Henrietta st., Bath

Context. Photographs are presenting limited views of a complex situation. It is important to know the context and the details, to document the situation at every relevant scale. A building is an organism . A group value can also be attached to a building.

- date 6/5/2003
- time 13 :55 :43
- focal length 9.2
- aperture f/5.6
- shutter speed 183.688

Henrietta st., 8-9, Bath

Rectification. To document a facade, a frontal view gives a good image of the proportions and is a good base for rectification.

Context. The group has lost part of its value follwing the replacement of many window frames.

- date 6/5/2003
- time 13 :57 :55
- focal length 9.2
- aperture f/5.6
- shutter speed 177.462

Great Pulteney st., Bath

Context Context is not always properly documented with general views. The quality of details in buildings of the context may not be visible on low scale photographs.

Picture a : n.16
- date 6/5/2003
- time 11 :57 :5
- focal length 9.2
- aperture f/2.8
- shutter speed 213.63

Picture b : n.17
- date 6/5/2003
- time 11 :56 :36
- focal length 9.2
- aperture f/2.8
- shutter speed 474.608

St Mary the Virgin, Darlington st., Bath
Context.
Visibility (vegetation).

- date 6/5/2003
- time 15 :10 :6
- focal length 9.2
- aperture f/5.6
- shutter speed 474.608

Blessed Virgin Mary, Claverton

Context. It is certainly necessary to have at least one photograph documenting the situation of the building in his environment , to document its relations with vegetations, other constructions, garden, fences...

- date 8/5/2003
- time 15 :9 :3
- focal length 9.2
- aperture f/5.6
- shutter speed 261.575

Walcot Chapel, Walcot gate, Bath

Context.

- date 9/5/2003
- time 11 :43 :30
- focal length 12.4587
- aperture f/5.6
- shutter speed 348.432

Walcot st., 62, Bath

Selection. The way a survey is executed influences significantly further actions. Unrecorded elements are tacitly considered uninteresting.

One of the aims of the survey is to record the situation as it is before intervention.

- date 6/5/2003
- time 12 :37 :11
- focal length 9.2
- aperture f/5.6
- shutter speed 743.494

Walcot st., 66, Bath

Selection. It is essential to provide a sufficient set of photographs to fully understand the object of the application. This does not mean that necessarily every part of the building has to be photographed. If the photographic documentation is done to accompany a demand to transform a window in a castle, it is probably difficult to ask to have a complete documentation of the building. But the part meant to be transformed has certainly to be fully documented.

- date 6/5/2003
- time 12 :44 :2
- focal length 12.96
- aperture f/5.6
- shutter speed 268.24

Bathwick st., 20, Bath

Details. Photographs are presenting limited views of a complex situation. It is important to know the context and the details, to document the situation at every relevant scale.

- date 6/5/2003
- time 13 :44 :29
- focal length 13.712
- aperture f/5.6
- shutter speed 255.167

The Pump Room, Stall st., Bath
Details.
Light.

- date 6/5/2003
- time 14 :34 :52
- focal length 25.051
- aperture f/2.8
- shutter speed 316.857

Blessed Virgin Mary, Claverton

Details.

- date 8/5/2003
- time 15 :14 :10
- focal length 9.2
- aperture f/5.6
- shutter speed 549.149

Blessed Virgin Mary, Claverton

Details. Small details not well visible in general photographs can increase very much the building value or help to understand its condition. Texture, quality of detailing, chimneys, sculptures but also typical decays are important to document. The original texture of a facade can be irremediably altered by a simple cleaning.

- date 8/5/2003
- time 15 :14 :55
- focal length 25.051
- aperture f/5.6
- shutter speed 255.167

Westgate Buildings, 14, Bath

Details. The difference of pointing would not be visible on a general photograph of the facade.

- date 6/5/2003
- time 14 :24 :12
- focal length 9.2
- aperture f/5.6
- shutter speed 613.121

The Corridor, Bath

Fabric. If the survey is part of a programme of intervention, surveying activities should not stop when the decided works start. Photographs are a good tool to document repairs. Indeed can uncover and make accessible to the surveyor portions which were previously hidden. Some elements may become accessible. Some new evidences could appear (a floor being opened, a partition being broken). New constrains or better solutions can emerge. Photography is particularly suited for this kind of recording, as the timeframe of the work may not allow a conventional metric survey. Photographs, on the other hand, are quick and, if certain provisions are taken, they can be used at a later stage to generate metric surveys with photogrammetric techniques.

- date 6/5/2003
- time 14 :13 :39
- focal length 9.2
- aperture f/2.8
- shutter speed 8.91886

Pulteney Bridge, Bath

Fabric.

- date 6/5/2003
- time 16 :42 :6
- focal length 9.2
- aperture f/2.8
- shutter speed 243.368

Daniel st., 1, Bath

Fabric. It is particularly important to record thoroughly. Minor characteristics not recorded may disappear at the moment of restoration and lead to loss of integrity or at least to disappearance of historical evidence.

Picture a :

- date 6/5/2003
- time 13 :20 :39
- focal length 20.2293
- aperture f/5.6
- shutter speed 275.255

Picture b :

- date 6/5/2003
- time 13 :21 :15
- focal length 25.051
- aperture f/5.6
- shutter speed 307.598

Sydney Place, 41a (view on Darlington st.), Bath

Fabric. The colour photographs shows very clearly the differences of materials used on the roof.

- date 6/5/2003
- time 15 :8 :4
- focal length 9.2
- aperture f/2.8
- shutter speed 453.926

Blessed Virgin Mary, Claverton

Focal length. Available distance to frame the intended scene is often insufficient. One has to use wide-angle lenses. This is especially the case for interiors, were very wide-angle lenses may even be necessary. Non-professional photographers usually do not own very wide angles. In fact, the number of photographs necessary to give a complete coverage of an interior space may be too high to be practical.

- date 8/5/2003
- time 15 :1 :46
- focal length 9.2
- aperture f/2.8
- shutter speed 5.80784

Johnstone st., 15, Bath

Focal length. As a matter of principle, it is better to use normal lenses for documentation (50mm focal length for 35mm cameras). Their field of view corresponds to human vision. To retrieve metric information, the situation may be different. If the pictures are going to be used for rectification, it is best to use long focal lenses. Images are closer to parallel projections. As they can be taken from further away, fewer elements will be hidden by the "shadows" created by protuberant elements, like cornices. On the other hand, atmospheric interferences are also getting stronger and the resolution can decrease. In practice, these general statements may not be applicable. Available distance to frame the intended scene is often insufficient.

Picture a :

- date 8/5/2003
- time 18 :37 :17
- focal length 25.051
- aperture f/2.8
- shutter speed 232.558

Picture b :

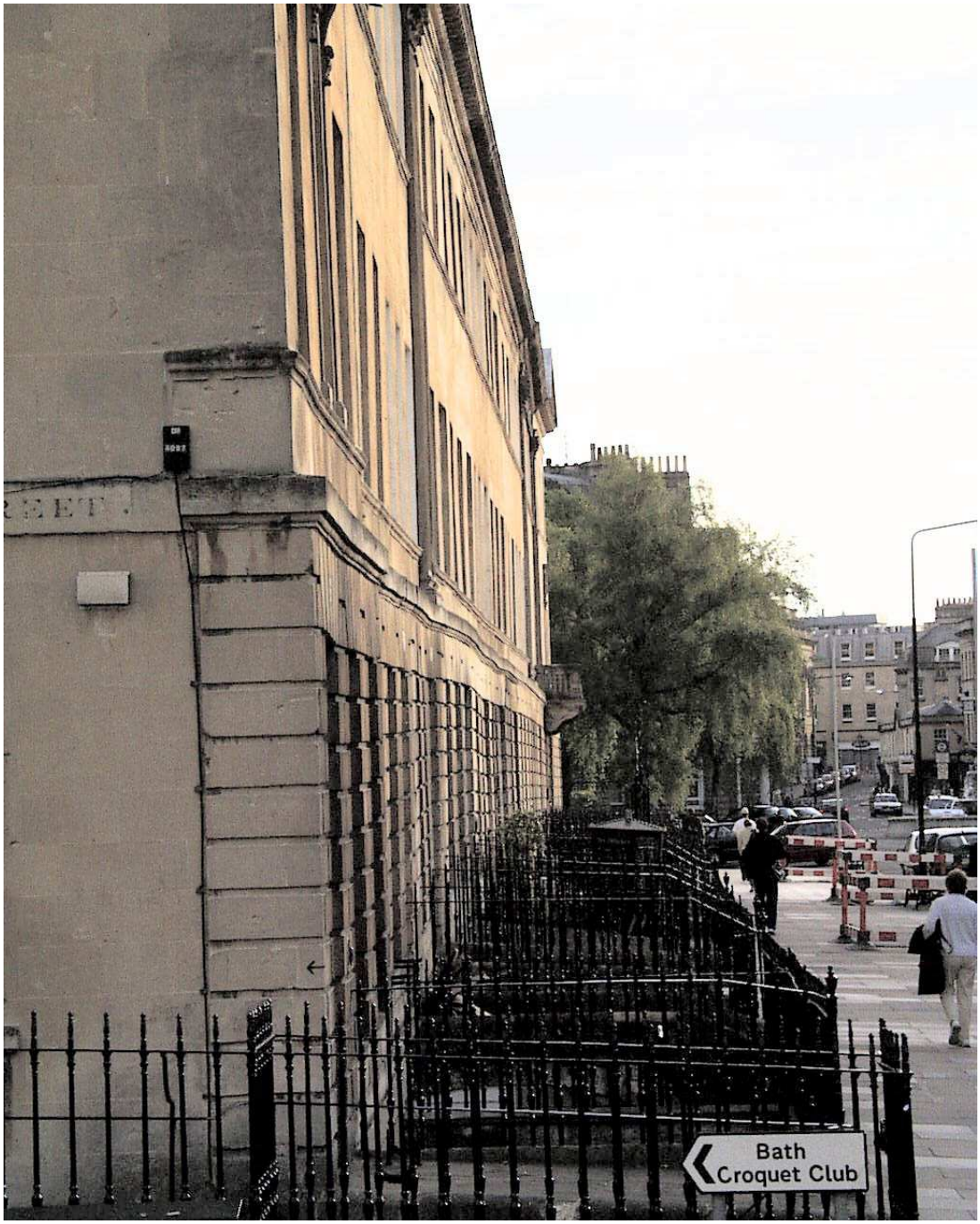
- date 8/5/2003
- time 18 :37 :33
- focal length 25.051
- aperture f/2.8
- shutter speed 218.055

Picture c :

- date 8/5/2003
- time 18 :38 :20
- focal length 22.043
- aperture f/2.8
- shutter speed 227.531

Picture d :

- date 8/5/2003
- time 18 :38 :40
- focal length 16.2776
- aperture f/2.8
- shutter speed 268.24



Great Pulteney st., Bath

Photographs taken parallel to a facade can emphasise deformations.

- date 8/5/2003
- time 18 :54 :2
- focal length 25.051
- aperture f/5.6
- shutter speed 218.055

Bathwick st., Bath

Pathology. Cracks and deformations are elements particularly difficult to document, as they are much less visible on pictures than they are in the reality.

- date 6/5/2003
- time 13 :43 :34
- focal length 11.9573
- aperture f/2.8
- shutter speed 453.926

Argyle st., 17, Bath

Pathology. Cracks

Visibility. Elements can be hidden by trees, scaffoldings, cars or furniture.

- date 6/5/2003
- time 14 :3 :14
- focal length 16.72
- aperture f/2.8
- shutter speed 218.055

Corn Maket, Walcot st., 62, Bath

Pathology. Cracks.

- date 6/5/2003
- time 12 :41 :18
- focal length 9.2
- aperture f/2.8
- shutter speed 137.836

United Reformed Church, Bath, Argyle st.

Pathology. Cracks, surface pathology

- date 29/4/2003
- time 15 :7 :5
- focal length 11.7067
- aperture f/2.8
- shutter speed 156.323

St Mary the Virgin, Darlington st., Bath
Surface pathology.

- date 6/5/2003
- time 15 :13 :20
- focal length 25.051
- aperture f/2.8
- shutter speed 218.055

St Swinthin Church, London rd (view on Walcot st.), Bath

Surface pathology. In the framework of thematic sets, photographic documentation has an important role. Its more 'objective' nature makes it a good control instrument. If a graphic document asserts that some architectural elements are heavily damaged and should be replaced, photographs can be used to control it.

Documentation could also be the base of a logbook, informing an approach of regular maintenance. Not all elements in a building have the same lifespan . Hence starting from the objective basis of a documentation set, further investigations, maintenance campaign or minimum intervention may be decided optimally.

- date 9/5/2003
- time 11 :45 :48
- focal length 16.9707
- aperture f/5.6
- shutter speed 521.648

Sydney Place, 1 (view on Sutton st.), Bath

Surface pathology. The type of application influence the documentation needs. If a facade is going to be cleaned, it is for instance particularly important to record the original surface with close-up photographs.

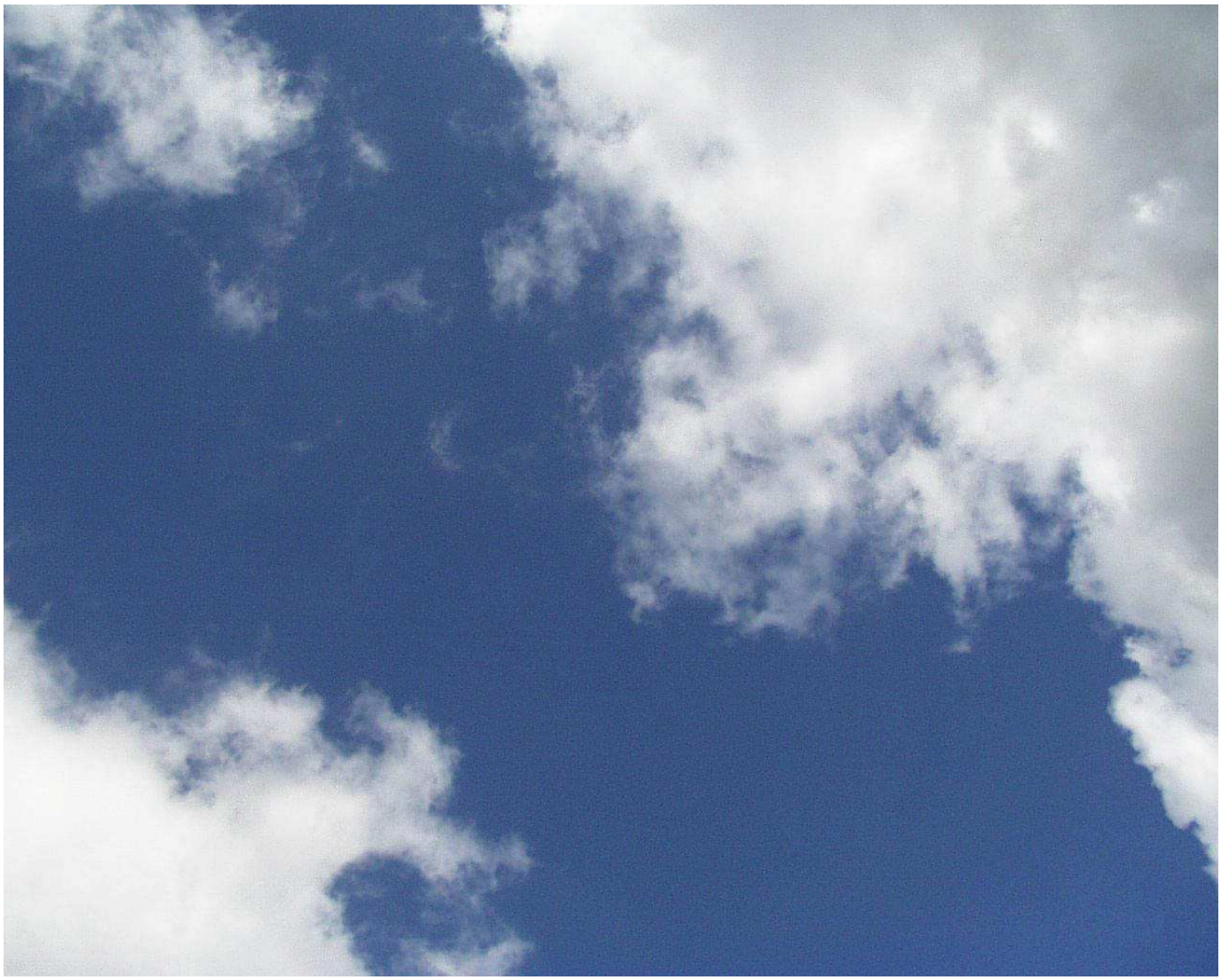
- date 9/5/2003
- time 9 :28 :31
- focal length 13.2107
- aperture f/5.6
- shutter speed 307.598

Sydney Place, 1 (view on Sutton st.), Bath
Surface pathology, detail

- date 9/5/2003
- time 9 :28 :51
- focal length 25.051
- aperture f/5.6
- shutter speed 205.255

United Reformed Church, Argyle st., Bath
Surface pathology.

- date 6/5/2003
- time 14 :1 :19
- focal length 17.2803
- aperture f/2.8
- shutter speed 261.575



Sky, Bath

Light. In photography, the question of light is central. Bright thin overcasts are ideal; they provide a strong diffuse light. Sunny days with passing clouds are also interesting. They give the opportunity to wait for the desired lighting

- date 9/5/2003
- time 11 :8 :3
- focal length 9.2
- aperture f/5.6
- shutter speed 944.287

The Pump Room, Stall st., Bath

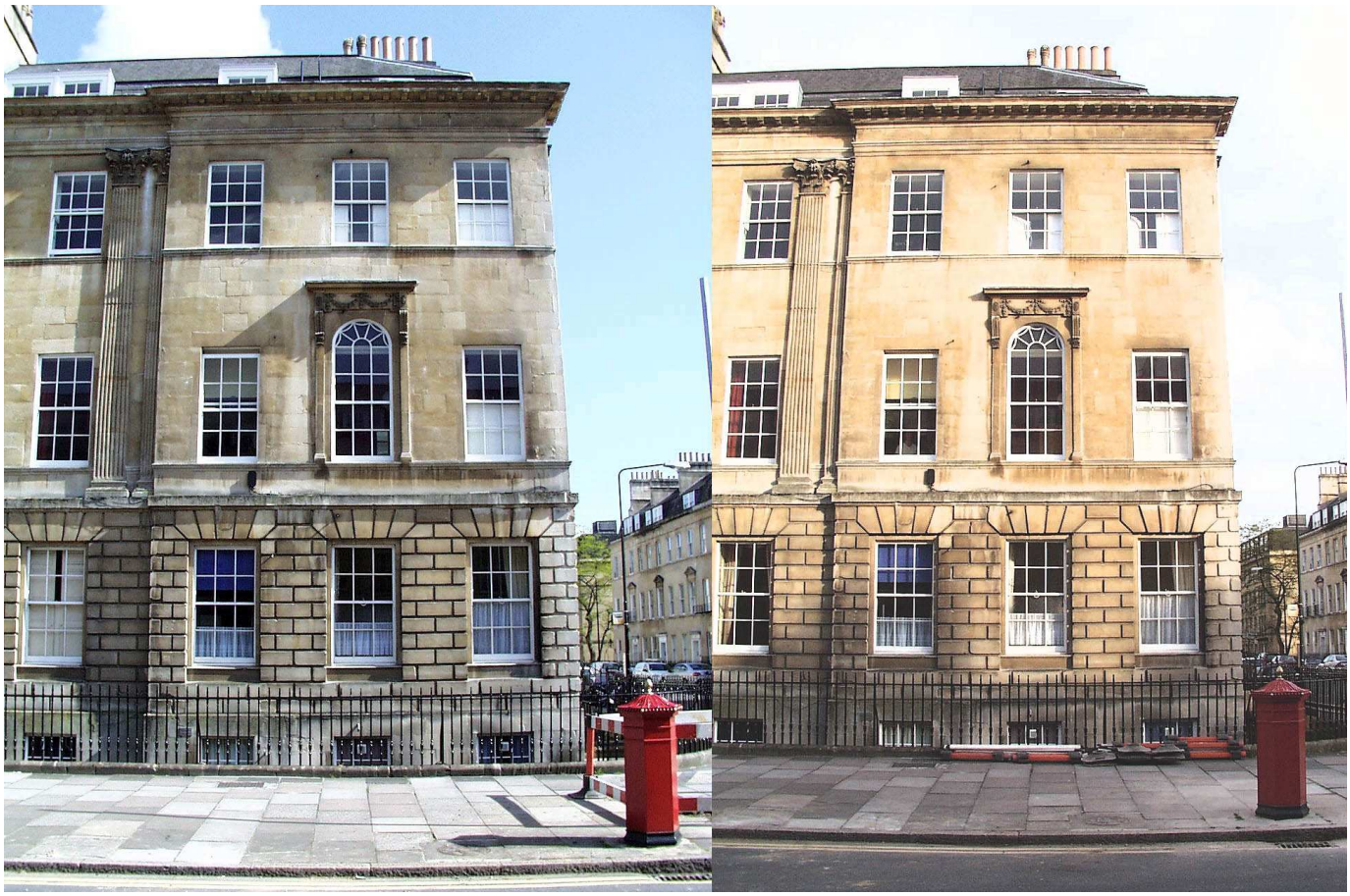
Light. The character of the building depends very much from particular effects (light, relation with the environment). If metric information has to be extracted, diffuse lights are certainly better. Individual photographs are taken following the documentation strategy. The parameters of choice concern the "where?" and the "when?". The photographs above where taken at about one minute interval but the second one was taken during the passage of a cloud. The light is more diffuse and more details are visible.

Picture a :

- date 6/5/2003
- time 14 :31 :32
- focal length 10.9547
- aperture f/5.6
- shutter speed 800.641

Picture b :

- date 6/5/2003
- time 14 :32 :44
- focal length 10.9547
- aperture f/5.6
- shutter speed 268.24



Great Pulteney st., 52, Bath

Light (time). The shadow length depends on the height of the protruding element and on the angle of incidence. They can have a positive and a negative influence. They emphasise features, facilitating the interpretation, they can also make visible joints and texture. Front lighting flattens the texture but illuminates all the elements visible from the viewpoint. Raking light can emphasise tenuous features like texture or cracks.

Picture a :

- date 6/5/2003
- time 16 :30 :56
- focal length 9.2
- aperture f/5.6
- shutter speed 275.255

Picture b :

- date 8/5/2003
- time 18 :50 :57
- focal length 9.2
- aperture f/5.6
- shutter speed 213.63

Great Pulteney st., Bath

Light (time). It is advisable to check at different times of day to determine the best moment for each shot.

Picture a : n.52

- date 6/5/2003
- time 16 :30 :56
- focal length 9.2
- aperture f/5.6
- shutter speed 275.255

Picture b : n.17

- date 6/5/2003
- time 16 :33 :48
- focal length 9.2
- aperture f/5.6
- shutter speed 177.462

Great Pulteney st., 17, Bath
Light (time).

Picture a :

- date 9/5/2003
- time 9 :38 :38
- focal length 9.2
- aperture f/5.6
- shutter speed 1477.1

Picture b :

- date 6/5/2003
- time 16 :33 :48
- focal length 9.2
- aperture f/5.6
- shutter speed 177.462

Bath st., Bath

Light. Photographs taken at diffent moment of the day.

Context and details. The size is not the only factor. In some cases, the richness of detail may impose much more developed documentation.

Picture a :

- date 6/5/2003
- time 14 :29 :42
- focal length 25.051
- aperture f/5.6
- shutter speed 348.432

Picture b :

- date 9/5/2003
- time 10 :40 :25
- focal length 25.051
- aperture f/2.8
- shutter speed 227.531

Bath st., Bath

Light. Photographs taken at less than one minut interval.

Picture a :

- date 6/5/2003
- time 14 :29 :42
- focal length 25.051
- aperture f/5.6
- shutter speed 348.432

Picture b :

- date 6/5/2003
- time 14 :29 :25
- focal length 25.051
- aperture f/2.8
- shutter speed 373.274

Bath st., Bath
Light.

Picture a :

- date 6/5/2003
- time 14 :29 :42
- focal length 25.051
- aperture f/5.6
- shutter speed 348.432

Picture b :

- date 6/5/2003
- time 14 :29 :25
- focal length 25.051
- aperture f/2.8
- shutter speed 373.274

Bath

Light. Raking light can emphasise tenuous features like texture or cracks .

- date 6/5/2003
- time 12 :52 :20
- focal length 25.051
- aperture f/5.6
- shutter speed 213.63

United Reformed Church, Bath, Argyle st.

Light. In a real scene, the difference of luminance between highly illuminated and low illuminated parts can be too high to be reproduced. Here, the photograph taken with a digital camera shows details in the shadows that would have been lost in a print.

- date 9/5/2003
- time 9 :55 :22
- focal length 9.2
- aperture f/5.6
- shutter speed 613.121

United Reformed Church, Bath, Argyle st.

Light.

Distortions. Distortions are aberrations affecting the geometry of the image and not its sharpness. Image of straight lines may be convex (barrel distortion, photograph above) or concave (pincushion distortions) in relation to the principal point. They are not influenced by the aperture. Distortions are usually stronger for wide-angles and cheaper lenses. Corrections are necessary to achieve good results and can be done by software.

- date 29/4/2003
- time 15 :5 :51
- focal length 9.2
- aperture f/2.8
- shutter speed 326.691

Wood st., 1, Bath

Light (contrast). If the variations of luminance are important, photographs are more difficult to take. This can be the case if some elements are very dark and other very light. In that case, the question of lighting is of prime importance.

Picture a :

- date 9/5/2003
- time 11 :14 :35
- focal length 9.2
- aperture f/5.6
- shutter speed 800.641

Picture b :

- date 9/5/2003
- time 11 :6 :58
- focal length 9.2
- aperture f/5.6
- shutter speed 193.874

Sydney Place, 8, Bath

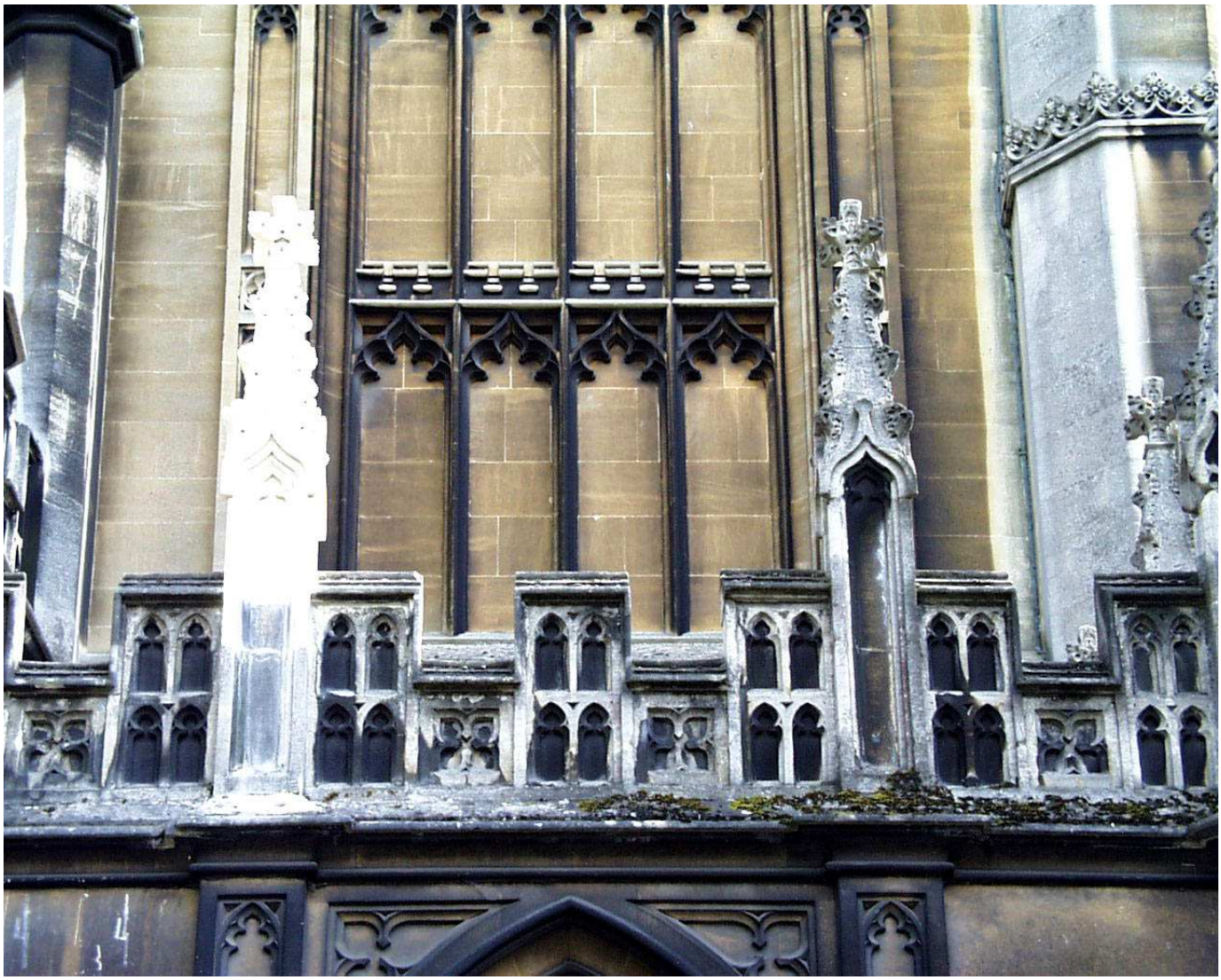
Completeness. It is essential to provide a sufficient set of photographs to fully understand the object of the application.

Light (contrast). The human eye is able to record scenes with variations of luminance of about 10 stops . Negative films can record about 7 stops and slide films only about 5 stops. Digital cameras can approach 8 stops.

- date 6/5/2003
- time 11 :51 :40
- focal length 9.2
- aperture f/2.8
- shutter speed 126.215

Claverton
Light (contrast).

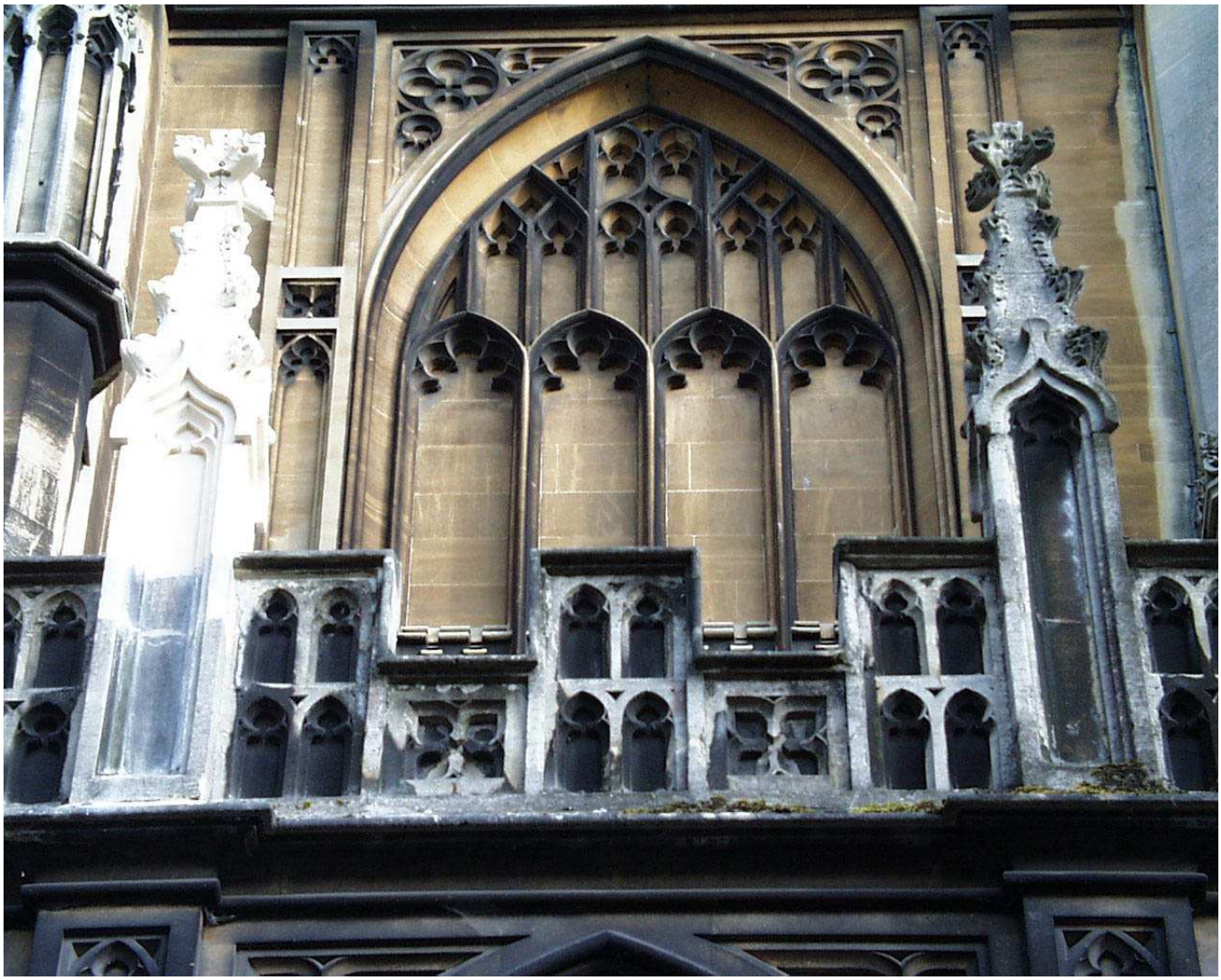
- date 8/5/2003
- time 15 :16 :56
- focal length 9.2
- aperture f/5.6
- shutter speed 282.725



St Mary the Virgin, Darlington st., Bath

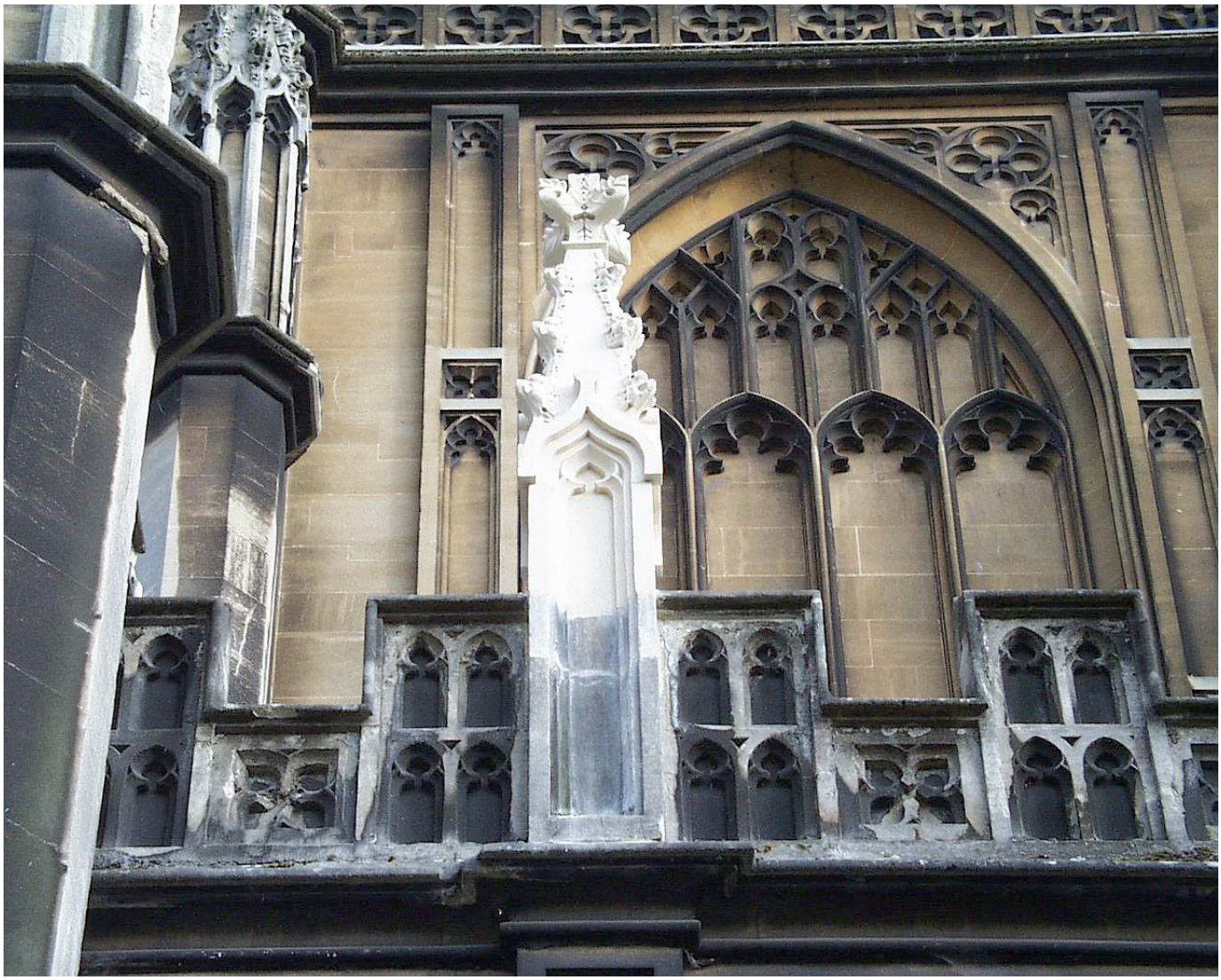
Light (contrast). A small element (pinacle), much lighter than its background is 'burnt' on the photograph.

- date 6/5/2003
- time 15 :11 :3
- focal length 25.051
- aperture f/2.8
- shutter speed 97.9336



St Mary the Virgin, Bath, Darlington st.
Light (contrast).

- date 8/5/2003
- time 18 :44 :1
- focal length 25.051
- aperture f/2.8
- shutter speed 129.333



St Mary the Virgin, Bath, Darlington st.

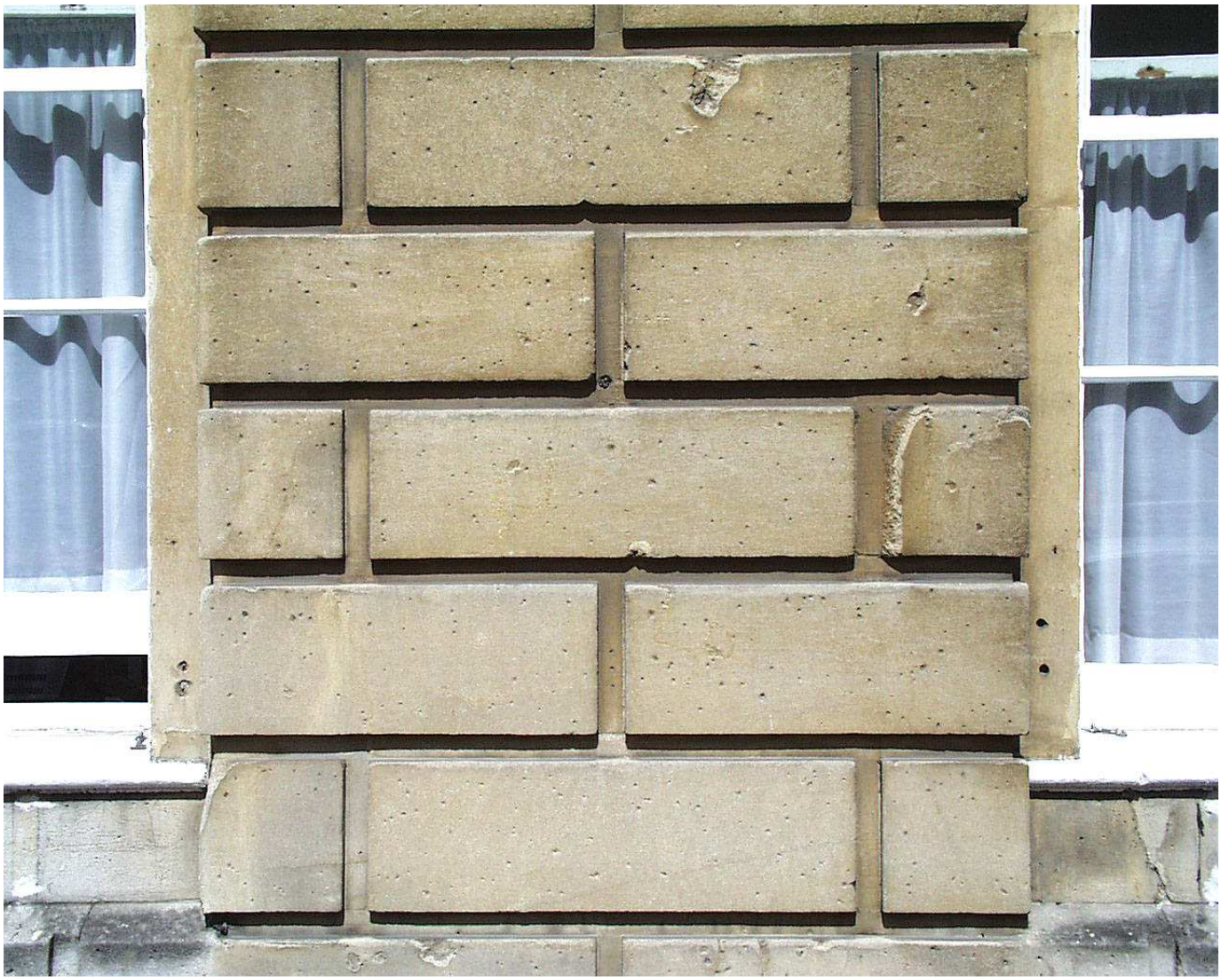
Light (contrast). Same photographs but with the light exposure calculated orienting the camera in the direction of the pinacle.

- date 8/5/2003
- time 18 :44 :24
- focal length 25.051
- aperture f/2.8
- shutter speed 190.367

The Harington Club, Harigton Place, Bath

Light (shadows). Shadows are potentially disturbing. Large shadows cutting a scene can lead to contrast of luminance exceeding the dynamic range of the film or sensor.

- date 9/5/2003
- time 11 :02 :04
- focal length 9.2
- aperture f/5.6
- shutter speed 307.598



Great Pulteney st., 35, Bath

Light (shadows). For metric interpretation, requiring the identification of edges, shadow lines can be confusing . The impact of shadows is function of the angle of incidence of the light and of diffusion of the light. The angle of incidence depends on the orientation of the facade, on the time of day and on the time of year.

- date 6/5/2003
- time 11 :54 :17
- focal length 17.0296
- aperture f/5.6
- shutter speed 743.494

Great Pulteney st., 52, Bath

Light. Photographs taken in the direction of the sun, very often have flares (internal reflection) and ghosts (image of the diaphragm), particularly if lesser quality lenses are used.

- date 9/5/2003
- time 9 :44 :10
- focal length 9.2
- aperture f/5.6
- shutter speed 197.511

Blessed Virgin Mary, Claverton

Light (interior). With automatic camera, it may be impossible to get manual control on the speed and aperture of the diaphragm. Still, it may be possible to control the illumination using some tricks. The camera can be oriented towards a surface having the desired average illumination and situated at the same distance as the object to photograph. The release button can be half-pressed to trigger auto-focus and auto-exposure. Then, keeping the button half-pressed, the camera can be oriented toward the object and the final shot taken.

- date 8/5/2003
- time 15 :2 :1
- focal length 9.2
- aperture f/2.8
- shutter speed 3.92705

Cavendish Place, 12, Bath

Light (interior). To record all the variations of luminance, the light has to be well balanced. If the variations of luminance are important (when photographing windows frame from the interior for instance), it is advisable to take a set of photographs with different settings. Flashes can give good results for photographs of window frames taken from interior rooms.

Picture a,c :

- photographer Maisie Wong
- camera Canon DIGITAL IXUS v2
- date 26/6/2003
- time 14 :53 :48
- focal length 5.41
- aperture f/2.8
- shutter speed 125
- no flash

Picture b,d :

- photographer Maisie Wong
- model Canon DIGITAL IXUS v2
- date 26/6/2003
- time 14 :53 :25
- focal length 5.41
- aperture f/2.8
- shutter speed 251
- flash

Blessed Virgin Mary, Claverton

Light (interior). Flash tends to flatten the scene. But, here the photograph taken without flash is blurred because of a longer pause.

Picture a :

- date 8/5/2003
- time 15 :5 :18
- focal length 25.051
- aperture f/2.8
- shutter speed 106.918
- flash

Picture b :

- date 8/5/2003
- time 15 :5 :36
- focal length 25.051
- aperture f/2.8
- shutter speed 3.92705
- no flash

Blessed Virgin Mary, Claverton
Light (interior).

Picture a :

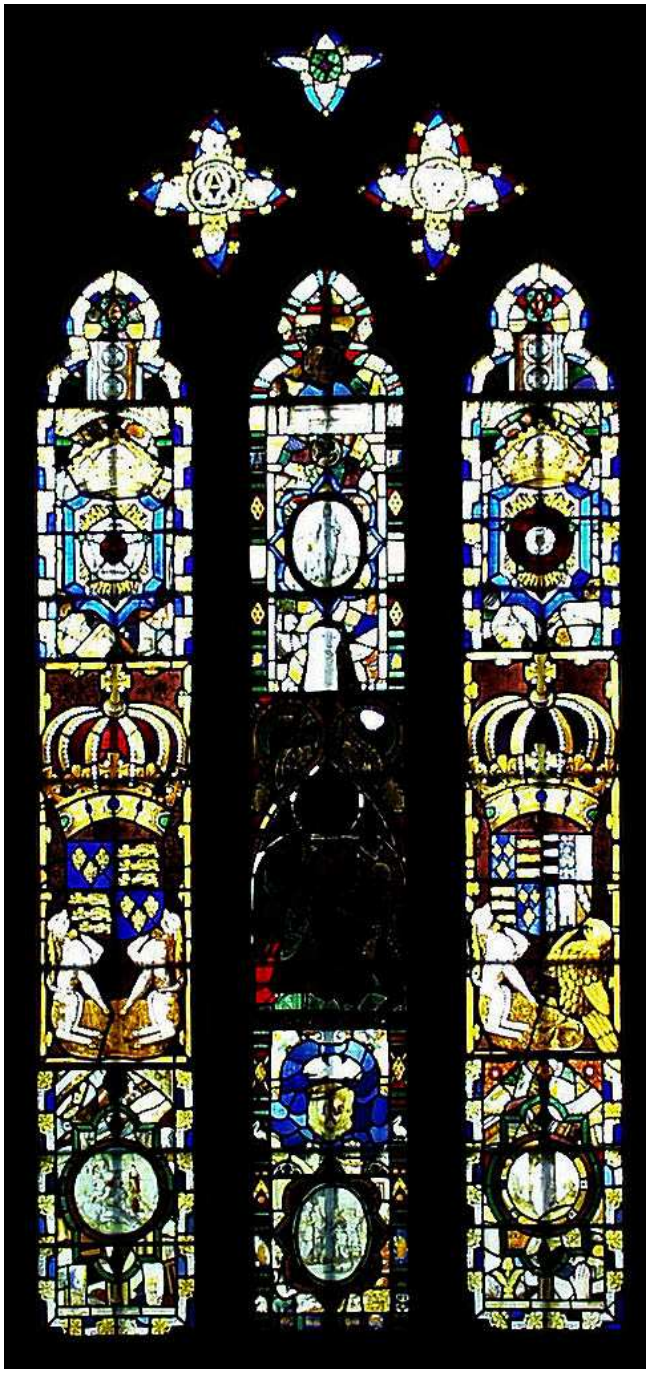
- date 8/5/2003
- time 15 :6 :14
- focal length 25.051
- aperture f/2.8
- shutter speed 106.918
- flash

Picture b :

- date 8/5/2003
- time 15 :6 :34
- focal length 25.051
- aperture f/2.8
- shutter speed 3.92705

Cadair Idris, Wales

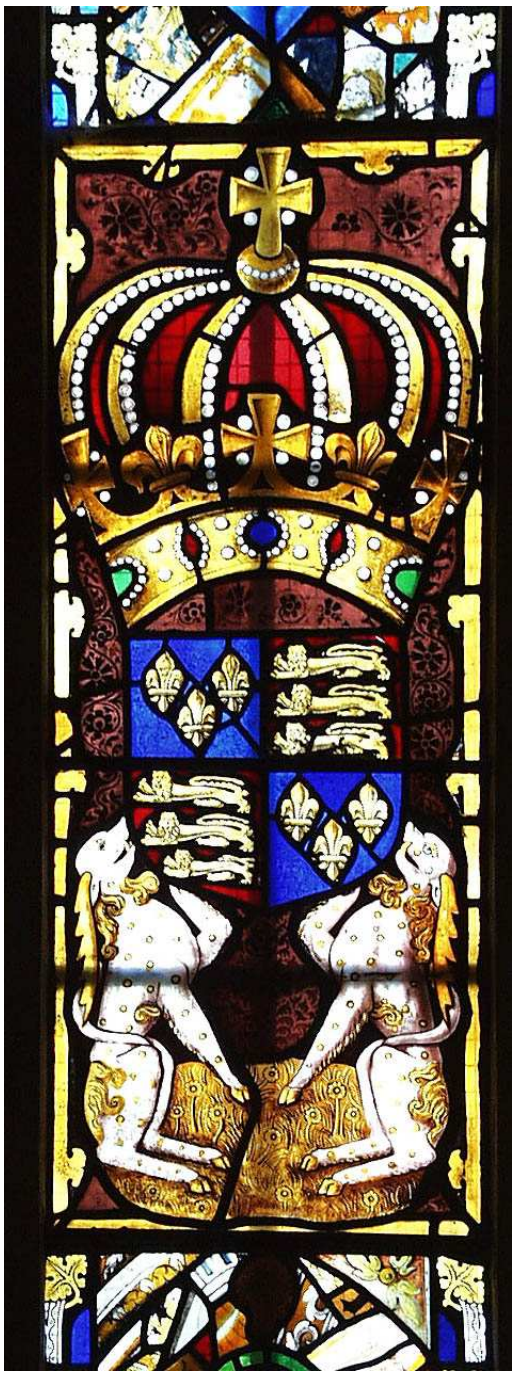
Light (colour). Blue light is more scattered. The red channel of colour photographs has more chances to be sharper. The effect is clearly visible only for long distance photographs or for pictures taken under adverse weather conditions. UV filters for colour emulsions or digital images and UV or yellow filters for black and white block the higher frequencies.
Picture a : blue channel
Picture b : red channel



Blessed Virgin Mary, Claverton

Light (contrast). The variation of luminance were too high to be recorded. One of the glass, darker than its neighbours is not visible. The stone structure is completely invisible.

- date 8/5/2003
- time 14 :58 :54
- focal length 16.72
- aperture f/2.8
- shutter speed 85.2079



Blessed Virgin Mary, Claverton Light.

- date 8/5/2003
- time 14 :59 :43
- focal length 25.051
- aperture f/2.8
- shutter speed 102.733

St Mary the Virgin, Darlington st., Bath

Light. The structure of the stain glass (lead net) is much more visible from the outside.

- date 6/5/2003
- time 15 :16 :49
- focal length 15.968
- aperture f/2.8
- shutter speed 298.775

Bath City Markets

Metal. Metallic elements on a bright background are particularly difficult to photograph. The shape of the elements is 'eaten' by the excess of light in the adjacent areas. Some chromatic distortion is also visible.

- date 6/5/2003
- time 16 :46 :32
- focal length 9.2
- aperture f/2.8
- shutter speed 51.3927

Bath City Markets

Metal. A high resolution is necessary to document the thinner metallic elements.

The absence of glass roof result in much lower variations of luminance.

- date 6/5/2003
- time 16 :47 :32
- focal length 25.051
- aperture f/2.8
- shutter speed 11.388

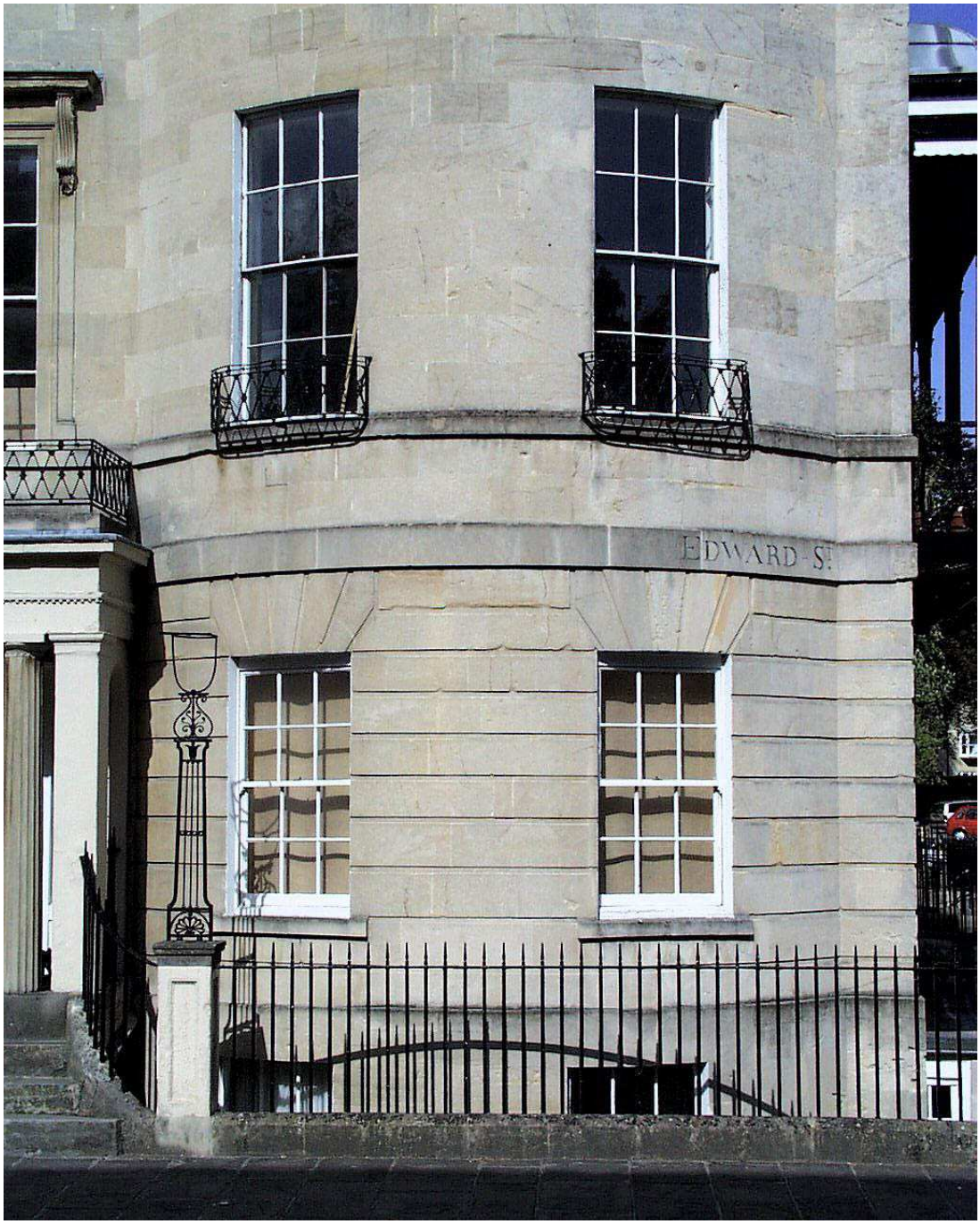
The Corridor, Bath

Metal.

- date 6/5/2003
- time 14 :11 :9
- focal length 20.7896
- aperture f/5.6
- shutter speed 268.24

The Corridor, Bath
Metal.

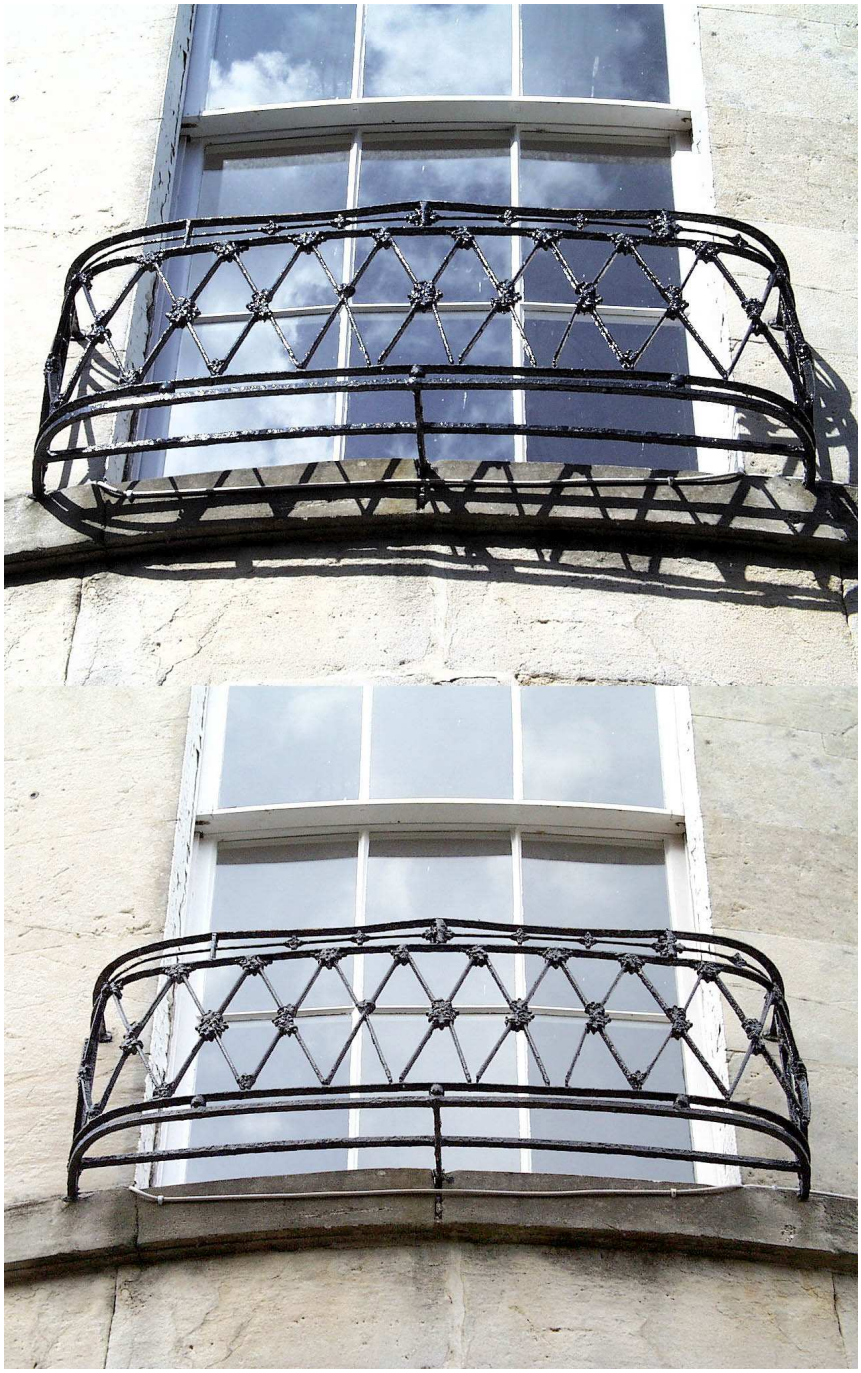
- date 9/5/2003
- time 10 :24 :33
- focal length 21.5416
- aperture f/5.6
- shutter speed 143.493



Edward st., 11, Bath

Metal. Very often, wooden or metallic elements are rich in details and require higher scale of documentation. Differences of colours resulting in high contrast may even complicate extraction of information in lower scale photographs.

- date 6/5/2003
- time 16 :25 :10
- focal length 16.2187
- aperture f/5.6
- shutter speed 800.641



Edward st., 11, Bath
Metal.

Picture a :

- date 6/5/2003
- time 16 :26 :14
- focal length 25.051
- aperture f/5.6
- shutter speed 307.598

Picture b :

- date 8/5/2003
- time 18 :46 :55
- focal length 25.051
- aperture f/2.8
- shutter speed 227.531

Laura Place, Bath

Visibility (vegetation). The condition of the building in its context may also complicate the documentation process. Vegetation, lack of distance, poor lighting conditions.

- date 6/5/2003
- time 11 :59 :9
- focal length 11.9573
- aperture f/2.8
- shutter speed 290.529

Laura Place, 11, Bath

Visibility (vegetation). When elements are hidden by trees, more photographs are sometimes necessary to have a complete coverage.

- date 29/4/2003
- time 15 :10 :8
- focal length 19.4773
- aperture f/2.8
- shutter speed 86.6176

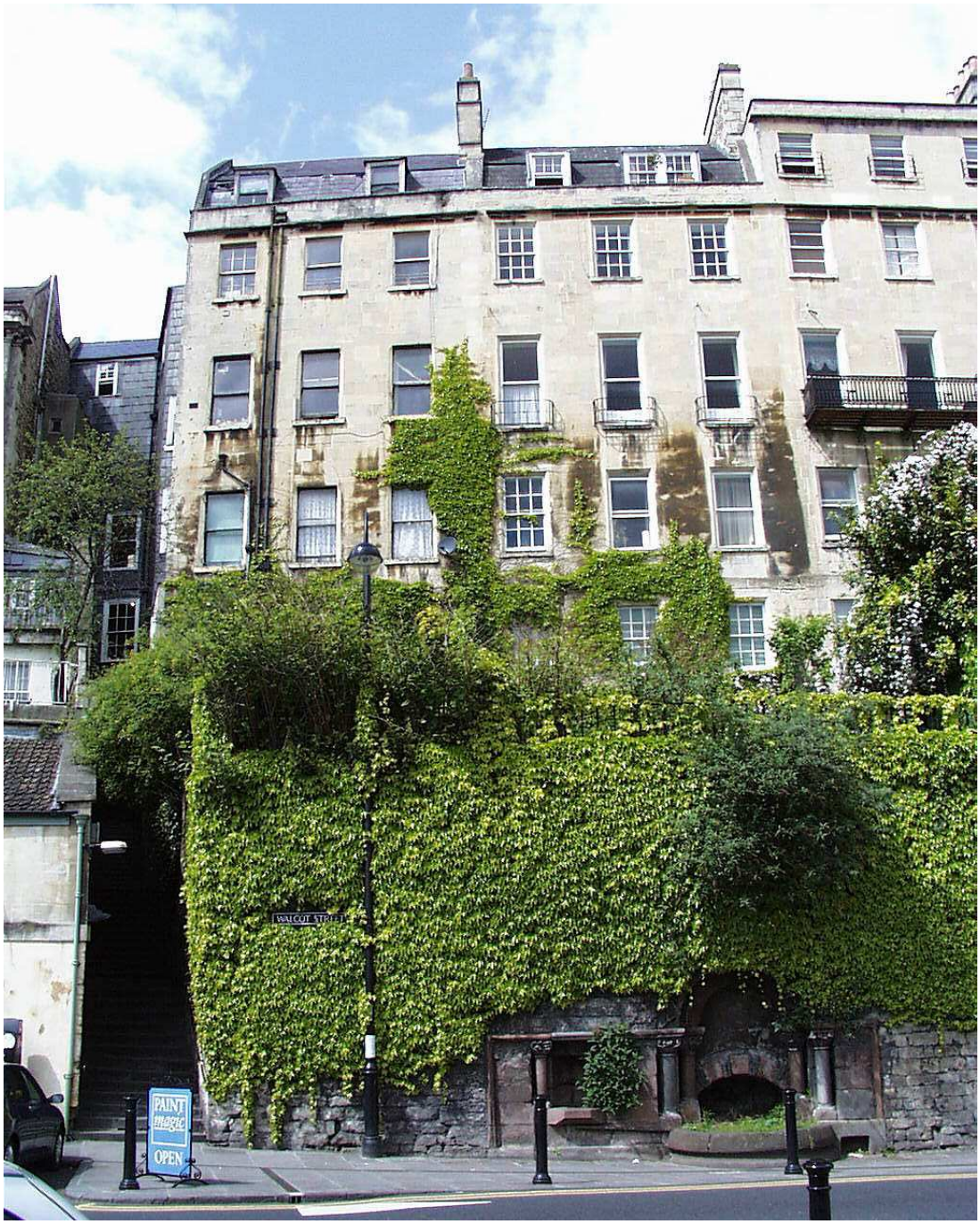
Laura Place, 11, Bath
Visibility (vegetation).

- date 29/4/2003
- time 15 :9 :20
- focal length 9.2
- aperture f/2.8
- shutter speed 401.768

Laura Place, 11, Bath

Visibility.

- date 29/4/2003
- time 15 :10 :8
- focal length 19.4773
- aperture f/2.8
- shutter speed 86.6176



Walcot st., Bath

Visibility (vegetation). Structures may be completely hidden by vegetation.

- date 6/5/2003
- time 12 :47 :8
- focal length 9.2
- aperture f/5.6
- shutter speed 261.575

Walcot st., 62, Bath
Visibility.

- date 6/5/2003
- time 12 :33 :59
- focal length 12.4587
- aperture f/5.6
- shutter speed 201.329

St Mary School, Bath, St John Road

- date 29/4/2003
- time 14 :50 :43
- focal length 17.2213
- aperture f/2.8
- shutter speed 282.725

St Mary School, Bath, St John Road

- date 29/4/2003
- time 14 :50 :5
- focal length 9.2
- aperture f/2.8
- shutter speed 275.255

St Mary School, Bath, St John Road

- date 29/4/2003
- time 14 :54 :42
- focal length 12.7683
- aperture f/2.8
- shutter speed 316.857

St Mary School, Bath, St John Road

- date 29/4/2003
- time 14 :53 :49
- focal length 24.8003
- aperture f/2.8
- shutter speed 105.843

St Mary School, Bath, St John Road

- date 29/4/2003
- time 14 :52 :15
- focal length 13.4613
- aperture f/2.8
- shutter speed 337.268

St Mary School, Bath, St John Road

- date 29/4/2003
- time 14 :52 :51
- focal length 25.051
- aperture f/2.8
- shutter speed 106.918

Cavendish Place, Bath

- date 5/6/2003
- time 17 :42 :43
- focal length 9.2
- aperture f/5.6
- shutter speed 613.121

Cavendish Place, 12, Bath

- date 5/6/2003
- time 17 :44 :03
- focal length 9.2
- aperture f/5.6
- shutter speed 417.885

Cavendish Place, 12, Bath

- date 5/6/2003
- time 17 :45 :44
- focal length 17.2213
- aperture f/5.6
- shutter speed 435.161

Cavendish Place, 12, Bath

- date 5/6/2003
- time 17 :46 :14
- focal length 25.051
- aperture f/5.6
- shutter speed 373.274