-Obj/ Obj-BE								
Sohn		Unused		531				
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.
BE	12306	9353	21659	Type I	43.18%	-13.93	11.66	0.42
Obj	2130	13690	15820	Type II	13.46%	-14.35	2.74	-2.78
	14436	23043	37479	Total	30.64%			
	38.52%	61.48%						
ratio BE-Obj/ Obj-BE			4.39					
Axelsson		Unused		404				
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.
BE	14085	7636	21721	Type I	35.15%	-11.82	10.13	-0.94
Obj	304	15581	15885	Type II	1.91%	-6.54	2.86	-0.5
	14389	23217	37606	Total	21.11%			
	38.26%	61.74%						
ratio BE-Obj/ Obj-BE			25.12					
Pfeifer		Unused		609				
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.
BE	10511	11125	21636	Type I	51.42%	-13.23	9.09	-1.71
Obj	145	15620	15765	Type II	0.92%	-1.38	2.79	0.03
	10656	26745	37401	Total	30.13%			
	28.49%	71.51%						
ratio BE-Obj/ Obj-BE			76.72					
Brovelli		Unused		2761				
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.
BE	6217	14104	20321	Type I	69.41%	-9.57	10.27	0.06
Obj	318	14610	14928	Type II	2.13%	-6.78	0.33	-1.74
	6535	28714	35249	Total	40.91%			
	18.54%	81.46%						
ratio BE-Obj/ Obj-BE			44.35					
Roggero		Unused		476				
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.
BE	13697	7983	21680	Type I	36.82%	-13.49	9.86	-0.19
Obj	1557	14297	15854	Type II	9.82%	-9.79	35.65	-1.88
	15254	22280	37534	Total	25.42%			
	40.64%	59.36%						
ratio BE-Obj/ Obj-BE			5.13					
Wack		Unused		1128				
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.
BE	9859	11472	21331	Type I	53.78%	-6.27	12.5	0.29
Obj	595	14956	15551	Type II	3.83%	-14.76	2.65	-3.1
	10454	26428	36882	Total	32.72%			
	28.34%	71.66%						
ratio BE-Obj/ Obj-BE			19.28					
Sithole		Unused		694				
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.
BE	11384	10189	21573	Type I	47.23%	-14.28	8.1	-1.98
Obj	633	15110	15743	Type II	4.02%	-9.27	6.63	-1.68
	12017	25299	37316	Total	29.00%			
	32.20%	67.80%						
ratio BE-Obj/ Obj-BE			16.10					

B.17 Sample 11 (reduction 2)

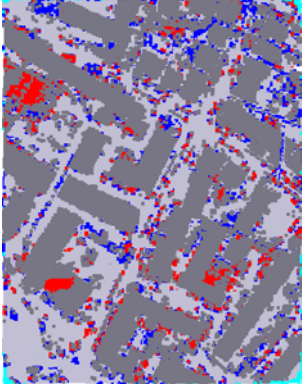
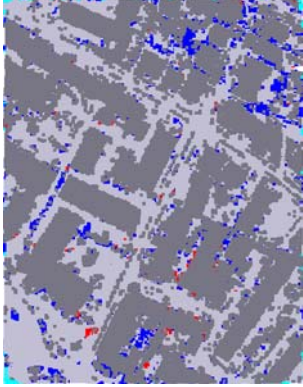
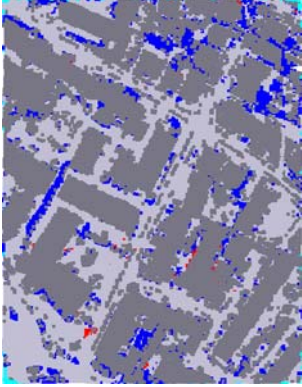
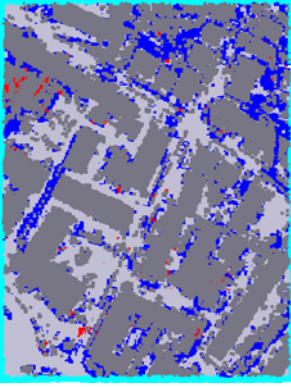
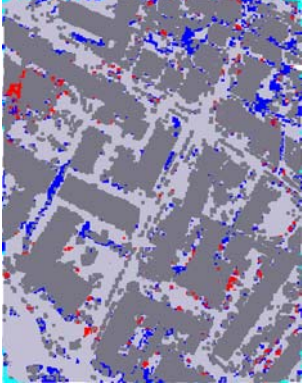
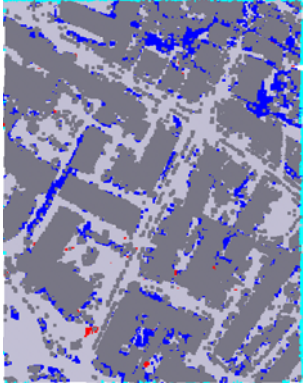
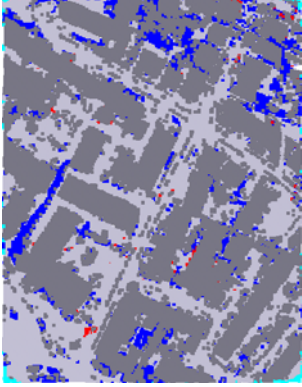
				<p>Elmqvist (Data not available)</p>	 <p>Sohn</p>
 <p>Axelsson</p>	 <p>Pfeifer et. al.</p>	<p>Brovelli (Data not available)</p>	 <p>Roggero</p>	 <p>Wack/ Wimmer</p>	 <p>Sithole/Vosselman</p>

- Heavy bias towards Type II errors in Sohn filter.
- Heavy bias towards Type I errors in Pfeifer, Brovelli, Roggero, Wack and Sithole filter.

Total 0

Elmqvist		Unused		0					
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.	
BE	0	0	0	Type I	0	0	0	0	
Obj	0	0	0	Type II	0	0	0	0	
	0	0	0	Total					
ratio BE-Obj/ Obj-BE									
Sohn		Unused		1274					
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.	
BE	7735	13561	21296	Type I	63.68%	-15.29	9.91	-0.88	2.45
Obj	762	14678	15440	Type II	4.94%	-7.59	2.65	-2.64	2.31
	8497	28239	36736	Total	38.99%				
	23.13%	76.87%							
ratio BE-Obj/ Obj-BE			17.80						
Axelsson		Unused		1257					
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.	
BE	9324	11971	21295	Type I	56.22%	-12.71	9.81	-0.84	1.83
Obj	283	15175	15458	Type II	1.83%	-6.36	6.63	-1.12	1.45
	9607	27146	36753	Total	33.34%				
	26.14%	73.86%							
ratio BE-Obj/ Obj-BE			42.30						
Pfeifer		Unused		1410					
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.	
BE	5983	15277	21260	Type I	71.86%	-16.37	7.99	-2.99	3.28
Obj	99	15241	15340	Type II	0.65%	-3.26	3.64	-0.09	1.11
	6082	30518	36600	Total	42.01%				
	16.62%	83.38%							
ratio BE-Obj/ Obj-BE			154.31						
Brovelli		Unused		2761					
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.	
BE	6217	14104	20321	Type I	69.41%	-9.57	10.27	0.06	1.48
Obj	318	14610	14928	Type II	2.13%	-6.78	0.33	-1.74	2
	6535	28714	35249	Total	40.91%				
	18.54%	81.46%							
ratio BE-Obj/ Obj-BE			44.35						
Roggero		Unused		1179					
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.	
BE	8988	12349	21337	Type I	57.88%	-15.86	8.75	-0.47	1.75
Obj	563	14931	15494	Type II	3.63%	-7.48	8.12	-1.58	1.83
	9551	27280	36831	Total	35.06%				
	25.93%	74.07%							
ratio BE-Obj/ Obj-BE			21.93						
Wack		Unused		1128					
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.	
BE	6358	14973	21331	Type I	70.19%	-5.12	13.35	0.91	1.81
Obj	819	14732	15551	Type II	5.27%	-14.85	0.71	-3.24	2.78
	7177	29705	36882	Total	42.82%				
	19.46%	80.54%							
ratio BE-Obj/ Obj-BE			18.28						
Sithole		Unused		1431					
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.	
BE	8415	12834	21249	Type I	60.40%	-16.37	10.55	-0.71	2.59
Obj	842	14488	15330	Type II	5.49%	-12.46	1.87	-3.05	2.63
	9257	27322	36579	Total	37.39%				
	25.31%	74.69%							
ratio BE-Obj/ Obj-BE			15.24						

B.18 Sample 12 (reduction 1)

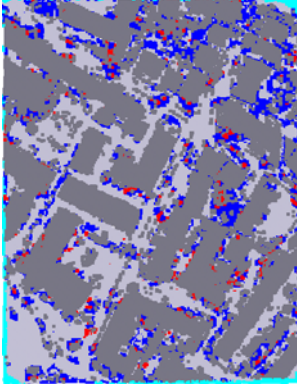
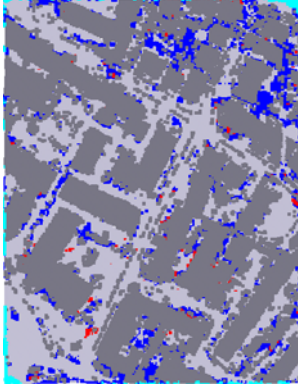
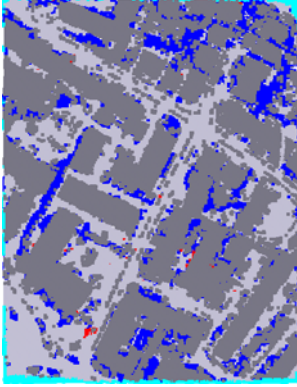
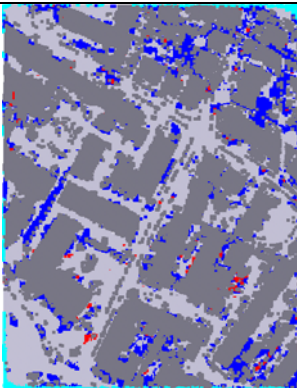
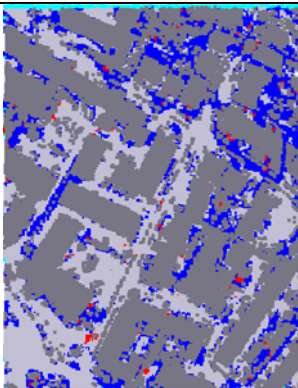
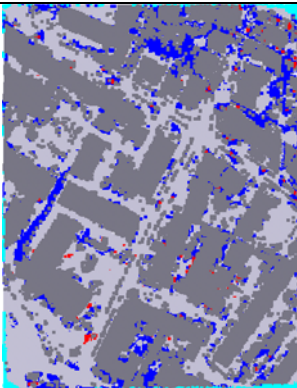
Elmqvist (Data not available)			
			

- Heavy bias towards Type II errors in Elmqvist and Sohn filter.
- Heavy bias towards Type I errors in Brovelli and Sithole filter.

Total 0

Elmqvist		Unused		0				
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.
BE	0	0	0	Type I	0	0	0	0
Obj	0	0	0	Type II	0	0	0	0
	0	0	0	Total				
ratio BE-Obj/ Obj-BE								
Sohn		Unused		710				
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.
BE	20805	5794	26599	Type I	21.78%	-4	12.82	0.49
Obj	2167	22643	24810	Type II	8.73%	-15.88	2.69	-2.69
	22972	28437	51409	Total	15.49%			
	44.68%	55.32%						
ratio BE-Obj/ Obj-BE			2.67					
Axelsson		Unused		646				
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.
BE	24056	2578	26634	Type I	9.68%	-4.59	2.75	-0.48
Obj	237	24602	24839	Type II	0.95%	-3.76	0.68	-0.15
	24293	27180	51473	Total	5.47%			
	47.20%	52.80%						
ratio BE-Obj/ Obj-BE			10.88					
Pfeifer		Unused		663				
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.
BE	22422	4202	26624	Type I	15.78%	-5.13	3.25	-0.88
Obj	150	24682	24832	Type II	0.60%	-0.58	0.96	0.01
	22572	28884	51456	Total	8.46%			
	43.87%	56.13%						
ratio BE-Obj/ Obj-BE			28.01					
Brovelli		Unused		3788				
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.
BE	14520	10367	24887	Type I	41.66%	-2.87	4	0.31
Obj	274	23170	23444	Type II	1.17%	-4.63	0.12	-1.11
	14794	33537	48331	Total	22.02%			
	30.61%	69.39%						
ratio BE-Obj/ Obj-BE			37.84					
Roggero		Unused		655				
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.
BE	23143	3485	26628	Type I	13.09%	-3.9	4.5	-0.2
Obj	698	24138	24836	Type II	2.81%	-5.3	7.44	-0.98
	23841	27623	51464	Total	8.13%			
	46.33%	53.67%						
ratio BE-Obj/ Obj-BE			4.99					
Wack		Unused		1194				
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.
BE	21156	5155	26311	Type I	19.59%	-3.83	3.03	-0.26
Obj	114	24500	24614	Type II	0.46%	-3.67	0.69	-0.09
	21270	29655	50925	Total	10.35%			
	41.77%	58.23%						
ratio BE-Obj/ Obj-BE			45.22					
Sithole		Unused		693				
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.
BE	21906	4701	26607	Type I	17.67%	-5.1	2.92	-0.89
Obj	179	24640	24819	Type II	0.72%	-2.3	0.93	-0.18
	22085	29341	51426	Total	9.49%			
	42.95%	57.05%						
ratio BE-Obj/ Obj-BE			26.26					

B.19 Sample 12 (reduction 2)

Elmqvist (Data not available)	 Sohn	 Axelsson	 Pfeifer et. al.
Brovelli (Data not available)	 Roggero	 Wack/ Wimmer	 Sithole/ Vosselman

- Heavy bias towards Type II errors in Elmqvist and Sohn filter.
- Heavy bias towards Type I errors in Brovelli and Sithole filter.

Total 0

Elmqvist		Unused		0					
Filtered									
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.	
BE	0	0	0	Type I	0	0	0	0	
Obj	0	0	0	Type II	0	0	0	0	
	0	0	0	Total					
ratio BE-Obj/ Obj-BE									
Sohn		Unused		1119					
Filtered									
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.	
BE	17600	8748	26348	Type I	33.20%	-4.28	11.01	0.54	0.99
Obj	886	23766	24652	Type II	3.59%	-17.95	0.43	-1.83	3.06
	18486	32514	51000	Total					18.89%
	36.25%	63.75%							
ratio BE-Obj/ Obj-BE			9.87						
Axelsson		Unused		914					
Filtered									
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.	
BE	20999	5465	26464	Type I	20.65%	-5.02	6.57	-0.21	1.02
Obj	256	24485	24741	Type II	1.03%	-2.68	0.94	-0.35	0.52
	21255	29950	51205	Total					11.17%
	41.51%	58.49%							
ratio BE-Obj/ Obj-BE			21.35						
Pfeifer		Unused		1265					
Filtered									
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.	
BE	19285	6954	26239	Type I	26.50%	-5.04	6.57	-0.62	0.9
Obj	115	24500	24615	Type II	0.47%	-1.7	3.02	0.06	0.38
	19400	31454	50854	Total					13.90%
	38.15%	61.85%							
ratio BE-Obj/ Obj-BE			60.47						
Brovelli		Unused							
Filtered									
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.	
BE				Type I					
Obj				Type II					
				Total					
ratio BE-Obj/ Obj-BE									
Roggero		Unused		1133					
Filtered									
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.	
BE	20038	6285	26323	Type I	23.88%	-5.02	6.56	-0.19	0.92
Obj	293	24370	24663	Type II	1.19%	-3.19	3.02	-0.54	0.75
	20331	30655	50986	Total					12.90%
	39.88%	60.12%							
ratio BE-Obj/ Obj-BE			21.45						
Wack		Unused		1194					
Filtered									
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.	
BE	15836	10475	26311	Type I	39.81%	-2.32	3.7	0.36	0.69
Obj	271	24343	24614	Type II	1.10%	-3.74	0.28	-0.55	0.64
	16107	34818	50925	Total					21.10%
	31.63%	68.37%							
ratio BE-Obj/ Obj-BE			38.65						
Sithole		Unused		1025					
Filtered									
Ref	BE	Obj		%	Min	Max	Mean	Std Dev.	
BE	20103	6305	26408	Type I	23.88%	-5.04	6.57	-0.22	1.09
Obj	258	24428	24686	Type II	1.05%	-2.64	0.94	-0.46	0.63
	20361	30733	51094	Total					12.84%
	39.85%	60.15%							
ratio BE-Obj/ Obj-BE			24.44						

Table B1 Comparison of errors at different resolutions (Sample 11 and 12)

		Original					Reduction 1					Reduction 2				
		%	Min	Max	Mean	Std Dev.	%	Min	Max	Mean	Std Dev.	%	Min	Max	Mean	Std Dev.
Sample 11		1 – 1.5m					2 – 3.5m					4 – 6m				
Elmqvist	I	0.34	-9.40	9.91	-0.24	1.42										
	II	0.04	-0.19	0.19	0.03	0.09										
UCL	I	0.27	-13.33	12.34	-1.19	1.95	0.43	-13.93	11.66	0.42	1.93	0.64	-15.29	9.91	-0.88	2.45
	II	0.12	-13.24	3.50	-2.62	2.58	0.13	-14.35	2.74	-2.78	2.25	0.05	-7.59	2.65	-2.64	2.31
Axelsson	I	0.16	-8.64	10.22	-1.54	1.38	0.35	-11.82	10.13	-0.94	1.56	0.56	-12.71	9.81	-0.84	1.83
	II	0.04	-6.40	3.80	-1.34	1.86	0.02	-6.54	2.86	-0.50	1.04	0.02	-6.36	6.63	-1.12	1.45
Pfeifer	I	0.28	-13.57	10.22	-1.79	1.68	0.51	-13.23	9.09	-1.71	1.82	0.72	-16.37	7.99	-2.99	3.28
	II	0.02	-6.26	3.80	-0.30	0.88	0.01	-1.38	2.79	0.03	0.62	0.01	-3.26	3.64	-0.09	1.11
Brovelli	I	0.62	-10.60	9.38	-0.34	1.92	0.69	-9.57	10.27	0.06	1.48					
	II	0.03	-9.29	0.39	-1.97	2.30	0.02	-6.78	0.33	-1.74	2.00					
Roggero	I	0.33	-14.99	2.47	-1.54	1.50	0.37	-13.49	9.86	-0.19	1.42	0.58	-15.86	8.75	-0.47	1.75
	II	0.04	-16.28	35.65	-0.65	3.12	0.10	-9.79	35.65	-1.88	2.12	0.04	-7.48	8.12	-1.58	1.83
Wack	I	0.39	-6.31	7.36	-0.11	1.15	0.54	-6.27	12.50	0.29	1.79	0.70	-5.12	13.35	0.91	1.81
	II	0.03	-7.19	1.89	-1.47	1.63	0.04	-14.76	2.65	-3.10	3.05	0.05	-14.85	0.71	-3.24	2.78
Sithole	I	0.38	-15.87	2.53	-3.15	2.73	0.47	-14.28	8.10	-1.98	2.28	0.60	-16.37	10.55	-0.71	2.59
	II	0.03	-9.27	11.48	-1.11	2.03	0.04	-9.27	6.63	-1.68	1.87	0.05	-12.46	1.87	-3.05	2.63
Sample 12		1 – 1.5m					2 – 3.5m					4 – 6m				
Elmqvist	I	0.12	-3.30	3.95	0.13	0.70										
	II	0.03	-0.18	0.19	0.05	0.09										
UCL	I	0.09	-4.22	11.64	0.04	1.39	0.22	-4.00	12.82	0.49	1.01	0.33	-4.28	11.01	0.54	0.99
	II	0.08	-19.65	3.65	-1.05	1.24	0.09	-15.88	2.69	-2.69	2.93	0.04	-17.95	0.43	-1.83	3.06
Axelsson	I	0.05	-5.30	2.10	-0.94	0.95	0.10	-4.59	2.75	-0.48	0.98	0.21	-5.02	6.57	-0.21	1.02
	II	0.01	-3.86	1.15	-0.48	0.91	0.01	-3.76	0.68	-0.15	0.38	0.01	-2.68	0.94	-0.35	0.52
Pfeifer	I	0.07	-5.52	-0.20	-1.10	0.98	0.16	-5.13	3.25	-0.88	0.97	0.27	-5.04	6.57	-0.62	0.90
	II	0.02	-1.51	2.28	-0.17	0.43	0.01	-0.58	0.96	0.01	0.24	0.00	-1.70	3.02	0.06	0.38
Brovelli	I	0.30	-3.43	3.63	0.26	0.56	0.42	-2.87	4.00	0.31	0.65					
	II	0.02	-4.54	0.30	-1.05	1.40	0.01	-4.63	0.12	-1.11	1.45					
Roggero	I	0.12	-81.22	0.42	-1.12	2.89	0.13	-3.90	4.50	-0.20	0.91	0.24	-5.02	6.56	-0.19	0.92
	II	0.01	-2.58	81.57	1.19	6.62	0.03	-5.30	7.44	-0.98	1.10	0.01	-3.19	3.02	-0.54	0.75
Wack	I	0.12	-5.21	2.03	-0.40	0.87	0.20	-3.83	3.03	-0.26	0.74	0.40	-2.32	3.70	0.36	0.69
	II	0.01	-3.93	0.80	-0.32	0.75	0.00	-3.67	0.69	-0.09	0.47	0.01	-3.74	0.28	-0.55	0.64
Sithole	I	0.19	-5.54	1.12	-1.04	0.90	0.18	-5.10	2.92	-0.89	0.97	0.24	-5.04	6.57	-0.22	1.09
	II	0.01	-1.80	2.87	0.13	0.61	0.01	-2.30	0.93	-0.18	0.49	0.01	-2.64	0.94	-0.46	0.63

B.20 Site 1

Total

Elmqvist		Unused									
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE					Type I						
Obj					Type II						
ratio BE-Obj/ Obj-BE					Total						
UCL		Unused				9900					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	327250	68518	395768	62.49%	Type I	17.31%	-42.01	34.58	-2.09	2.77	
Obj	14751	222804	237555	37.51%	Type II	6.21%	-19.65	42.18	-2	3.31	
	342001	291322	633323		Total						
	54.00%	46.00%			13.15%						
ratio BE-Obj/ Obj-BE					4.64						
Axelsson		Unused				22435					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	323621	62329	385950	62.17%	Type I	16.15%	-27.06	36.01	-2.45	1.98	
Obj	4812	230026	234838	37.83%	Type II	2.05%	-10.87	27.36	-1.21	3.86	
	328433	292355	620788		Total						
	52.91%	47.09%			10.82%						
ratio BE-Obj/ Obj-BE					12.95						
Pfeifer		Unused				10314					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	311797	83466	395263	62.45%	Type I	21.12%	-17.25	35.07	-2.36	1.78	
Obj	4182	233464	237646	37.55%	Type II	1.76%	-13.24	6.14	-1.33	2.36	
	315979	316930	632909		Total						
	49.92%	50.08%			13.85%						
ratio BE-Obj/ Obj-BE					19.96						
Brovelli		Unused				3759					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	291444	109447	400891	62.69%	Type I	27.30%	-17.45	36.12	-0.93	2.22	
Obj	8897	229676	238573	37.31%	Type II	3.73%	-21.31	4.49	-2.24	3.1	
	300341	339123	639464		Total						
	46.97%	53.03%			18.51%						
ratio BE-Obj/ Obj-BE					12.30						
Roggero		Unused				10071					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	287953	107605	395558	62.47%	Type I	27.20%	-81.22	2.12	-2.4	2.07	
Obj	3389	234205	237594	37.53%	Type II	1.43%	-16.07	239.96	0.41	7.62	
	291342	341810	633152		Total						
	46.01%	53.99%			17.53%						
ratio BE-Obj/ Obj-BE					31.75						
Wack		Unused				4274					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	315390	84891	400281	62.65%	Type I	21.21%	-17	36.05	-1.81	2.11	
Obj	5510	233158	238668	37.35%	Type II	2.31%	-11.22	4.08	-1.45	2.34	
	320900	318049	638949		Total						
	50.22%	49.78%			14.15%						
ratio BE-Obj/ Obj-BE					15.41						
Sithole		Unused				5822					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	261091	137919	399010	62.60%	Type I	34.57%	-42.28	34.83	-2.58	2.39	
Obj	4626	233765	238391	37.40%	Type II	1.94%	-15.13	42.5	-2.76	5.08	
	265717	371684	637401		Total						
	41.69%	58.31%			22.36%						
ratio BE-Obj/ Obj-BE					29.81						

B.21 Site 1 (reduction 1)

Total

Elmqvist		Unused									
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE					Type I						
Obj					Type II						
ratio BE-Obj/ Obj-BE					Total						
UCL		Unused				677					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	85844	14788	100632	62.35%	Type I	14.70%	-25.38	34.86	-0.84	3	
Obj	9393	51381	60774	37.65%	Type II	15.46%	-15.12	26.74	-2.19	2.29	
	95237	66169	161406		Total						
	59.00%	41.00%			14.98%						
ratio BE-Obj/ Obj-BE					1.57						
Axelsson		Unused				1408					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	82235	17794	100029	62.26%	Type I	17.79%	-26.01	34.83	-2.56	2.08	
Obj	1237	59409	60646	37.74%	Type II	2.04%	-7.11	26.77	-0.28	3.33	
	83472	77203	160675		Total						
	51.95%	48.05%			11.84%						
ratio BE-Obj/ Obj-BE					14.38						
Pfeifer		Unused				539					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	70967	29760	100727	62.35%	Type I	29.55%	-14.07	34.29	-2.36	1.82	
Obj	738	60079	60817	37.65%	Type II	1.21%	-7.54	7.27	-0.43	1.12	
	71705	89839	161544		Total						
	44.39%	55.61%			18.88%						
ratio BE-Obj/ Obj-BE					40.33						
Brovelli		Unused				874					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	63525	37097	100622	62.42%	Type I	36.87%	-30.54	35.8	-1.01	3.26	
Obj	2013	58574	60587	37.58%	Type II	3.32%	-15.71	1.32	-2.25	3.04	
	65538	95671	161209		Total						
	40.65%	59.35%			24.26%						
ratio BE-Obj/ Obj-BE					18.43						
Roggero		Unused				876					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	81466	18950	100416	62.29%	Type I	18.87%	-41.1	2.04	-2.77	2.55	
Obj	3623	57168	60791	37.71%	Type II	5.96%	-10.88	75.78	-1.18	3.15	
	85089	76118	161207		Total						
	52.78%	47.22%			14.00%						
ratio BE-Obj/ Obj-BE					5.23						
Wack		Unused				757					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	74268	26404	100672	62.40%	Type I	26.23%	-21.58	36.19	-1.3	2.29	
Obj	1519	59135	60654	37.60%	Type II	2.50%	-12.85	2.67	-1.62	2.29	
	75787	85539	161326		Total						
	46.98%	53.02%			17.31%						
ratio BE-Obj/ Obj-BE					17.38						
Sithole		Unused				509					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	122137	37251	159388	61.11%	Type I	23.37%	-25.21	36.03	-2.32	1.92	
Obj	4330	97110	101440	38.89%	Type II	4.27%	-22.61	26.71	-2.3	4.03	
	126467	134361	260828		Total						
	48.49%	51.51%			15.94%						
ratio BE-Obj/ Obj-BE					8.60						

B.22 Site 1 (reduction 2)

Total

Elmqvist		Unused									
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE					Type I						
Obj					Type II						
ratio BE-Obj/ Obj-BE					Total						
UCL		Unused				24					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	20263	5148	25411	62.41%	Type I	20.26%	-24.06	14.62	-1.67	3.19	
Obj	1825	13483	15308	37.59%	Type II	11.92%	-17.86	23.88	-1.98	2.27	
	22088	18631	40719		Total						
	54.24%	45.76%			17.12%						
ratio BE-Obj/ Obj-BE					2.82						
Axelsson		Unused				151					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	20386	4917	25303	62.33%	Type I	19.43%	-13.38	13.56	-2.75	2.15	
Obj	488	14801	15289	37.67%	Type II	3.19%	-8.84	2.82	-1.07	1.85	
	20874	19718	40592		Total						
	51.42%	48.58%			13.32%						
ratio BE-Obj/ Obj-BE					10.08						
Pfeifer		Unused				160					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	15767	9528	25295	62.33%	Type I	37.67%	-13.37	17.99	-2.34	2.03	
Obj	177	15111	15288	37.67%	Type II	1.16%	-8.84	2.82	-0.4	1.34	
	15944	24639	40583		Total						
	39.29%	60.71%			23.91%						
ratio BE-Obj/ Obj-BE					53.83						
Brovelli		Unused				393					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	0	25174	25174	62.39%	Type I	100.00%	-416.68	-288.19	-347.37	30.98	
Obj	0	15176	15176	37.61%	Type II	0.00%	0	0	-100000	-100000	
	0	40350	40350		Total						
	0.00%	100.00%			62.39%						
ratio BE-Obj/ Obj-BE					#####						
Roggero		Unused				161					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	19226	6068	25294	62.33%	Type I	23.99%	-16.56	2.38	-2.56	1.93	
Obj	697	14591	15288	37.67%	Type II	4.56%	-20.61	27.66	-1.25	4.17	
	19923	20659	40582		Total						
	49.09%	50.91%			16.67%						
ratio BE-Obj/ Obj-BE					8.71						
Wack		Unused				182					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	16663	8645	25308	62.39%	Type I	34.16%	-46.53	20.88	-0.46	3.4	
Obj	854	14399	15253	37.61%	Type II	5.60%	-20.31	2.25	-2.44	3.54	
	17517	23044	40561		Total						
	43.19%	56.81%			23.42%						
ratio BE-Obj/ Obj-BE					10.12						
Sithole		Unused				49					
Ref	BE	Obj			Type I	%	Min	Max	Mean	Std Dev.	
BE	32470	7752	40222	61.16%	Type I	19.27%	-14.53	17.44	-1.88	2.23	
Obj	2040	23500	25540	38.84%	Type II	7.99%	-25.28	3.57	-2.94	3.8	
	34510	31252	65762		Total						
	52.48%	47.52%			14.89%						
ratio BE-Obj/ Obj-BE					3.80						

B.23 Site 8

Total

Elmqvist		Unused									
Ref	Filtered						%	Min	Max	Mean	Std Dev.
BE		Obj				Type I					
Obj						Type II					
						Total					
			ratio BE-Obj/ Obj-BE								
UCL		Unused				49					
Ref	Filtered						%	Min	Max	Mean	Std Dev.
BE	152718	Obj 4380	157098	90.84%	Type I	2.79%	-16.85	9.18	-2.62	3.66	
Obj	835	14999	15834	9.16%	Type II	5.27%	-5.48	1.19	-0.82	0.65	
			153553	19379	172932	Total	3.02%				
			88.79%	11.21%							
			ratio BE-Obj/ Obj-BE	5.25							
Axelsson		Unused				480					
Ref	Filtered						%	Min	Max	Mean	Std Dev.
BE	155774	Obj 897	156671	90.82%	Type I	0.57%	-14.01	3.81	-2.06	3	
Obj	1237	14593	15830	9.18%	Type II	7.81%	-5.03	1.49	-1.09	0.79	
			157011	15490	172501	Total	1.24%				
			91.02%	8.98%							
			ratio BE-Obj/ Obj-BE	0.73							
Pfeifer		Unused				111					
Ref	Filtered						%	Min	Max	Mean	Std Dev.
BE	152460	Obj 4567	157027	90.84%	Type I	2.91%	-17.9	2.26	-1.63	2.15	
Obj	240	15603	15843	9.16%	Type II	1.51%	-1.95	1.49	-0.16	0.44	
			152700	20170	172870	Total	2.78%				
			88.33%	11.67%							
			ratio BE-Obj/ Obj-BE	19.03							
Brovelli		Unused				1190					
Ref	Filtered						%	Min	Max	Mean	Std Dev.
BE	148858	Obj 7195	156053	90.84%	Type I	4.61%	-17.9	5.48	-0.85	2.87	
Obj	631	15107	15738	9.16%	Type II	4.01%	-6.49	1.28	-0.74	0.84	
			149489	22302	171791	Total	4.56%				
			87.02%	12.98%							
			ratio BE-Obj/ Obj-BE	11.40							
Roggero		Unused				310					
Ref	Filtered						%	Min	Max	Mean	Std Dev.
BE	149257	Obj 7626	156883	90.86%	Type I	4.86%	-17.13	6.54	-1.82	2.16	
Obj	619	15169	15788	9.14%	Type II	3.92%	-6.43	1.11	-0.87	0.96	
			149876	22795	172671	Total	4.77%				
			86.80%	13.20%							
			ratio BE-Obj/ Obj-BE	12.32							
Wack		Unused				553					
Ref	Filtered						%	Min	Max	Mean	Std Dev.
BE	151404	Obj 5241	156645	90.85%	Type I	3.35%	-276.72	7.77	-3.07	16.05	
Obj	474	15309	15783	9.15%	Type II	3.00%	-3.39	0.58	-0.45	0.54	
			151878	20550	172428	Total	3.31%				
			88.08%	11.92%							
			ratio BE-Obj/ Obj-BE	11.06							
Sithole		Unused				76					
Ref	Filtered						%	Min	Max	Mean	Std Dev.
BE	149158	Obj 7903	157061	90.84%	Type I	5.03%	-17.11	3.27	-1.83	1.85	
Obj	534	15310	15844	9.16%	Type II	3.37%	-13.57	1.49	-1.14	1.89	
			149692	23213	172905	Total	4.88%				
			86.57%	13.43%							
			ratio BE-Obj/ Obj-BE	14.80							

B.24 Site 8 (reduction 1)

Total

Elmqvist		Unused									
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE					Type I						
Obj					Type II						
					Total						
			ratio BE-Obj/ Obj-BE								
UCL		Unused								13	
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	37704	1449	39153	90.75%	Type I	3.70%	-16.17	19.04	-1.72	4.01	
Obj	671	3322	3993	9.25%	Type II	16.80%	-8.88	1.21	-1.65	0.99	
			38375	4771	43146	Total	4.91%				
			88.94%	11.06%							
			ratio BE-Obj/ Obj-BE								2.16
Axelsson		Unused								78	
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	38570	540	39110	90.78%	Type I	1.38%	-16.18	4.61	-3.83	4.16	
Obj	519	3452	3971	9.22%	Type II	13.07%	-4.29	1.09	-1.21	0.68	
			39089	3992	43081	Total	2.46%				
			90.73%	9.27%							
			ratio BE-Obj/ Obj-BE								1.04
Pfeifer		Unused								51	
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	35871	3247	39118	90.74%	Type I	8.30%	-16.18	3.29	-1.5	1.54	
Obj	41	3949	3990	9.26%	Type II	1.03%	-0.8	1.44	0.14	0.4	
			35912	7196	43108	Total	7.63%				
			83.31%	16.69%							
			ratio BE-Obj/ Obj-BE								79.20
Brovelli		Unused								554	
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	35355	3296	38651	90.72%	Type I	8.53%	-18.13	4.91	-0.05	1.97	
Obj	193	3761	3954	9.28%	Type II	4.88%	-5.66	0.78	-0.92	0.82	
			35548	7057	42605	Total	8.19%				
			83.44%	16.56%							
			ratio BE-Obj/ Obj-BE								17.08
Roggero		Unused								384	
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	34784	4050	38834	90.79%	Type I	10.43%	-20.19	7.13	-2.89	3.07	
Obj	183	3758	3941	9.21%	Type II	4.64%	-2.99	1.23	-0.94	0.81	
			34967	7808	42775	Total	9.90%				
			81.75%	18.25%							
			ratio BE-Obj/ Obj-BE								22.13
Wack		Unused								144	
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	36446	2590	39036	90.75%	Type I	6.63%	-276.82	8.58	-4.72	21.54	
Obj	329	3650	3979	9.25%	Type II	8.27%	-3.99	0.18	-1.1	0.75	
			36775	6240	43015	Total	6.79%				
			85.49%	14.51%							
			ratio BE-Obj/ Obj-BE								7.87
Sithole		Unused								16	
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.		
BE	37500	1650	39150	90.74%	Type I	4.21%	-16.16	15.85	-1.68	1.99	
Obj	393	3600	3993	9.26%	Type II	9.84%	-46.53	1.23	-1.75	2.83	
			37893	5250	43143	Total	4.74%				
			87.83%	12.17%							
			ratio BE-Obj/ Obj-BE								4.20

B.25 Site 8 (reduction 2)

Total

Elmqvist		Unused								
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.	
BE				Type I						
Obj				Type II						
				Total						
			ratio BE-Obj/ Obj-BE							
UCL		Unused		9						
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.	
BE	9177	676	9853	90.83%	Type I	6.86%	-15.97	11.13	-2.75	3.55
Obj	144	851	995	9.17%	Type II	14.47%	-4.15	0.96	-1.45	0.82
			9321	1527	10848	Total	7.56%			
			85.92%	14.08%	ratio BE-Obj/ Obj-BE	4.69				
Axelsson		Unused		105						
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.	
BE	9356	421	9777	90.93%	Type I	4.31%	-17.46	5.55	-3.78	4.01
Obj	139	836	975	9.07%	Type II	14.26%	-4.03	1.05	-1.07	0.71
			9495	1257	10752	Total	5.21%			
			88.31%	11.69%	ratio BE-Obj/ Obj-BE	3.03				
Pfeifer		Unused		9						
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.	
BE	9272	581	9853	90.83%	Type I	5.90%	-16.14	0.87	-2.33	1.9
Obj	50	945	995	9.17%	Type II	5.03%	-3.36	1.05	-0.53	0.74
			9322	1526	10848	Total	5.82%			
			85.93%	14.07%	ratio BE-Obj/ Obj-BE	11.62				
Brovelli		Unused		207						
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.	
BE	8371	1292	9663	90.73%	Type I	13.37%	-15.87	4.41	-1.24	2.85
Obj	53	934	987	9.27%	Type II	5.37%	-3.59	0.6	-0.67	0.77
			8424	2226	10650	Total	12.63%			
			79.10%	20.90%	ratio BE-Obj/ Obj-BE	24.38				
Roggero		Unused		199						
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.	
BE	8559	1125	9684	90.86%	Type I	11.62%	-19.09	5.95	-2.88	3.21
Obj	56	918	974	9.14%	Type II	5.75%	-4.02	1.05	-0.73	0.82
			8615	2043	10658	Total	11.08%			
			80.83%	19.17%	ratio BE-Obj/ Obj-BE	20.09				
Wack		Unused		57						
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.	
BE	6478	3331	9809	90.82%	Type I	33.96%	-290.44	11.1	-55.98	59.41
Obj	52	939	991	9.18%	Type II	5.25%	-4.65	0.31	-0.99	0.91
			6530	4270	10800	Total	31.32%			
			60.46%	39.54%	ratio BE-Obj/ Obj-BE	64.06				
Sithole		Unused								
Ref	BE	Obj			%	Min	Max	Mean	Std Dev.	
BE				Type I						
Obj				Type II						
				Total						
			ratio BE-Obj/ Obj-BE							

Table B2 Comparison of errors at different resolutions (Sites 1 and 8)

		Original					Reduction 1					Reduction 2				
		%	Min	Max	Mean	Std Dev.	%	Min	Max	Mean	Std Dev.	%	Min	Max	Mean	Std Dev.
Site 1		1 – 1.5m					2 – 3.5m					4 – 6m				
Elmqvist	I															
	II															
UCL	I	0.17	-42.01	34.58	-2.09	2.77	0.15	-25.38	34.86	-0.84	3.00	0.20	-24.06	14.62	-1.67	3.19
	II	0.06	-19.65	42.18	-2.00	3.31	0.15	-15.12	26.74	-2.19	2.29	0.12	-17.86	23.88	-1.98	2.27
Axelsson	I	0.16	-27.06	36.01	-2.45	1.98	0.18	-26.01	34.83	-2.56	2.08	0.19	-13.38	13.56	-2.75	2.15
	II	0.02	-10.87	27.36	-1.21	3.86	0.02	-7.11	26.77	-0.28	3.33	0.03	-8.84	2.82	-1.07	1.85
Pfeifer	I	0.21	-17.25	35.07	-2.36	1.78	0.30	-14.07	34.29	-2.36	1.82	0.38	-13.37	17.99	-2.34	2.03
	II	0.02	-13.24	6.14	-1.33	2.36	0.01	-7.54	7.27	-0.43	1.12	0.01	-8.84	2.82	-0.40	1.34
Brovelli	I	0.27	-17.45	36.12	-0.93	2.22	0.37	-30.54	35.80	-1.01	3.26	1.00	-416.68	-288.19	-347.37	30.98
	II	0.04	-21.31	4.49	-2.24	3.10	0.03	-15.71	1.32	-2.25	3.04	0.00	0.00	0.00		
Roggero	I	0.27	-81.22	2.12	-2.40	2.07	0.19	-41.10	2.04	-2.77	2.55	0.24	-16.56	2.38	-2.56	1.93
	II	0.01	-16.07	239.96	0.41	7.62	0.06	-10.88	75.78	-1.18	3.15	0.05	-20.61	27.66	-1.25	4.17
Wack	I	0.21	-17.00	36.05	-1.81	2.11	0.26	-21.58	36.19	-1.30	2.29	0.34	-46.53	20.88	-0.46	3.40
	II	0.02	-11.22	4.08	-1.45	2.34	0.03	-12.85	2.67	-1.62	2.29	0.06	-20.31	2.25	-2.44	3.54
Sithole	I	0.35	-42.28	34.83	-2.58	2.39	0.23	-25.21	36.03	-2.32	1.92	0.19	-14.53	17.44	-1.88	2.23
	II	0.02	-15.13	42.50	-2.76	5.08	0.04	-22.61	26.71	-2.30	4.03	0.08	-25.28	3.57	-2.94	3.80
Site 8		2 – 3.5m					4 – 5.5m					7 – 10m				
Elmqvist	I															
	II															
UCL	I	0.03	-16.85	9.18	-2.62	3.66	0.04	-16.17	19.04	-1.72	4.01	0.07	-15.97	11.13	-2.75	3.55
	II	0.05	-5.48	1.19	-0.82	0.65	0.17	-8.88	1.21	-1.65	0.99	0.14	-4.15	0.96	-1.45	0.82
Axelsson	I	0.01	-14.01	3.81	-2.06	3.00	0.01	-16.18	4.61	-3.83	4.16	0.04	-17.46	5.55	-3.78	4.01
	II	0.08	-5.03	1.49	-1.09	0.79	0.13	-4.29	1.09	-1.21	0.68	0.14	-4.03	1.05	-1.07	0.71
Pfeifer	I	0.03	-17.90	2.26	-1.63	2.15	0.08	-16.18	3.29	-1.50	1.54	0.06	-16.14	0.87	-2.33	1.90
	II	0.02	-1.95	1.49	-0.16	0.44	0.01	-0.80	1.44	0.14	0.40	0.05	-3.36	1.05	-0.53	0.74
Brovelli	I	0.05	-17.90	5.48	-0.85	2.87	0.09	-18.13	4.91	-0.05	1.97	0.13	-15.87	4.41	-1.24	2.85
	II	0.04	-6.49	1.28	-0.74	0.84	0.05	-5.66	0.78	-0.92	0.82	0.05	-3.59	0.60	-0.67	0.77
Roggero	I	0.05	-17.13	6.54	-1.82	2.16	0.10	-20.19	7.13	-2.89	3.07	0.12	-19.09	5.95	-2.88	3.21
	II	0.04	-6.43	1.11	-0.87	0.96	0.05	-2.99	1.23	-0.94	0.81	0.06	-4.02	1.05	-0.73	0.82
Wack	I	0.03	-276.72	7.77	-3.07	16.05	0.07	-276.82	8.58	-4.72	21.54	0.34	-290.44	11.10	-55.98	59.41
	II	0.03	-3.39	0.58	-0.45	0.54	0.08	-3.99	0.18	-1.10	0.75	0.05	-4.65	0.31	-0.99	0.91
Sithole	I	0.05	-17.11	3.27	-1.83	1.85	0.04	-16.16	15.85	-1.68	1.99					
	II	0.03	-13.57	1.49	-1.14	1.89	0.10	-46.53	1.23	-1.75	2.83					