
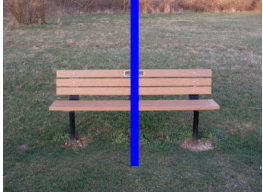
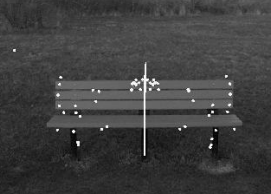


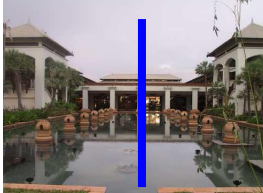







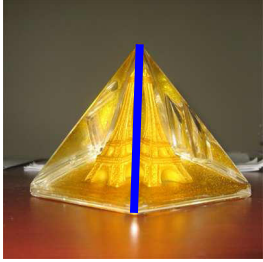














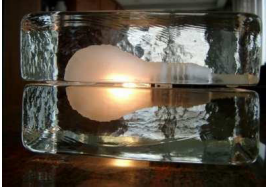

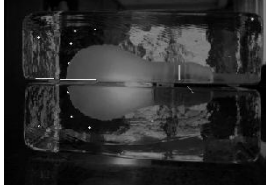


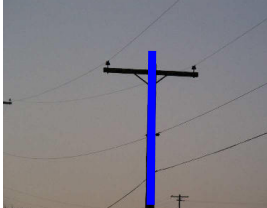



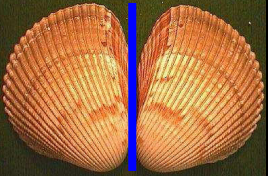
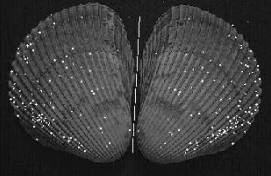
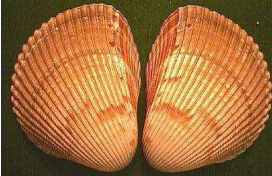





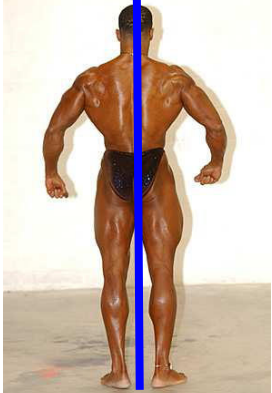
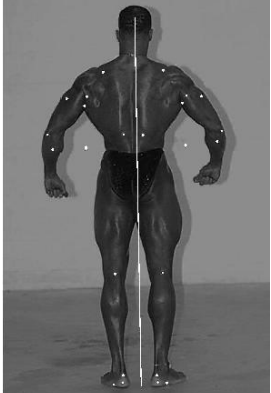
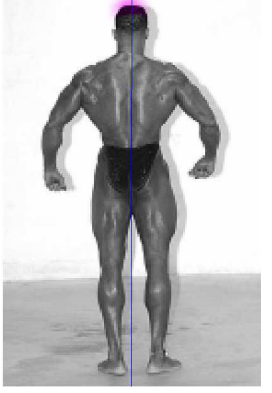


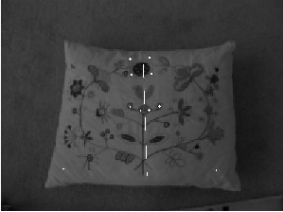


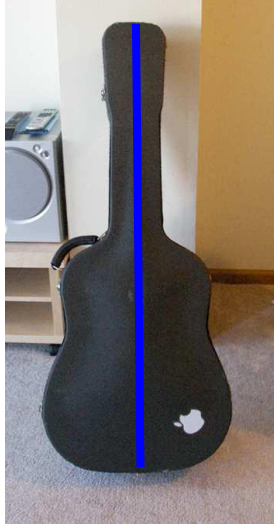

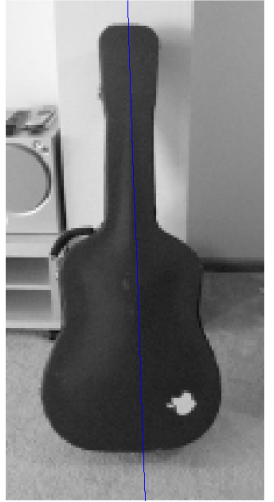







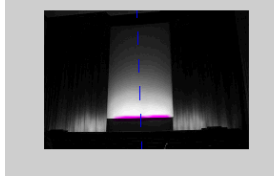





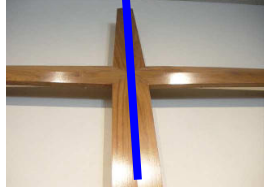












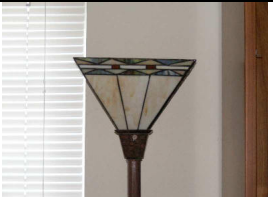
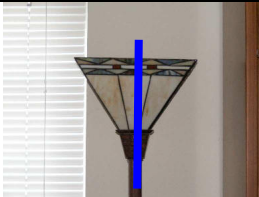

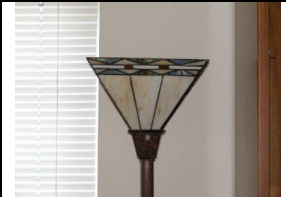

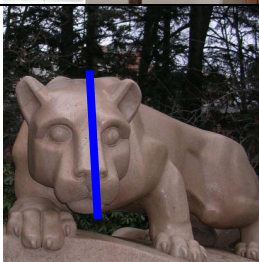









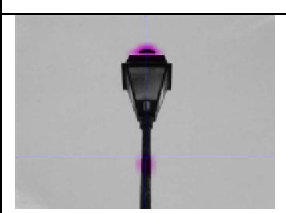
Category I – Single Real Reflection



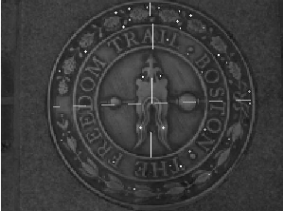


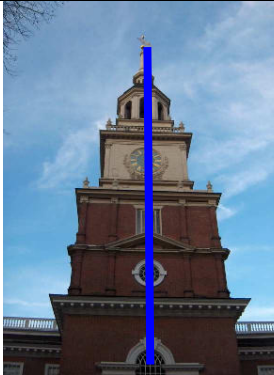



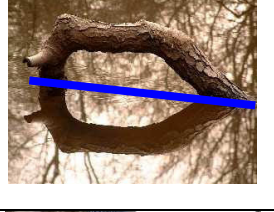


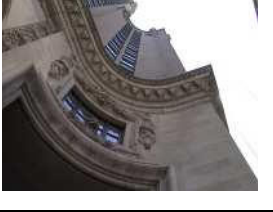
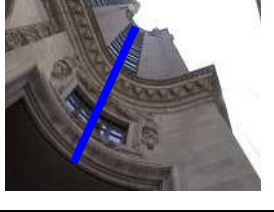





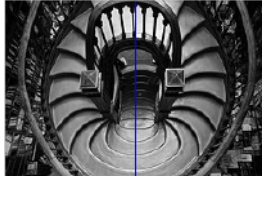
Single Real image (31 images)											
Image Number	Original Image	Ground Truth	Description /Challenges	Loy and Eklundh 2006	Liu et al 2005	Loy and Eklundh 2006			Liu et al. 2005		
						S0	S1	GT,TP,FP	S0	S1	GT/TP/FP
Ref_RS1			Real single reflection image and many random textures on BG			1	1	1/1/0	0	0	1/0/0
Ref_RS2			Real single near reflection symmetry			1	1	1/1/0	1	0	1/1/1
Ref_RS3			Photo, single reflection axis, inexact symmetry			1	0	1/1/1	0	0	1/0/0
Ref_RS4			Real photo, single reflection symmetry, transparency and smooth surface			1	1	1/1/0	0	0	1/0/0



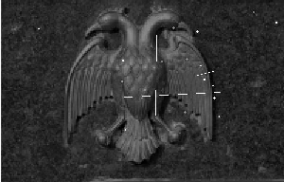





Ref_RS5			Real photo, single reflection symmetry and local difference between left and right plane			1	1	1/1/0	0	0	1/0/0
Ref_RS6			Real photo, single reflection and similar texture in background and foreground.			1	1	1/1/0	0	0	1/0/0
Ref_RS7			Real photo, single near reflection symmetry and skewed			0	-4	1/0/4	0	0	1/0/0
Ref_RS8			Real photo, single reflection and color difference due to shadows.			1	1	1/1/0	0	0	1/0/0
Ref_RS9			Real photo, Single reflection Low texture, wiry structure			1	1	1/1/0	0	0	1/0/0

Ref_RS10			Real photo, single near reflection, rich texture			1	1	1/1/0	0	0	1/0/0
Ref_RS11			Real photo, single reflection, cluttered			1	1	1/1/0	0	0	1/0/0
Ref_RS12			Real photo, single reflection, near-regular, shiny surface			1	1	1/1/0	1	1	1/1/0
Ref_RS13			Real photo, single near reflection with small supporting region			1	1	1/1/0	0	0	1/0/0

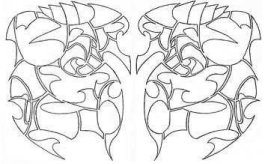
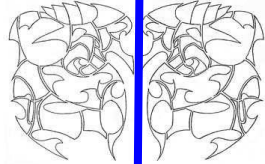

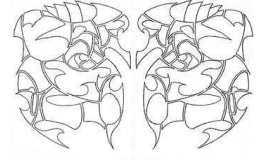
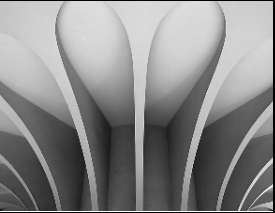
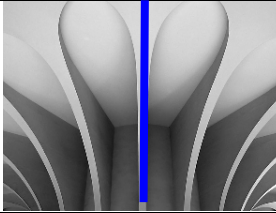
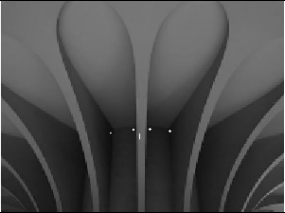
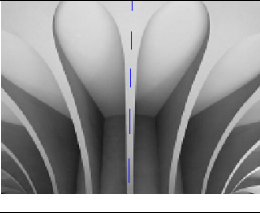

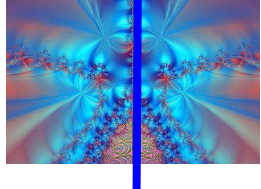
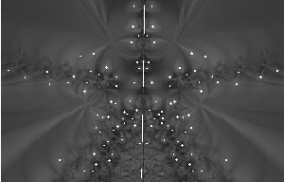

Ref_RS14			Real photo, single near reflection and low textures on target			1	0	1/1/1	1	1	1/1/0
Ref_RS15			Real photo, single reflection			1	1	1/1/0	1	1	1/1/0
Ref_RS16			Real photo, single reflection and gradient surface			1	1	1/1/0	1	1	1/1/0
Ref_RS17			Real photo, single reflection			1	1	1/1/0	1	1	1/1/0
Ref_RS18			Real photo, single reflection and low texture			1	1	1/1/0	0	0	1/0/0


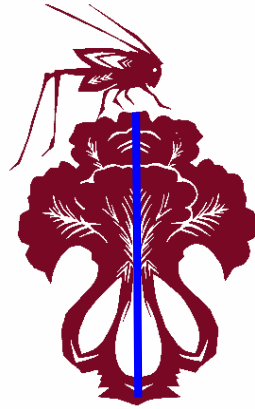

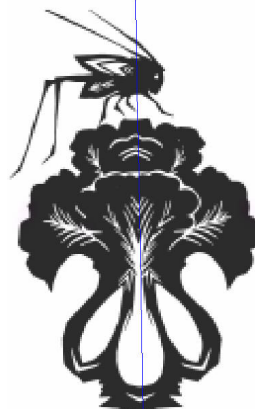
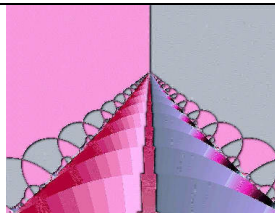
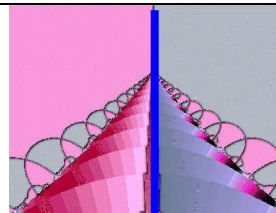
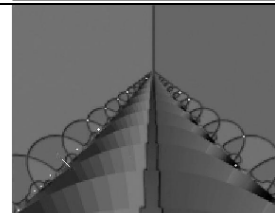
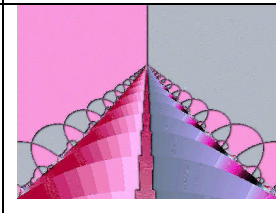










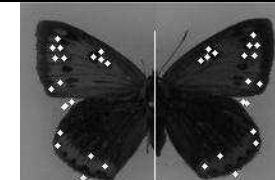
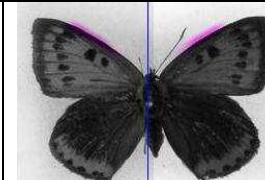
Ref_RS19			Real photo, single reflection and low texture			0	0	1/0/0	0	0	1/0/0
Ref_RS20			Real photo, single reflection and contrast texture in FG and BG			1	1	1/1/0	0	0	1/0/0
Ref_RS21			Real photo, single reflection and low texture			1	1	1/1/0	0	0	1/0/0
Ref_RS22			Real photo, off-centered single symmetry cluttered BG			0	-4	1/0/4	0	0	1/0/0
Ref_RS23			Real photo, single symmetry			1	1	1/1/0	1	1	1/1/0
Ref_RS24			Real photo, single symmetry			1	1	1/1/0	1	1	1/1/0







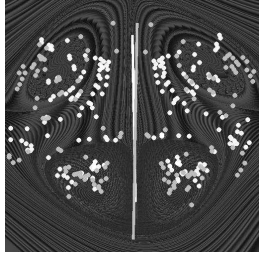


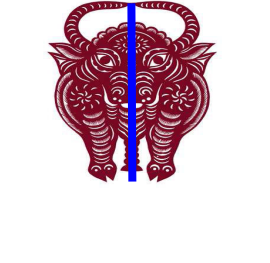

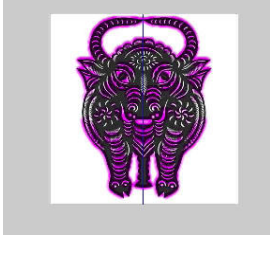



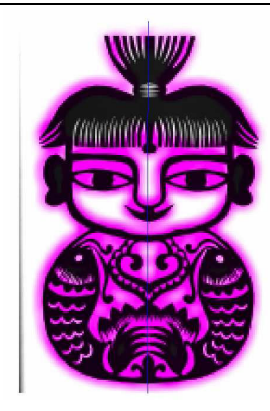
Ref_RS25			Real photo, single symmetry with two different small supporting regions			1	1	1/1/0	0	0	1/0/0
Ref_RS26			Real photo, single symmetry			1	1	1/1/0	0	0	1/0/0
Ref_RS27			Real photo, single symmetry			0	-8	1/0/8	0	0	1/0/0
Ref_RS28			Real photo, single symmetry			1	1	1/1/0	0	0	1/0/0
Ref_RS29			Real photo, single symmetry			1	1	1/1/0	1	1	1/1/0

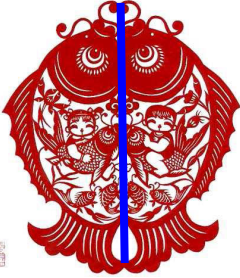


Ref_RS30			Real photo, single symmetry lighting reflection on the target surface			0	-3	1/0/3	0	0	1/0/0
Ref_RS31			Real photo, single symmetry			1	1	1/1/0	0	0	1/0/0

Category II – Single Synthetic Reflection

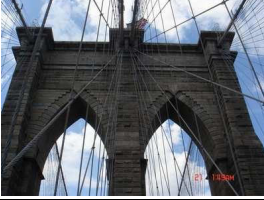






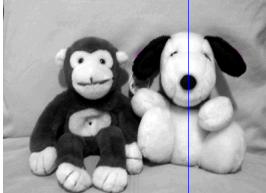

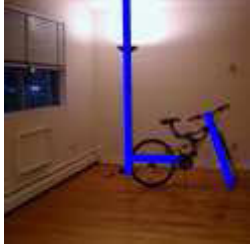

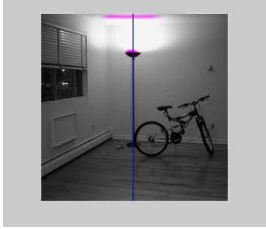

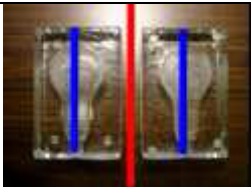
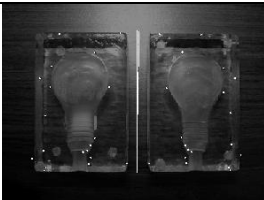
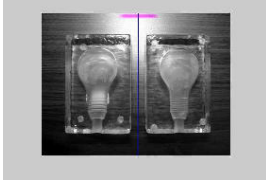
Single Synthetic Image (13 images)											
Image Number	Original Image	Ground Truth	Description /Challenges	Loy and Eklundh 2006	Liu et al 2005	Loy and Eklundh 2006			Liu et al. 2005		
						S0	S1	GT/TP/FP	S0	S1	GT/TP/FP
Ref_SS1			Single bilateral symmetry,			1	1	1/1/0	0	0	1/0/0
Ref_SS2			Single bilateral symmetry, smooth surface			1	1	1/1/0	1	1	1/1/0
Ref_SS3			Single bilateral symmetry,			1	1	1/1/0	0	0	1/0/0

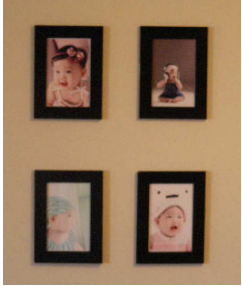
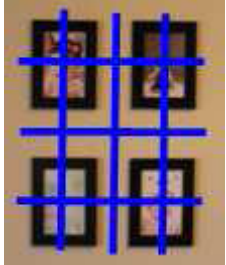
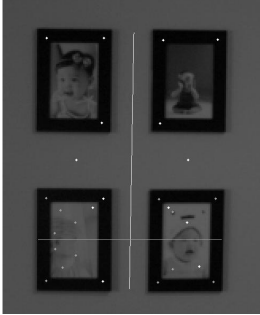
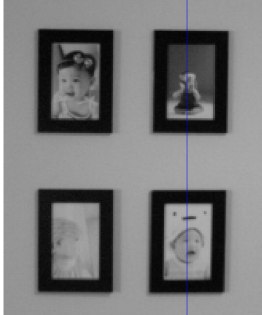


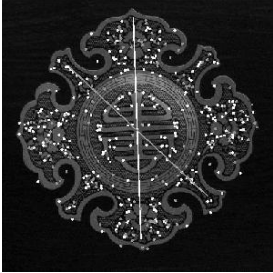
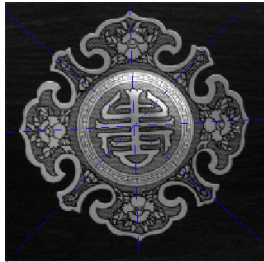


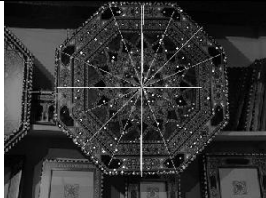



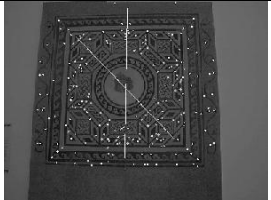





Ref_SS4			Single bilateral symmetry, local asymmetry			1	1	1/1/0	1	1	1/1/0
Ref_SS5			Single bilateral symmetry with color difference			0	-2	1/0/2	0	0	1/0/0
Ref_SS6			Near symmetry			1	1	1/1/0	1	1	1/1/0
Ref_SS7			Near symmetry			1	1	1/1/0	1	1	1/1/0
Ref_SS8			Color difference.			1	1	1/1/0	1	1	1/1/0






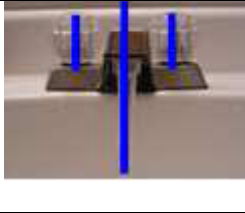
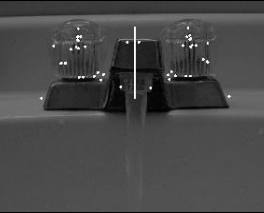









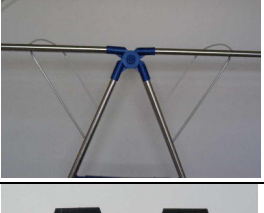






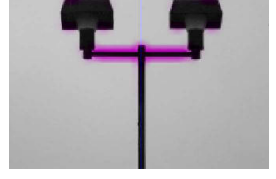
Ref_SS9			Background/ Foreground in similar colors.			1	1	1/1/0	0	0	1/0/0
Ref_SS10			Skewed; Color variation; High texture.			1	1	1/1/0	0	0	1/0/0
Ref_SS11			Single bilateral symmetry,			1	1	1/1/0	1	1	1/1/0
Ref_SS12			Single bilateral symmetry, highly textured lower half.			1	1	1/1/0	1	1	1/1/0



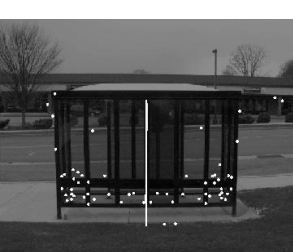

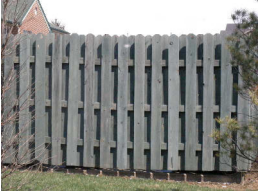
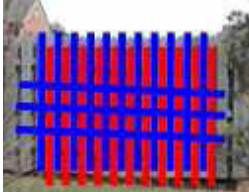
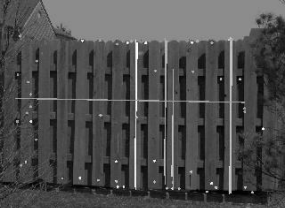
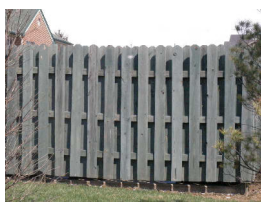
















Ref_SS13			Single bilateral symmetry			1	1	1/1/0	1	1	1/1/0
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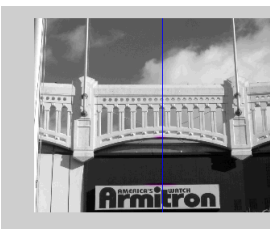









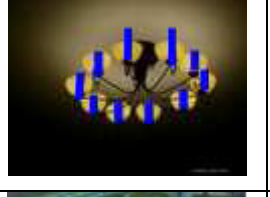

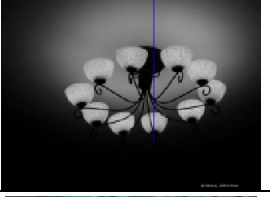







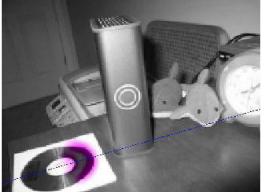
Category III – Multiple Real Reflection

Multiple Real Images(27 images)											
Image Number	Original Image	Ground Truth	Description /Challenges	Loy and Eklundh 2006	Liu et al 2005	Loy and Eklundh 2006			Liu et al. 2005		
						S0	S1	GT/T P/FP	S0	S1	GT/T P/FP
Ref_RM1			Real photo, multiple symmetry axes, skewed			1/3	1/3	3/1/0	1/3	1/3	3/1/0
Ref_RM2			Real photo, multiple symmetry axes, near symmetry			1	1	2/2/0	1/2	1/2	2/1/0
Ref_RM3			Real photo, multiple symmetry axes,			2/3	2/3	3/2/0	1/3	1/3	3/1/0
Ref_RM4			Real photo, multiple symmetry axes, lighting difference			1/3	1/3	3/1/0	1/3	1/3	3/1/0

Ref_RM5			Real photo, multiple symmetry axes, asymmetry inside the frame			1/3	1/3	6/2/0	1/6	1/6	6/1/0
Ref_RM6			Real photo, multiple symmetry axes, asymmetry at the center for 45,90,135 degree axis			1/2	1/2	4/2/0	1	1	4/4/0
Ref_RM7			Real photo, multiple symmetry axes			7/8	7/8	8/7/0	0	0	8/0/0
Ref_RM8			Real photo, multiple symmetry axes, skewed			1/2	1/2	4/2/0	0	0	4/0/0
Ref_RM9			Real photo, multiple near symmetry axes,			1/4	1/4	4/1/0	0	0	4/0/0


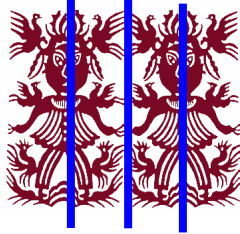
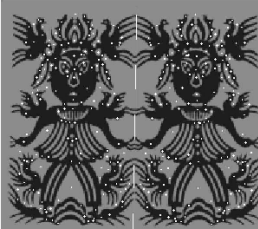

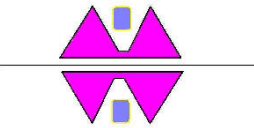
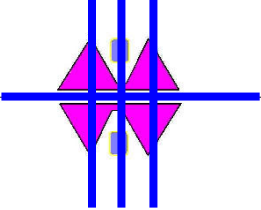
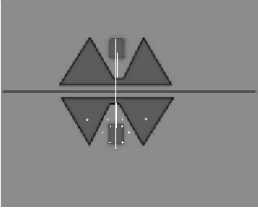
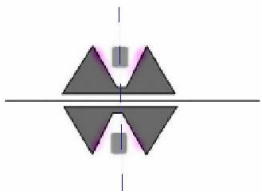


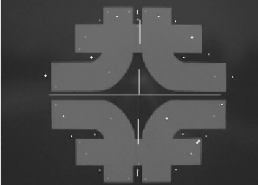
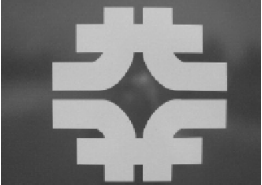

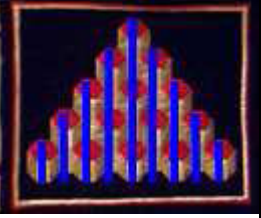
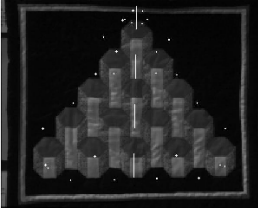
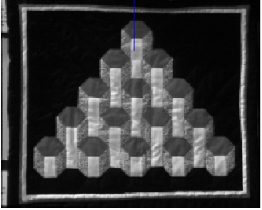
Ref_RM10			Real photo, multiple symmetry axes, skewed and texture distracters			0	-5	2/0/10	0	0	2/0/0
Ref_RM11			Real photo, multiple symmetry axes, low texture			1/3	1/3	3/1/0	0	0	3/0/0
Ref_RM12			Real photo, multiple symmetry axes, low texture			1/2	0	2/1/1	0	0	2/0/0
Ref_RM13			Real photo, multiple symmetry axes, cluttered Texture.			1	-2	2/2/6	0	0	2/0/0
Ref_RM14			Real photo, multiple symmetry axes, low texture			1/3	1/3	3/1/0	0	0	3/0/0
Ref_RM15			Real photo, multiple symmetry axes, low texture			1/3	1/3	3/1/0	1/3	1/3	3/1/0


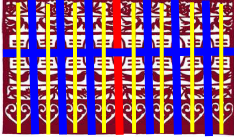
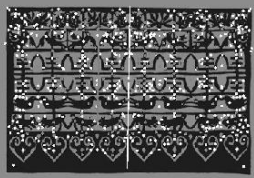







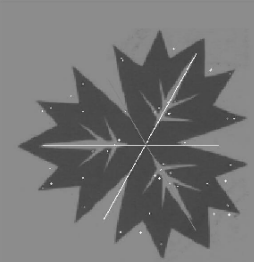
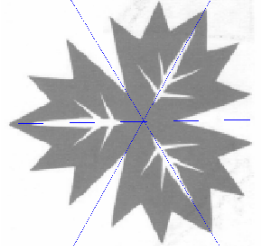



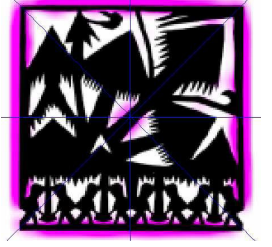
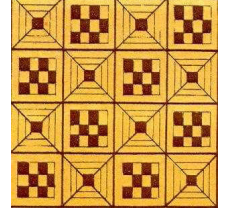
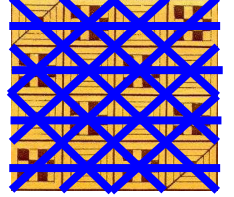
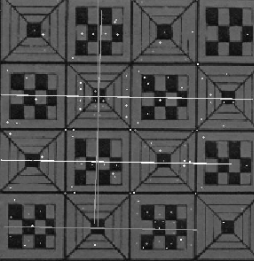
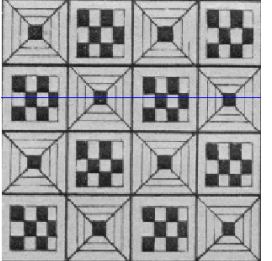
Ref_RM16			Real photo, multiple symmetry axes with present of asymmetries due to transparent material			1/2	1/2	2/1/0	1/2	1/2	2/1/0
Ref_RM17			Real photo, multiple symmetry axes with many small supporting regions			4/25	4/25	25/4/0	0	0	25/0/0
Ref_RM18			Real photo, multiple symmetry axes			1/3	-1/3	3/1/2	0	0	3/0/0
Ref_RM19			Real photo, multiple symmetry axes			1/2	1/2	2/1/0	0	0	2/0/0
Ref_RM20			Real photo, multiple symmetry axes,			1/4	1/4	4/1/0	0	0	4/0/0
Ref_RM21			Real photo, multiple symmetry axes, much textures on BG			1/3	1/3	3/1/0	1/3	1/3	3/1/0


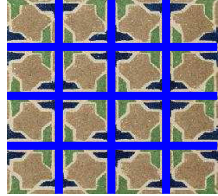
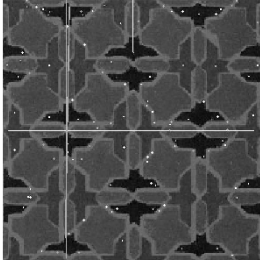
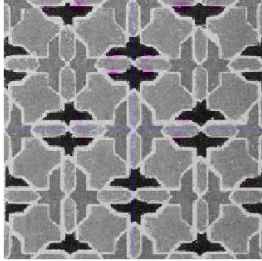
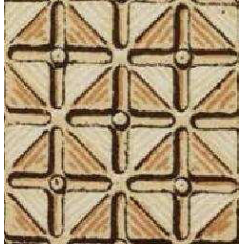
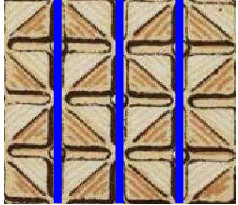
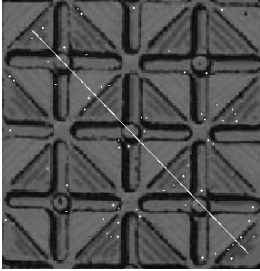
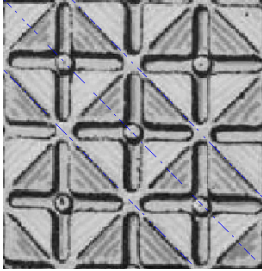

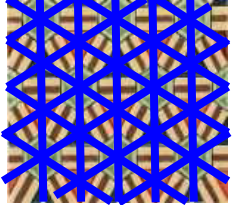
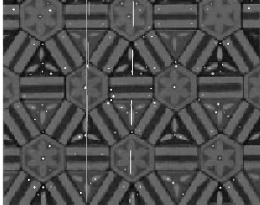
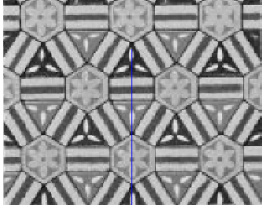
Ref_RM22			Real photo, multiple symmetry axes,			1/3	-4/3	3/1/5	1/3	1/3	3/1/0
Ref_RM23			Real photo, multiple symmetry axes,			1/3	1/3	3/1/0	1/3	1/3	3/1/0
Ref_RM24			Real photo, multiple symmetry axes,			1	1	2/2/0	0	0	2/0/0
Ref_RM25			Real photo, multiple symmetry axes, small supporting region			0	-3/10	10/0/3	1/10	1/10	10/1/0
Ref_RM26			Real photo, multiple symmetry axes			1/2	0	2/1/1	0	0	2/0/0
Ref_RM27			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)

Image Number	Original Image	Ground Truth	Description /Challenges	Loy and Eklundh 2006	Liu et al 2005	Loy and Eklundh 2006			Liu et al. 2005		
						S0	S1	GT/TP /FP	S0	S1	GT/TP /FP
Ref_SM1			Multi-reflection symmetry axes with global and local supporting regions			1/3	1/3	3/1/0	1/3	1/3	3/1/0
Ref_SM2			Multi-reflection symmetry axes with global and local supporting regions			1/4	1/4	4/1/0	1/4	1/4	4/1/0
Ref_SM3			Multi-reflection symmetry axes			1	1	2/2/0	1/2	1/2	2/1/0
Ref_SM4			Multi-reflection symmetry axes with global and local supporting regions			1/9	1/9	9/1/0	1/9	1/9	9/1/0

Ref_SM5			Multi-reflection symmetry axes with global and local supporting regions			1/8	1/8	16/2/0	1/16	1/16	16/1/0
Ref_SM6			Multi-reflection symmetry axes			1/2	1/2	2/1/0	1/2	1/2	2/1/0
Ref_SM7			Multi-reflection symmetry axes, D3			1	1	3/3/0	1	1	3/3/0
Ref_SM8			Multi-reflection symmetry axes with global and local supporting regions			1/11	0	11/1/1	2/11	2/11	11/2/0
Ref_SM9			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

Ref_SM10			Multi-reflection symmetry axes with global and local supporting regions , PMM			1/2	1/2	6/3/0	1/3	1/3	6/2/0
Ref_SM11			Multi-reflection symmetry axes with global and local supporting regions , CM			0	-1/3	3/0/1	0	-1	3/0/3
Ref_SM12			Multi-reflection symmetry axes with global and local symmetries, P3M1			2/17	2/17	17/2/0	1/17	1/17	17/1/0