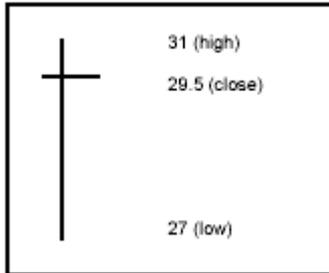


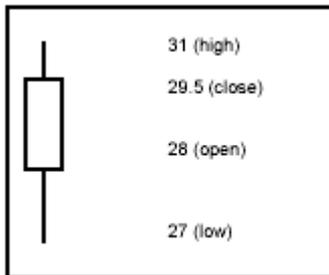
Candlestick Charts

The most commonly used tool of the technical analyst is the **bar chart**. This familiar representation of price action generally consists of a vertical line showing the day's range with a short horizontal dash depicting the **close**. For example, a bar chart of a typical trading day in General Electric might be displayed as:



Note: bar charts sometimes also show the opening level with the convention to show the opening price as a dash to the right of the vertical price-range line with the opening level shown as a dash to the left.

Candlestick charts can be viewed as slightly more sophisticated visual representation of the bar chart. The opening price is included in the chart and the above day's activity would be represented as follows:



Note: an **up** day is signified by a white (or empty) box. A **down** day is represented by a black or shaded box. The "box" shows the open to close range. The "wick" displays the full day's range.

Candlestick charts are generally plotted over a one-day period. Technical analysts also use weekly and monthly candlestick charts to provide a valuable picture of the longer-term price action.

So what's the advantage? Candlestick charting is one of the oldest methods of technical analysis, reputedly invented by the Japanese over 100 years ago and continues to be widely used today. The key to its appeal lies in the discipline's ability to give a clear visual representation of the price action during the period, leading to easy-to-recognise pattern recognition.

Reading Candlestick Charts: Dynamics

Even to the casual user, a candlestick chart gives a clear indication of the intra-day price action. Consistent up days with the instrument's price closing higher than the open are shown as a string of white candles. Down days are also quickly visible as black candles.



Daily candlestick chart of the **AUD** against the **USD**. "Down" days shown as black candles. "Up" days as white or empty candles.

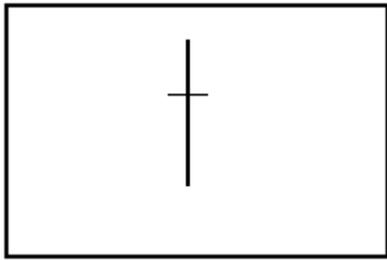
Pattern Recognition: Price action meets Eastern Mysticism.

Certain types of intraday price action are indicative of investor sentiment. For example, after a sharp fall, the last day of the downtrend may exhibit a large day's range to the downside, but recover mid-session to finally close unchanged, slightly lower or even up on the day. This is known as a "long tail down".

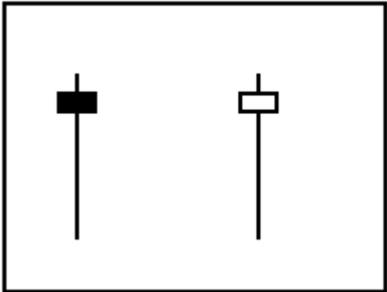


S&P500 index: Monthly candlestick chart in 2nd/3rd quarter 2002 shows a "long tail down", indicating seller capitulation and a strong rally from the lows.

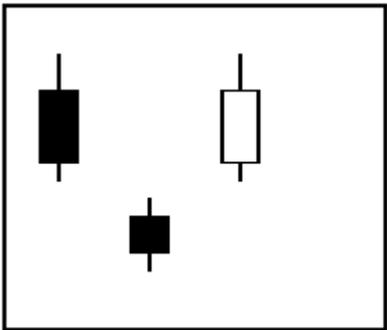
Many of these intraday patterns will be self-explanatory to students of behavioural technical analysis. The Japanese, however, have added a touch of Eastern mysticism to the process by naming specific patterns in their own inimitable style. Here are a few of the key ones to watch out for:



Doji Lines: from the Japanese meaning simultaneous, or at the same time. The pattern occurs when the opening and closing price are the same. No candle is displayed, merely a horizontal line. Not particularly significant in itself (perhaps a sign of indecision or lack of trend), but sometimes a component in multi-day patterns.

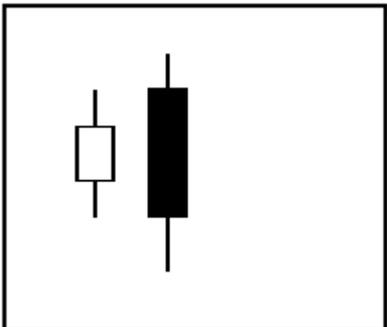


Umbrellas: A short body on a larger intra-day range. Also known as "hammers" when they occur in a downtrend. Considered to be bullish in a downtrend, bearish in an uptrend.



Stars: A concept similar to the "Island Reversal", pattern known to bar chart users.

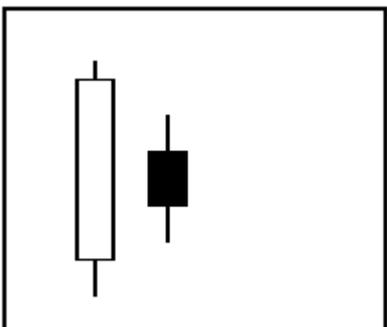
A reversal indicator. Tops are rather charmingly known as "**Evening Stars**", bases as "**Morning Stars**". The example on the left shows the latter.



The **Bear Engulfing pattern** (see example on left).

It sounds bad, and it is. Basically similar to an "outside day" in bar chart jargon. Another reversal pattern.

The bullish counterpart is known as a "bull engulfing" pattern.



Harami patterns: meaning pregnant in Japanese, the Harami pattern is shows a small day's range occurring entirely within (hence the pregnancy) the previous day's larger range. These patterns should be viewed as an "early warning" signal for any potential change of trend.

The example on the left shows a bear Harami.

A word of warning

Pattern recognition is historically a key component in technical analysis, but don't get carried away. The detractors of TA often refer to "reading the runes" or "reading the tea-leaves". This attitude is a not unreasonable reaction to the over-reliance of some technical analysts on pattern recognition. Candlestick charts offer us a valuable tool for the study of intra-day (or intra-week/month) action, but as ever the basics of trend identification remain the most important weapon in the technical analysts armoury.

What next? To learn more about Candlestick charts, try reading JJ Murphy's well known "Technical Analysis of the Financial Markets", published by the New York Institute of Finance and available at good financial bookstores or at Amazon.com. The book contains an excellent library of candlestick patterns including the exotically named "Three Rivers Bottom" and "Upside Gap Two Crows".

Alternatively, why not attend one of David Fuller's two day Chart Seminars? This highly regarded workshop-style event has been attended by many of the world's top fund managers and traders for three decades. See further details at [the Stockcube website](#) .

Sayonara, and good charting!

Mark Glowrey July 2002