
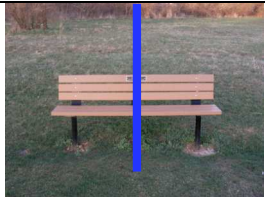
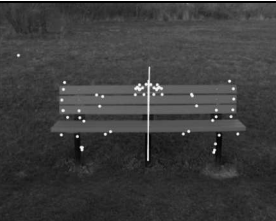










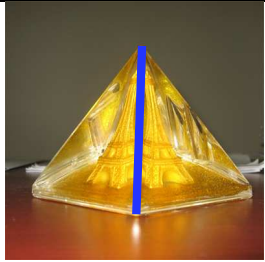
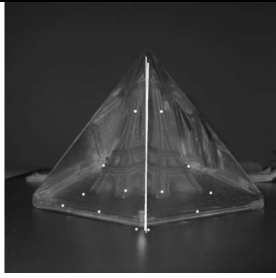



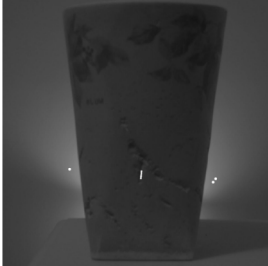











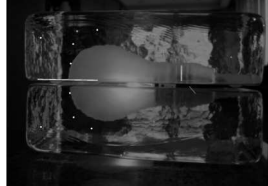


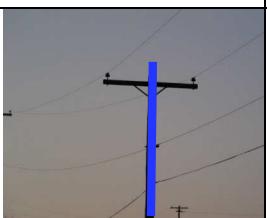
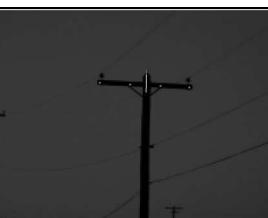

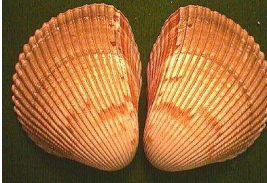
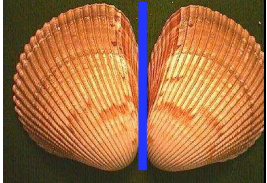
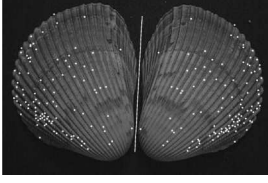







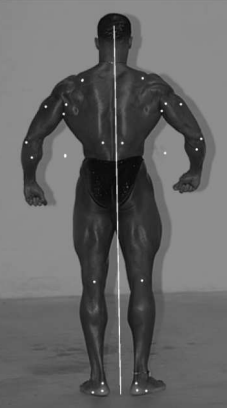
















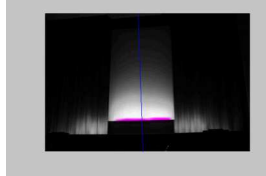


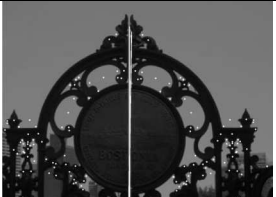


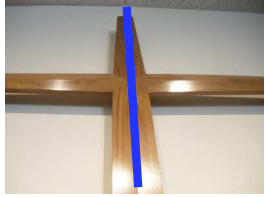












### Category I – Single Real Reflection


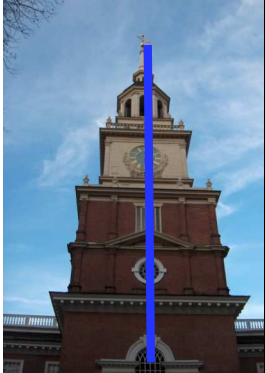








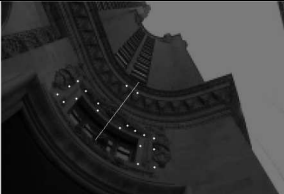







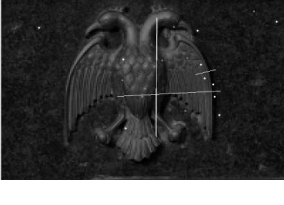

Single Real image (31 images)											
	Original Image	Ground Truth	Description /Challenges	Loy and Eklundh 2006	Liu et al 2005	Loy and Eklundh 2006			Liu et al 2005		
						S1	S2	GT,TP,FP	S1	S2	GT/TP/FP
1			Real single reflection image and many random textures on BG			1	1	1/1/0	0	0	1/0/0
2			Real single near reflection symmetry			1	1	1/1/0	1	0	1/1/1
3			Photo, single reflection axis, inexact symmetry			1	0	1/1/1	0	0	1/0/0
4			Real photo, single reflection symmetry, transparency and smooth surface			1	1	1/1/0	0	0	1/0/0

5			Real photo, single reflection symmetry and local difference between left and right plane			1	1	1/1/0	0	0	1/0/0
6			Real photo, single reflection and similar texture in background and foreground.			1	1	1/1/0	0	0	1/0/0
7			Real photo, single near reflection symmetry and skewed			0	-4	1/0/4	0	0	1/0/0
8			Real photo, single reflection and color difference due to shadows.			1	1	1/1/0	0	0	1/0/0
9			Real photo, Single reflection Low texture, wiry structure			1	1	1/1/0	0	0	1/0/0
10			Real photo, single near reflection, rich texture			1	1	1/1/0	0	0	1/0/0

11			Real photo, single reflection, cluttered			1	1	1/1/0	0	0	1/0/0
12			Real photo, single reflection, near-regular, shiny surface			1	1	1/1/0	1	1	1/1/0
13			Real photo, single near reflection with small supporting region			1	1	1/1/0	0	0	1/0/0
14			Real photo, single near reflection and low textures on target			1	0	1/1/1	1	1	1/1/0

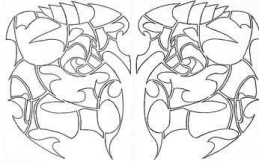
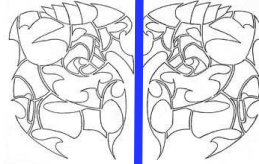
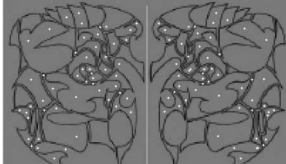
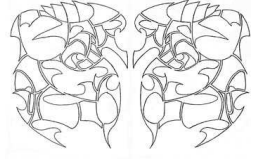

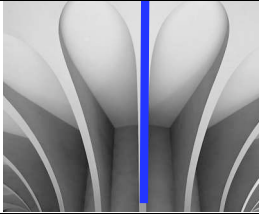
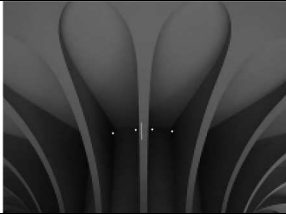
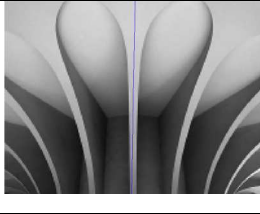

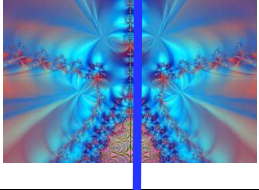
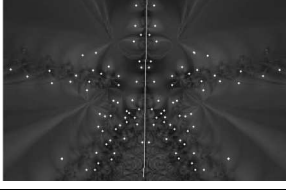

15			Real photo, single reflection			1	1	1/1/0	1	1	1/1/0
16			Real photo, single reflection and gradient surface			1	1	1/1/0	1	1	1/1/0
17			Real photo, single reflection			1	1	1/1/0	1	1	1/1/0
18			Real photo, single reflection and low texture			1	1	1/1/0	0	0	1/0/0
19			Real photo, single reflection and low texture			0	0	1/0/0	0	0	1/0/0
20			Real photo, single reflection and contrast texture in FG and BG			1	1	1/1/0	0	0	1/0/0


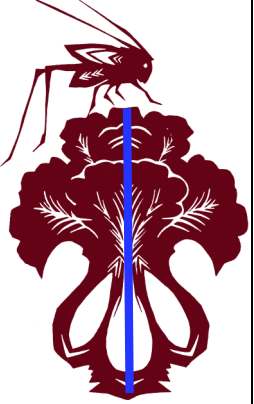
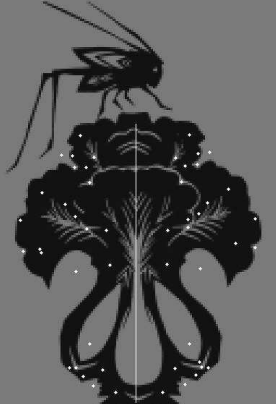
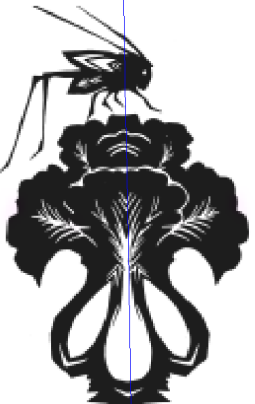
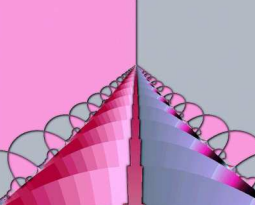
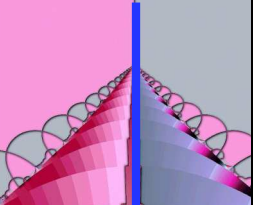
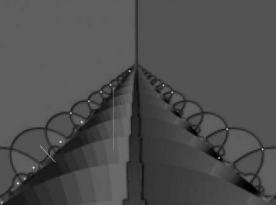
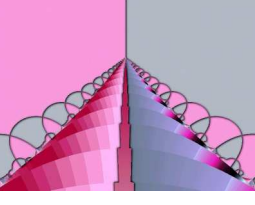











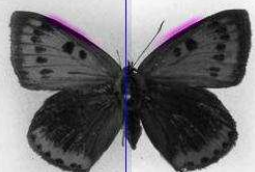
21			Real photo, single reflection and low texture			1	1	1/1/0	0	0	1/0/0
22			Real photo, off-centered single symmetry cluttered BG			0	-4	1/0/4	0	0	1/0/0
23			Real photo, single symmetry			1	1	1/1/0	1	1	1/1/0
24			Real photo, single symmetry			1	1	1/1/0	1	0	1/1/1
25			Real photo, single symmetry with two different small supporting regions			1	0	1/1/1	0	0	1/0/0

26			Real photo, single symmetry			1	1	1/1/0	0	0	1/0/0
27			Real photo, single symmetry			0	-8	1/0/8	0	0	1/0/0
28			Real photo, single symmetry			0	-1	1/0/1	0	0	1/0/0
29			Real photo, single symmetry			1	1	1/1/0	1	1	1/1/0
30			Real photo, single symmetry lighting reflection on the target surface			0	-3	1/0/3	0	0	1/0/0

31			Real photo, single symmetry			1	1	1/1/0	0	0	1/0/0
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**Category II – Single Synthetic Reflection**

Single Synthetic Image (13 images)											
	Original Image	Ground Truth	Description /Challenges	Loy and Eklundh 2006	Liu et al 2005	Loy and Eklundh 2006			Liu et al 2005		
						S1	S2	GT/TP/FP	S1	S2	GT/TP/FP
1			Single bilateral symmetry,			1	1	1/1/0	0	0	1/0/0
2			Single bilateral symmetry, smooth surface			1	1	1/1/0	1	1	1/1/0
3			Single bilateral symmetry,			1	1	1/1/0	0	0	1/0/0








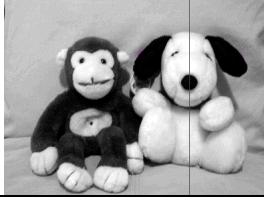



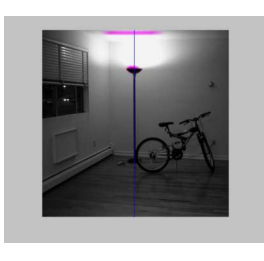

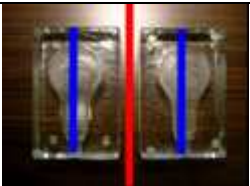
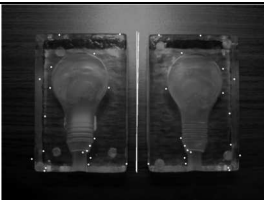
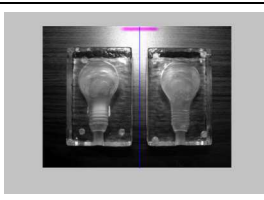
4			Single bilateral symmetry, local asymmetry			1	1	1/1/0	1	1	1/1/0
5			Single bilateral symmetry with color difference			0	-2	1/0/2	0	0	1/0/0
6			Near symmetry			1	1	1/1/0	1	0	1/1/1
7			Near symmetry			1	1	1/1/0	1	1	1/1/0
8			Color difference.			1	1	1/1/0	1	1	1/1/0


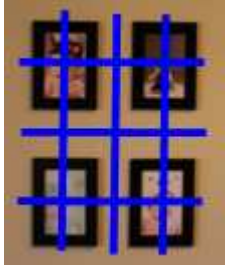
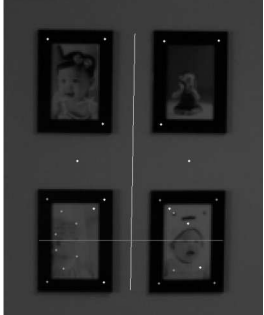



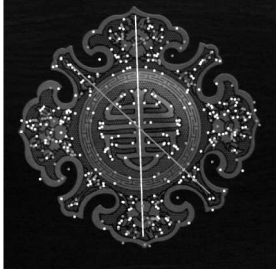



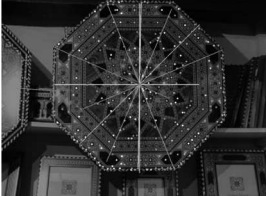



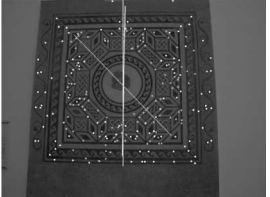












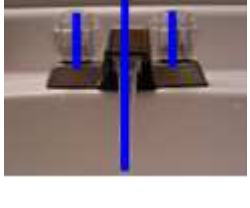












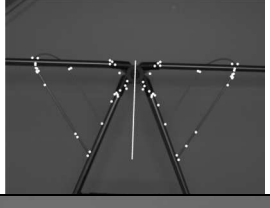


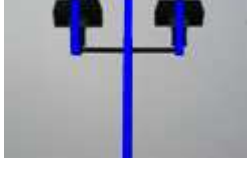

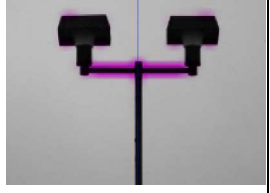
9			Background/ Foreground in similar colors.			1	1	1/1/0	0	0	1/0/0
10			Skewed; Color variation; High texture.			1	1	1/1/0	0	0	1/0/0
11			Single bilateral symmetry,			1	1	1/1/0	1	1	1/1/0
12			Single bilateral symmetry, highly textured lower half.			1	1	1/1/0	1	1	1/1/0






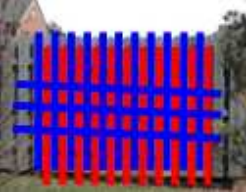
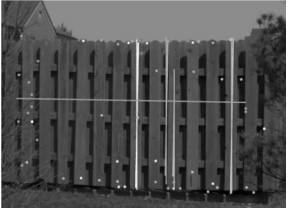











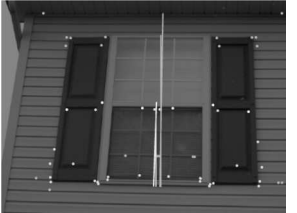




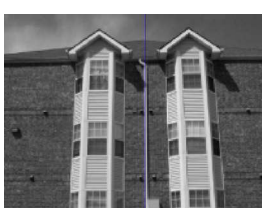
13			Single bilateral symmetry			1	1	1/1/0	1	1	1/1/0
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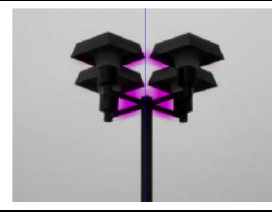







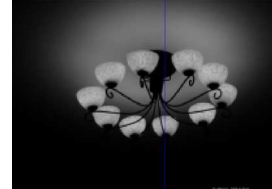








Category III – Multiple Real Reflection

Multiple Real Images(27 images)											
	Original Image	Ground Truth	Description /Challenges	Loy and Eklundh 2006	Liu et al 2005	Loy and Eklundh 2006			Liu et al 2005		
						S1	S2	GT/TP/FP	S1	S2	GT/TP/FP
1			Real photo, multiple symmetry axes, skewed			1/3	1/3	3/1/0	1/3	1/3	3/1/0
2			Real photo, multiple symmetry axes, near symmetry			1	1	2/2/0	¼	¼	2/1/0
3			Real photo, multiple symmetry axes,			2/3	2/3	3/2/0	1/3	1/3	3/1/0
4			Real photo, multiple symmetry axes, lighting difference			1/3	1/3	3/1/0	1/3	1/3	3/1/0

			Real photo, multiple symmetry axes, asymmetry inside the frame			1/3	1/3	6/2/0	1/6	1/6	6/1/0
6			Real photo, multiple symmetry axes, asymmetry at the center for 45,90,135 degree axis			1/4	1/2	4/2/0	1	1	4/4/0
7			Real photo, multiple symmetry axes			7/8	7/8	8/7/0	0	0	8/0/0
8			Real photo, multiple symmetry axes, skewed			1/4	1/4	4/2/0	0	0	4/0/0
9			Real photo, multiple near symmetry axes,			1/4	1/4	4/1/0	0	0	4/0/0



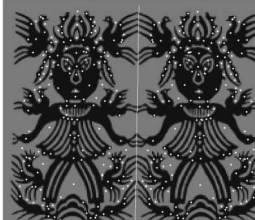

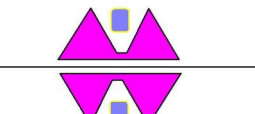
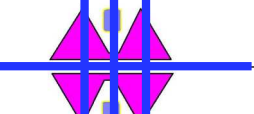

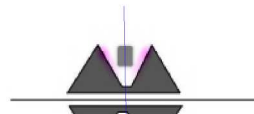





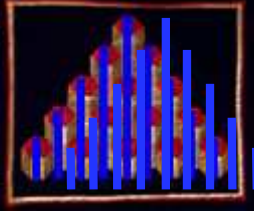
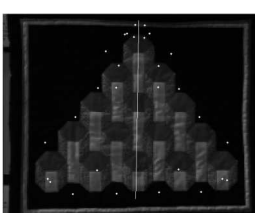
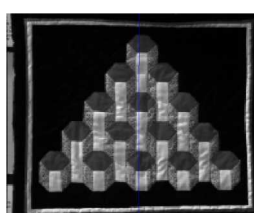
10			Real photo, multiple symmetry axes, skewed and texture distracters			0	-5	2/0/10	0	0	2/0/0
11			Real photo, multiple symmetry axes, low texture			1/3	1/3	3/1/0	0	0	3/0/0
12			Real photo, multiple symmetry axes, low texture			1/4	0	2/1/1	0	0	2/0/0
13			Real photo, multiple symmetry axes, cluttered Texture.			1	-2	2/2/6	0	0	2/0//0
14			Real photo, multiple symmetry axes, low texture			1/3	1/3	3/1/0	0	0	3/0/0
15			Real photo, multiple symmetry axes, low texture			1/3	1/3	3/1/0	1/3	1/3	3/1/0

16			Real photo, multiple symmetry axes with present of asymmetries due to transparent material			1/2	1/2	1/2/0	1/2	1/2	1/2/0
17			Real photo, multiple symmetry axes with many small supporting regions			4/25	4/25	25/4/0	0	0	25/0/0
18			Real photo, multiple symmetry axes			1/3	0	3/1/1	0	0	3/0/0
19			Real photo, multiple symmetry axes			1/4	1/4	2/1/0	0	0	2/0/0
20			Real photo, multiple symmetry axes,			1/4	1/4	4/1/0	0	0	4/0/0
21			Real photo, multiple symmetry axes, much textures on BG			1/3	1/3	3/1/0	1/3	1/3	3/1/0


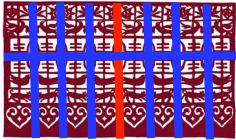
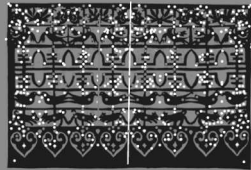
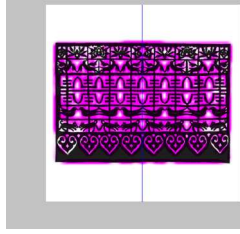







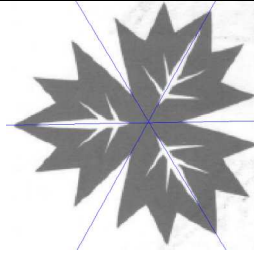




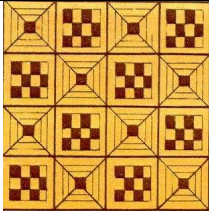
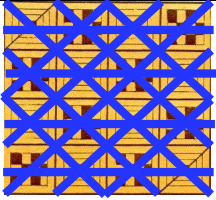
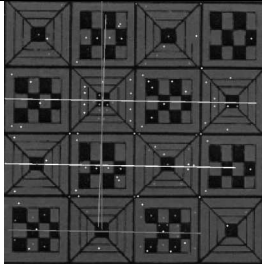
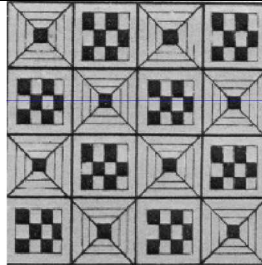
22			Real photo, multiple symmetry axes,			1/3	-4/3	3/1/5	1/3	1/3	3/1/0
23			Real photo, multiple symmetry axes,			1/3	1/3	3/1/0	1/3	1/3	3/1/0
24			Real photo, multiple symmetry axes,			1	1	2/2/0	0	0	2/0/0
25			Real photo, multiple symmetry axes, small supporting region			0	-3/10	10/0/3	1/1 0	1/10	10/1/0
26			Real photo, multiple symmetry axes			¼	0	2/1/1	0	0	2/0/0
27			Real photo, multiple, local symmetry axes, skewed			0	-1/5	5/0/1	1/5	1/5	5/1/0


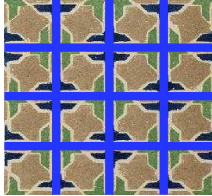
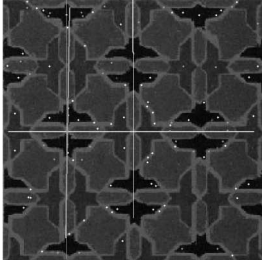
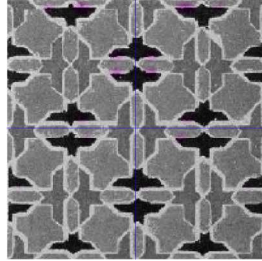
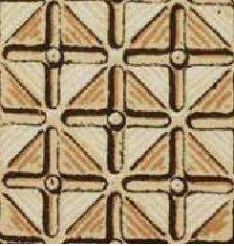
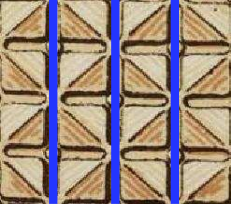
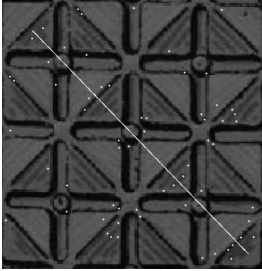
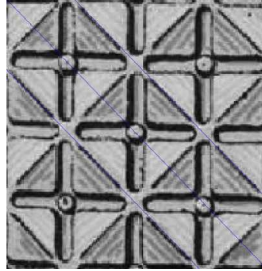

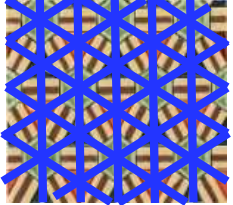
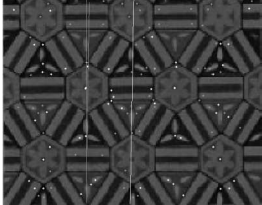
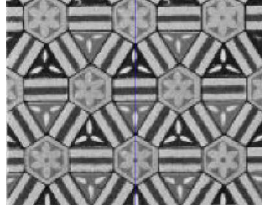
Category IV – Multiple Synthetic Reflection

**Multiple Synthetic (12 images)**

	Original Image	Ground Truth	Description /Challenges	Loy and Eklundh 2006	Liu et al 2005	Loy and Eklundh 2006			Liu et al 2005		
						S1	S2	GT/TP/FP	S1	S2	GT/TP/FP
1			Multi-reflection symmetry axes with global and local supporting regions			1/3	1/3	3/1/0	1/3	1/3	3/1/0
2			Multi-reflection symmetry axes with global and local supporting regions			1/4	1/4	4/1/0	1/4	1/4	4/1/0
3			Multi-reflection symmetry axes			1	1	2/2/0	1/4	1/4	2/1/0
4			Multi-reflection symmetry axes with global and local supporting regions			1/9	1/9	9/1/0	1/9	1/9	9/1/0



5			Multi-reflection symmetry axes with global and local supporting regions			1/8	1/8	8/1/0	1/8	1/8	8/1/0
6			Multi-reflection symmetry axes			1/4	1/4	2/1/0	1/4	1/4	2/1/0
7			Multi-reflection symmetry axes, D3			1	1	3/3/0	1	1	3/3/0
8			Multi-reflection symmetry axes with global and local supporting regions			1/11	0	11/1/1	2/11	2/11	11/2/2
9			Multi-reflection symmetry axes with global and local supporting regions ,PM			2/14	1/14	14/2/1	1/14	1/14	14/1/0

10			<p>Multi-reflection symmetry axes with global and local supporting regions, PMM</p>			$\frac{1}{4}$	$\frac{1}{4}$	$\frac{6}{3/0}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{6}{2/0}$
11			<p>Multi-reflection symmetry axes with global and local supporting regions, CM</p>			0	$-\frac{1}{3}$	$\frac{3}{0/1}$	0	-1	$\frac{3}{0/3}$
12			<p>Multi-reflection symmetry axes with global and local symmetries, P3M1</p>			$\frac{2}{17}$	$\frac{2}{17}$	$\frac{17}{2/0}$	$\frac{1}{17}$	$\frac{1}{17}$	$\frac{17}{1/0}$