

The singer data is supplied with the lattice or trellis library.

```
> singer
```

```
  height voice.part
1      64  Soprano 1
2      62  Soprano 1
3      66  Soprano 1
      .
      .
      .
234    74    Bass 2
235    75    Bass 2
```

```
> attributes(singer)
```

```
$names
```

```
[1] "height"      "voice.part"
```

```
$row.names
```

```
 [1] "1"  "2"  "3"  "4"  "5"  "6"  "7"  "8"  "9"
[10] "10" "11" "12" "13" "14" "15" "16" "17" "18"
      .
      .
      .
[217] "217" "218" "219" "220" "221" "222" "223" "224" "225"
[226] "226" "227" "228" "229" "230" "231" "232" "233" "234"
[235] "235"
```

```
$class
```

```
[1] "data.frame"
```

```
> attributes(singer$height)
```

```
NULL
```

```
> attributes(singer$voice.part)
```

```
$levels
```

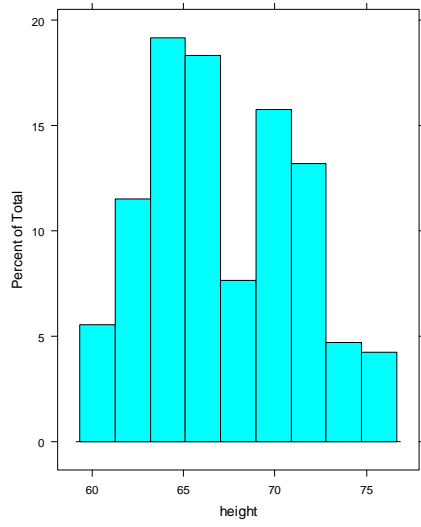
```
[1] "Bass 2"      "Bass 1"      "Tenor 2"     "Tenor 1"
[5] "Alto 2"      "Alto 1"      "Soprano 2"   "Soprano 1"
```

```
$class
```

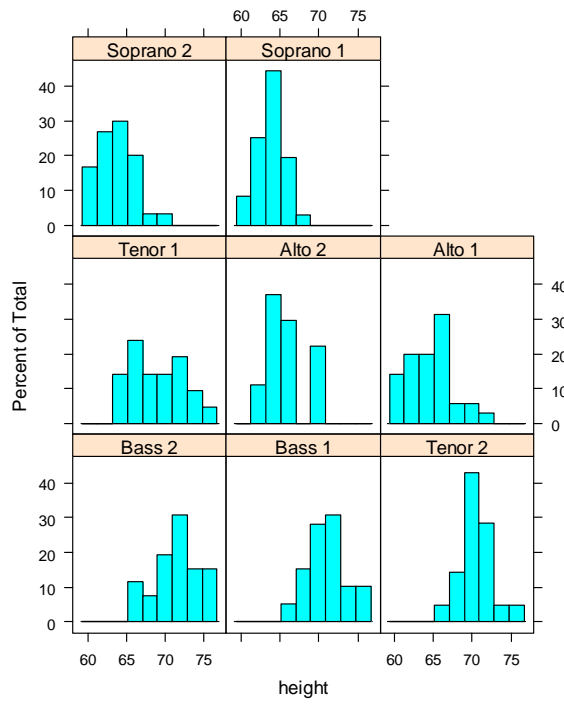
```
[1] "factor"
```

```
>
```

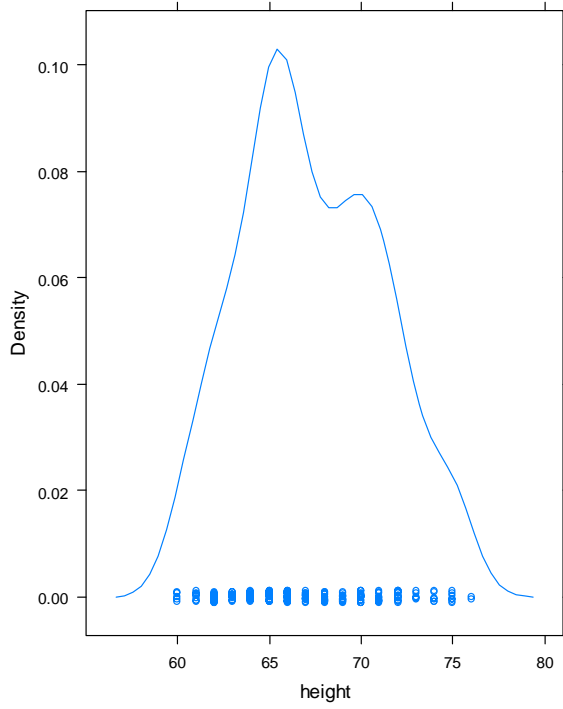
```
histogram(~height,data=singer)
```



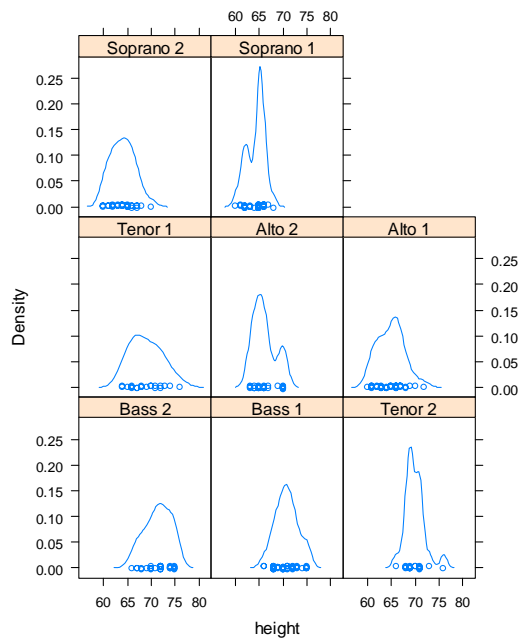
```
histogram(~height|voice.part,data=singer)
```



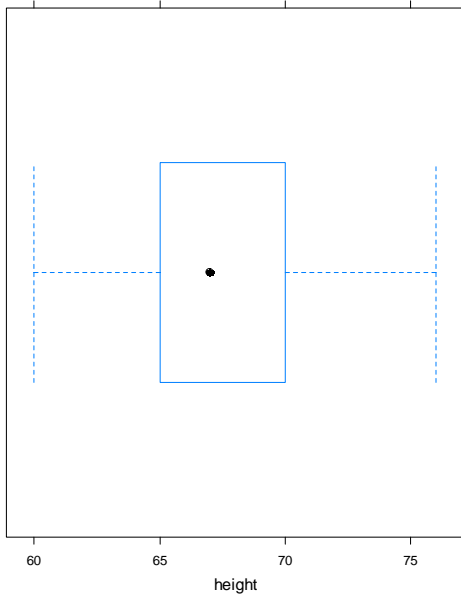
```
densityplot(~height,data=singer)
```



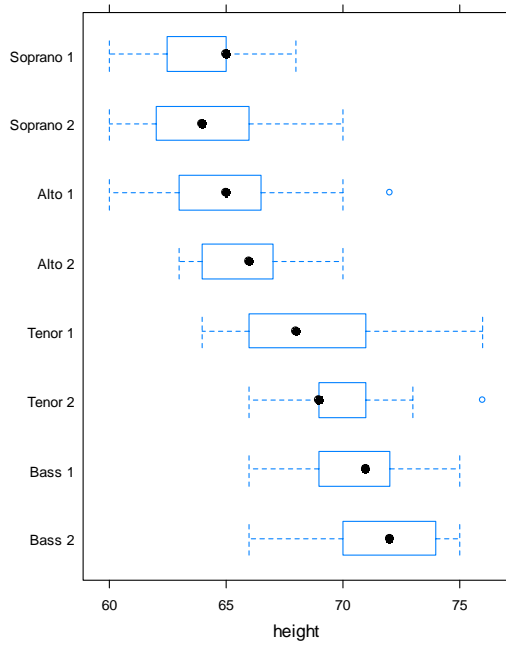
```
densityplot(~height|voice.part,data=singer)
```



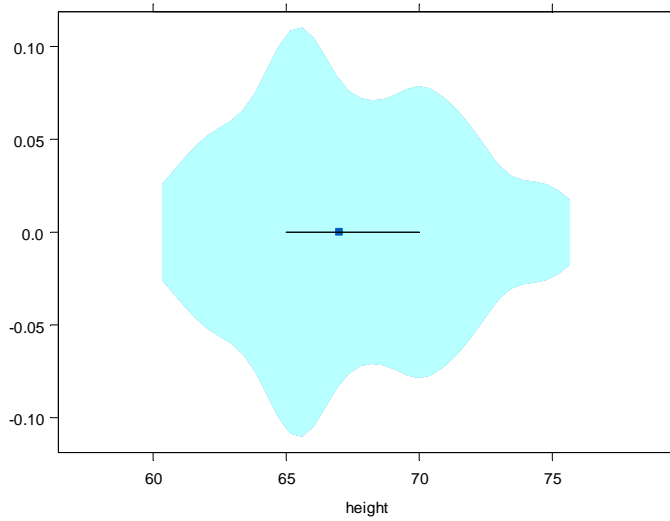
```
bwplot(~height,data=singer)
```



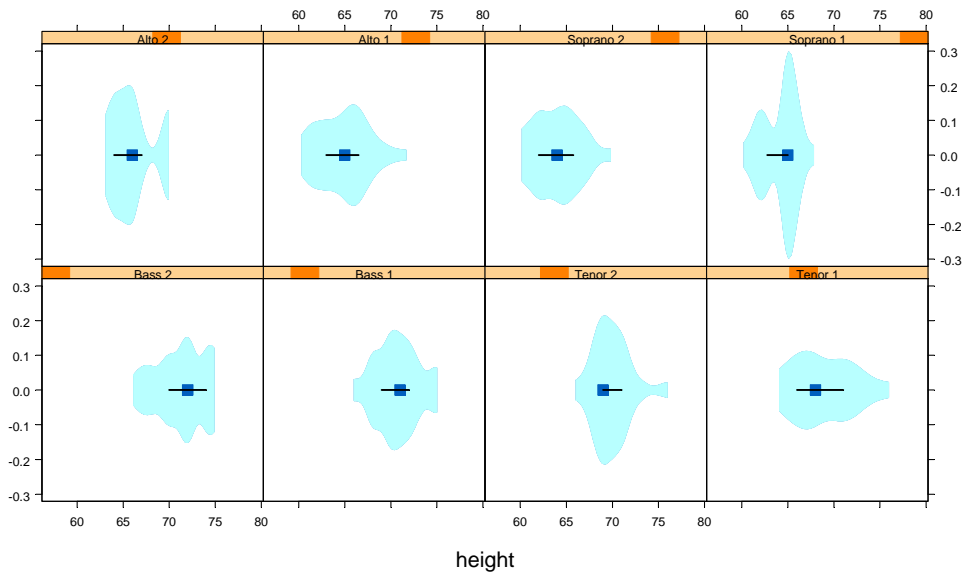
```
bwplot(voice.part~height,data=singer)
```



```
violinplot(~height,data=singer) ### This is a function that I wrote
### for S-Plus
```



```
violinplot(~height|voice.part,data=singer,aspect=1) ### This was done
### in S-Plus
```



```
### Using the Weight data from the NCSS Sample dataset.
```

```
> htw$Weight
```

```
[1] 159 155 157 125 103 122 101 82 228 199 195 110 191 151 119 119 112 87 190  
[20] 87 NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA  
[39] NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA  
[58] NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA NA
```

```
### Create a new variable with only those observations with non-NA's
```

```
> weight <- htw$Weight[!is.na(htw$Weight)]
```

```
> stem(weight)
```

```
The decimal point is 2 digit(s) to the right of the |
```

```
0 | 899  
1 | 00112223  
1 | 566699  
2 | 003
```

```
> args(stem)
```

```
function (x, scale = 1, width = 80, atom = 1e-08)
```

```
NULL
```

```
> stem(weight,2)
```

```
The decimal point is 1 digit(s) to the right of the |
```

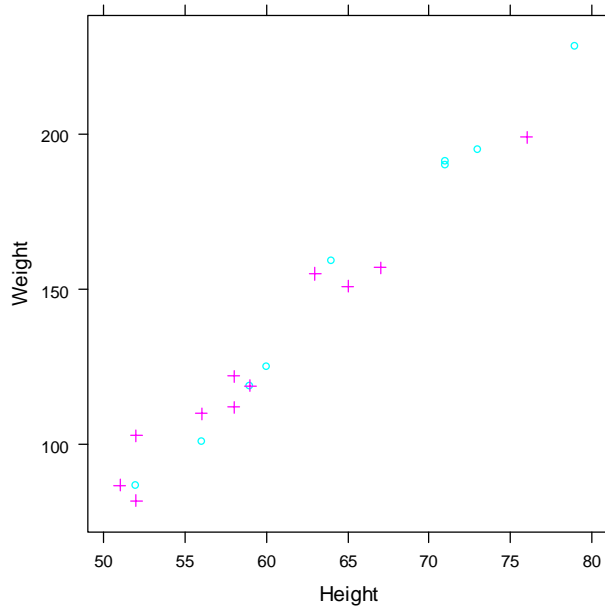
```
8 | 277  
10 | 130299  
12 | 25  
14 | 1579  
16 |  
18 | 0159  
20 |  
22 | 8
```

```
> stem(weight,5)
```

The decimal point is 1 digit(s) to the right of the |

```
 8 | 277
 9 |
10 | 13
11 | 0299
12 | 25
13 |
14 |
15 | 1579
16 |
17 |
18 |
19 | 0159
20 |
21 |
22 | 8
```

```
> xyplot(Weight~Height,groups=Group,data=htwt,aspect=1,pch=c(1,3),
  col=c(5,6))
```

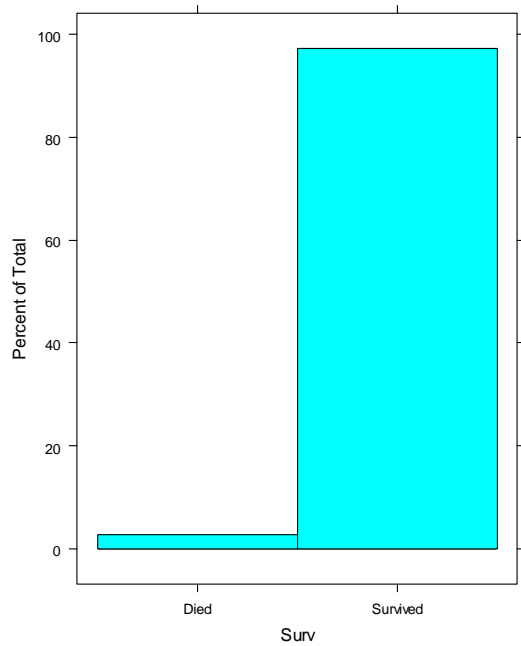


```
> attributes(hospitals)
$names
[1] "Hosp" "Cond" "Surv"

$row.names
 [1] 1 2 3 4 5 6 7 8 9 10
[11] 11 12 13 14 15 16 17 18 19 20
[21] 21 22 23 24 25 26 27 28 29 30
      .
      .
      .
[2891] 2891 2892 2893 2894 2895 2896 2897 2898 2899 2900

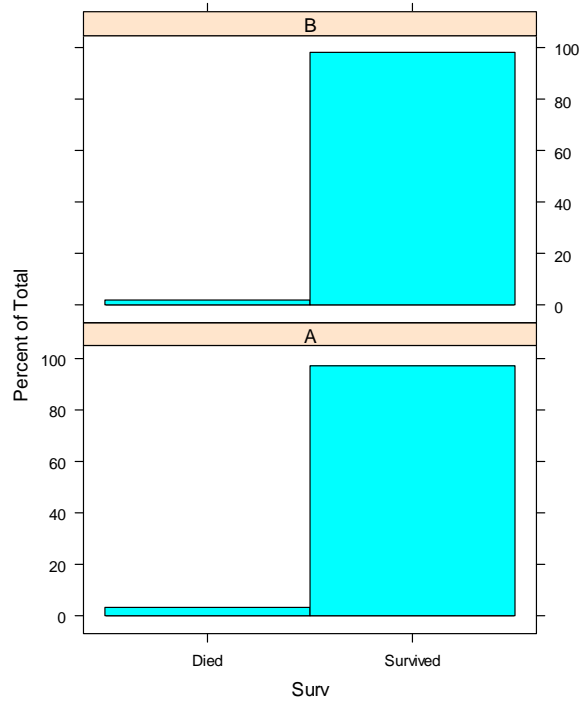
$class
[1] "data.frame"

>
> histogram(~Surv,data=hospitals)
```

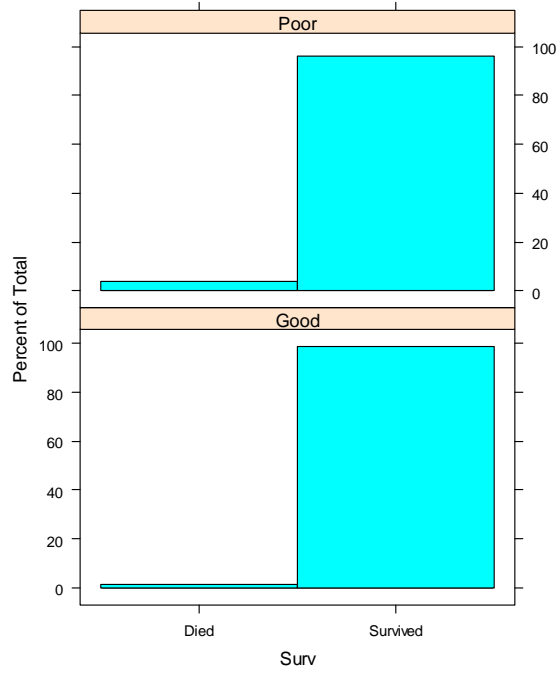




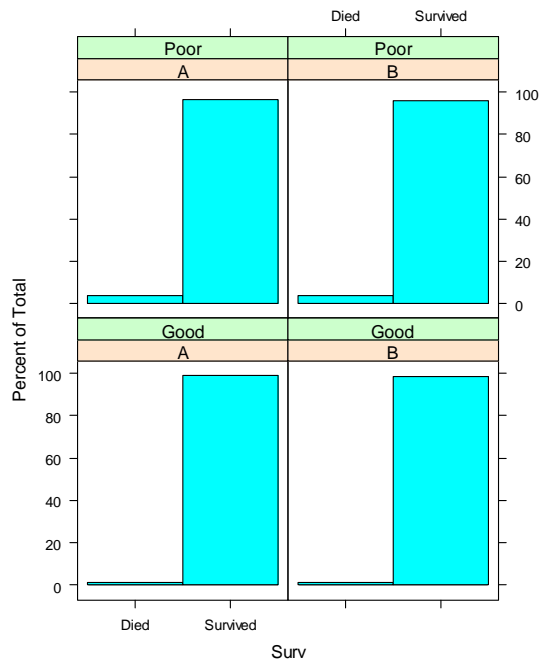
```
> histogram(~Surv|Hosp,data=hospitals)
```



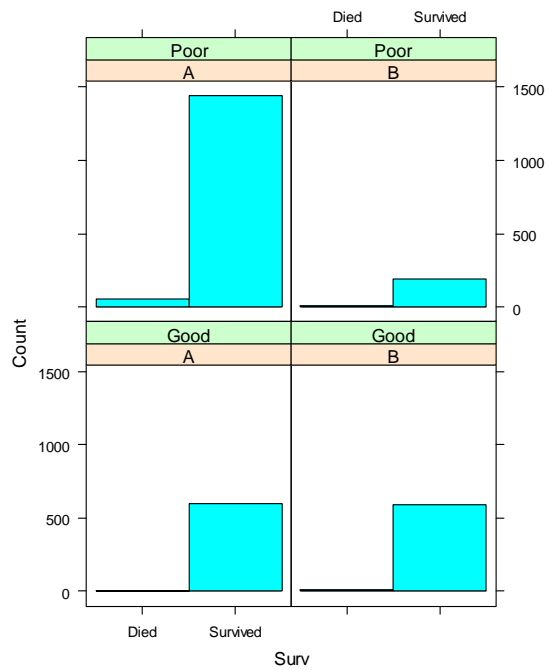
```
> histogram(~Surv|Cond,data=hospitals)
```



```
> histogram(~Surv|Hosp*Cond,data=hospitals)
```



```
> histogram(~Surv|Hosp*Cond,data=hospitals,type="count")
```



The barley data was originally collected by Fisher and others. It was analyzed by thousands of students as homework.

```
> names(barley)
[1] "yield" "variety" "year" "site"
> attributes(barley$yield)
NULL
> attributes(barley$variety)
$levels
 [1] "Svansota" "No. 462"
 [3] "Manchuria" "No. 475"
 [5] "Velvet" "Peatland"
 [7] "Glabron" "No. 457"
 [9] "Wisconsin No. 38" "Trebi"

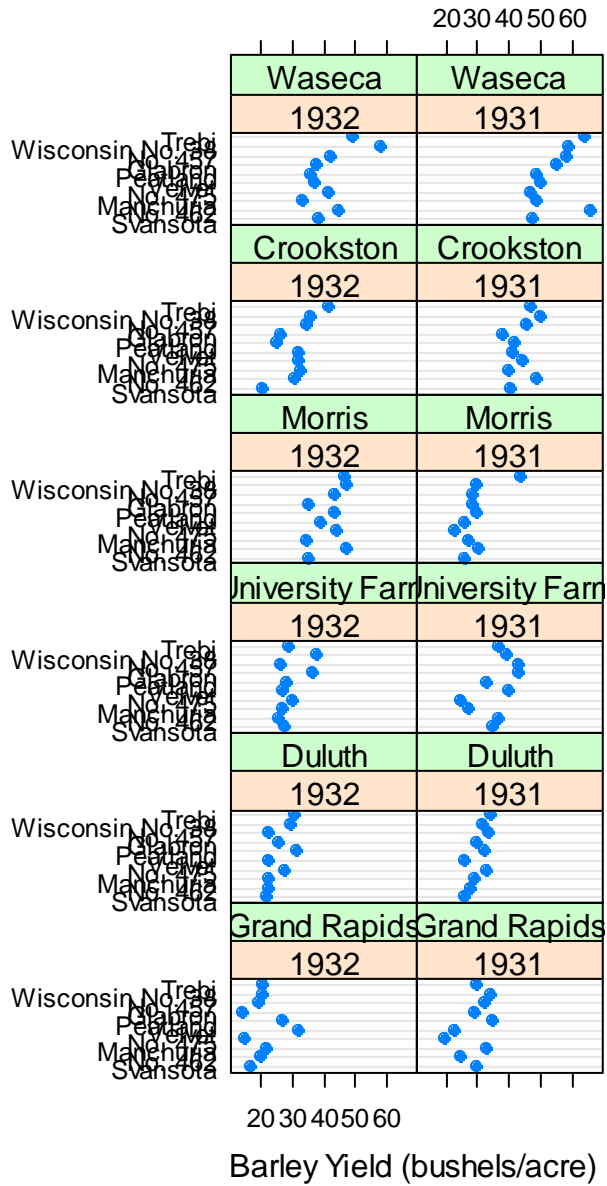
$class
[1] "factor"

> attributes(barley$year)
$levels
[1] "1932" "1931"

$class
[1] "factor"

> levels(barley$site)
[1] "Grand Rapids" "Duluth" "University Farm"
[4] "Morris" "Crookston" "Waseca"
>
```

```
> dotplot( variety ~ yield | year*site, data = barley,
  xlab = "Barley Yield (bushels/acre) ",
  aspect=0.5, ylab=NULL)
```



```

> dotplot(variety ~ yield | site, data = barley, groups = year,
  pch=c(1,3), key = simpleKey(levels(barley$year),
  space = "right"), xlab = "Barley Yield (bushels/acre) ",
  aspect=0.5, layout = c(1,6), ylab=NULL)

```

