

# **Chart Reading**

**for**

# **Professional Traders**

**by**  
**Michael S. Jenkins**



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*Michael S. Jenkins*

**Biographical Sketch**  
**of**  
**Michael S. Jenkins**

Michael S. Jenkins was born in Schenectady, New York on March 12, 1949. From earliest childhood, he was fascinated with the stock market and studied every book and publication he could find regarding the subject. He studied Economics and Business Administration at Washington & Lee University and graduated with a BS in Commerce in 1971. In 1975, he received an MBA from George Mason University. He passed the Uniform CPA Examination the same year.

Mr. Jenkins held positions at various bank trust departments from 1971-75, and in 1976, he was appointed portfolio manager for three mutual funds in Washington, DC.

In 1984, Mr. Jenkins moved to New York City to become a professional trader for a number of specialist firms on the NYSE. In 1985, he founded the investment newsletter "*Stock Cycles Forecast*." Because of the widespread notoriety this letter received in precisely predicting the final stock market high in August 1987 and specifically calling for a 500 point drop in the Dow that would end by October 19th of that year, Mr. Jenkins has become a frequent commentator on television and radio and is often the subject of numerous popular financial magazine and newspaper articles.

Nearly every major high and low of significance in the past several years has been successfully forecasted in the "*Stock Cycles Forecast*" newsletter — many down to the exact day and in a few cases, the exact hour on those dates! Mr. Jenkins is considered an authority on cycles in the financial markets and often lectures on this subject, as well as providing investment seminars where his proprietary trading methods are taught. He is the author of *The Geometry of Stock Market Profits, A Guide To Professional Trading For A Living*. This new book, *Chart Reading For Professional Traders*, is an attempt to provide the investing public with a basic reference work for reading charts to forecast and trade the speculative markets, using his proprietary discoveries in the area of technical analysis.

## Acknowledgments

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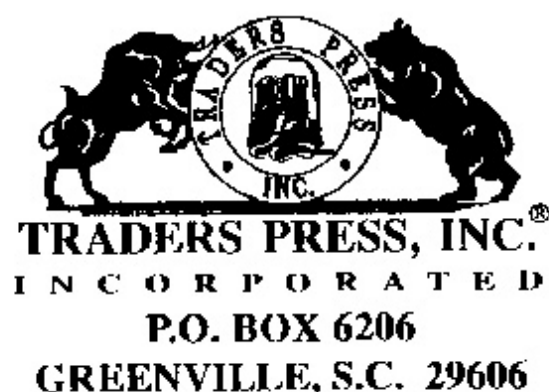
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# Introduction



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There has always been a debate about whether one should invest as a fundamentalist or as a technician. The fundamentalist, of course, does not look at charts but concentrates on analyzing hard economic figures in the belief that an improving fundamental situation will lead to higher prices. Although this sounds quite logical and perhaps 98% of all investors invest this way, it is nevertheless wrong. Only in a general sense do the fundamentals concern traders or investors who are looking for capital gains on an annual basis, and certainly day traders can easily go bankrupt from short term corrections against the fundamental bias. Unless major accumulation of an issue takes place, no matter how good the fundamentals, the price is likely to move very little, and it is this price movement that makes money for us.

Charts and technical analysis, on the other hand, are mostly concerned with price movement. When securities or commodities are fluctuating, we can trade them and make money. Any truly fundamental development of importance will first show up in the price and volume data long before outsiders will learn about the fundamental development causing it. One does not need illegal information to see illegal accumulation or major developments within a corporation or commodity supply demand factors that may be changing. Money moves the markets, and big money is always right no matter what the reason. The skilled chart reader will always see this price movement and be alerted long before others. This is the fundamental argument for chart reading, but more important is the fact that *cycles* exist and recur over and over again, showing up in the historical record of the price data and can be analyzed from such data to make future predictions.

Wall Street would like to deny the existence of cycles because no one needs a highly paid analyst or a full service broker if cycles indicate that a stock or commodity is going up or down the next year, regardless of perceived fundamentals. Only by having a price history can we truly say we know what to expect from our investment, the nature of its personality, the extremes it has traded to over the years, and where it is deviating from its past patterns, which could indicate a new significant development in the life cycle of the company.

For years I have heard the arguments about long term investing and the many people who have made fortunes in the market using a buy and hold strategy. What is not said very often, however, is the tens of millions of investors who bought and held the wrong stock and after thirty years have only broken even or worse saw their company go bankrupt. Books are not written about these unfortunate multitudes. In 1965, General Motors was the most popular stock, and "what was

good for GM was good for the country.” But, did you know that it took until January 1994 for GM to finally exceed the price it sold at in 1965!!! It took nearly 30 years for those 1965 buyers to break even!

The idea of buy and hold is a fundamental strategy. It assumes the issue you hold is going *up* every year. In these cases, you could get rich over time. But, the modern version of buy and hold has been perverted by the big brokerage firms and mutual funds to lock the customer into their particular investment program without emphasis on whether the issue is actually making money. The person who buys and holds a declining issue is not an investor but a fool. Believing the fundamental argument that improving earnings will eventually mean a rising stock price has been the death knell for many an investor. Only technical analysis and chart reading can save these sorts of individuals. The chart clearly shows us the objective trend whether up or down, and we can then develop some sort of strategy to limit losses at a reasonable level if the fundamentals do not kick in.

It has been rightfully said that chartists sell too soon out of fear of heights and miss the big move that often makes millionaires of fundamentalists. The corollary, of course, is that the chartists do not go down with the ship when they see a sinking chart pattern. I am sure the number of rich buy and hold fundamentalists is a lot smaller than the number who held on and lost everything. The obvious solution, of course, is a marriage of the two concepts. I have no problem with the person who strongly believes in his investment and wants to hold it forever, using a common sense strategy to sell it when he gets a technical sell signal, but immediately takes steps to repurchase it if it again reverses with a buy signal. This kind of long term strategy will be infinitely more rewarding in those cases where a stock goes up for years and truly does make millionaires out of its owners.

## **This Book**

The purpose of this book is to demonstrate the principles of chart reading and technical analysis as applied to general chart reading for trading purposes. Advanced techniques to find cycles, project price targets, and time periods for reversals will be examined at length. Many of my original discoveries in this field will now, for the first time, be published in an effort to help the investing public make a success of trading and allow the average person the ability to consistently make profits in the speculative markets. I will not cover all areas of technical analysis, nor will I teach the basics of stocks, options, or futures. I assume you can learn these things from a thousand other books at your local library. What I will show you, however, is a comprehensive method to make money each and every month. Making money each month, of course, means that with a reasonable amount of capital you can become independent and live the kind of life you choose not fettered with the burdens of everyday work drudgery.

These principles always work. That is why they are called *principles*. I have no time to spend lengthy chapters explaining to you the reasons behind these principles or the fundamental cause and effect behind price movements. My purpose here is to simply reveal these methods for making money. I have been a professional trader for over twenty-three years now and can

assure you that these principles are well worth learning! For those of you who must know the *reasons*, I direct you to my book *The Geometry of Stock Market Profits, A Guide To Professional Trading For A Living*.

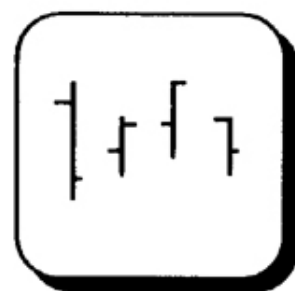
There are many esoteric truths handed down to us from ancient times, and many of these are applicable to the speculative markets. The professional trader knows that the objective is to make money, not espouse a particular philosophy or do it “the right way.” Keeping an open mind is the key.

From the earliest days, great spiritual leaders have spent lifetimes trying to conquer the subconscious mind and the body. Often rigid disciplines of starvation, flagellation, meditation, or deprivation were used to teach the body and subconscious to respond without question. If you propose to enter the largest arena in the world that exhibits fear and greed (the speculative markets), and you are brought there motivated by the emotion of greed to make money, you will surely fail. This is why there are few rich stock analysts on Wall Street. They are deluded into thinking they are intellectual and rational in their behavior, but the reality is still emotional greed. The solution, and this may be the greatest lesson in this book, is that in an emotional market you must use your brains *not* to make money, but to *control* your **emotions**. Your logical reasoning should be put to use developing strategies apart from the emotions of the trade. Chart reading with this in mind will yield infinite results. Principles can be applied in a cold, hard, non-emotional fashion, and a stop loss discipline is then rigidly applied when the strategy goes awry. Of course, this makes trading a business and not an emotional thrill, but it will be a consistently profitable business!

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# Basic Concepts

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The theory behind technical analysis is that all relevant information that concerns the appreciation or decline of stock prices is reflected in the chart of the price and volume. All information, no matter how secretive, must first surface in the buying and selling of the stock and thereby moves the price of the issue if it is of significance to the capital gains' investor. Fundamental analysis, although possibly relevant to long term trends, may or may not generate current buying enthusiasm and, in that case, has no effect on the price of the security.

The idea of stock price movements as a *process* of accumulation and distribution is the backbone of chart analysis. Major insiders accumulating large positions prior to significant upward price movements readily show their characteristic footprints in the chart patterns prior to the big moves, and these patterns have been shown to have high forecasting reliability. Similarly, distribution periods where insiders slowly sell out major positions prior to big market breakdowns also have telltale characteristics that are of extreme value to the knowledgeable chart reader. Since these trends are usually long term in nature, at least the significant price movement ones, their characteristic patterns can be broken down into subtle waves or fractal patterns for each movement, and many of even the slightest counter-trend movements can be captured by the astute chart reader. A stock or commodity that has an annual range of 20% between the yearly low extreme to the high extreme often has three or four minor movements of 10 to 15% within that larger yearly range. The active trader can therefore often achieve rates of return several times the annual range if a comprehensive trading discipline is utilized to exploit the known facts. Recent advances in technical analysis have opened the way to the possibilities of spectacular returns, and the purpose of this book is to acquaint you with many of my own proprietary discoveries in this area, along with the traditional methods that I have found to be most reliable in my professional trading career.

Knowledge is only the beginning. Strategy and patience are equally important. In the end, only a few will truly succeed in a spectacular fashion. However, I would say that the vast majority will immensely improve their trading with just a casual reading of this book. Eliminating easy mistakes can often double annual rates of return, and I am sure that this book will point out many principles that you will find can easily change your bad habits into profitable careers.

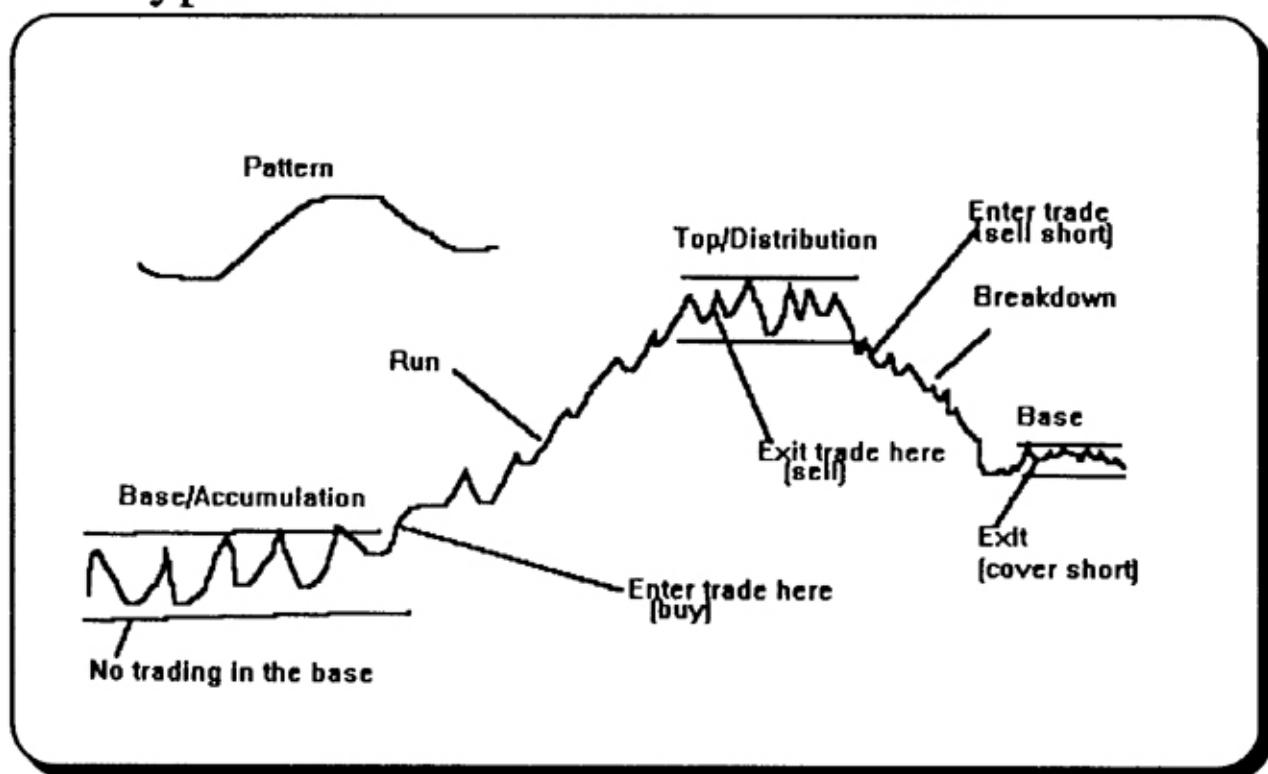


## The Basic Accumulation, Distribution Pattern

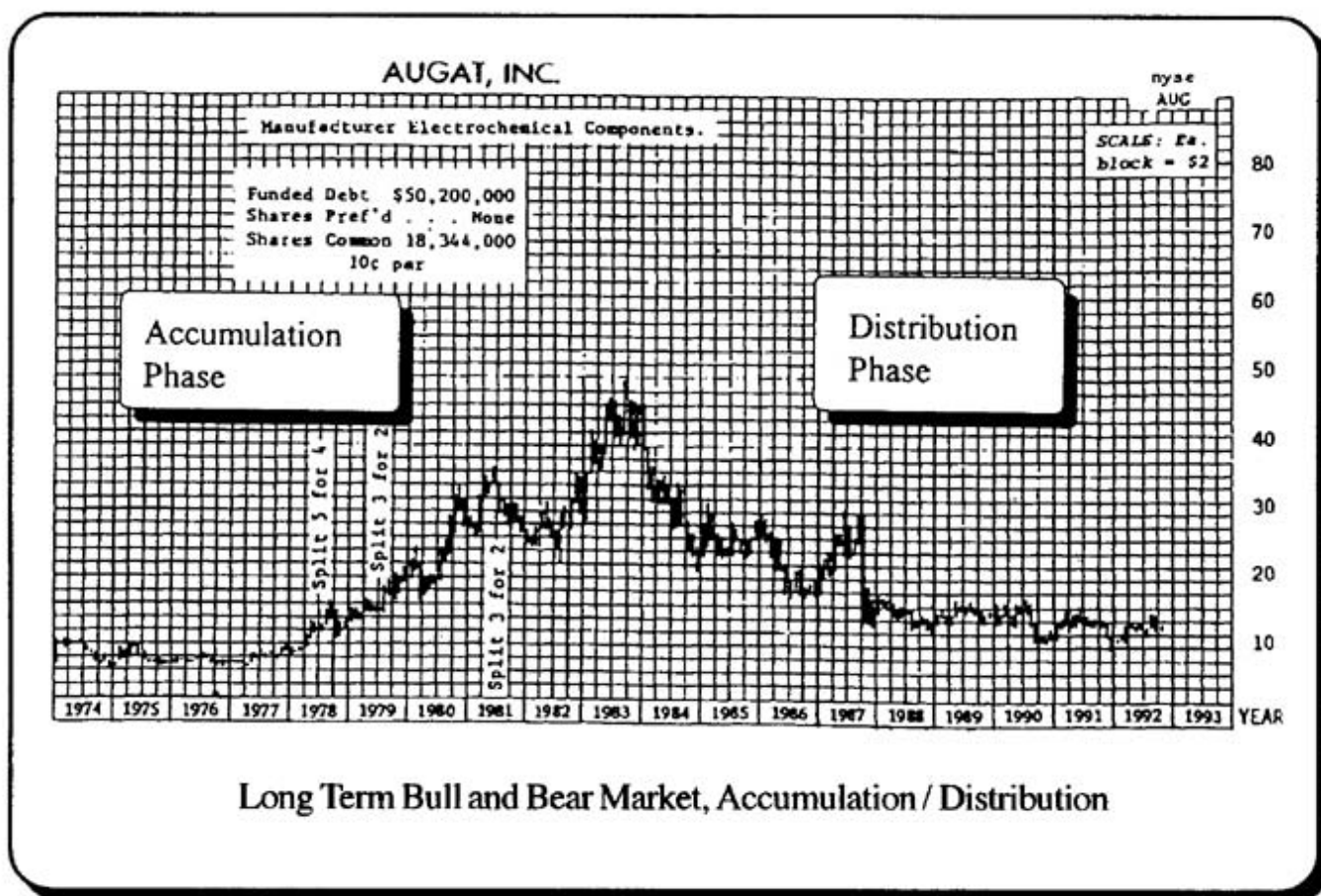
Most traders want to trade every day. In reality, you can only take what the market will give, and each day is not an equal probability for success. Professional traders can readily size up a market in the first hour and tell if the day is worth bothering with or whether the daily strategy is for small scalping trades with frequent reversals or for more leveraged major moves lasting several days. If you find yourself buying or selling every day in the first twenty minutes, you have a problem. Many good trades come mid-day or at the close when most traders have already committed. Make sure you are not so emotional that you cannot keep from the action past the first hour. Knowing that each market movement has a reliable *shape* and *time duration* can help.

The basic *accumulation, distribution pattern* looks like the statistical bell shaped curve. The **base** has an extended period of “backing and filling” in a sideways fashion, then comes the **upside breakout or run**, then comes the **topping** phase. After that, there is either **another upside breakout** or a **breakdown** back to the base. Good traders do not want to trade in the base or the top, but only the breakaway or run phase. Once the momentum dies and a consolidation range is hit, traders should move to the sidelines and wait.

### Typical Accumulation / Distribution Pattern:







The typical pattern is the same, regardless of the time period. In other words, the above pattern could be seen on an hourly, daily, or weekly chart. Obviously, differing trading strategies are employed for longer term movements, lasting days to months, rather than on an hourly chart. Leveraged traders using options and futures will work with hourly charts, and this pattern will often rise and fall over a single day's duration. The "run" phase, where one owns put or call options or futures, will ideally be limited to **8 to 13 HOURS**. Holding positions longer than that is not *trading* but *investing*. Longer term traders using daily and weekly charts will find their horizon 3-6 days to extremes of three weeks. These are stock trades and options, and futures would not be appropriate.

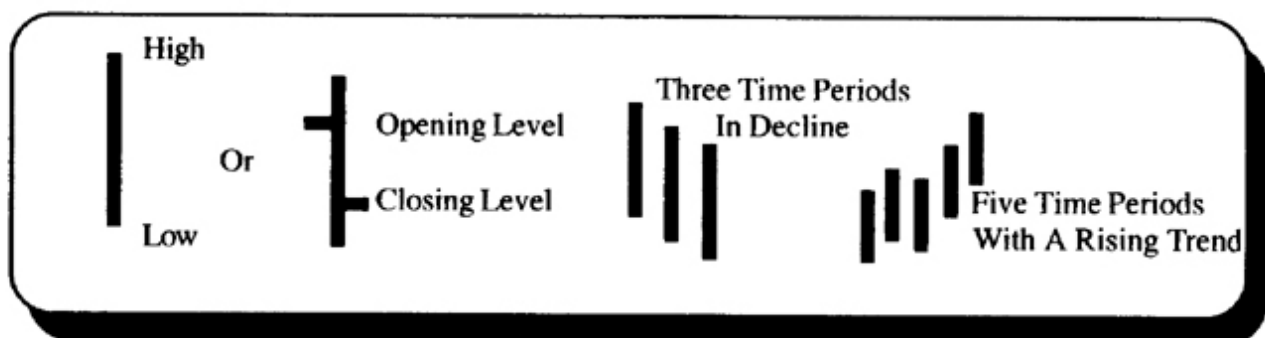
It is one of the more difficult aspects of trading to "stay out" of the base or top and wait for the real move to get started. Most traders hunger for the cheapest entry point and usually waste days and several stops before the real move begins, when, if they concentrated on the "easy" 70% of the move during the run phase, they would never get stopped out and would make quick safe profits in the shortest time possible. Most techniques in this book are used for identifying this most rewarding part of the pattern (run or breakout).

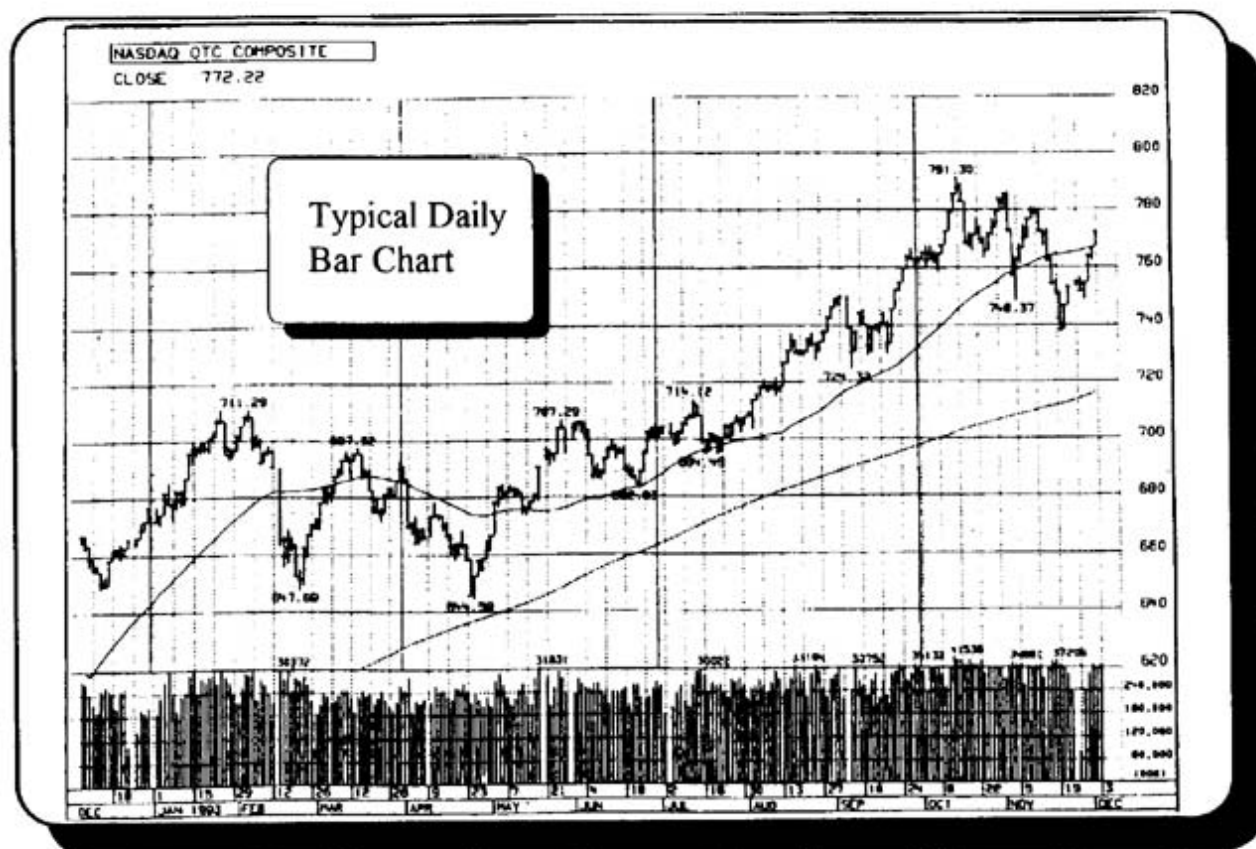
Remember that the “flat” areas of the base or top that we want to avoid trading in can be spotted by loss of *momentum*. Momentum is simply the amount of price movement per time period. Large momentum is nothing more than big price fluctuations in a short time period. When the momentum dies down, we exit our positions until activity picks up again. If you keep in mind the bars on a bar chart, the areas to avoid have a series of equal sized bars with high and low points randomly spread in a sideways fashion. Tradable moves are characterized by elongated “big” bars showing much momentum. You must train yourself to make a trade during these big bars. As traders, we can only take what the market gives, and these big bars are the payoff. Failure to trade out of fear is a mortal sin for a professional trader.

## The Bar Chart

There are many types of charts one can use in trading, but the primary basic one is the simple bar chart. Throughout this book, I will refer to these kinds of charts and use them in the examples. A good chart reader after some practice can easily visualize the other kinds in his head without having to keep up numerous chart papers. Even Japanese Candlesticks, which seem to be the current rage, give no information not found on a regular bar chart but are marketed as being easier to interpret. This is not the case if you know the *principles* behind chart reading, and the simplest bar chart will yield infinite amounts of information if you know where to look.

In its basic form, a bar chart is simply a line drawn from the high of the time period to the low represented by a straight vertical line. More information can be obtained by adding a mark on the vertical line to represent the opening and closing levels. These opening and closing levels can tell us a lot about the current day’s probabilities. For instance, a close at the extreme high or low of the day will usually carry well into the next. Similarly, several bars or days in sequence that close strong represent accumulation going on. I could probably write several chapters alone on the meanings of opening and closing ranges, but for the vast majority of traders the trend is more important than the projection, and I will leave the study of those ranges to you if you want to master intra-day trading. Many of the charts I will use in this book will omit the opening and closing marks on the vertical bars so as to cut out all but the simple trend information that is contained within the range on each bar. For most trading purposes, knowing the trend and the momentum shown by the size of the individual bar’s range is enough. The typical bar chart looks as follows:





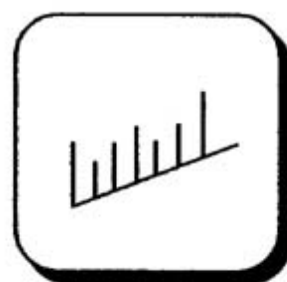
## Personalities

When you look at a chart, one of the first considerations is the type of *personality* the chart has. By this, I mean its trading characteristics. Some stocks are glamorous and big movers, while others are slow moving snails. Tops and bottoms usually form individual characteristics with some stocks “spiking” into a solitary high bar and rapidly declining, while others gradually “roll over” and go down. **You must adapt your trading strategy to these individual characteristics to be successful.** Quickly buying into a gradually rounding base is a waste of time, but a buy at a spike bottom on a signal bar reversal is a good practice. Only a first look at the most recent history will alert you to these trading characteristics. Learn to scan all the markets to find ones with personalities that fit your trading style and profit objectives rather than just taking any trade that shows up. A corollary to this is to only trade the most active markets and only when they are moving. Trading wheat, corn, bonds or stocks simply because you have a big account is a mistake. You should concentrate on the active ones to maximize your return over the shortest time period. Identifying the personality characteristics is one of the first things you should do. Only after you note the type of character and see if it will satisfy your particular objectives should you then spend time on a more detailed look at the trend, cycles, and projection targets. Examining the past is always a good first exercise, so you will have an idea ahead of time as to what is possible or likely and what is based on factual past trading patterns. Looking for a huge up or down movement that is out of character will tie up your capital needlessly.

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# Trend

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## Basic Trend Determination

The fundamental reason we look at charts is to determine the trend. We can see at a glance whether the market is rising or falling, but few casual observers realize that the real trend is actually a *pattern* of advances and declines. Once that pattern is discerned, it usually persists for quite some time. This is the basis for all investing — determining the primary trend and trading *with* that trend and not against it.

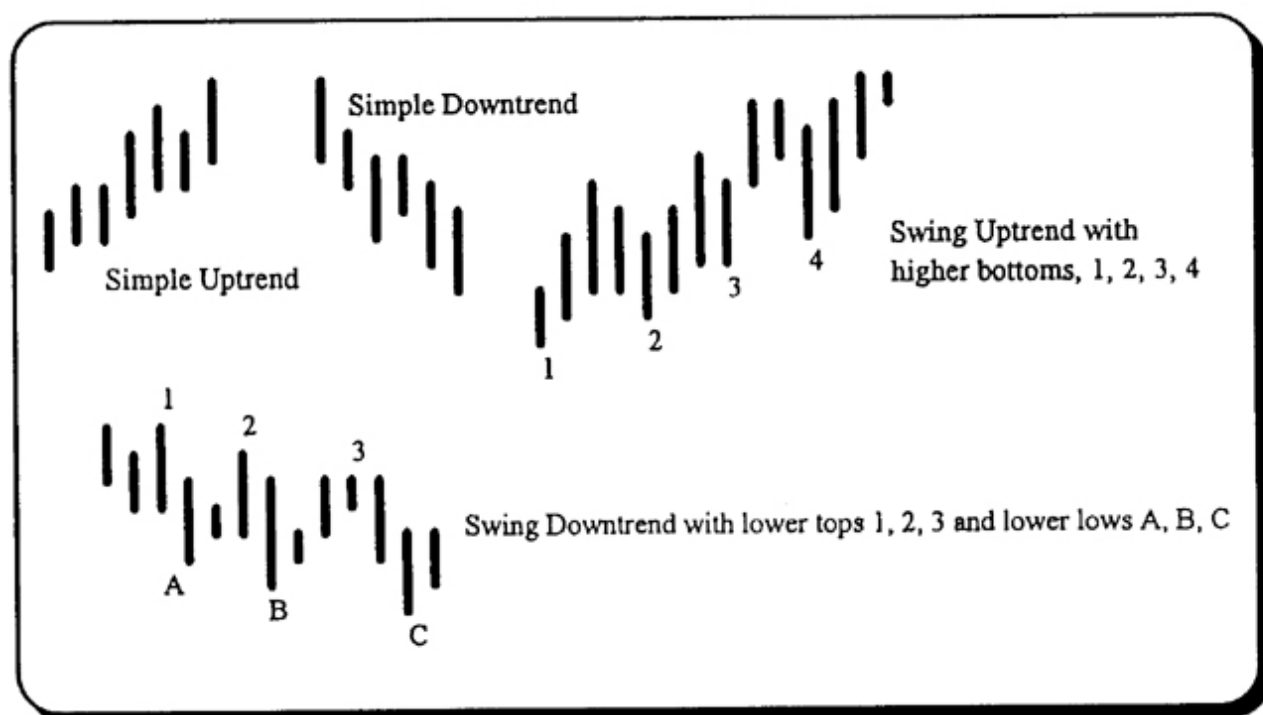
On a basic bar chart, the bars consist of a range from the low to the high for each period. These periods can be of any length, such as five minutes, fifteen minutes, hourly, daily, weekly, monthly, etc. The following are the critical telltale trend patterns for which we are looking:

**The Bull Pattern**, or rising trend, *has only one criterion and that is a series of rising swing lows*. In its simplest form, each individual bar would have a higher bottom on every bar, and, over several days, each swing correction would end at a higher swing low than the previous one. When I use the word “swing,” I am talking about a short term movement to a high and back to a low, then back to a high. Each minor high and low in such a pattern, no matter how small the scale, is referred to as a “swing.” It is extremely important to emphasize that *we are only concerned with lows or bottoms when determining a bull trend*. Highs have no relevance. The vast majority of traders buy breakouts at the high of the day, and, when the market declines the next day, they are stopped out for a loss even though that next day’s low was higher than the day before! If you learn not to trade emotionally but to have a strategy to buy into dips that end at a slightly higher price than the prior low, you can enter your trades with low risk and a very easily identifiable sell out point — that prior low if violated subsequently. Perhaps the real reason behind considering only the lows of the move as the critical level is that the big money which moves the markets cannot just jump in and chase stocks or commodities, but must patiently wait and accumulate their holdings at limit price levels. This gives the market major “support levels,” and, when the markets are really moving and the institutions still do not fill their orders, they slowly ratchet up their limits, giving us the classic “stair step” pattern of rising support level bottoms.



**The Bear Pattern** consists of *two critical elements: lower highs and lower lows!* This simply means that in a cyclical downtrend each high on every individual bar will be lower than the preceding bar, and each low will likewise be lower than the preceding low. On a 'swing' basis, each little rally will fail at a slightly lower level than the prior rally, and each new swing low will hit a new low for the entire move. The reasoning here is that the big money is selling at limit levels and lowers them as they do not finish at each level. In addition, since the market is weak, there are few buyers around, and each decline will usually have to go to a slight new low to attract bargain hunters or shorts to cover at profitable levels, creating temporary buying.

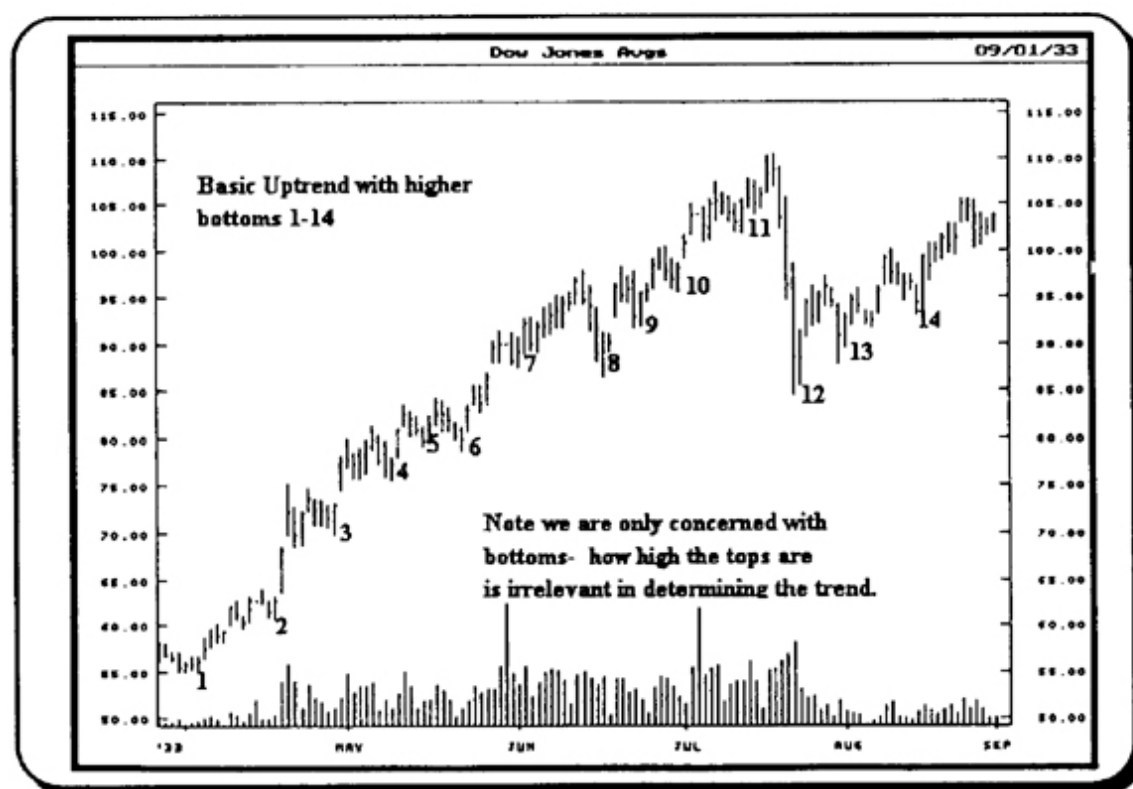
## Basic Trends

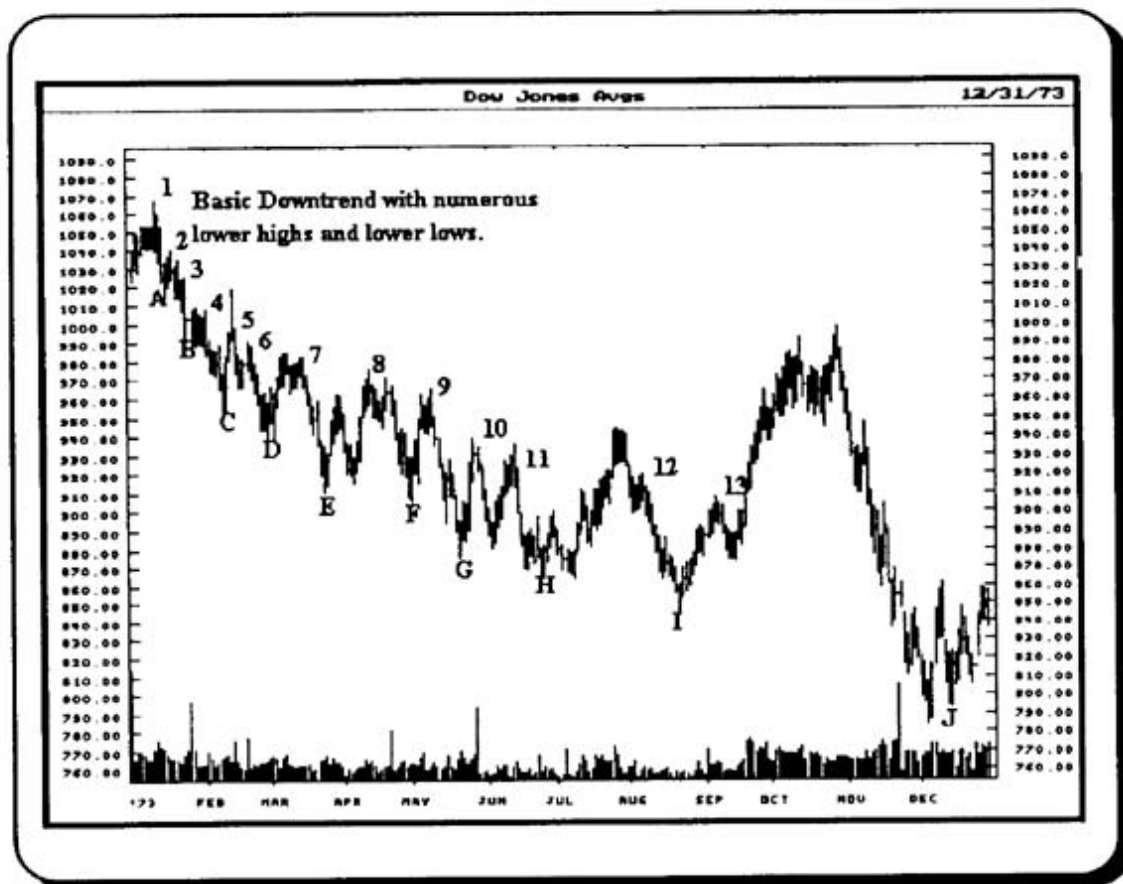


The idea that trend is a *pattern* is the most important concept in this book— indeed, in all of technical analysis. I find that, over the years, I have tried to make this point over and over, and it seems that only a fraction of a percentage of the people in the market grasps this simple but powerful concept. As a result, every time the market plunges 50 points or even 100 Dow points, people ask if it is a crash. My response is always the same: it is impossible to know until we rally, then fail, and go under the first plunge low. At that point, we have a *bearish pattern*, and we go short on every rally. Plunges *per se* are not particularly bearish. Only the lower lows and lower tops pattern. The same holds true on intra-day charts. S&P futures traders continually get shaken out of a bullish trend on a fifteen minute plunge that turns out to be a single bar decline and not a

pattern of several declining bars. You must continually look for multi-bar patterns to judge the market and not rely on a single bar extreme.

Remember that at the heart of the theory is the idea of *accumulation* or *distribution*, and these are ongoing *processes* that do not culminate on a single day. Large trends are cyclic in nature and cannot change overnight. The single day movement would have to be so extreme as to change everyone's long term opinion in order to change from an accumulation to distribution process and vice versa. Also, remember that Bull and Bear Markets, in general, are *psychological processes* by the masses as a whole and cannot be changed overnight. If it takes institutions a three year period of day after day buying to get their stock positions during a bull market, you cannot expect them to sell everything and end a new Bear Market in only six weeks. After years of a continuing trend, every bank and institution around the world will have millions of shares of popular stocks, and scattered selling from these global sources will take years to complete. Every day into the future, someone somewhere, will wake up and be tired of waiting for yesterday's leader to go back up and will sell. This is why trends persist, and the distribution process is a *pattern* of rallies that fail and then result in new lows to attract bargain hunters. The early Bull Market acts the same. There are long periods of gradual creeping, while institutions are slowly buying, and each failure will stop at a higher level as support increases. Knowing that a solitary "big bar" is *not a trend* can make you a fortune, if you going against that bar when it is counter to the long term trend, and it does not form a pattern. The following two exhibits demonstrate the bull and bear patterns:





## What Can We Deduce From This Trend Information?

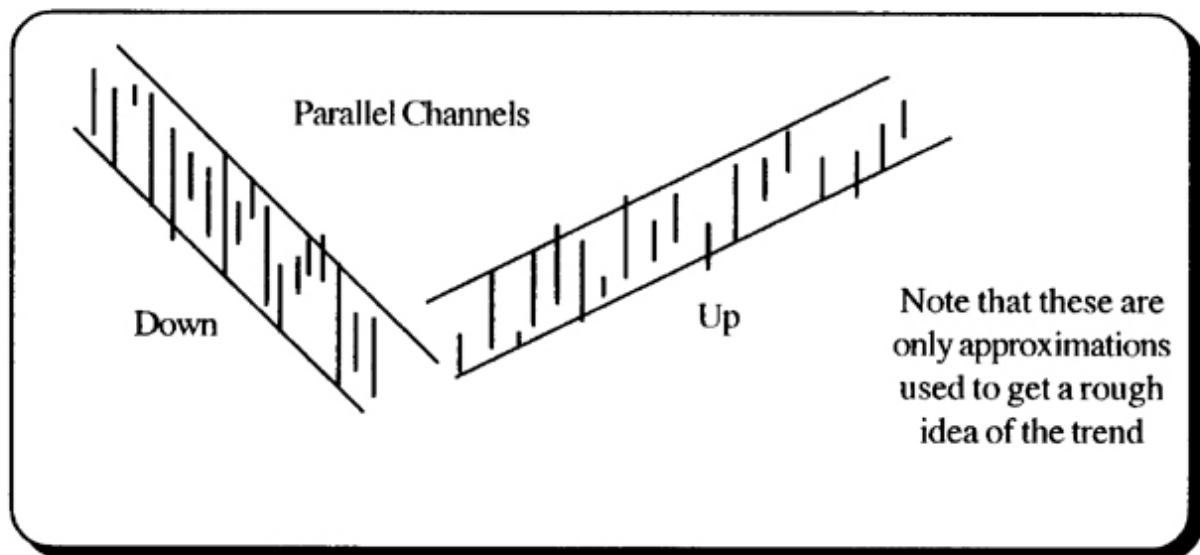
The primary use of trend information is to *develop strategies to enter and exit trades*. If we are bullish, we *wait* to buy into a dip at a level just above the most recent low. If we are bearish, we sell or go short at each rally high, which should be slightly lower than the prior one.

In general, the basic rule about higher bottoms or lower highs and lower lows is that you *will eventually break one of the prior swing levels, but you will rarely break two*. In other words, when buying into dips, a dip may go lower than the immediate past dip level but will usually not carry down to the second one back. When shorting a bear rally, know that the rally could exceed the recent past high but not likely the second one back.

This idea also gives rise to a basic sell stop strategy. We place our stop out point at the *second* swing level prior and move it up or down only as we make a new swing level. This way we can ride a trend for long periods of time without overtrading or becoming confused on the trend.

An easy way to see the primary long term trend is to draw **parallel channels**. These are simple trendlines connecting a series of low points and then drawing an upper angle parallel to the lower but through one of the upper level swing points. Parallel channels are especially good for analyzing

long term trends, such as over five to ten years. They give you good perspective in that, for both upper and lower trendlines to hold parallel over long periods, the trend would have to be extremely strong, and one would have to think twice before assuming the existing trend was about to turn. Multi-year parallel channels for differing industrial groups is one way to determine an overall market's Bull or Bear trend.



## Reversal of Trend

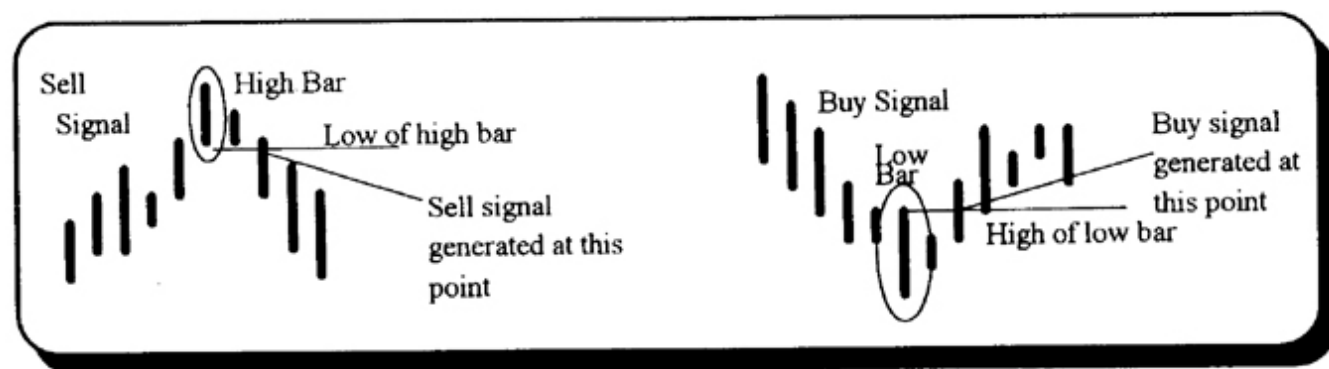
We know that a bullish trend has a series of higher bottoms and that the bearish trend has a series of both lower tops and lower lows. Since our basic goal is to invest with the primary trend, how do we determine just when one trend turns into another? There are a number of techniques, but the most basic is the *signal reversal bar*. This is defined as follows:

In an *uptrend*, when you have a series of higher bottoms each day or for that matter any time period and each few days you see a new high bar for the move, the reversal comes when you find the highest high bar for the move. We are not concerned with that *high* but with the *low* of that high individual bar. The bar after that must have a *lower* high to set up a possible signal. *The actual signal comes that next day or a subsequent one when the low of the high day is broken.* For example, you might have a high bar and the next day you have a lower high, but the low is higher or at the same price as the low on the high bar period. You then have to wait for the next bar to see if that bar breaks below the low of that high bar. When *that* low is finally penetrated, you get your sell signal with a logical stop point being the previous high bar high. The reasoning behind the theory is that the support level (low) of the emotionally charged high day is the critical level and when that goes the trend is exhausted.



In a *downtrend*, you have a series of lower low bars, and you are looking for the lowest low bar for the move. When you find that bar, you need to note the high of that low bar. When on a subsequent day the new bar has both a higher low and the high of the low bar is exceeded, you get the reversal buy signal with a sell stop at the low of that lowest bar.

## Reversal Bar Signal Pattern



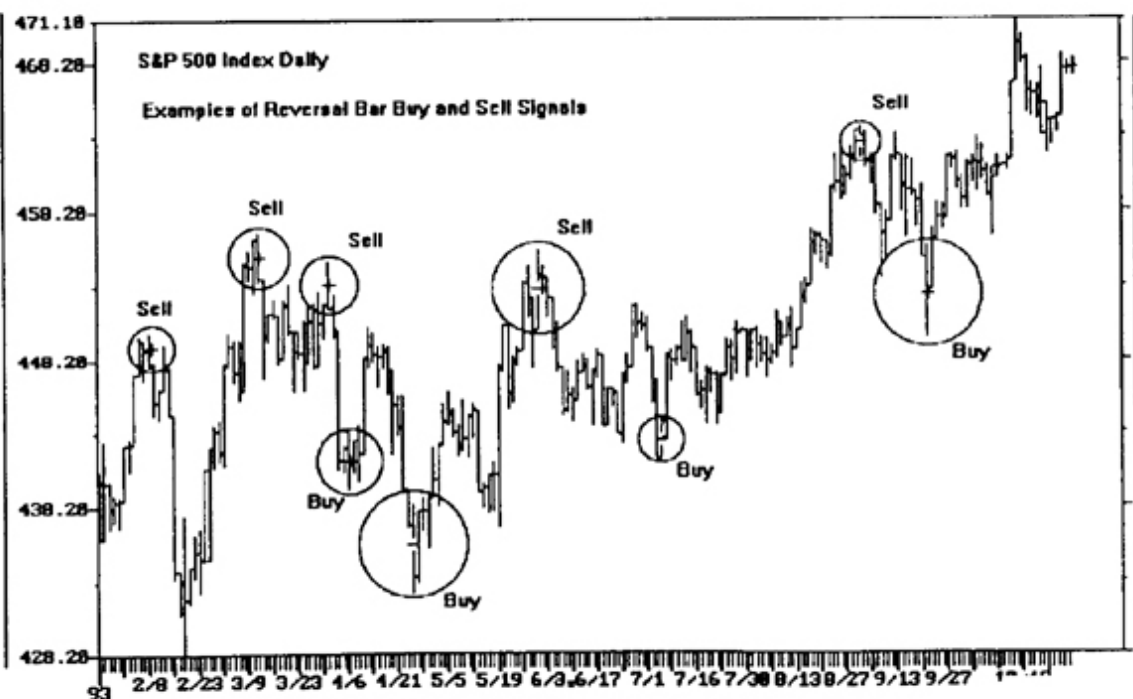
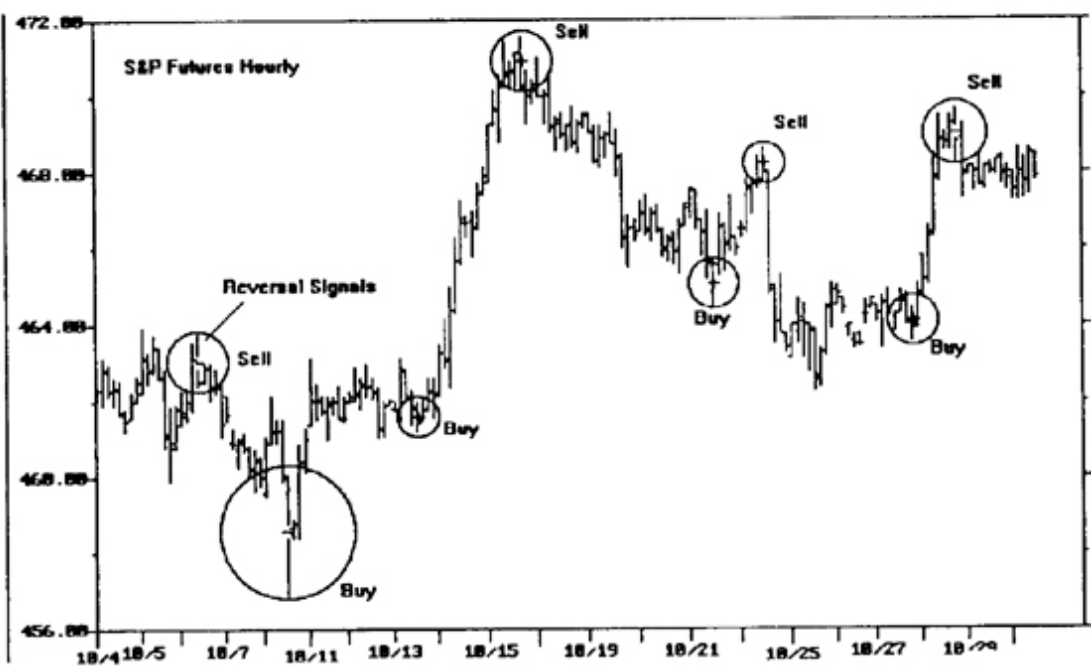
Obviously, this type of simple reversal signal happens quite often and, if taken indiscriminately, will lead to quick and sure bankruptcy. The best signals are combined with other techniques, such as trendline breaks, cycle counts, overbought/ oversold readings, and just plain common sense. The longer the trend has been in effect when the reversal comes, the more likely it will be a valid signal indicating exhaustion.

The importance of the signal cannot be overemphasized. I find the vast majority of traders are quick to pull the trigger and reverse in a nervous choppy market. Waiting for at least this basic signal will greatly discipline oneself. You will also note that, since this signal operates off the highest bar or lowest bar for the range and does not come until the opposite extreme of that bar is exceeded, it is very unlikely you will get a buy or sell signal following a large elongated bar with a big range. It will usually come later on a small range bar period.

Most traders make the fatal mistake of trading for a reversal on a big day movement, such as a 50 point up day in the stock market, whereas this signal could not possibly come until the low of that 50 point run up was broken! This is highly unlikely for a few days. Likewise, it is highly unlikely that buying into a big down day will result in an up move. Futures traders typically want to sell or short into a big up bar on a strong opening, but this kind of momentum will usually last all day. Knowing of the reversal pattern would save them a lot of money, and knowing this signal will keep you with the current trend throughout these big bar range movements and warn you when they are followed by a small range bar that could lead to a reversal.

Note that this method usually is only executed after the reversal high or low bar because we must wait for the next bar to penetrate the extreme high or low of a previous bar to get our confirmation. This is still valuable information, since trends persist for quite some time, and the new trend will give us plenty of time to exploit it. A little common sense and some tape reading skill, however, can actually allow us to trade at the exact extreme. What we do is make a professional *guess* that the current bar is the extreme, take our position counter to it, and use a very close stop *that will be confirmed by the next bar*. We would want to see an extended run with the current bar being a “tiny” range bar with little momentum before we made this *guess*. We then know that any decline in a subsequent period would generate a sell signal, so we guess, take a position, and see what happens. Keep in mind that professional trading is a process of playing percentages much as a professional gambler does. The difference of course in speculation versus gambling is that in speculation you set your own odds as to when you will trade and what you will risk. In gambling, the house sets the odds against you. In professional speculation, we can often get odds as high as 80-90% as to the trend, and using simple money management disciplines and close stop points our losses can be very insignificant.

The following are some examples of simple buy and sell reversal bars. Please note that these are **simple** signals, and additional analysis is usually performed coincident with these signal developments to see if they are worth taking. These other factors could be duration of trend in existence when signal given, prices at major support or resistance levels or angles, or near important time cycle change expectations. Please study these examples carefully.



In these examples, I have not circled every possible signal generated, so as not to confuse you at this stage. You could cut down dramatically on “false” signals by waiting 1-3 days after a signal was generated to see if it was confirmed and then buying the first dip.

The idea of reversal of trend brings up the question of *persistence of trend*, and charts lend themselves to a good rule for defining such persistence. This is the **three bar rule**. This, simply stated, means that *a new trend will go at least three bars in the new direction before reversing*. For trading purposes, we naturally would want to pay attention to reversals on hourly, daily and weekly charts because of this three bar persistence, rather than, say, a five minute chart. Also, keep in mind that these charts are all nested like Chinese boxes, so, if we get a turn on an hourly chart that is good for at least three hours, then we might have enough to turn the daily chart three days and the weekly chart for three weeks. These fractal chart turns at big cycle pivot points is what causes explosive impulse wave movements in the markets.

Besides reversal of trend in terms of *price patterns*, we also can confirm a reversal through *timing* or *cycle studies*. The biggest problem in chart interpretation involves these Chinese nested box patterns. A reversal on an hourly chart or daily chart is one thing, but how do we know the trend will last six months to a year? This is a difficult subject that is covered in the cycle’s section, but you should keep in mind when looking at a persistent chart pattern that *extended counts validate the longer term trend*. For instance, when trading options or futures with an hourly chart, most reversals come at Fibonacci <sup>1</sup> count intervals like 3, 5, 8, 13, 21, 34, 55, etc... But, minor reversals usually only last 5 or 8 hours, rarely 13. If the trend lasts 14 or more hours, the odds increase dramatically that this is a *new long term trend* that will last several days to weeks.

<sup>1</sup> Fibonacci numbers will be discussed at length in the hourly chart section.

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# Forecasting



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The rise and fall of stock and commodity prices are a study in human emotion. Although, in a broad general sense, fundamental economic factors are the underlying cause for valuation, the actual day to day fluctuations that we as professional traders exploit to make our livings are really emotional extremes of the masses. I would guess that perhaps 30 to 70% of all market movement relates to this emotional component, rather than the actual raw economic fundamentals. The vast majority of people attracted to the markets are done so out of greed. This is the motivating influence. Since greed to make money and get rich motivates, it is only logical that people buy or sell at emotional extremes in the market. Buying and selling in this manner causes the vast majority of trading losses that people sustain. The purpose of chart reading and the philosophy of trading set down in this work attempt to construct a system of rational entry and exit points to eliminate the handicap of fear and greed.

In theory, the emotions of the masses are statistically quantifiable and uniform over long periods of time. The investment community changes little, day to day. Perhaps, over several years, the makeup of traders and institutions playing the market vary, but, in the short run of six months to two years, the buyers and sellers are the same group. This being the case, we can actually “measure” the emotional extremes of this group over the past few years and use as a rough guide such “benchmark” extremes to better predict when the current emotion of either fear or greed will subside and reverse.

Keep in mind that emotionalism in stock charts shows up in a number of dimensions. For instance, price “spikes” are certainly emotional, but what about volume extremes, gap movements, or extended time periods of optimism? What we have to do in order to measure the effect of emotional extremes is to find a *common denominator* on our charts to measure. We leave volume out of the discussion, for now, since that is a separate discussion with its own statistics. What we will focus on is *time and price*. The concept of price emotion is simple — a big move is more emotional than a small one. We can measure the price difference from a high or low to get that extreme. That is only half of the story, however, since *time is an emotional factor too*, such as it is for the man facing the electric chair in an hour, or football players down a few points in the championship game with the clock running out.



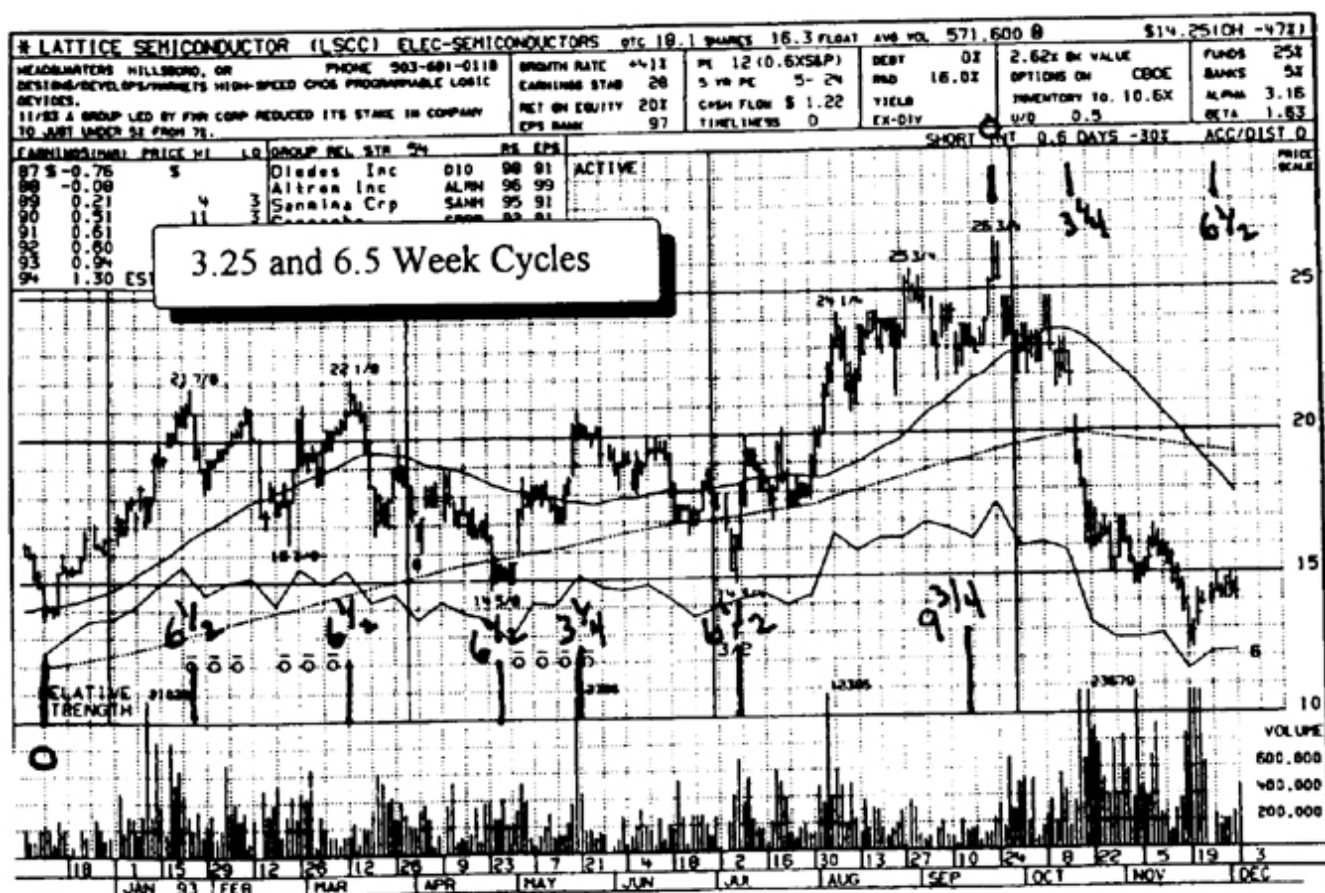
In the speculative markets, we measure time horizontally across our chart page, and we measure price vertically. This is the familiar bar chart representation that you will see throughout this book. Because emotionalism can take many forms, *we must use the universal measurement of vector directions to balance our time and price axis.* In physics, vectors are merely sums of energy spent in different directions that combine to form a new direction. Think of the ice skater sliding in one direction but with a strong wind pushing from a right angle. The new direction will be a vector diagonal, and its energy will be the sum of the two forces. On our stock and commodity charts, we can likewise use vectors to combine price and time. At first, you might have difficulty with this concept because it has as its assumption that a unit of emotional time is equal to a unit of price. Statistically, this can be readily proven, but, for now, you will have to take my word for it. Obviously, if time and price were equal all the time, the vectors on our charts would always be diagonals. The emotions manifesting, however, are seldom equal, and so we get big price movements and then long periods of time but little price movement. Suppose a stock went from 50 to 100. We would normally think that it would meet resistance at that price, since it had doubled. But, what about a stock that goes from 50 to 75, and then goes sideways for two months? Does that two month sideways equal 25 price units, so the resistance is the same in the two cases?

If we can "measure" time in this way, we can know when prices will break out of trading ranges and consolidation zones. *The solution to this problem is to use circular arc measure.* This way time and price components are equal at any point on the circular circumference, and we can forecast a coming change in direction. Should the emotionalism be so extreme as to exceed such circumference, it will usually go to an even multiple of such measurement, and so, here too, we can make a good estimate for the coming change in direction. These circular arc measurements are known as "measured moves." Circular arcs are so important that the entire next chapter is devoted to them.

Since the *extremes* of emotionalism in the market do not change over time, we merely need to review the recent past few years of history to see and measure such historic extremes and come up with our benchmarks. Our analysis then takes the existing swing movement and extends these by our historical observations, starting with the most frequent observations, in an effort to estimate the duration of the current swing. The idea of the measured move, although simple, can lead to incredibly complex forecasts. In my trading, I rely almost exclusively on these swings on my hourly charts to get a first approximation and, only then, refine my technique to counting bars or using trendlines. I continually find traders expecting swing movements totally at odds with the simple historical record of fluctuations on the chart they are using. You should always first examine the past few weeks, such as on an hourly chart or fifteen minute chart, to see the larger movements over the immediate past weeks, before you jump to the conclusion that the existing move is deviating from the typical norm.

## Natural Time Period Durations

In most markets, but particularly the stock market, the natural cycle most frequently encountered is the three and a quarter week cycle. This works for individual stocks, but the market averages, as a whole, frequently demonstrate cycles that are twice this or six and a half weeks in length. These cycles come from the natural division of the year of 52 weeks by sixteenths and eighths. Almost every movement you will find will be a combination of these basic cycles strung together. These are the facts if you look. There is no such thing as a two week cycle or a four or five week cycle. The ten week cycle is really three cycles of three and a quarter or nine and three quarters. To find where you are, just look to the prior major high or low and count to the present to look for your three and a quarter week pivot. For example:



The strategy to use is to buy into a three week decline on the first sign of a reversal or sell out on a three week advance. If the trend continues within a day or so, expect the original trend to go to six and a half weeks and then reverse. Many of my best trades are when I wait to see an explosive up move caused by a news item or brokerage firm recommendation, and, when I see the first top, I patiently wait three and a quarter weeks and *then* buy the issue. Invariably, the stock will explode upwards in another impulse leg within a day or so. Keeping track of these turning point dates, in a tickler file or calendar, is helpful.

In looking at long term bull or bear trends, know that the general rule is that major trends never go more than six weeks to ninety days *counter trend*. That is, in a bull market, a decline will never exceed 90 days before resuming the uptrend, and, in a bear trend, rallies never last more than three months. In fact, the basic definition of a bear market trend is that you have broken a swing low from a time period past three months ago. You generally are safe being a long term investor, as long as your holding does not go below any price level seen 90 days back or further, and, if you are looking to sell stocks short, you want to choose issues that have not seen a new high for at least 90 days and are under a low price level from 90 days ago. Those issues are almost certainly in long term downtrends that could last a year or more. (I am using 90 days here as a practical cutoff for the Bull or Bear Market definition, since that works 80% of the time. Be aware, however, the extreme cutoff is 4 months, and one or two exceptions this century have gone 6 months.)

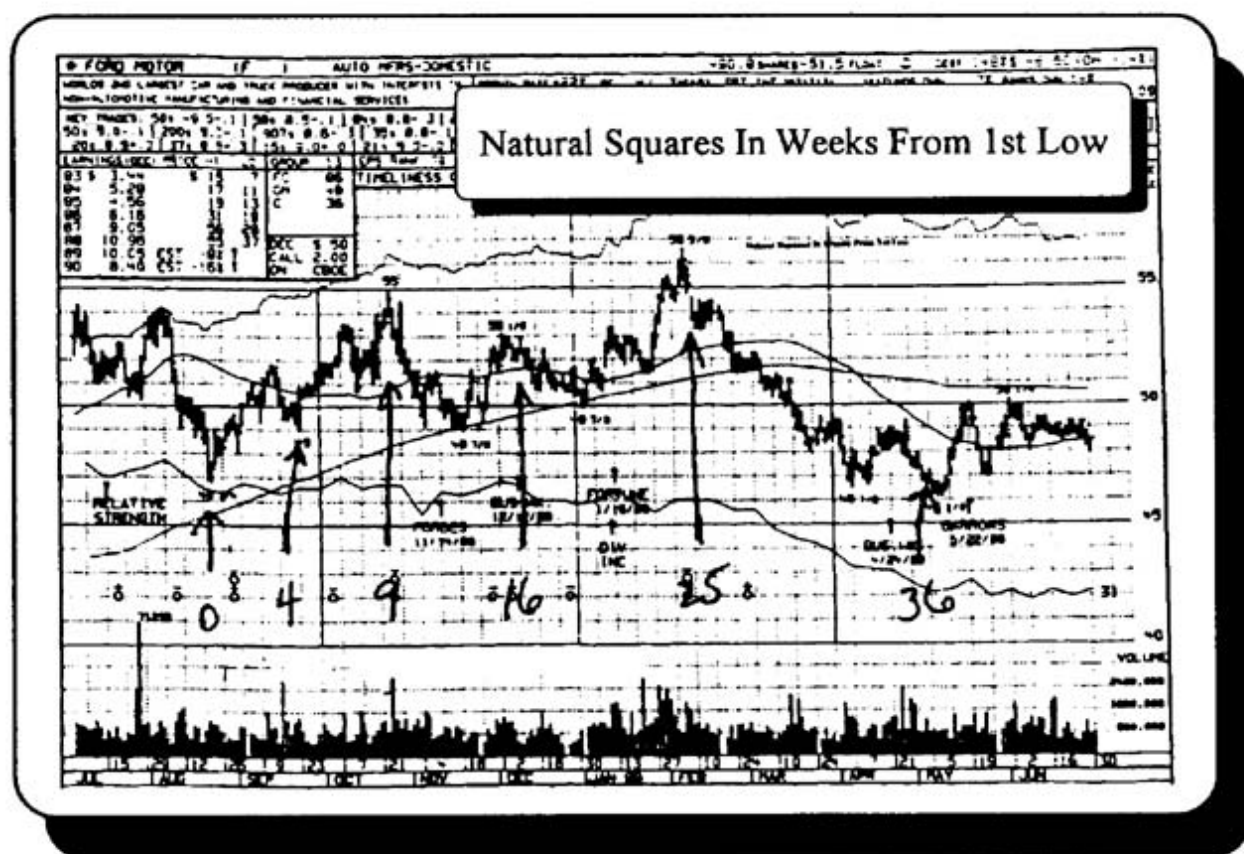
The ideal correction to buy into in a bull trend is one that has lasted about six weeks, *but prices are well above levels seen 90 days ago*. You will note that the bullish charts usually spike up and quickly pullback from the high, but no low levels are ever broken. *Only the new high recent advance is corrected* over the full three or six weeks and then the next upward spike. Many strong stocks can follow this type of pattern for years without a three month correction.

Other cycles most commonly found are the numerological "Gann" cycles. This theory is covered at length in my other book, and indeed I have spent an entire lifetime developing it. Basically, the premise is that the **price of the stock**, at the final high or final low, is **exactly the same** as the **time cycle** operating. That is, a high of \$50 means a time cycle of 50 units, such as 50 hours, 50 days, 50 weeks, etc. At each numerological time period of 50 or the fractional parts of fifty, you will find a turning point. This sounds strange to those unfamiliar with the concept, but, in over twenty years of challenging people in large audiences to find just one exception to this principle on any stock or commodity, no one has ever found an exception nor will they. Again, I refer you to my other book for the reasons behind the theory. Strategy here is to count the bars on the chart you are using until you reach the count equal to the high or low price level and then look for a reversal signal.

## Natural Squares

Another common forecasting method for determining cycles is that of numerical natural squares. This is simply the whole numbers squared as 3 squared is 9, 4 squared is 16, 5 squared is 25, 6 squared is 36, etc. You start your count from each major high and low. Time periods can be hours, days, weeks, months, or years, but weeks work particularly well as the next chart demonstrates.



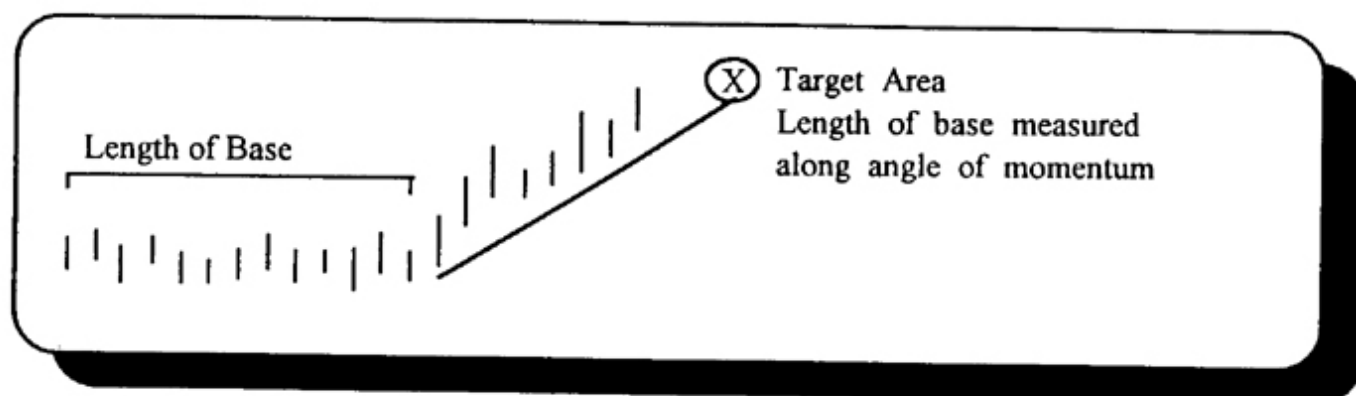


## Basic Concepts

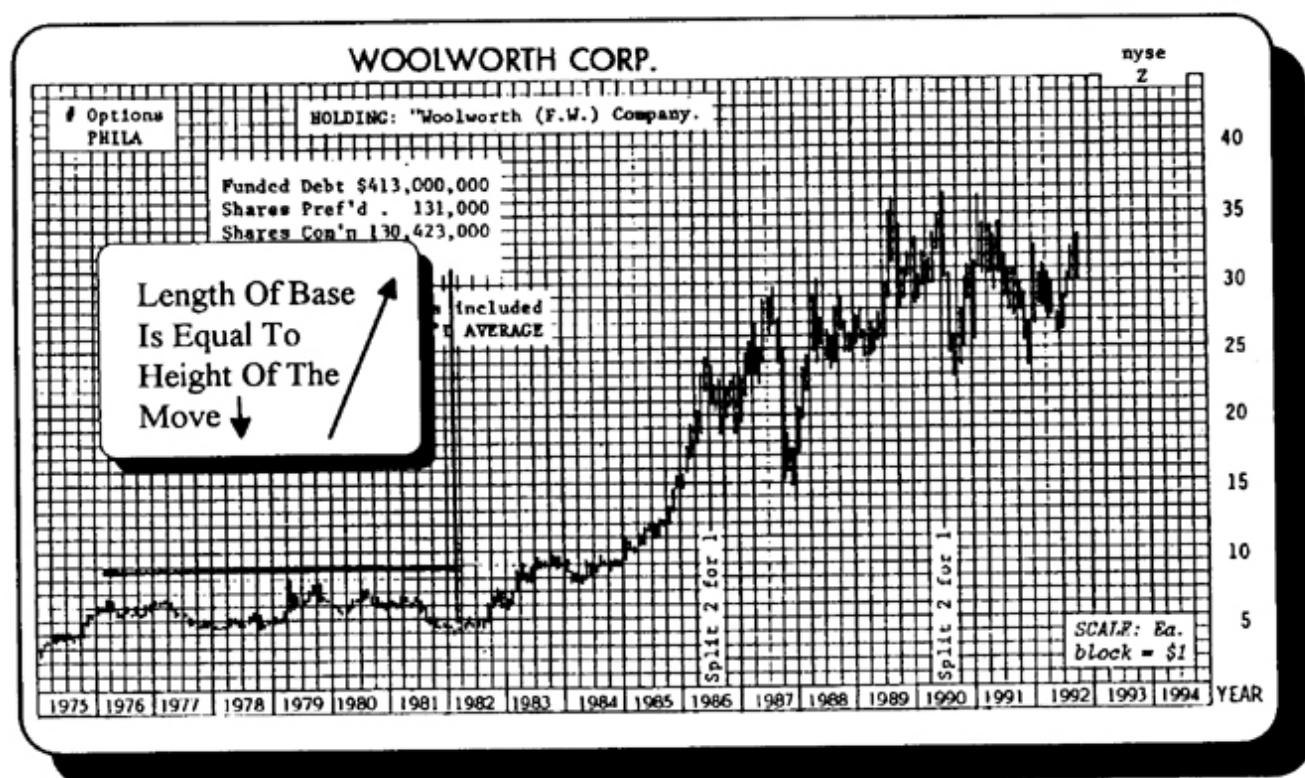
**Length of the base...equal to the height of the move**

This phrase originally comes from the area of technical analysis that specializes in point and figure charts. Point and figure charts are pure price charts showing only upward and downward price movements. There is no volume nor any time periods on these charts other than incidental footnotes to mark the beginnings and endings of movements after the fact. Prices themselves are what make us money, so point and figure charts clearly point out issues that are in definable trends. I do not suggest you use point and figure charts as a trader since **Time** is most important, and return on capital requires a gain every month, whereas a point and figure chart could look good, but may not move for months on end. One of the great uses, however, of point and figure charts is to point out periods of basing or topping patterns. The constant reversals, up and down, in a narrow price range clearly show accumulation or distribution, and the longer this period, or the more frequent the reversals, the more powerful the subsequent move. Long ago, analysts discovered that if you measured the *sideways* area of the support or resistance zones, then the subsequent advance or decline would go almost exactly the same magnitude of a “measured move” before exhausting itself — hence, the phrase: “the length of the base is equal to the height of the move.”

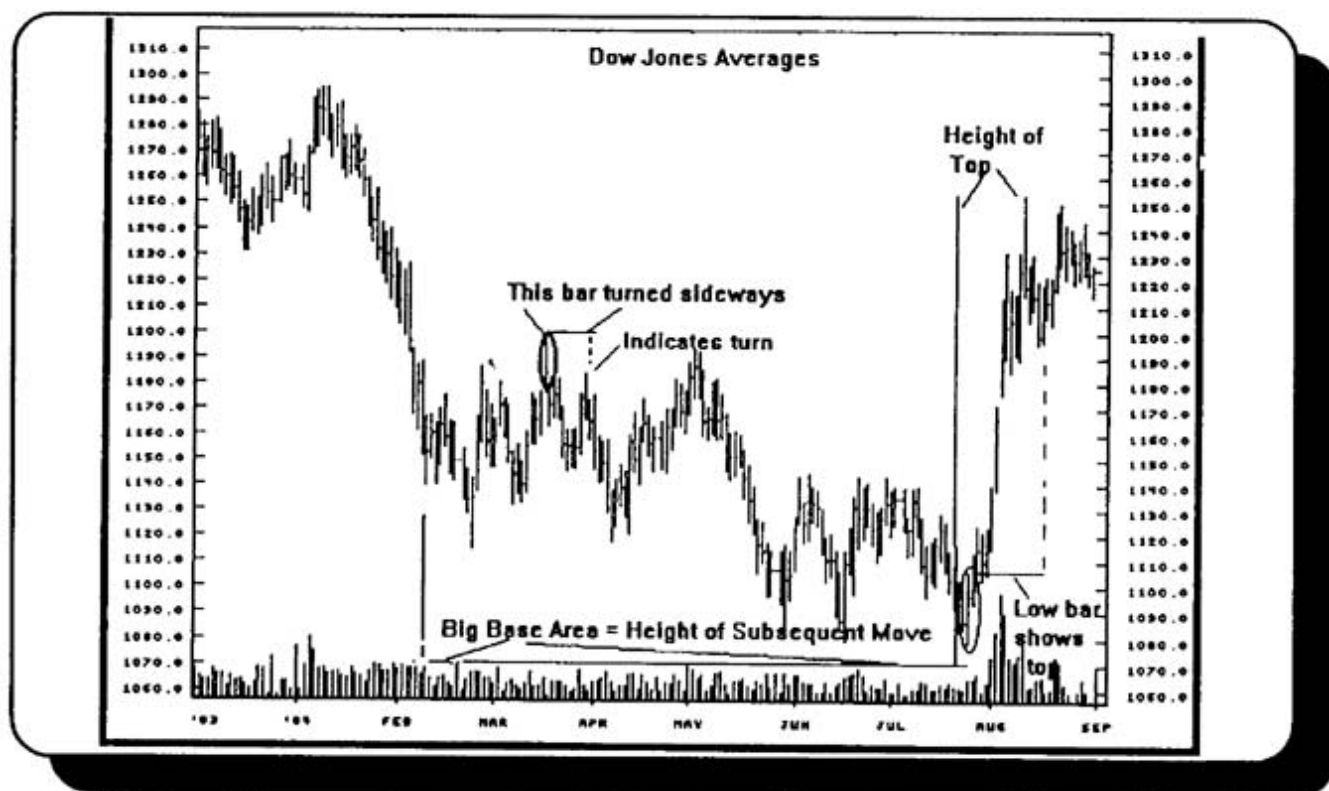
For many years, when I ran a number of mutual funds, I would rely on this rule to pick dozens of issues that would more than double over the coming year. I simply found charts that had been confined to a narrow range, such as 12 to 16, for the past three, but preferably five, years and waited until a big volume breakout occurred that took the stock at least \$3 above the prior high, such as \$19 in the prior example. In these cases, I could reasonably forecast a **TRIPLE** from the base price range. In the case of the point and figure chart, the measured base is an exact figure, whereas in the normal bar chart it is more of an estimate, but one that is certainly worth making. The reason this works falls in a subject outside the scope of this book, and one covered extensively in my book *The Geometry of Stock Market Profits, A Guide To Professional Trading For A Living*. Suffice it to say, it is related to "Gann squares" and time cycles. In general, you "measure" the horizontal distance of the basing or topping area, and, when the breakout or breakdown occurs, you reapply that measurement *along an angle* of momentum to get the probable area of exhaustion.



This is a rough method, but it is used to quickly scan a number of charts to pick out ones with potential for big moves and avoid less profitable minor movements. The theory, of course, is that stagnant economic fundamentals have suddenly changed for the better to break out of the trading range, and few people bother to take note because of the past numerous years of disappointment. The rule works equally well with hourly charts when trading options and futures, so that a congestion or consolidation area of two days can lead to a significant three day move, whereas a two hour top or bottom will probably lead to only a two hour advance or decline.



A lesser known corollary to this is **“the height of the move is equal to the length of the top.”** In other words, a “big” momentum bar on a chart cannot be reversed from quickly. Momentum takes time to lose its energy. Often, after a big up move, the momentum generated requires a broad topping phase before a down trend can get started. One of the real secrets I will now tell you is that the range of the final low or final top individual bar, when placed on its side horizontally, will often tell you when the movement is over! The individual bars on a chart can tell you a lot about the emotionalism present in the market, during that time period. Obviously, “big” bars are emotional, but the single bar at the final high or low is the most important. That bar is similar to the DNA molecule in living creatures. Our signal reversal buy/sell bar uses the opposite extreme low or high of that bar, instead of the extreme, because, when that level goes, complete emotional exhaustion is reached. Note that these signal bars give completely different support or resistance levels than most traders use — they use the extreme high or low tick. If you look at the charts, you will find that only works half the time at best. Looking at the range of these bars, particularly monthly extreme bars, will be quite rewarding! Turn them sideways for time counts and apply numerology to those sideways counts. You could be greatly surprised as to just how much information is in those solitary bars.



The concept that the length of the base is equal to the height of the move incorporates the notion that a vector distance (base) can be applied in a new direction to forecast where the market is going. This works because of the existence of time cycles. Common cyclic time periods repeat over and over, and each cycle runs approximately the same duration. Since markets are emotional, and human nature does not change, an examination of market history gives us our benchmarks. Great cycles recur infrequently but usually consist of multiple legs of common length cycles. Usually, there will be a consolidation or resting period at these multiple leg extensions, and we measure another equal leg up or down at these visible resistance areas. One rule to keep in mind when looking at charts is that straight line moves without these consolidation "wiggles" will die out as soon as the measured move is reached, whereas a big move with a number of little corrections or consolidation periods will have enough strength to go multiple lengths.

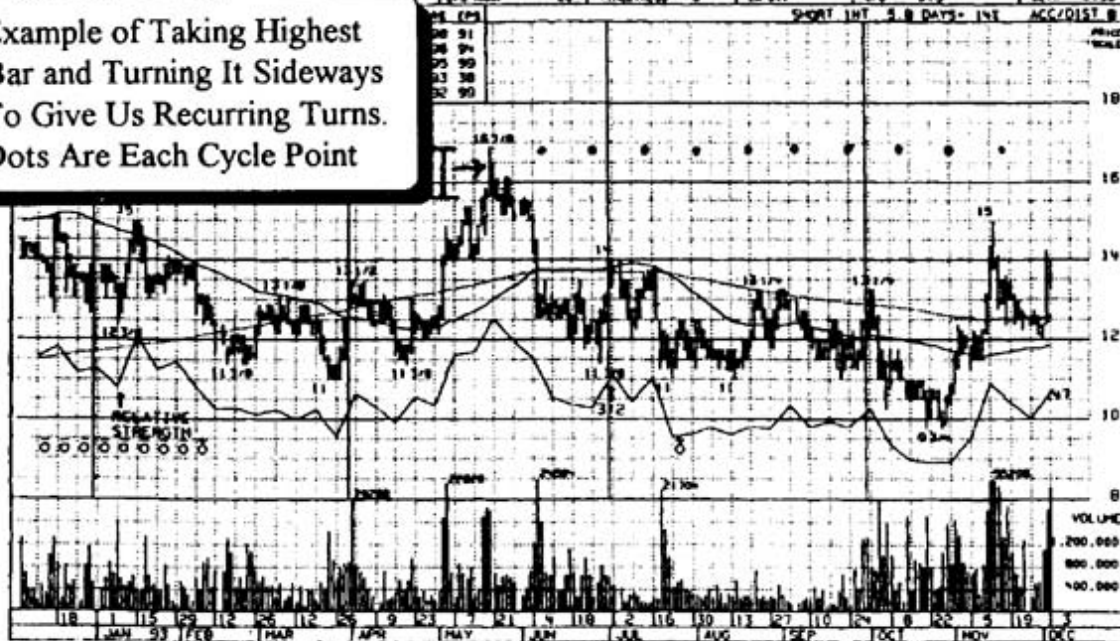
Since this idea of cyclic emotionality encompasses both time and space (that is how we chart prices), the actual measurement of these cycles is in vector distances. Simply put, a measured move of any given magnitude can manifest as a circle of resistance around an origin point. The circumference of that circle represents the potential reversal point of a move that has reached a previously observed measured move. This is one of the most profound principles of investing I have ever discovered, and its implications have almost no limit as to trading uses. Once we find our average measured move that seems to be the working cycle, we merely sketch our circle around each successive high or low to approximate potential turns.



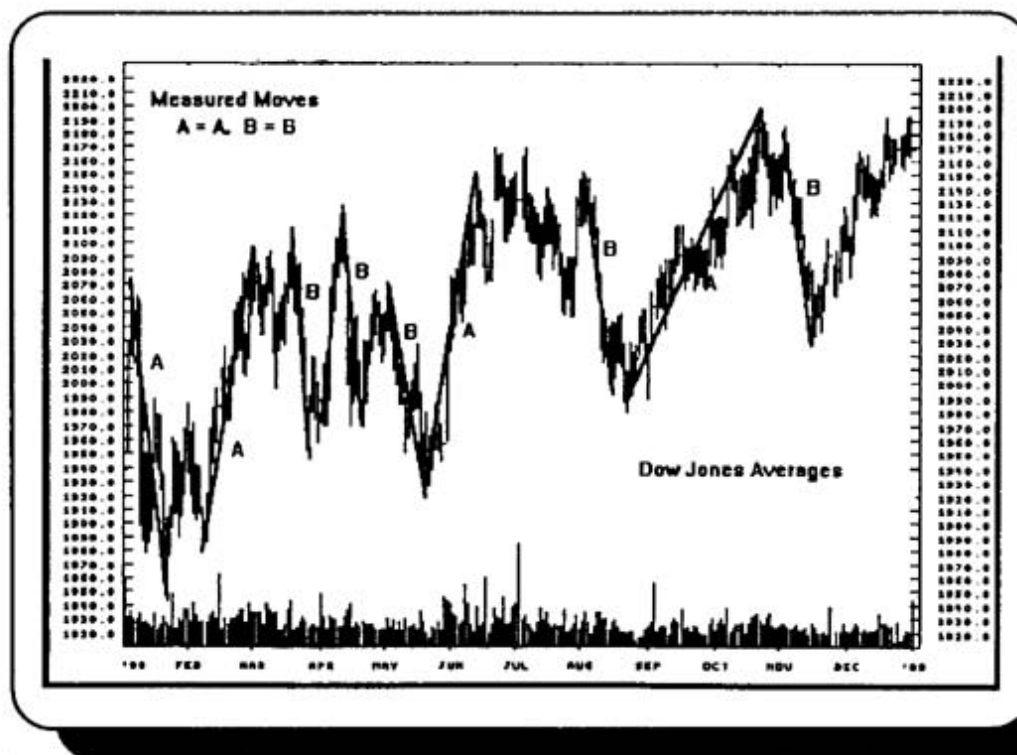
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BURGER RESTAURANTS UNDER CHECKERS HAVE 14 IN 18 STATES.		RET IN CM: 191	CASH FLOW: \$ 0.28	FIELD	INVENTORY TO:	ALPHA: 4.05
11/93 EXPECTS TO HAVE 688 RESTAURANTS BY END OF 1994. 18 RE-		EPS: 96	TIMELINESS: C	EX-DIV	W/O: 0.9	BETA: 0.98

Example of Taking Highest Bar and Turning It Sideways To Give Us Recurring Turns. Dots Are Each Cycle Point

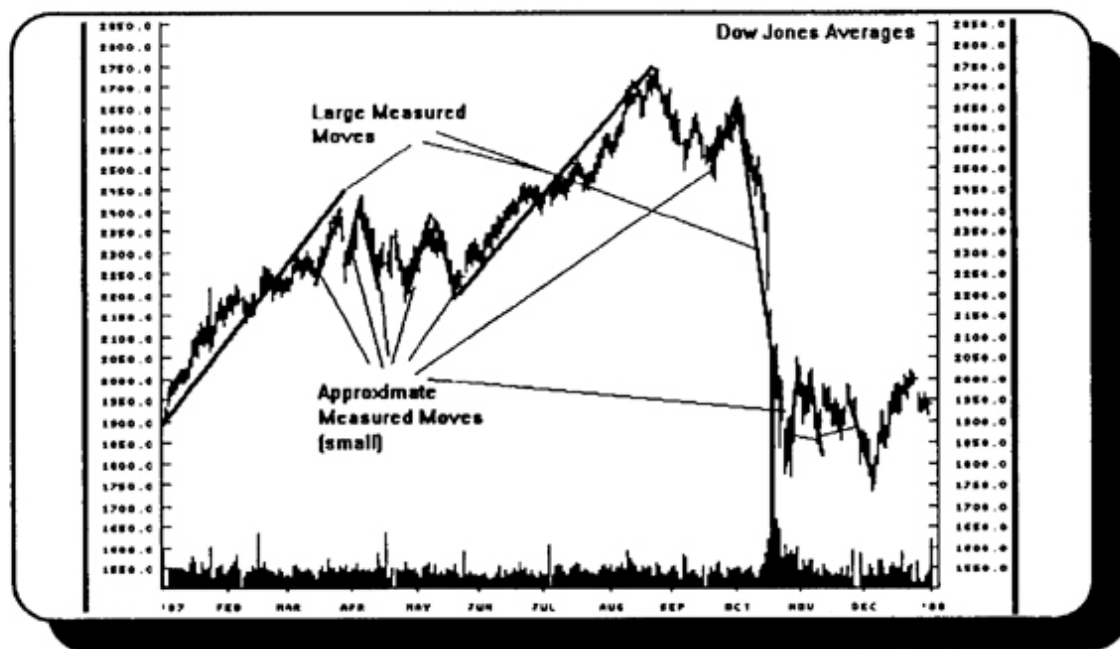


This circular measure accomplishes a number of things for us. First, it measures potential price targets at the circumference points. But, more importantly in many cases, it shows the extreme



limit of *time* duration, where the current trend will end. Often a price advance will quickly go up to the circumference and top, and then go sideways into a consolidation pattern. At this point, we look to the extreme right axis or at 3 o'clock figuratively on the circumference to see the time limit of the move. When the price reaches that extreme with the passage of time, the market will change direction.

## Measured Moves



Remember that although these measured moves can be very precise, we are only trading for the safe 70 to 80% of the move and need only make an approximation. On an hourly chart, trading options and futures will be much more exact, but here too, other indicators will be used as we approach the area of termination. Specifically, we watch closely for a signal reversal buy or sell bar near the measured extremes, and we also watch our time counts closely. Strategy here is to find large measured moves that are at work and will give us lots of trading room when we initiate a position. A good analyst will also note that at the ends of large daily and weekly measurements, most other markets like bonds, gold, and the currencies will also indicate a turn simultaneously with the stock market.

The measured move idea is simple and perhaps crude, but the real principle behind it is extraordinarily powerful and that is what we will now examine at length as we turn to the study of circular arcs.

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# Circular Arcs

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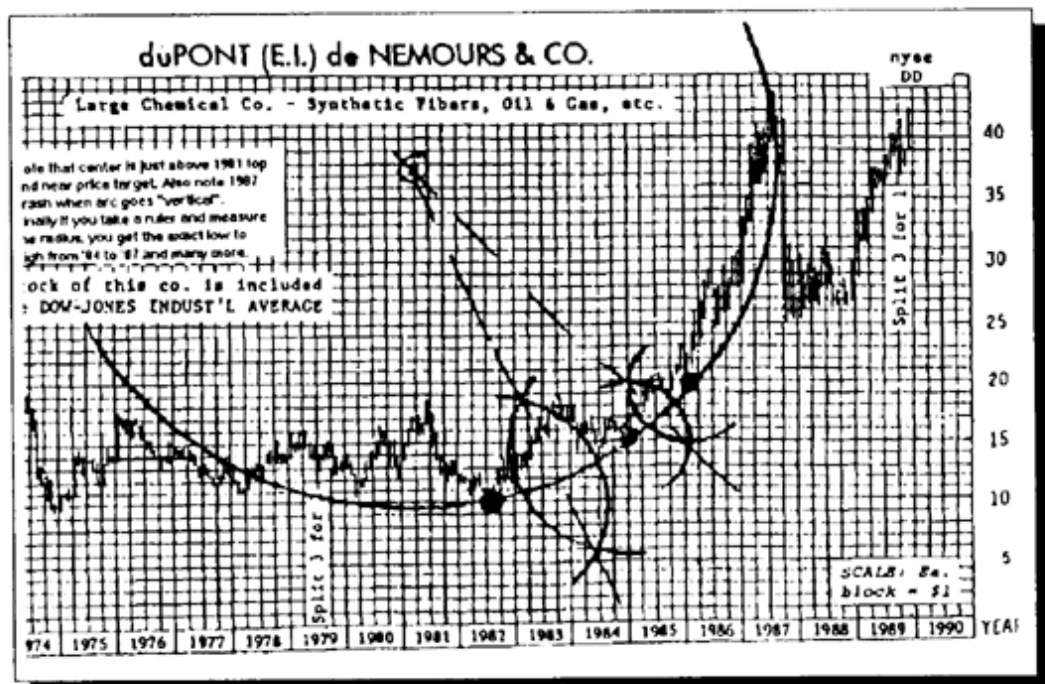
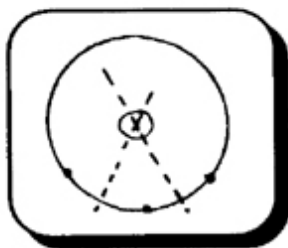
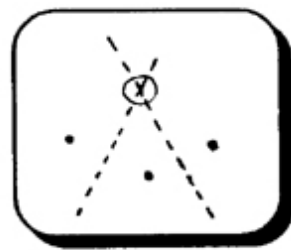
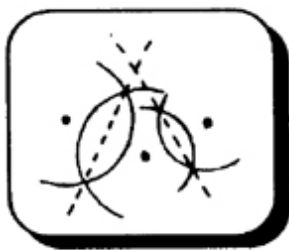
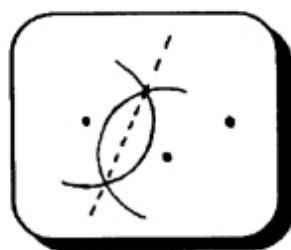
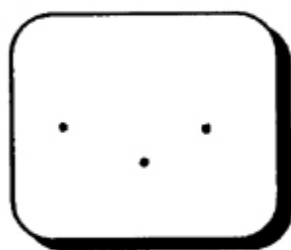
## Finding The Natural Cycle Length

Since cycles give rise to measured moves or an emotional time period that can be measured in a vector distance, we can deduce from this that *unknown cycles* operating within our charts will reveal mathematical structures that will give us a clue to the cycle's length. The simplest form this takes is a visible *circular arc*. When we see an arc forming in our data, it implies that a long term cycle is operating and that arc is but a part of it. If we use geometry to recreate the actual arc, we will discover its actual length and size.

The word cycles implies a return through a 360 degree rotation back to the origin. We view this as a circle on our charts, but in reality circles are only a close approximation of conic sections or slices through a cone. These are what are really known as ellipses and are closer to the real nature of cycles. You can visualize conic sections by imagining an ice cream cone. The cone, if cut directly across its height, will yield a round circle, but if cut at a slant, will yield an ellipse whose "flatness" will vary depending on how steep or slanted our cross cut is. Although the ellipse is the key to our trading, it is a subject a little too advanced for this book, and I will leave that investigation to your curiosity. Circles are easier to deal with and will suit our purposes just fine in most cases. Additionally, although cycles expand and contract to yield ellipses on many charts, if we use a slightly larger chart such as going from a daily to a weekly, we find that these small expansions and contractions in our cycles drop out, and a large circle becomes a very close fit to the data to mark our major beginnings and endings of the cycles.

The standard textbook method for constructing an arc that lies on the circumference of a circle is as follows: first, you must "eyeball" three points that look to you like they fall on a circle. You must have three, and, if they are not really on a circle, your axis lines will be parallel and not intersect. The first step is to pick the three "dots" on our chart. Then, you take a drawing compass, put the point at dot #1, and draw an arc not quite the length to dot #2. Swing this arc about a half circle and then move the compass point to dot #2 *without changing*

*its separation.* Now, swing an arc back toward dot #1, also about a half circle so that the two arc swings from each point intersect at two opposite ends. Where these two arcs intersect, you draw an axis line through the intersecting points. Note that this is also a method to exactly find any midpoint between two points, which we will use later to discover support and resistance at the midpoint of swings. This axis line will point to the center of the circle. Next, you repeat the same process between dots #2 and #3 to find their midpoints and axis line. Where the two axis lines from points #1 and #2 and #2 and #3 intersect will be the exact center of a circle whose circumference goes through the three points. You, then, merely move your compass point to that center, adjust the separation to any one of the dots, and swing an arc or a complete circle around all three dots. The radius, diameter, and upper and horizontal boundaries of this circle give us our important cycle turning points on that chart, **if** we have actually found a real circle. Sometimes what looks like a circle on short term charts is only a curve, so in picking your three dots to work with, you actually want to see five, ten, or more dots that appear to be connected. When the three important ones are mathematically connected, they will join up all the others, and we have more reliability with our pattern. The real solution of course is to use very long term charts over several years because the visible shapes forming on those charts are much more reliable and long lasting.



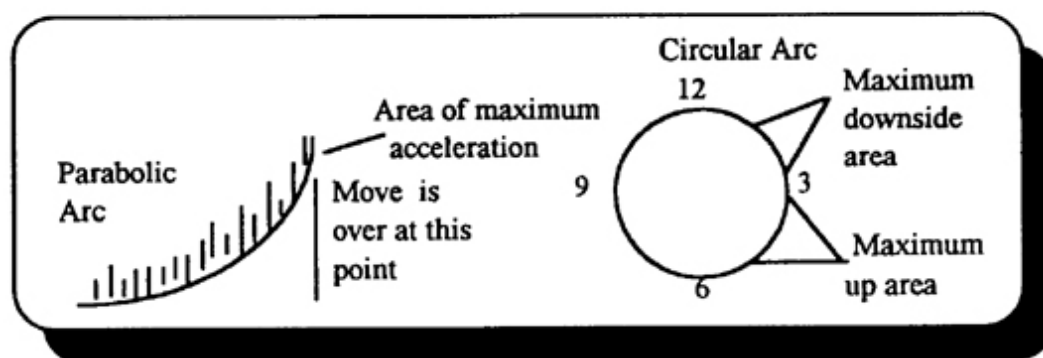


## Implications of Circular Arcs and Circles

Circular arcs tell us a lot about trend, support and resistance, and even where to expect big momentum moves. Remember, we want to pick chart patterns to trade that have big potential and are moving, not stuck in a base or top. The first important observation to note about arcs is the physical property of acceleration. These arcs describe human *emotional* behavior, and as we go up the arc this behavior is *intensified*. Imagine a graph of a car going at a constant speed of 50 mph. This graph would be a diagonal upward sloping straight line. Now, imagine a spaceship launch that is accelerating at a rate of change of 50 miles per second per second. This graph is a parabolic increasing line where the slope gets steeper and steeper until it "goes vertical" or accelerates at an infinite rate or at maximum physical capacity. The emotions of the masses, when chasing a stock or commodity, act like these parabolic curves. Our circular arcs also describe this maximum emotion when the side of the circle is hit, and the arc "goes vertical." At that point, the maximum amount of buying emotion is present, and whoever *will* buy *has* bought. The move is then over and must decline. Similarly, a decline will accelerate to a point where maximum fear is present, and that pattern will exhibit a circular arc turning down until it drops vertically. At that point, the maximum fear is past, and a basing pattern ensues.

When trading, we want to be *long as we go into the maximum up phase* and time our exit near the arcs' maximum vertical movement. Likewise, shorts are held until the arc climaxes on the downside. It cannot be emphasized enough how important a knowledge of these arcs can be. When fear or greed is at its extreme, it takes a very cool head to do the right thing in a fast moving market. By analyzing these arcs as the move unfolds, we get the confidence to act when we know the turn is coming and only need the slightest technical reversal, such as a signal reversal bar on a 5 or 15 minute chart to validate our hypothesis. These "vertical" moves naturally occur on the edges of a circle, such as moving from 5 o'clock to 3 o'clock in an up move, or 1 o'clock to 3 o'clock for the down move. But, what about 12 and 6 o'clock? These are our major support and resistance points. As a market advances from a point near the bottom of the circle, it will first meet massive resistance at the center point or "gravity center." Getting above that which usually takes several tries, it will go to the top of the circle and usually end the move at that point. Big moves that get past the top of the arc will usually go 1 and 1/2 to 3 full circle diameters in that direction.

Having first drawn an accurate circle, we can now forecast with extreme accuracy all possible future points of support or resistance.

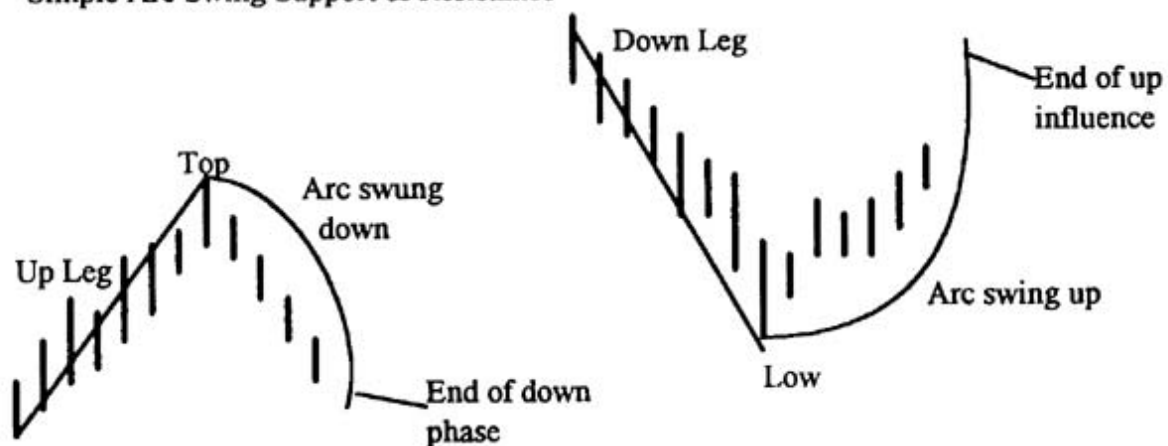


Common sense is needed when using arcs. If you find a major long term arc and are predicting a low for a stock as it declines from 8 o'clock to 6 o'clock for the low, know that a big basing period may be necessary before any upside is possible. You can certainly cover shorts at the low, but trading long is not possible until we get towards 5 or 4 o'clock on the circle. On a long term daily chart, this may represent six weeks to three months before a decent rally is possible. Keep this in mind.

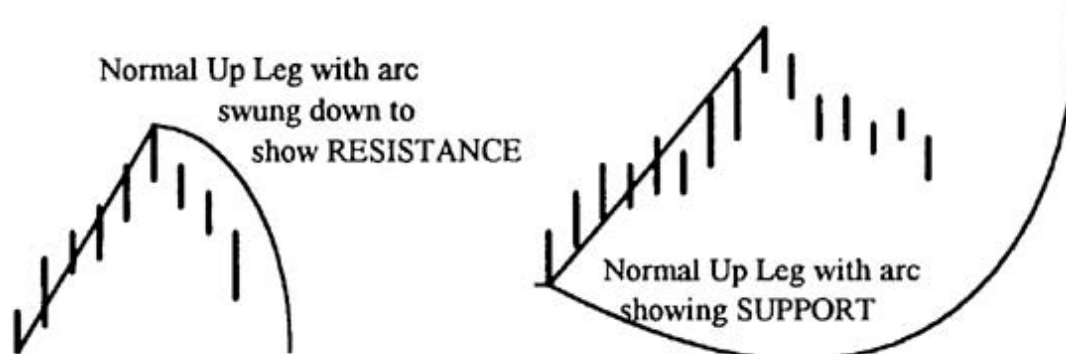
## **Tips On Drawing Circular Arcs**

Although most arcs are drawn by inspection, that is looking at the chart and either trend fitting a circle or by just seeing an obvious circular symmetry, most arcs that I use in trading are not regular circles but circular "influences" of a radius vector swung up from a recent low to the high, and then the arc is swung down to the vertical. No matter how bullish you are, it usually pays to wait for the price consolidation period to move sideways enough to get past that downward arc before it is a safe long. That arc usually times the low, but oftentimes a secondary "crash" starts at the very end of the arc and the price damage can be severe. Likewise, an upward influence is generated by swinging an arc up, using the prior top as the center point, and swinging up from the recent low. This defines at least a time period where a rally could occur.

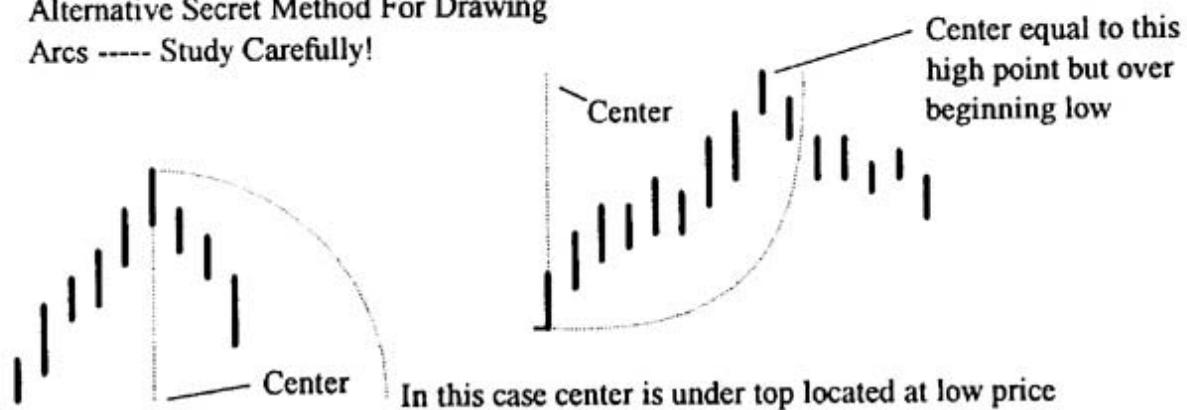
### Simple Arc Swing Support & Resistance



### Two Types Of Arc Swings--- One Support, One Resistance

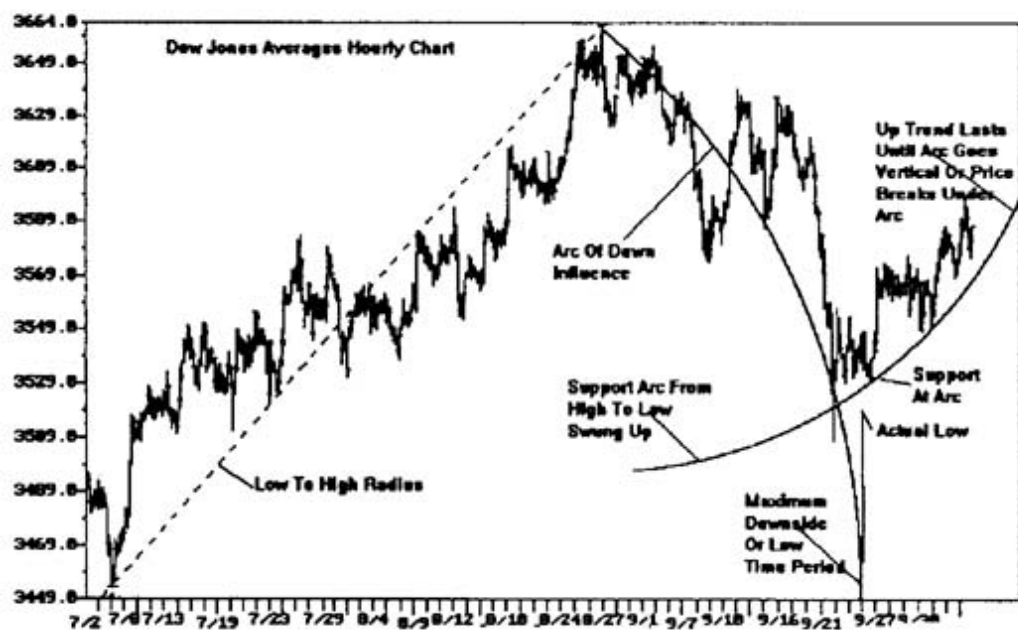


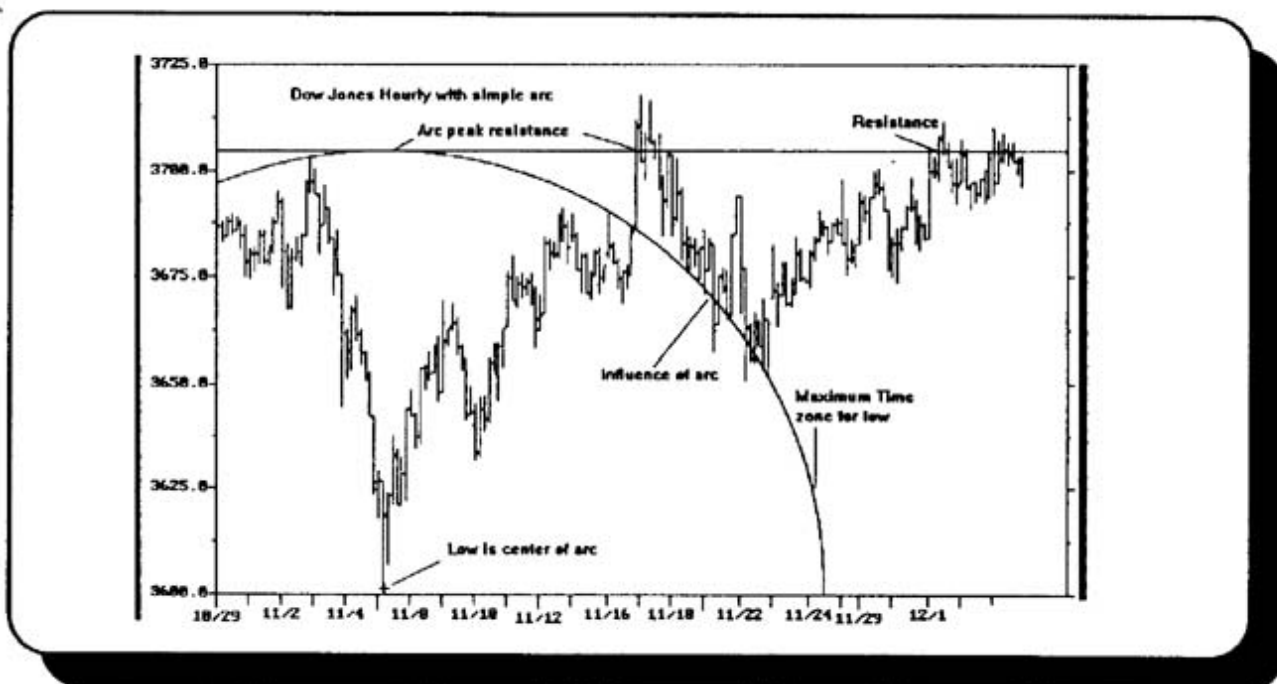
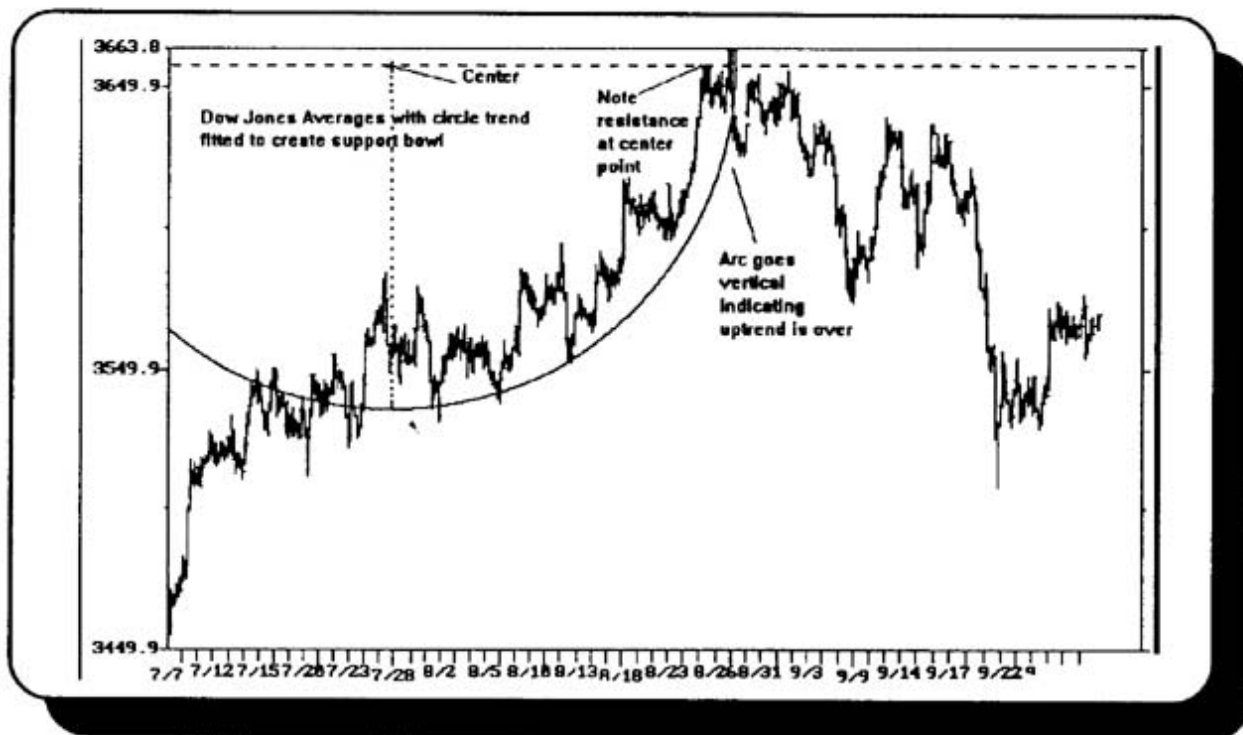
### Alternative Secret Method For Drawing Arcs ----- Study Carefully!



## Examples of Arcs On Intra-day Charts

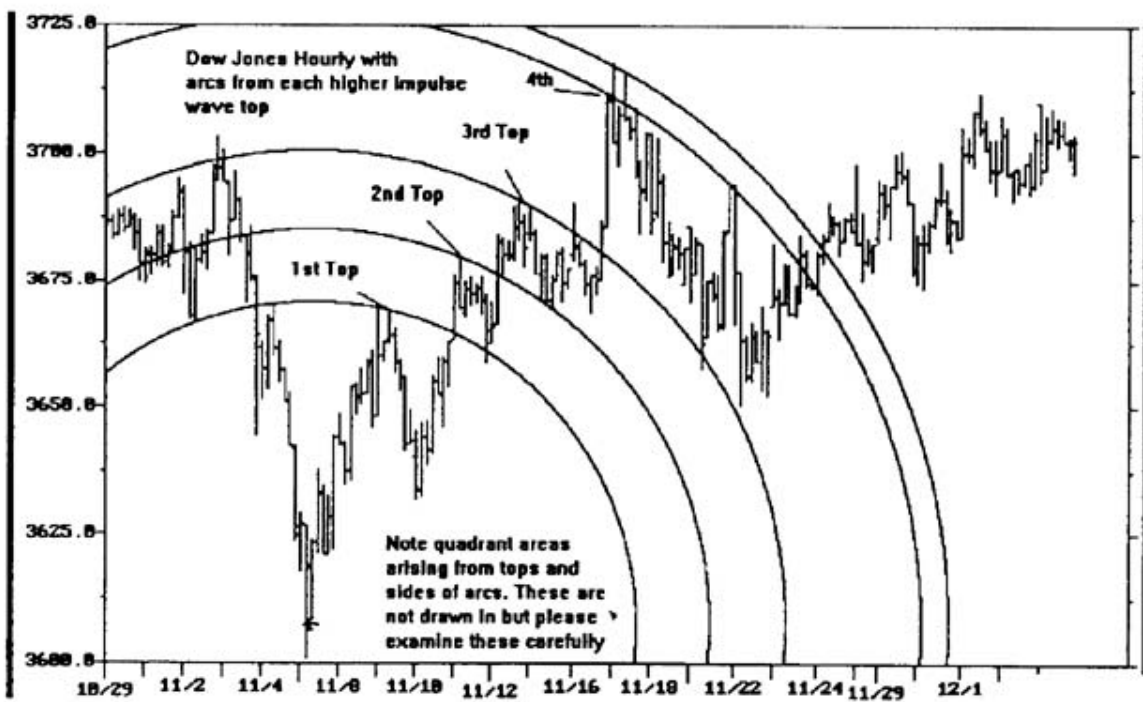
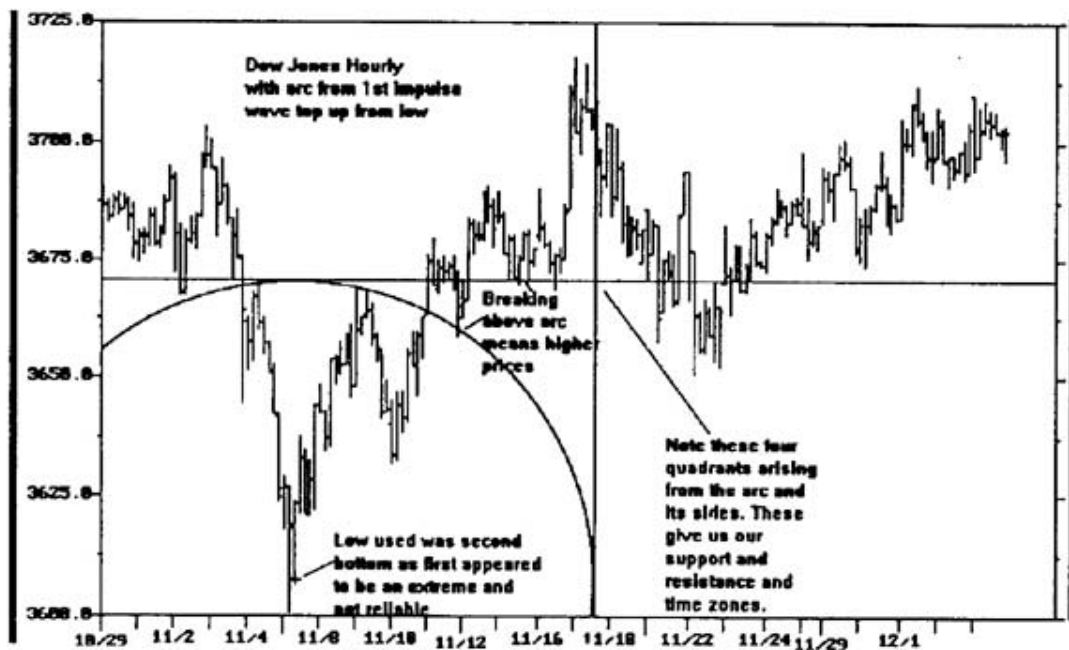


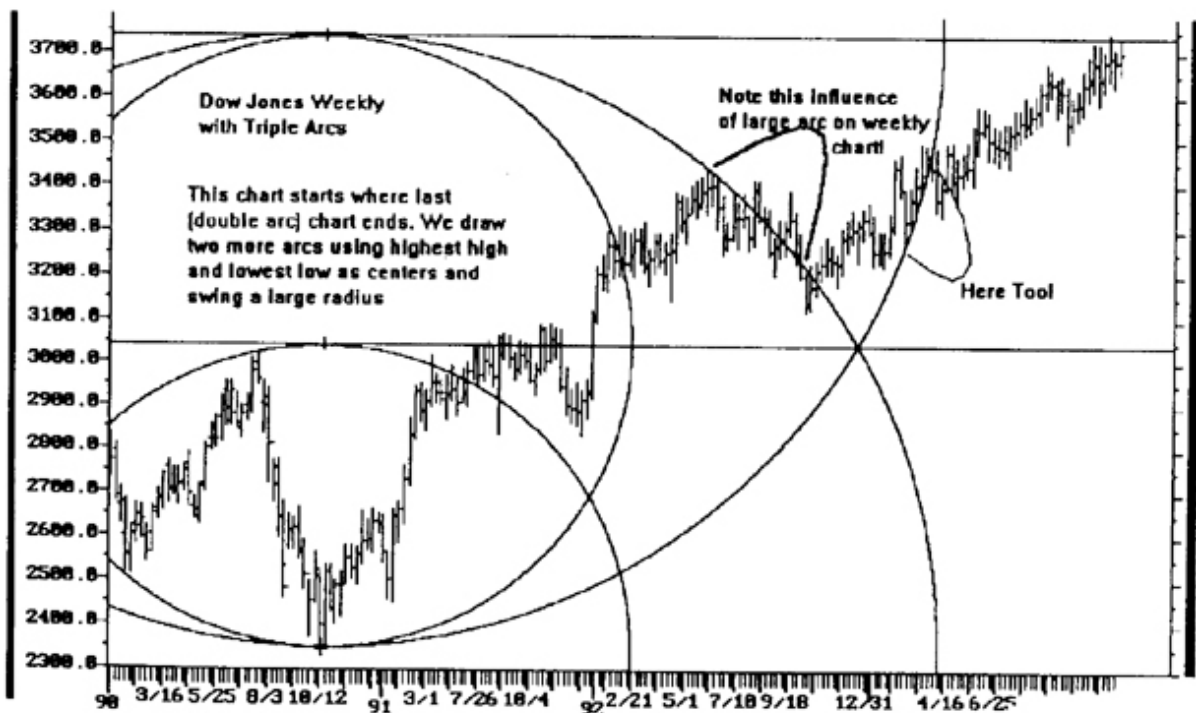
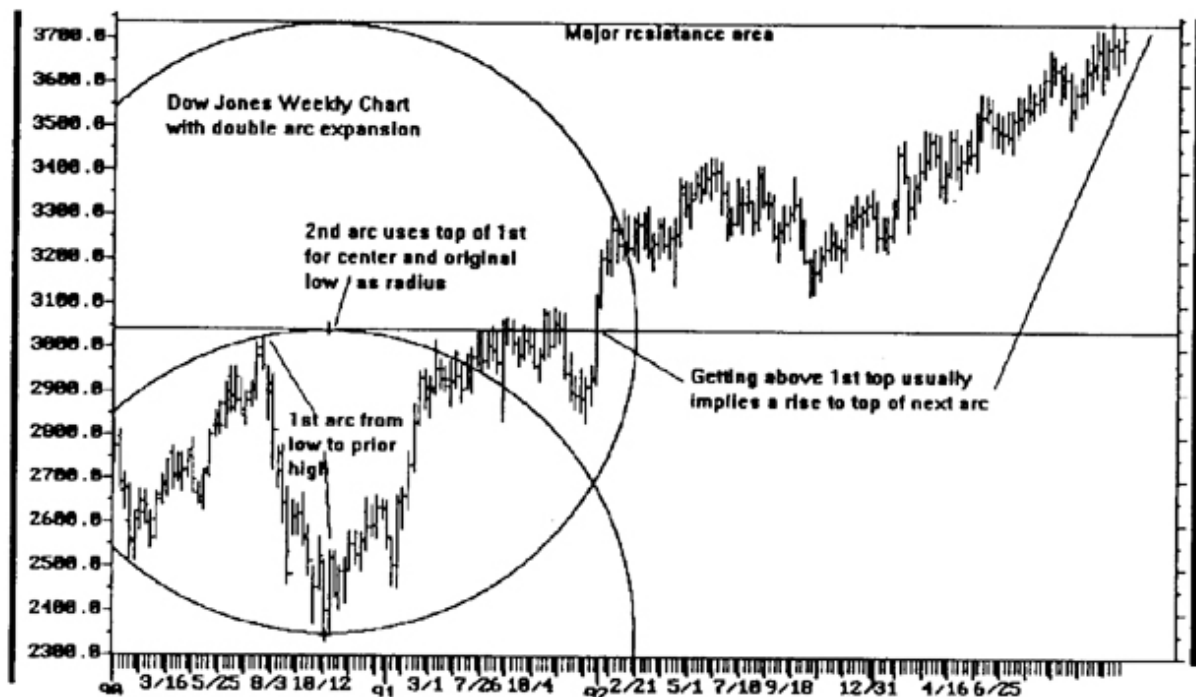




Note that the arc drawn on the above chart misses the actual timing for the subsequent low. But, if you use the secret alternative method shown on the prior exhibit whereby the center is located just left of the low and directly under the first top, the arc drawn that way catches the low perfectly. This is not shown on the chart, but you may want to draw it to prove it to yourself.







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# Support & Resistance

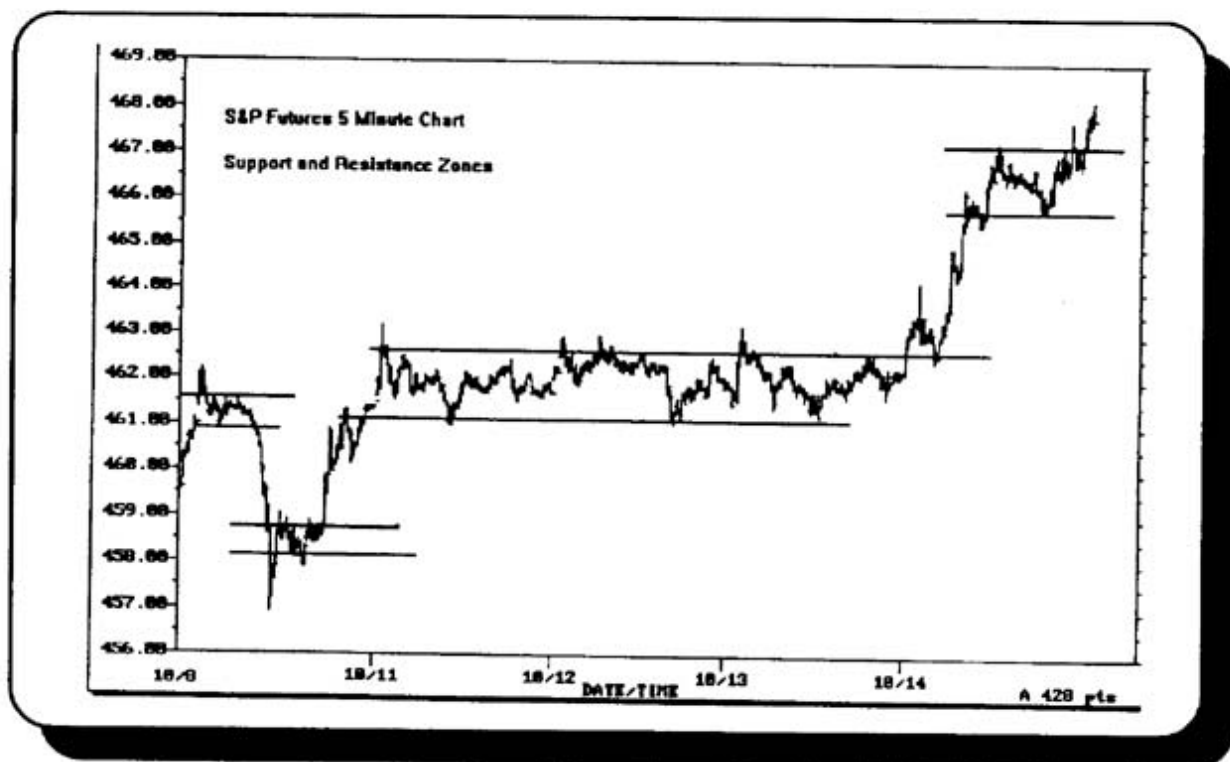
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Support and resistance levels can be determined from three basic methods: 1) Actual historical price clusterings, 2) numerologically, based on common harmonics of 360, and 3) calculated or projected methods. This last includes well-known Fibonacci retracements and projections but for my purposes I usually use derivatives of arcs and roots of the swings themselves. We will start first with the basics of typical support and resistance visually seen in the chart patterns from past history.

**Patterns:** The typical support area is an area that was a prior low or high for a considerable time, and now prices have declined back to that area. The area of that prior congestion will give us a hint as to how strong that support might be. Keep in mind that in trading, we are only concerned with *identifying* these areas, *but we do not trade within them!* In trading, we are looking for maximum return over time, so entering a support or resistance area is an opportunity to sell out a long or cover a short and patiently wait until momentum picks up again and takes prices out of that zone. These historical support and resistance zones are obvious to all who have a chart, and for that reason we cannot always be certain they are meaningful on the first test. In reality, these zones are located where they are because they are mathematically related to the price structure of the stock or commodity. If you have read my *Geometry* book, you know that these areas are related to past highs and lows and various "squares" of the price structure. For our present purposes, however, we merely note them since our trading strategy dictates we get out of the market when we arrive at one.

The primary rule in dealing with support and resistance is that old highs become future lows and vice versa after a breakdown. Getting above or below a resistance zone does not change the mathematical underpinnings of that zone. That particular price structure is intimately connected with that particular security for all time, and indeed all highs and lows in the entire historical record for the issue have *perpetual significance*. This is another reason for examining long term charts before trading a security for the first time. You can also use a common multiple such as 1.25 or 1.5 or 2, etc., times these resistance zone average prices to project future zones of significant resistance.



## Numerological Support and Resistance

Natural cycles repeat over and over, and like any physical law, these fluctuations can be described in mathematical terms related to the 360 degrees of a circle. Most actively traded stocks and commodities will eventually gravitate to the common denominators of numbers related to 360. The most commonly observed numbers are the divisional parts of quarters and thirds of 360, or 360 divided by 2 and 360 divided by 3. This sequence starts as  $360/2$  or 180, which is then divided by 2 to get 90, then divided by 2 = 45, divided by 2 = 22.5,  $/2 = 11.25$ , etc. The thirds are  $360/3$  or 120, and this starting point is then divided by 2 or  $120/2 = 60$ ,  $/2 = 30$ ,  $/2 = 15$ ,  $/2 = 7.5$ , etc. The numbers resulting from such divisions are natural harmonic numbers that can be used in trading. These are considered both from a price perspective *and* a *time* perspective. That is to say, 45 is both a number and a time period, such as 45 bars, or hours, days, weeks, etc. The following table summarizes these 360 harmonic natural divisions. You can subdivide these levels even farther, but I have stopped at the major numbers to give you the idea.

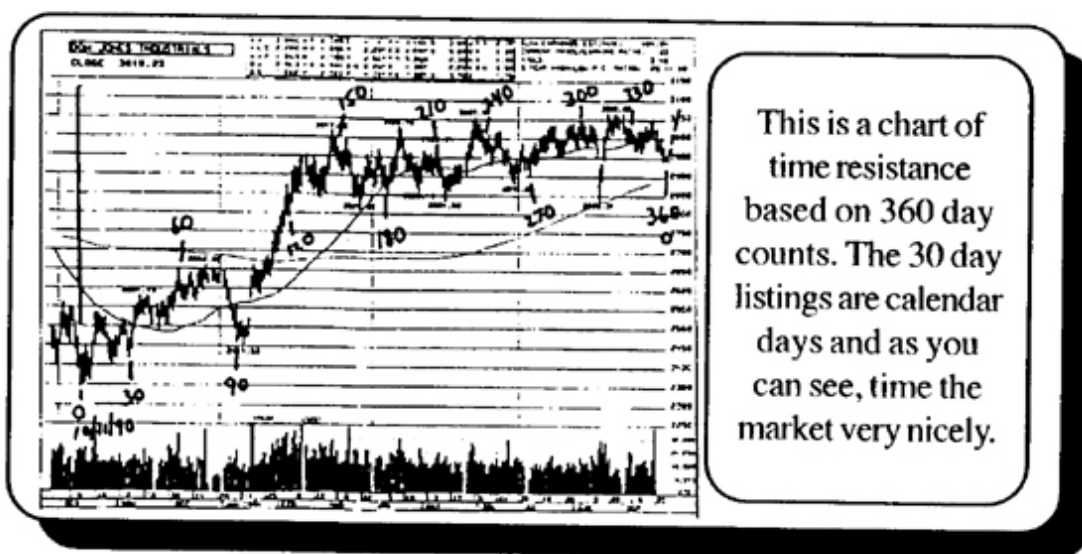
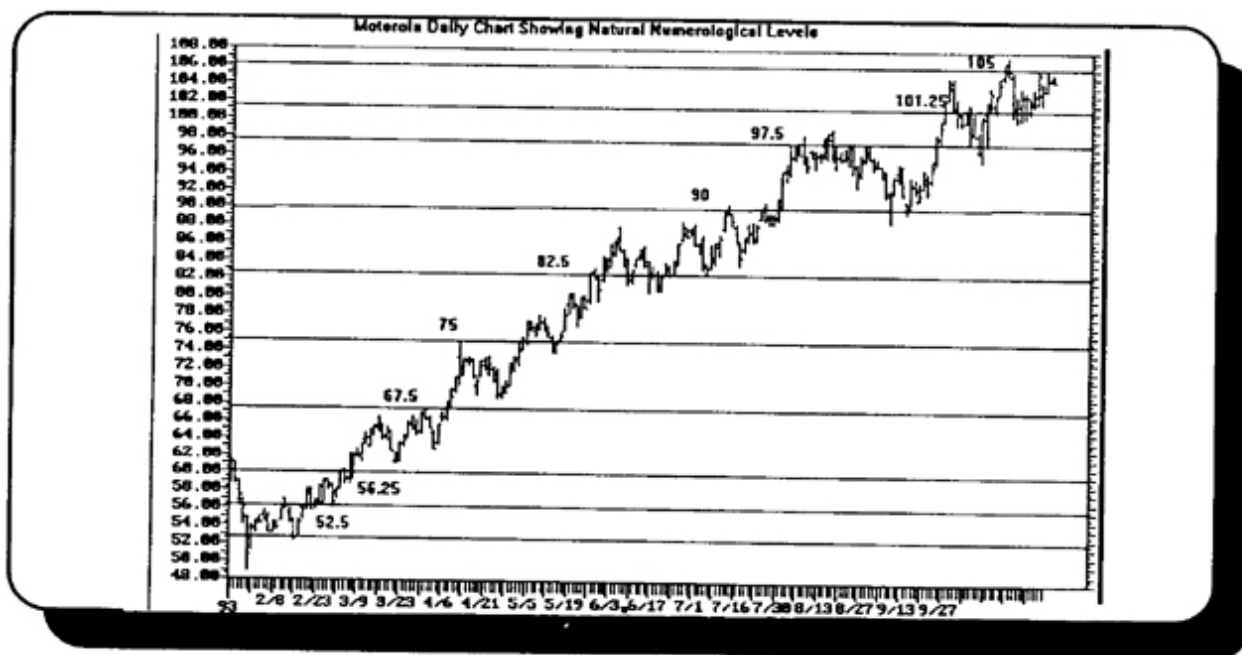
**Table of Numerological Breakpoints**

<b>360/2</b>	<b>both (doubly strong)</b>	<b>360/3</b>
5.63		7.5
11.25		15
	22.5	30
33.75		37.5
	45	52.5
56.25		60
	67.5	75
78.75		82.5
	90	97.5
101.25		105
	112.5	120
123.75		127
	135	142.5
146.25		150
	157.5	165
168.75		172.5
	180.....	
	360	

Most people are aware that these numbers form natural resistance and support, and most traders will easily recall stocks and commodities that reversed at prices of 45, 90, 30, 60, or 120. Not so obviously, however, is the natural *incremental* effect of these numbers. For instance, if a stock hits a major low at 17, we add these increments of 7.5, 11.25, etc., to the price to get this particular stock's natural support and resistance. From a low of 17, we would get 24.5 (17 + 7.5), and 28.25 (17 + 11.25). All other numbers would be added accordingly. Remember too, that the time periods of 17 plus these increments would be



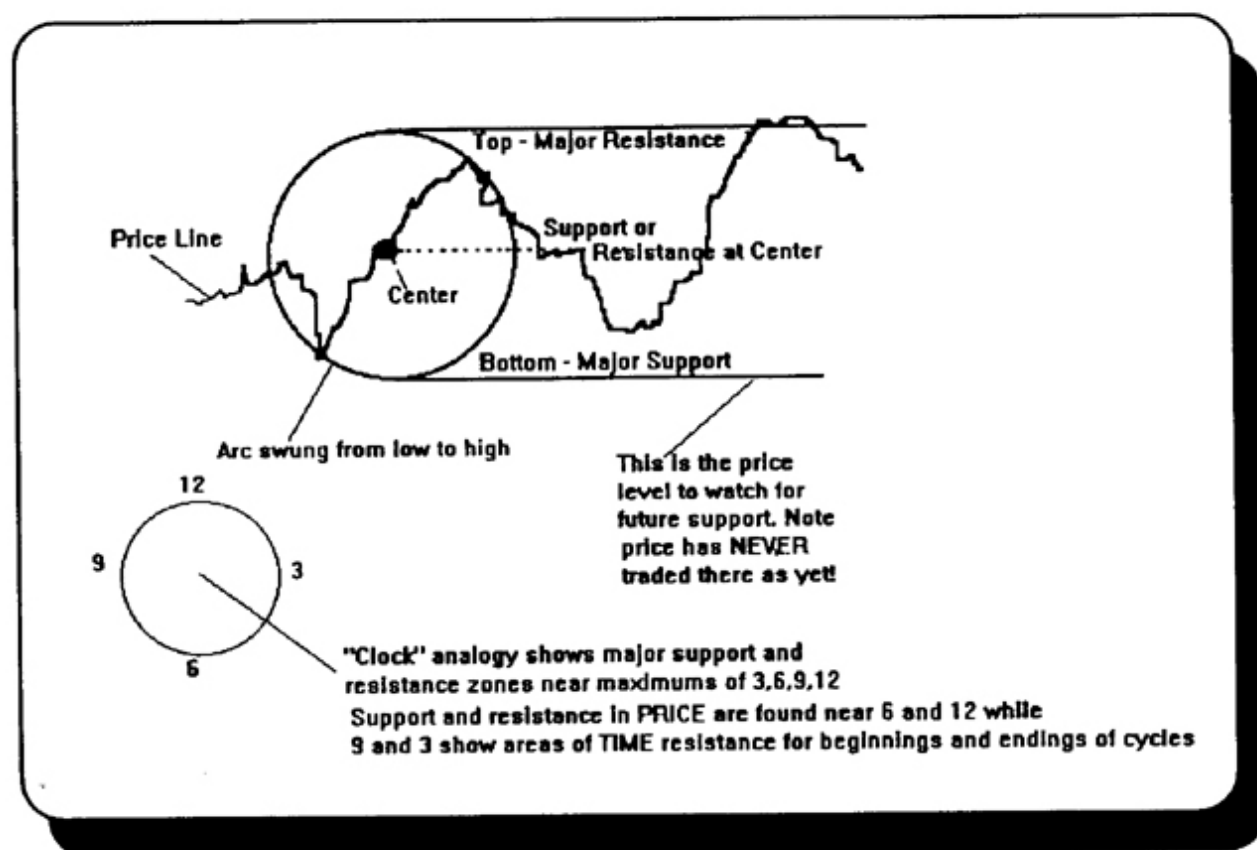
important. On a typical bar chart of any time periodicity, we would count these time numbers as individual bars to look for turns when these periods came out. If you need a logical explanation for this (which is dangerous when you're trading), you can visualize cycles as sine waves that alternate through 360 degrees and start at a number. The 90 degree rotations then merely add an increment to the starting point until the full circle of 360 is reached. By the way, the broad market averages will usually be multiples of 360 or 180, and many of the individual bull and bear waves will equal these total points. For instance, some familiar Dow Jones numbers would be: 3240 ( $9 \times 360$ ), 3600, 3780 ( $10 \times 360 + 180$ ), 3960 ( $11 \times 360$ ), 2520 ( $7 \times 360$ ), 1800 ( $5 \times 360$ ), 720 ( $2 \times 360$ ), 900 ( $720 + 180$ ), and 1080 ( $3 \times 360$ ). An entire book could be written alone on the importance of these number combinations, but I will have to leave that to your investigation and point you to my other books in that regard.

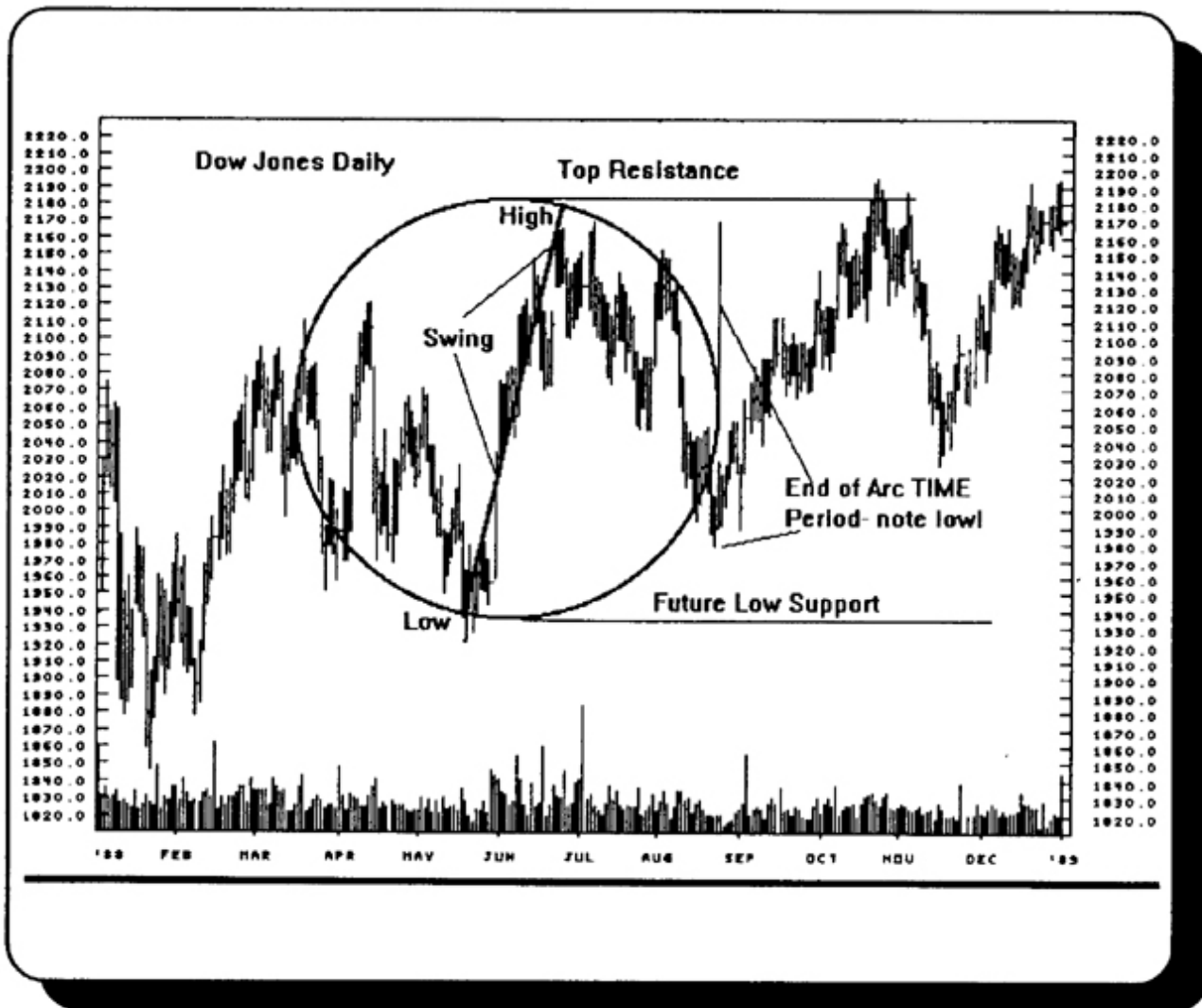


## Natural Arc Support and Resistance

One of the major discoveries I have made in my technical analysis methods is the use of Arcs to determine vector common denominator time and price projection points. What this simply means is that (since time and space are circular) if we measure in a circle from any high or low to get our estimated "measured moves," we will find areas of natural support and resistance. The ends of these arcs are the major resistance points as is the gravity center of the force or the center of the circle. We first swing major arcs around major swings of lows to highs and various highs to lows. The distance away from the current price level these arcs extend to is the area of future support or resistance. If we draw several different arcs from a number of time period swings, we may find that several of these independent swings end at approximately the same price points. This will be one of the major harmonic number fractions of the cycle operating on that individual stock or commodity.

This method is the **only** reliable one to show guaranteed true support and resistance levels long before prices ever reach those levels. Normal technical projection techniques are mere approximations based on likely projections, but this method alone is the key to real analysis. The value of this idea, I can assure you, is worth thousands of times the price of this book, so I urge you to consider it carefully and learn the principle.





## Natural Squares and Square Roots

One of the best kept secrets of technical analysis is that all highs and lows and all beginnings and endings of Bull and Bear Markets are numbers that are natural squares, or more precisely, the square root increment of prior highs and lows. It is the squares of numbers that account for all natural expansion and contraction in the speculative markets. This concept is by far the single most important one you will ever encounter and time spent understanding the principle will make you rich. Since my *Geometry* book deals at length with the underlying principle behind why this works, I will not go into that here but give a brief overview.

The natural theory of cycles states that the price level itself tells you what the mathematics of the underlying cycle is. That is to say, a stock that hits a high at \$50 and then declines tells you that 50 is the master mathematical harmonic: fifty minutes, fifty hours, fifty days, fifty weeks, etc. will have important time cycle influences on that particular stock. This theory goes on to demonstrate that a "square" drawn from that top of 50 in any time period unit such as hours, days, weeks, months,

years, etc., will reflect all cyclic harmonics for that stock. This square can be halved and quartered by the use of diagonals to bisect the 50 time unit master square down to the smallest tradable unit that is practicable. These diagonals, that subdivide this square, give rise to trendlines that are the critical timing lines for that particular stock or commodity. These trendlines can be subsequently continued into the future for any length of time, so you will know all possible support and resistance levels for any foreseeable time period. Because this principle is the basis of all charting, we can use a facet of it to quickly determine where highs and lows will come out in the future or meet massive resistance and support. This application comes from the observation that, in constructing a square out of building blocks (more commonly known as a cube), the smallest divisible unit of that cube is each side, or the square root (actually it is the cube root, but we are only looking at the two dimensional side, since that is all we chart on paper). There is no other fundamental unit that will construct the square. On a more minute level, the reciprocal of the square root represents a single building block, but, for our purposes, the main side of the square is the foundation. It stands to reason that this square root being one of the fundamental building blocks of the cycle will appear as a unit or an expansion factor in all subsequent manifestations of that cycle. For instance, if our stock tops at \$100 and we know the square root is 10, we can surmise that minimum fluctuations will approach \$10. Larger movements will be additive sums like \$10, \$20, \$30, etc.

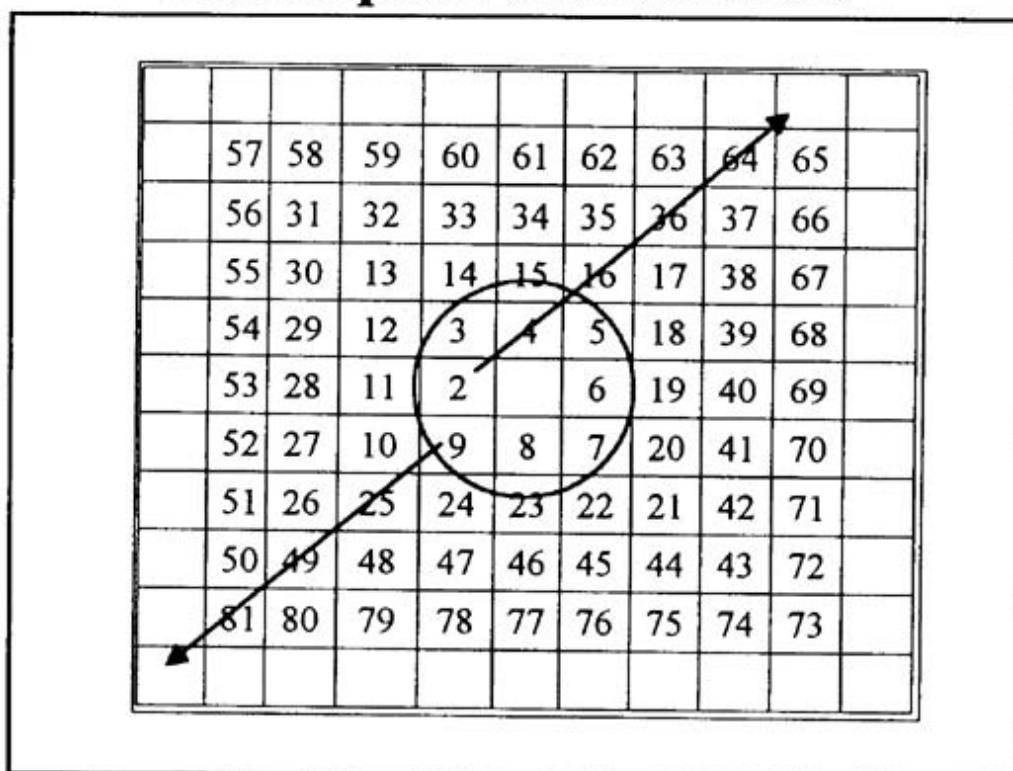
This type of simple increment is easily utilized. On a more advanced level, we look at expansion sequences by starting with the root and incrementing it, then squaring the incremented sum. We could take 10 and add 1 to get eleven, then square 11 to get our target of 121 as being the first massive resistance number after 100. For most traders, however, 21 units from 100 to 121 is too large a trading unit, so we would want to increment the root 10 by fractions such as .25, or 10.25 squared is 105.06. Then  $10 + .50$  squared is 110.25. Many of you will immediately jump to the enlightened conclusion of using Fibonacci increments like .618, 1.382, 1.618, etc., and that would be a step in the right direction.

In regard to the market averages, almost all the past highs and lows in history are related to one another by a square root sequence. For years, it was an addition of 5 to the root, but lately it has advanced to double digit increment levels. The real key, of course, remains to match both the increment support and resistance levels to a commensurate time cycle, so that both time and price come together at the end of the cycle. Only then will you see the final high or low.

W.D. Gann formalized this process in a chart he called the Square of Nine chart, since it had at its core the first nine numbers. These numbers were arranged in a circle and a large cross. North, south, east and west were drawn through the number spirals. The numbers incremented until they made a full circle, then jumped to another rung to make the next larger circle. I am sure most traders have seen this wheel or even use it daily. A whole book could be written about its origin, but, for our purposes, you should know that it is a simple square root calculator and to go completely around one full circle from any starting point and back, you simply take the square root of the starting number, add 2 and square. If you want to go 90 degrees from any origin, take the root,

add .50 and square. To go exactly opposite the origin number, add 1 to the square root and square. Each of the 90 degree rotations provide resistance to both price and time, so here too you would like to have multiple correspondences for accurate results. The beauty of the drawn circle arrangement is that all numbers line up in the four cardinal points on a straight line, and one merely draws a circle around the past high and low numbers to see if they fall in a line or obvious sequence. Once this sequence is determined, you have the eternal key to that stock or commodity.

## Gann Square Of Nine Chart



The above Gann chart starts in the center (blank) and proceeds outward by the numbers. Especially note that the first circle of numbers stops at 9 and then starts a new circle with 10 to 25. Each circle ends at the square of odd numbers, as shown in the line drawn down from 9 through 25, 49, 81, etc. The opposite part of the chart shows the even squares of 2, 4, 16, 36, 64, etc. Note that if you take a number such as 46, calculate the square root, and add 2, you will get 77, the next number down on the chart. If you add 1 to the square root, you get 61, which is directly above 46 on the upper half of the chart.

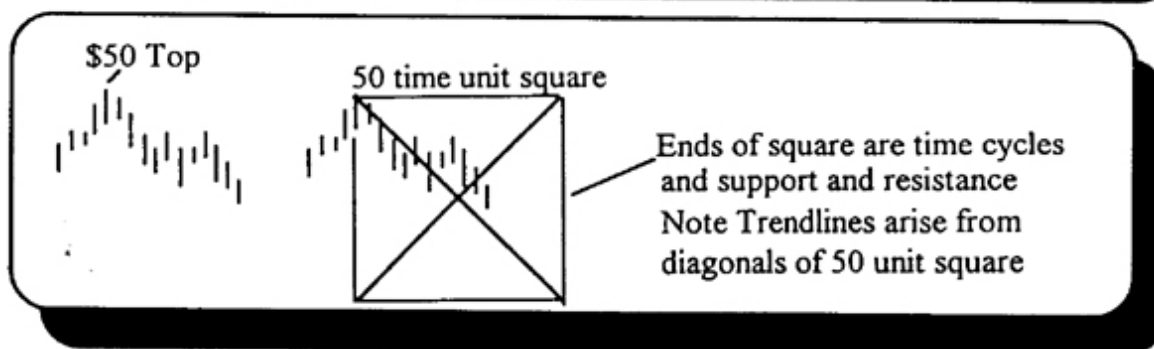
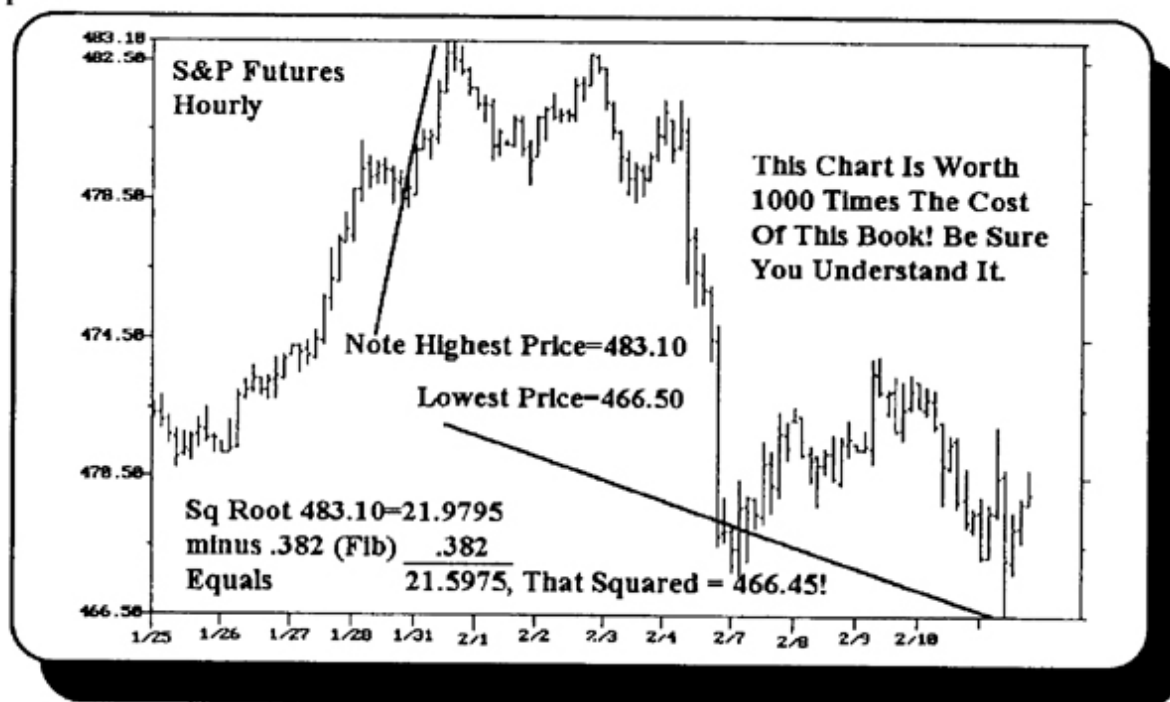
If you can imagine the orbits of an electron and the fact that the electrons when stimulated can “jump” to higher or lower states, then you will have a better appreciation for what happens to stocks when they enter one of these new circles. Also, note the natural phenomena that higher



priced stocks move quickly and further between corrections than lower priced ones. On the chart, these are the numbers in each "rung" of the circles which have more numbers as you go to higher cycles. Finally, note the chart is not complete but can be continued to infinity, and you should make your own up to 4000 or so, if you trade the Dow Jones Averages. In theory, this is a generalized chart based on the natural numbers. In the case of specific stocks, you might want to start your chart with the multi-year extreme high or low price in the center and cycle up or down from that price to get very specific price pattern identities.

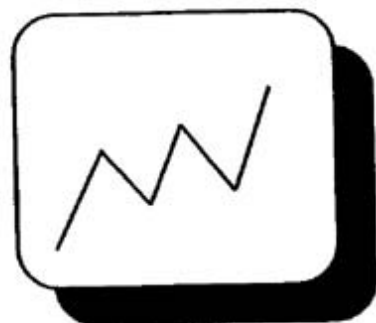
Day traders will note the simple but extremely powerful technique of incrementing the roots of the S&P Futures or the OEX. An S&P number, such as 465 whose root is 21.5638, can be incremented or decremented by sixteenths to get the following sequence: 465, 467.70, 470.40, or 473.12 for the upside targets, and the decrement would be: 465, 462.31, 459.62, and 456.95 for three sixteenths. Number sequences other than sixteenths could be used if you find them more appropriate. The root increments of .25 represent a 45 degree rotation around the Gann Square Of Nine Chart.

Again, I wish to stress that the information in the above few paragraphs is quite valuable, and you should make sure you thoroughly understand the concept before going on. The following are examples:



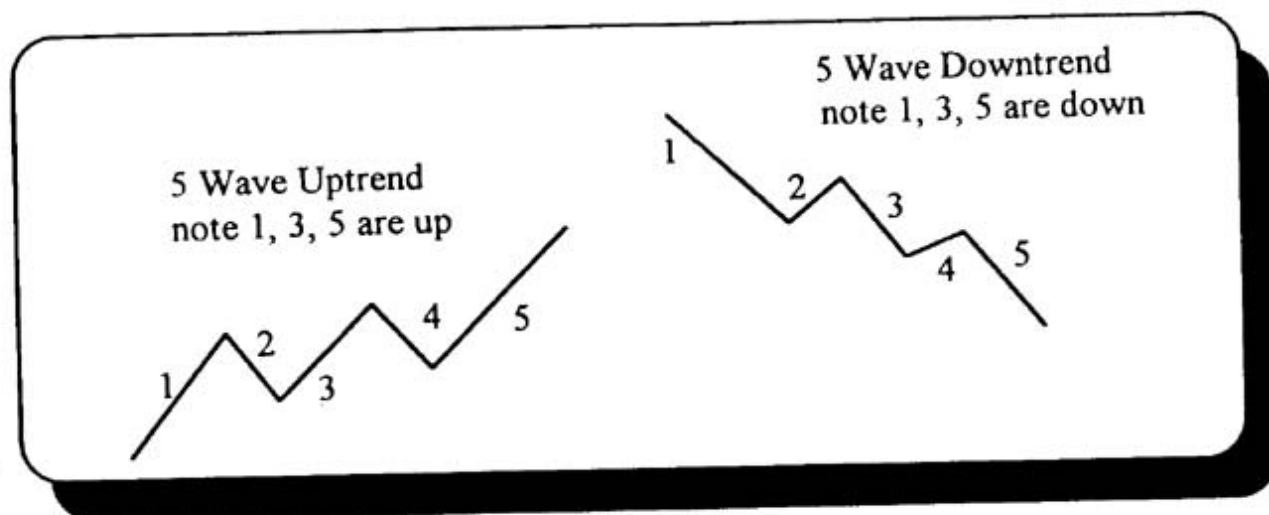
My *Geometry* book goes into great length constructing Gann Squares, and you should study that work if you want to grasp the reality behind the idea. For our purposes here, however, know that on your charts you want to keep track of time cycle counts from important highs and lows, and the easiest way is to construct a "square" around the price level equal to that price level in either a time period of hours, days, weeks, or months, related to price units. As each square of the fundamental time unit ends, a major cyclic turn will manifest in the stock or commodity. Sometimes the simple geometric square or circle figure will point to the price target, but one of the real secret keys to forecasting is to use the Gann Master Time and Price Calculators. Few people understand these, so be careful if you spend a lot of money acquiring them. In principle, they work off the Square of Nine or the "Octagon Chart". As previously explained, this is a root calculator, but *more important* than the price levels shown on this chart (which is all 99% of the traders bother with) is the fact that these numbers represent *harmonic time periods* from past highs and lows. The procedure is to find where you currently are in **terms of time**, by noting the numbers in the wheel and converting them to days, weeks, or months, from a past major high or low. Once you know where you currently are located on the chart in terms of an angle radiating out from the center, you can then move along that angle *back to the previous cycle* in the immediate rung prior to where you now are. You then go back to a chart on that prior calculated date and find out if it was a high or low. Your current forecast on the present calculated number rung will likewise be the same -- that is a **high if the prior one was high or a low if the prior one was low**. It is important to note that, going back to the prior theoretical date on the wheel, you may find, on your actual historical chart, no high or low on that date. This is what confuses most people who use this method. What you do is look forward or backwards from that *theoretical* date by usually 3 to 8 trading days to find the *actual* high or low, and then you forecast that the current cycle will come out plus or minus that same amount of time this year as it did in the prior cycle. If it was 4 days early last time, it will be 4 days early this time. Importantly, it will usually be the same character -- a high or low. Once again, I will not show an example in this book because it is too important. If you desire knowledge, you must do the work. I will just point.

# Waves



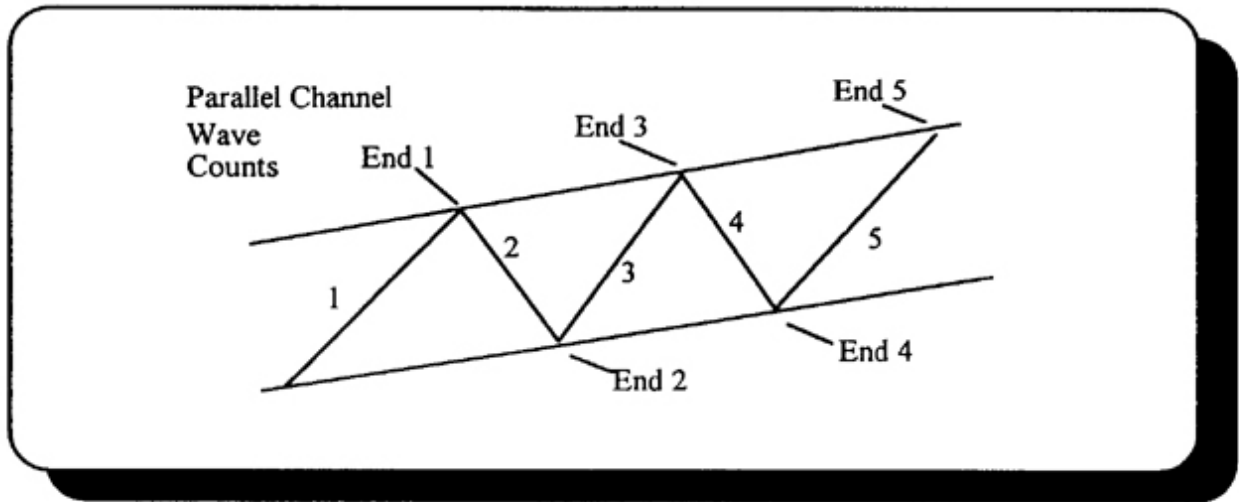
Waves are really just recurring patterns that have a specific shape and can be used for predictive purposes. Although there are an infinite number and type of waves, the most common have traditionally been classified as **five** wave movements for a *primary trend* and **three** wave movements for the *counter trend*. A five wave pattern realistically has but three upward movements separated by two downward thrusts for five in total, but three going up and two going down. At the end of all five, the big counter trend movement takes place in three waves or two down separated with one up. This is for a primary up trend. A primary downtrend would have five waves down and, at the end of that, three counter waves up. Basically, the most important point is that when you see five waves clearly know a big change in trend is at hand.

Waves can often be difficult to see in complex price structures, but when obvious do give added value to the overall chart interpretation. Oftentimes, the use of parallel channels on the data will make counting the waves easier, since each time the prices hit the top of the channel and turn down, that is a wave top. The touching of the lower parallel channel is the counter trend wave in an uptrend. The idea, of course, is to buy dips and sell rallies, so knowing where waves end and begin tells us where to buy and sell. The typical pattern looks as follows:



Usually waves can be identified quickly, through the use of parallel channels. The touch points of the channel lines are where the waves peak, and you can make a quick approximation of the number of zigzags that way.

Most waves form these 1, 3, 5 structures in the primary trend; that is a 5 sequence for a



main up trend and a 5 sequence when the main trend is down. If you see a dramatic movement of only 3 waves, it is probably a counter movement to the primary trend which will shortly reverse.

This idea of waves and parallel channels gives rise to a concept of *retracement levels*. Remember, our strategy is to identify the primary trend and enter our trade with the primary trend but enter it on the little counter trends. That is, buy the dips or sell the rallies. Obviously, the “dip” cannot exceed the primary impulse movement, or it would not be a dip. So, we watch for retracements. Retracements are usually 25%, 33%, 38.2%, and even 50%. Normal counter trend movements stop at these retracement levels and then resume the main trend again.

Our strategy, therefore, becomes one of judging the momentum of the counter trend correction into which we will make our entry into the trade. Then guess its most likely percentage and buy in (if it is an uptrend), placing our sell stop down at the percentage where we know we are wrong on our guess. For instance, if a stock advances from 20 to 30 and we think a 50% retracement is likely, we buy on a dip to 25 and use 22 (down 80%) as our stop, since a correction that big is probably not a correction at all but the primary trend and 20 will soon be broken. This strategy accomplishes two very important things and will be the key to our success as traders. First, it forces us to buy against the minor trend and thereby mitigates against our becoming emotional and impulsively buying just to satisfy our greed, but forces us to have a plan. And second, we can clearly define our risk on the trade to only a dollar to two. Whereas others may be holding stock from 30 and have a big loss by the time it hits 24, we only have a modest loss of \$1 and can easily handle that situation without getting emotional. When we later look at cycles, we will add a third element to the buy equation: time. That will further define our risk to a set number of hours of holding regardless of price damage.

## Impulse Waves

Impulse waves are the initial thrusts in each wave series. This first primary thrust can tell us a lot about future price trends and targets. Obviously, an impulse wave implies, by its very name, a powerful momentum thrust. When you see an impulse wave, do not think the current trend will reverse any time soon! Recognizing an impulse wave will keep you with the primary trend and even help identify it for you. For example, when prices seem to be randomly bouncing around in a flat, usually a big impulse bar will occur every so often. The direction this "big" bar takes points to the primary direction of the movement, even though it quickly seems to reverse. Unless you get a complete 100% retracement of the impulse, do not assume the trend has changed. These big bars are also often accompanied by "gaps" in the chart, and looking for gaps is a good practice when first picking up a chart. The gaps indicate extremes of emotions and big supply demand imbalances.

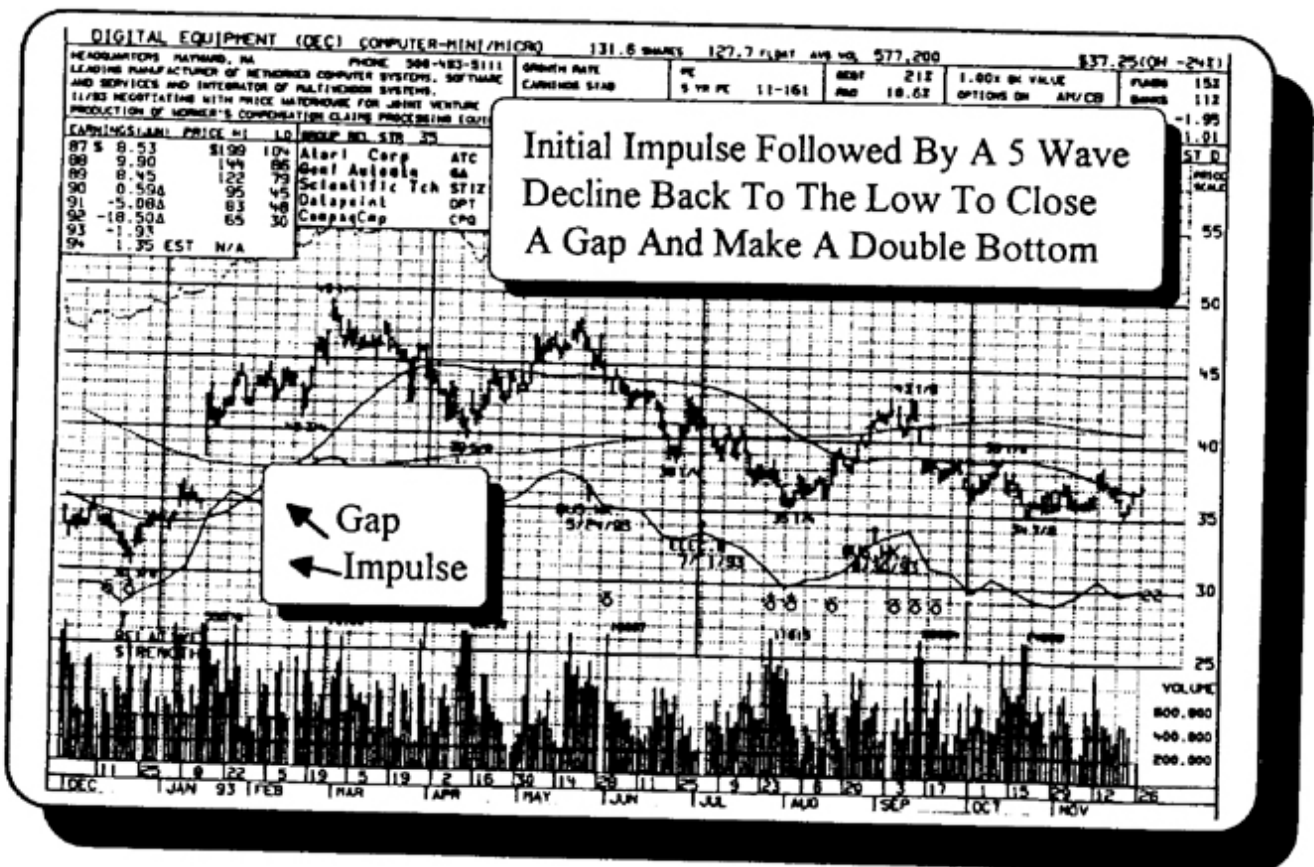
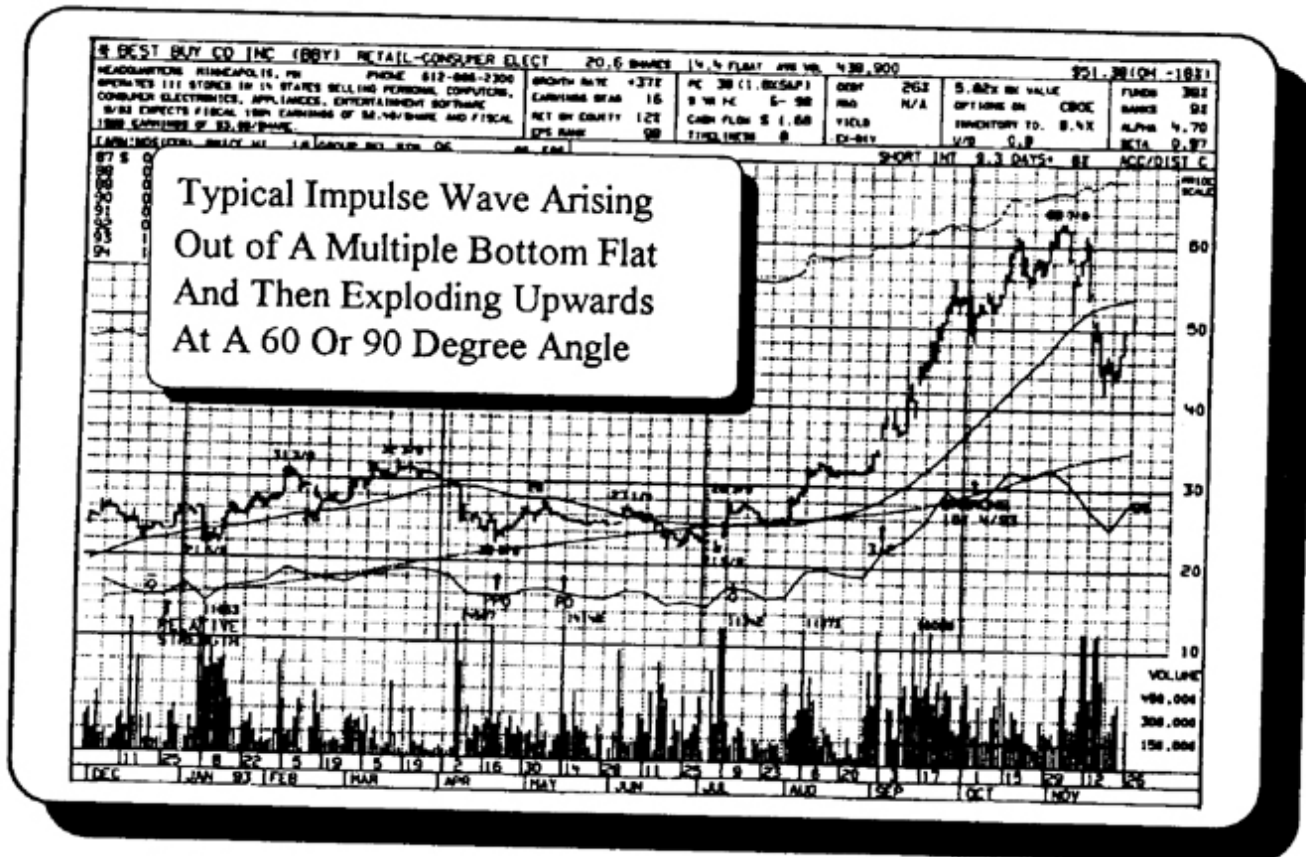
Remember that the purpose of identifying the impulse wave is to not only respect the trend, but once we identify it as an impulse, we know there will be five waves coming. So we can set up long term trading strategies to buy into waves 2 and 4 and watch for the end after five.

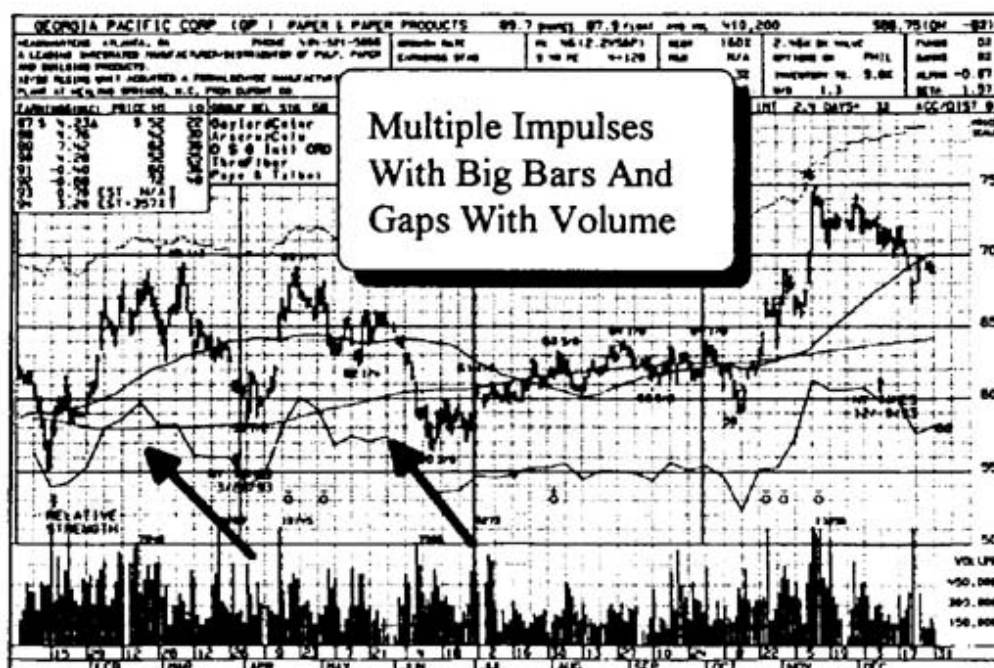
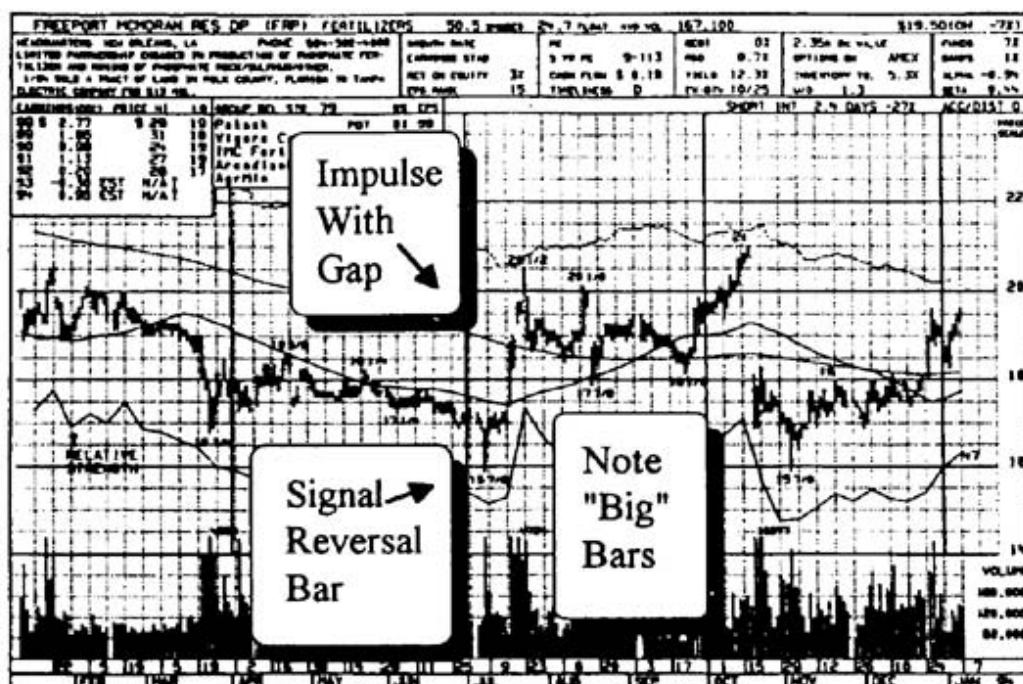
Impulse waves frequently rise along strong angles, such as geometric angles of 4 x 1 or 8 x 1. These big momentum angles are also a tip off as to the strength of the move in progress. In S&P futures trading as well as other leveraged futures markets, the big impulse wave bar on the chart signifies a time period to buy every dip over the next several bars on the chart. Trends usually persist, and the number of bars after the impulse that the trend continues is at least three bars but usually a fibonacci number like 5, 8, 13 or 21 bars in the same direction. It is nice to have the confidence that a move will last this long and stay with it, and identifying impulse waves gives us that.

The second major help impulse waves give us is for measuring the distance of the move. Usually, the final high or low is a multiple of the initial impulse distance. If the Dow Jones Averages impulse up 50 points, we could multiple that amount by ratios like 1, 1.618, 2, 3, 3.618, etc., times the initial thrust. Remember, also, our previously mentioned secret of laying the signal bar on its side horizontally to measure the time distance of the move.



## Examples of Impulse Waves:





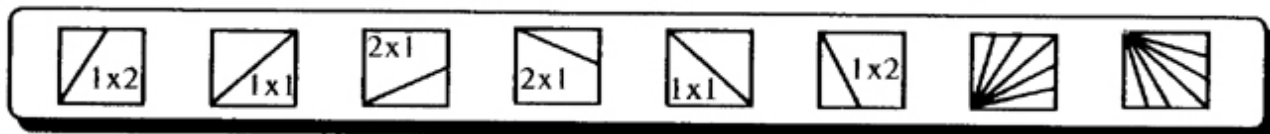
# Angles



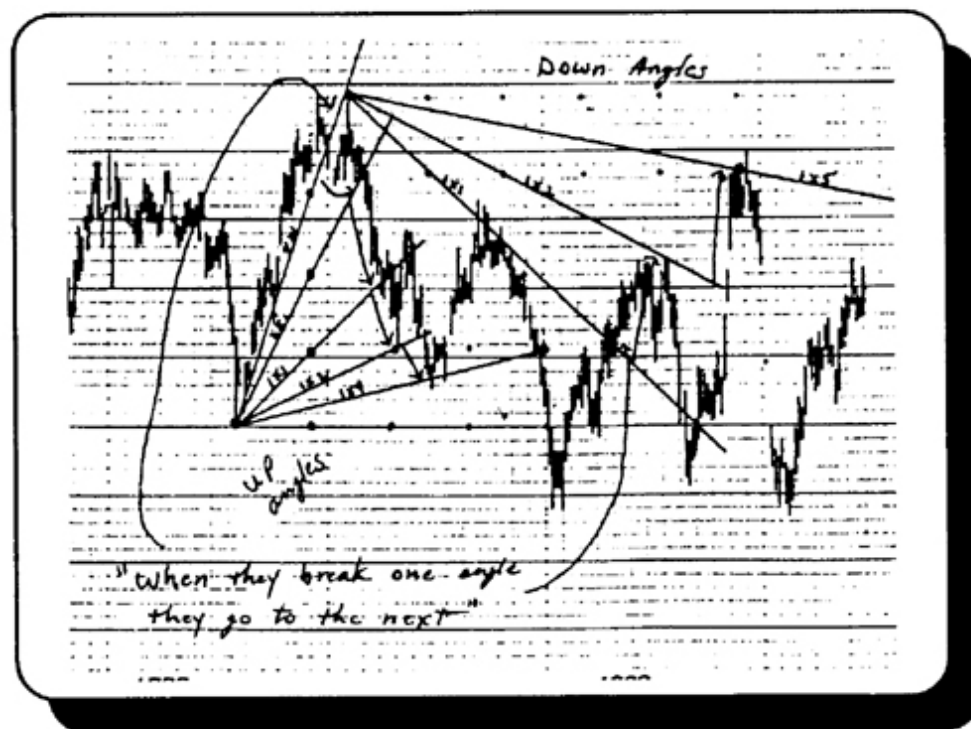
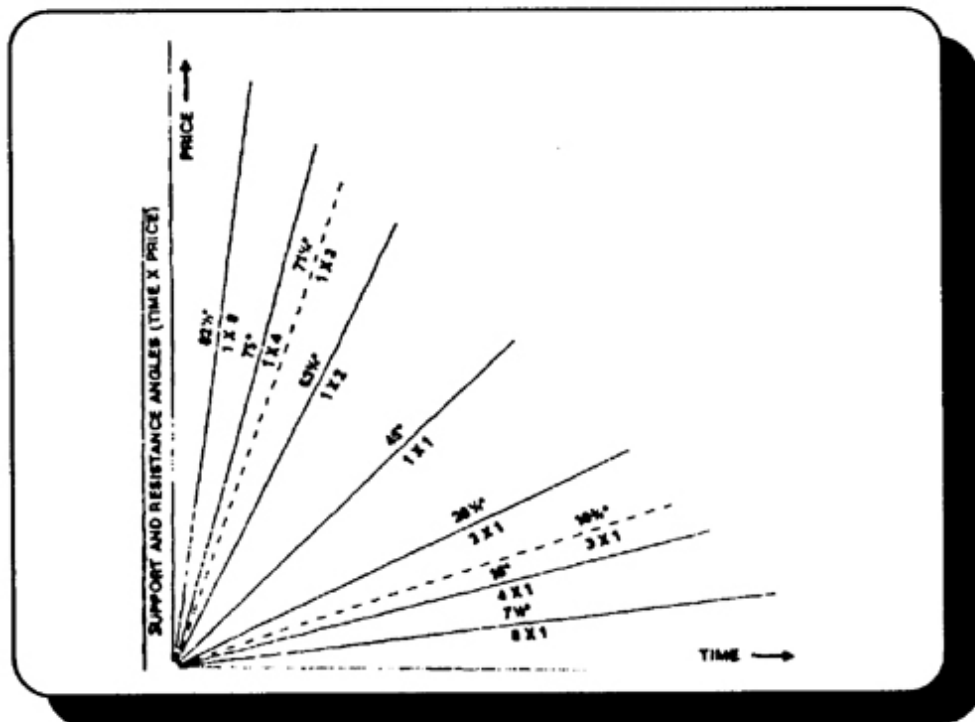
Retracements are easily calculated, and although you could spend most of your time calculating them and recalculating them, I cannot spend too much time in this book on such a simple subject. What I can point to, however, is a simple technique that actually keeps track of retracements automatically and requires almost no work. This is nothing more than angles. Not simple trendlines most traders use but “geometric timing” angles. These are called geometric angles because they subdivide time and space or price movements into proportionate fractional parts. These fractional parts are our percentage retracements, and when a geometric angle breaks, we know the trend will most likely continue to the next angle retracement.

The most basic correction is the 50% retracement. This is represented by the 45 degree angle. This angle is the diagonal of the square, and we know that a diagonal evenly divides a square, so we know it represents a 50% measurement. This angle is referred to as a 1 x 1 angle because of this equality of time and price.

One of the most difficult concepts you must grasp is the idea that time and price must *both* be accounted for. Remember, we are measuring vector distance of time and space, or price, so a sideways movement coupled with an advance or decline represents more than just the price movement. You will have to contemplate this concept long and hard if you want to make real progress. This is the reason that any price decline to a 45 degree angle represents a 50% retracement, no matter what the price decline has been. Along that 45 degree angle, *time and price are equal* with the origin point of the angle. We are over the exact same amount we are down. If a stock goes up 10 dollars, sideways two months, and hits the 45 degree angle coming up from the low, it HAS corrected 50% when it hits that angle. You may have to take a few years to contemplate the nuances of this principle, but for now please memorize it. Since geometric angles evenly divide time and space, they are represented as divisions of a square and designated as one by one, two by one, four by one, etc. These are the units up versus over or time and price.



These angles are *timing* lines in that prices falling along these angles are at an exact fractional proportional movement from the origin to that point. The primary rule is that when you break one angle, you must go to the next. That can either be a drop or rally to the next angle or a long consolidation until the next timing angle reaches up to hit the current price. In either event, the current rate of advance or decline is over, and that would require a change in trading strategy. If one were to merely draw these angles with a compass, you would find the 8 x 1, 4 x 1, 2 x 1, 1 x 1, 1 x 2, 1 x 4, and 1 x 8 angles equal to 7.5 degrees, 15 degrees, 26.25 degrees, 45 degrees, 63.75 degrees, 75 degrees, and 82.5 degrees, respectively. This is shown as follows:

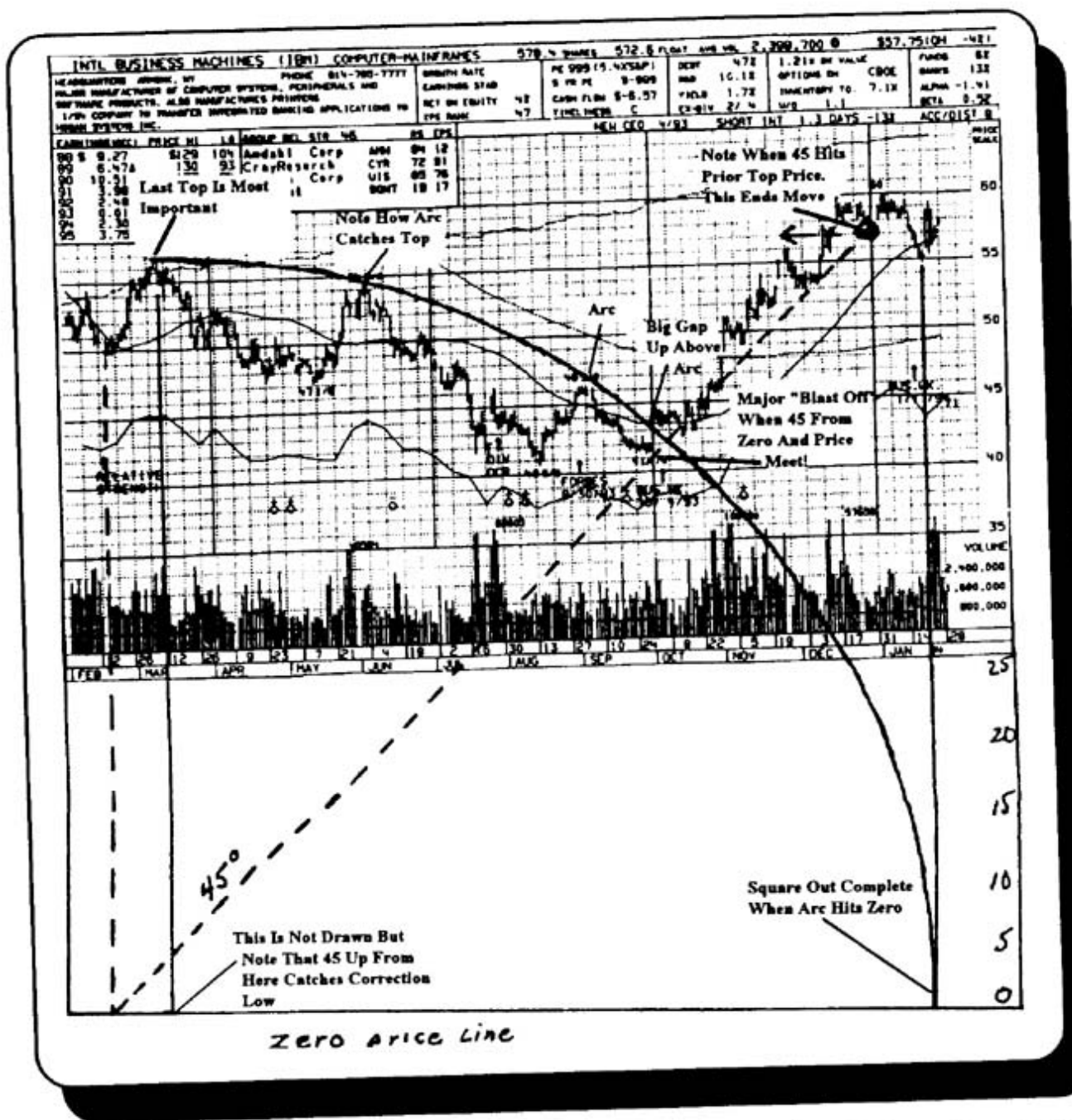




Angles are a very important means of measuring momentum and the *steeper the angle, the more powerful* the move. By measuring the steepness of angles, we are forewarned of changes in momentum and coming changes in trend.

Angles are usually drawn up from lows and down from tops, but timing angles are used to measure precise turning points *where they intersect price harmonics*. For instance, an angle drawn down from a top at 50 on a stock would identify a time area to expect a turn when it reached the major price harmonics of fifty, like 37.5, 25, 12.5, and 0. These are quarters of the price of 50, and even though the price itself may be located on the chart elsewhere, when the timing angle hits these important numbers, a turn is indicated in that time period. Major movements occur when time and price "square out" or reach the full price, such as a decline of the top angle all the way down to 0 or an angle started up from zero directly under the high of 50 and at a later time intersecting the price of 50. At these times, in particular with the 45 degree angle, time and price are in perfect balance, being over the exact number of units as the price was at the top. These "square outs" look like diagonals of squares and as thus called square outs, since they represent a square or balanced harmonic of the price. An angle coming down from a top and one coming up from a completely different lower price would intersect at the common mathematical vectors of the two prices, and a major turn would be indicated at that point. This is called "squaring the range" or the price difference between the high and low swing.

It is extremely important to draw angles both up from zero and down from each high to zero to see major turns. Most charts do not continue the scale down to zero but only use the relevant trading range. In these cases, you MUST find the location of the actual zero price and continue your angles until they reach that critical point. Additionally, an angle coming up from zero, starting under any high, will almost guarantee major support the first time it rises high enough to hit the current price level. The vast majority of traders do not do this and miss out on the easiest and strongest support point for the stock or commodity. Keep in mind that if your paper or scale does not have room to draw down to zero, you can "tic tac" back and forth / up and down at price harmonics until they add to the appropriate amount to reach zero. For example in the 50 price example, a 45 degree angle drawn from 50 down to its quarter point of 37.5 could then be turned back up to 50 again which would be the midpoint, then down to 37.5 again to represent 25% and finally back up to 50 to get 100% or the zero angle point. Most people do not realize it, but this is where you often find cycles of "x" units which are really just these tic tac harmonic points from a past major high or low being worked out. Whole books have been written on angles, and I hesitate to rewrite them, so I refer you to my other writings and other books on the subject. I urge you to do so because the information obtained will be valuable.

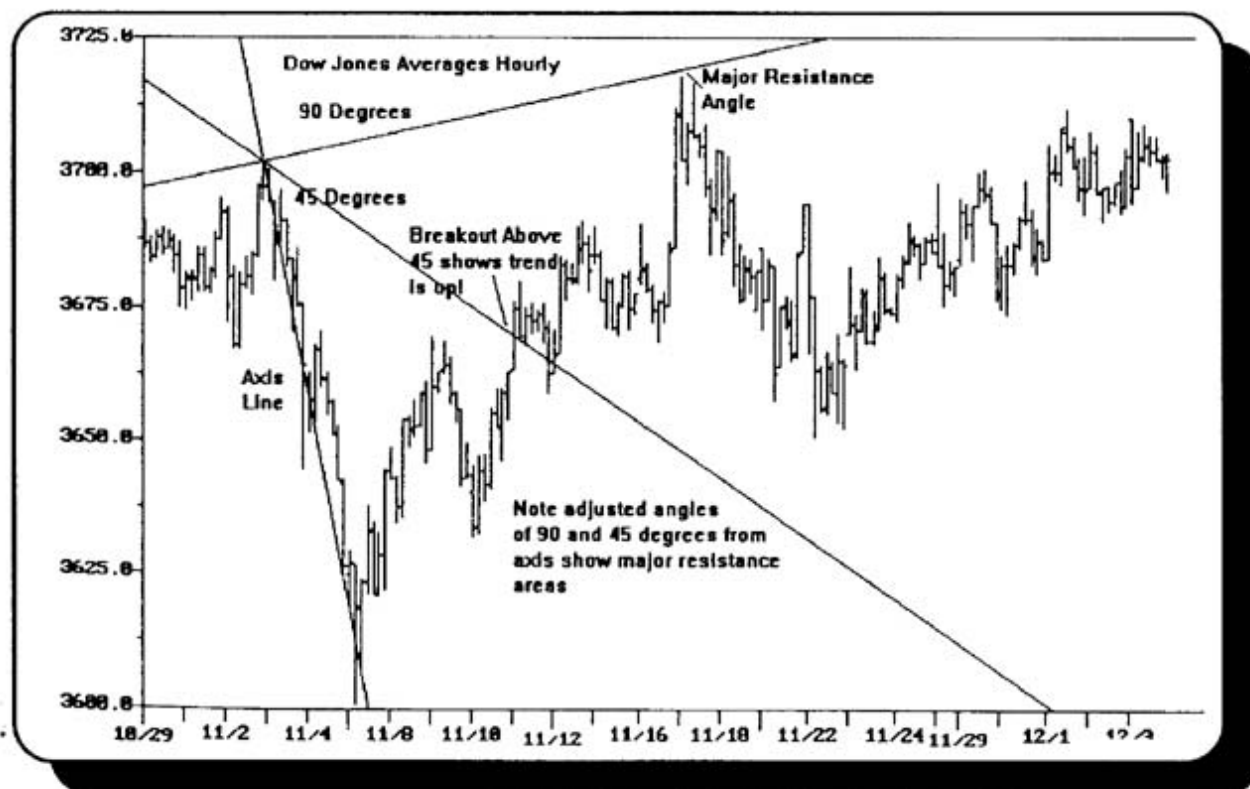
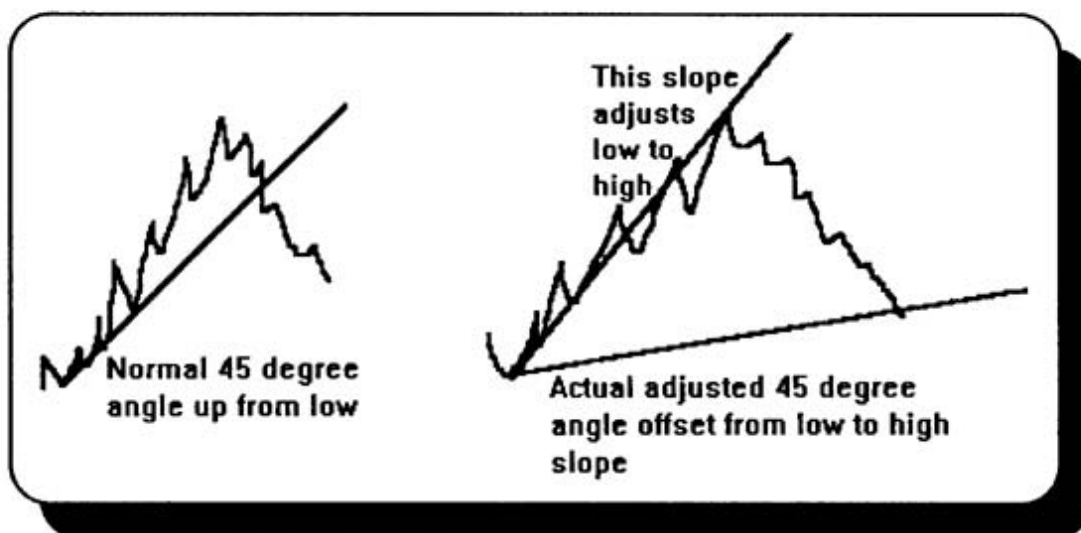


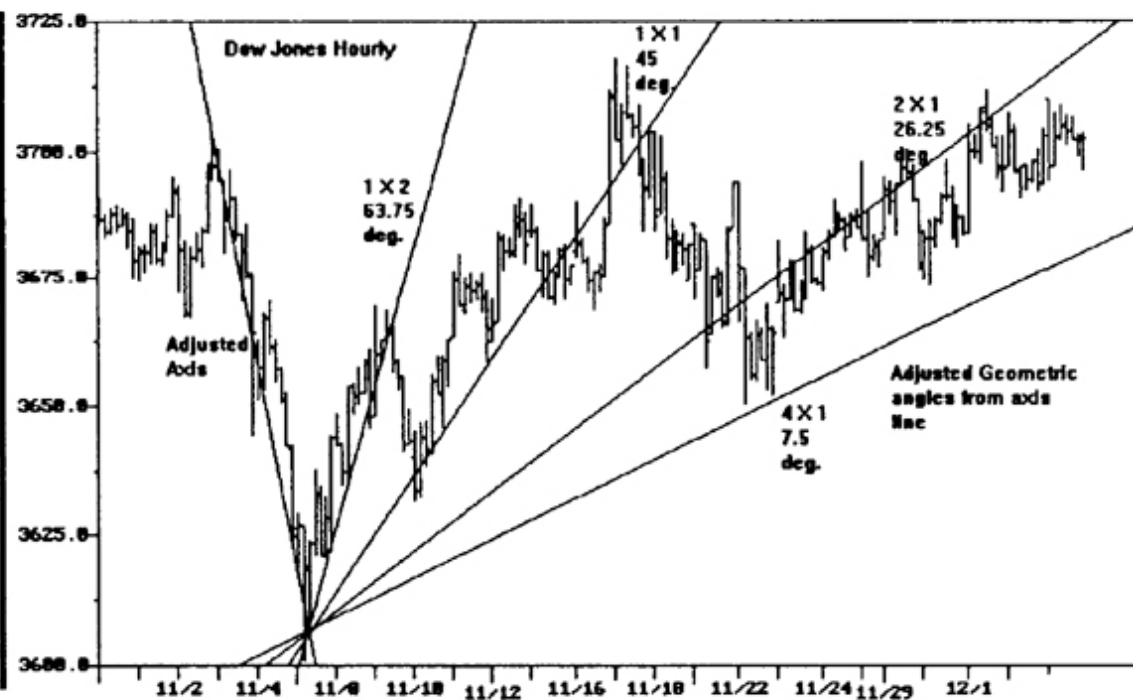
The above chart of IBM shows the importance of the "zero" angle technique. You should draw your angles up from the zero line under every major high and low of significance. When you do this, you will finally see for yourself why every single fluctuation into the future is accounted for by a fluctuation from the past. Please spend some time with this technique. It will change your life!

What is not shown on the chart, so as to not make it too confusing, are the 1 x 1, 2 x 1, 4 x 1, and 8 x 1 angles, or the 30 and 60 degree ones. If you draw these in, you will see some startling results. Also, remember that the 45 degree angle is the master timing line, so if you watch to see where this angle intersects the price harmonics of its origin price (about 50 in the above example), you will see turns at each proportional price level.



I would point out one other common misapplication of angles to charts, and that is the proper orientation. Just because we traditionally draw charts horizontally does not mean the prices are going in that direction. Remember to think in terms of *time* and *space* vector or circular distance. For example, most traders draw a 45 degree angle with a protractor from any high or low. This may or may not, however, be the right slope. The real geometric angle bisects a square, and the only valid way to get an accurate angle is to find the *directional orientation* of the side of the square first. This side in vector distance is a straight line from the last major low up to that high. *It is this angle* that the 45 degree angle must be offset against to measure true support or resistance. If you adjust your charts for this critical slope, you will see a major difference! For example:

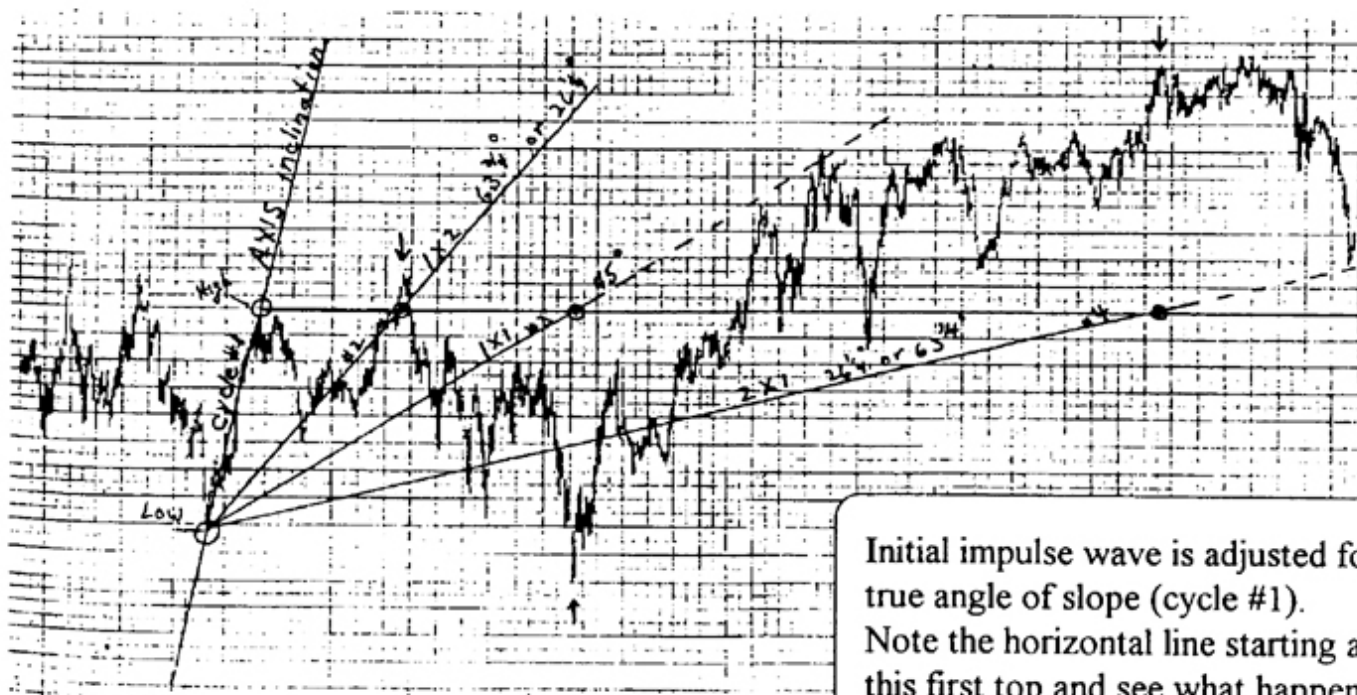




The important angles to use are the geometric angles mentioned previously along with the normal trigonometric angles of 30, 45, 60, and 90 degrees. The strongest angles of all are the 90 and 45 degree, in that order. All right angle (90°)

slopes hold powerful support and resistance levels and should be noted. Keep in mind that angles themselves, while useful, are much better analyzed in conjunction with our other tools, like circular arcs coming to an end at an angle or a signal bar reversal occurring at an angle. These tools, in combination, lead to very high probability trades.

Another very important point concerns *trading* off of angles. Most traders buy or sell when angles are broken, and this is often profitable. This strategy misses the point, however, that angles are really *timing lines or types of moving averages* and should be actually interpreted as *changes in momentum* rather than direction. After a timing line is broken, we should watch for a technical signal to prove that the trend has reversed before making a trade. The angle warns us of this but does in itself not *change* the trend. Remember that an upward sloping angle will be broken sooner or later, but that our definition of trend in a bull pattern is that of a *pattern* which makes *higher bottoms*. These bottoms are from a *horizontal perspective* so the price level could decline under an angle but not break low enough to violate a prior horizontal swing low, and we should remain long in the trade. Think about this, and you will see the most common mistake all traders make when trading off of angles. This principle is also the main stumbling block when deciding if a long term Bull Market has come to an end. To be sure, prices must break a prior swing low, but trendline angles are often broken hundreds of Dow Jones points higher. This is one of the main advantages to using cycles or circular arcs. In a cyclical analysis, we can make a highly probabilistic estimate that the top is in long before either angles are broken or swing lows reached. Nevertheless, swing lows usually offer strong support when reached, and a final bounce off of them usually gives one ample time to go short for a big break.



Initial impulse wave is adjusted for true angle of slope (cycle #1). Note the horizontal line starting at this first top and see what happens when each geometric angle hits that first top! These are the cycles!

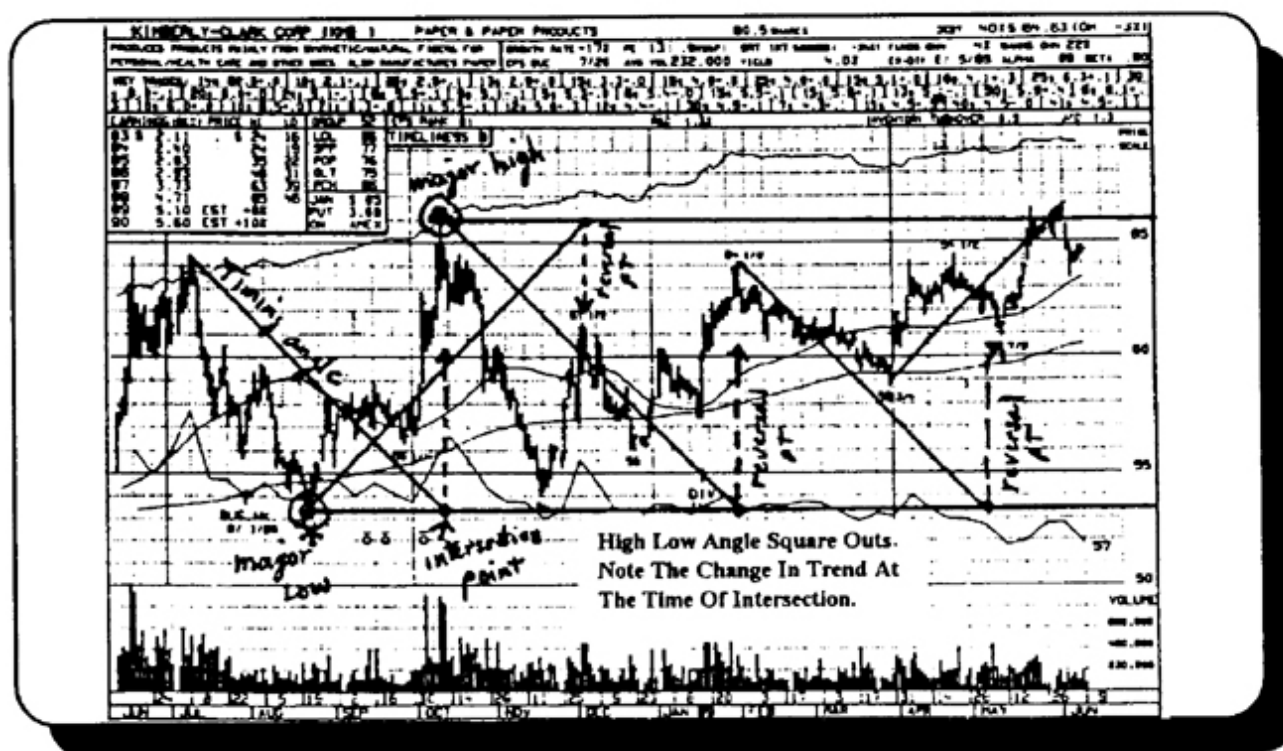
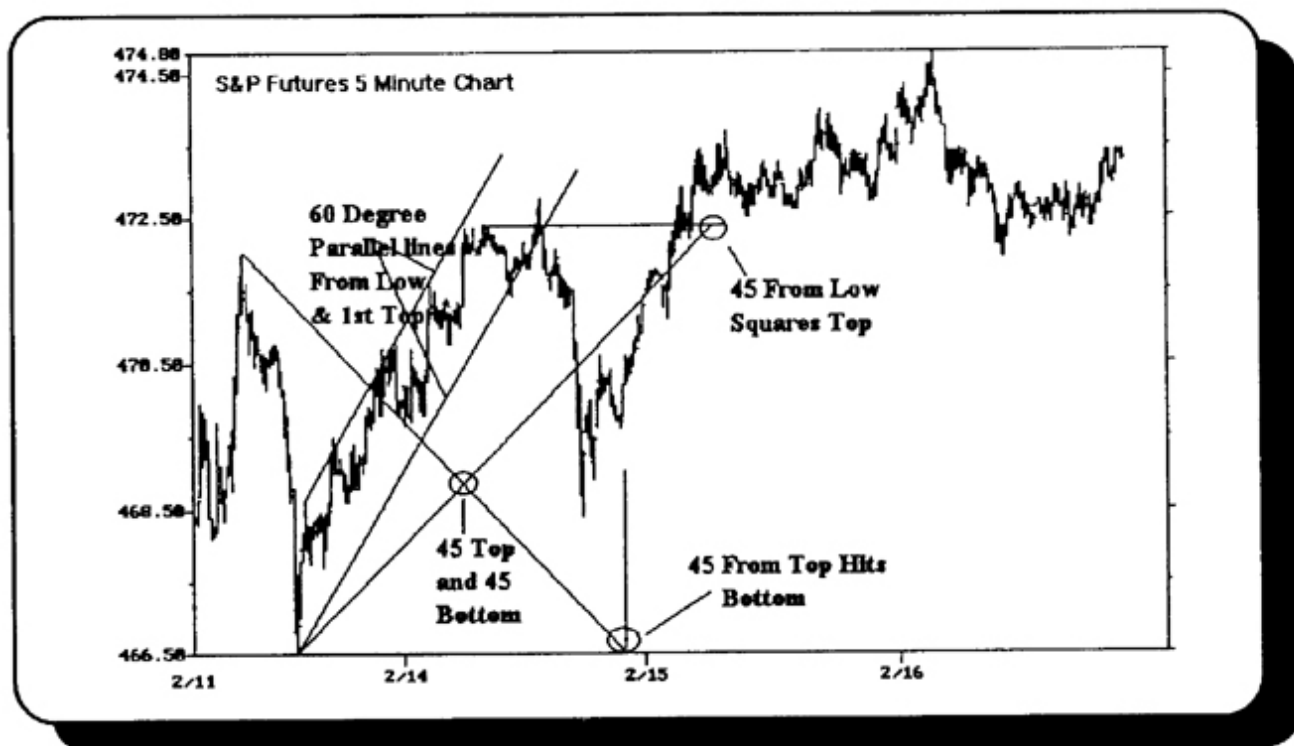
I spent a great many years of my life studying angles, and many a book could be written about using them. You must not assume they are not important just because I have only devoted a few pages to the subject in this book. My object here is to simply give you an introduction and hope you will follow up. Suffice it to say, the greatest secret of all technical analysis is to be found in the study of angles! I cannot afford to reveal it in a book such as this meant for mass exposure, but if you follow up on the ideas herein, you may find it for yourself.

The following points are most important and need careful attention. Keeping in mind that time and price must be linked, and we must match up our natural calendar time with our work, you will note that the basic primary angles used for technical analysis consist of points per day, points per week, and points per month. All basic interpretation must begin with the geometric angles of 1 x 1, 2 x 1, 3 x 1, 4 x 1, and 8 x 1 in terms of days, weeks, and months. All bull and bear markets begin and end on these angles, especially monthly angles. It is the intersection of these angles from past highs and lows that bring our cycles to a common time and price point. I will not demonstrate this point in an exhibit because it is too valuable, and those not willing to do some work do not deserve to know the truth. You can take my word that it will work every time, if applied. From each beginning and ending of major bull or bear markets, you must start and maintain these angles.

Another point about angles concerns where to start them from, besides the obvious high or low. The theory of angles is that time and price are linked in an exact relationship, and our idea of measured moves of emotion fit nicely with the slope of angles describing those emotions. As a result, you will note that angles moving upwards from a spike high will define a future top. The emotionalism seen at the first top can never be exceeded, and so, if we draw an angle up from that top, the next time that angle is reached that same emotional extreme will again be reached and the market will top again. The same technique is applied to the initial spike lows in a downtrend. Angles declining from such lows will define the emotional extreme and will "catch" future drops when prices reach those levels. Typically, we use the 45 degree angle as the primary guide, but in big momentum moves steeper ones may be evident. Parallel channels are often formed by these 45 degree angles coming down from a top and likewise coming down from the first bottom or last bottom just before the top. This parallel channel will define the downward movement. The upward parallel movement is created with an angle up from the low and a parallel one up from either the first top or the last top just before the primary low.

When using angles for time and price change "square outs," you will note three primary square out intersections. These are the 45 degree down from a top intersecting a 45 up from a low, the 45 down from the top hitting the bottom level, and the 45 degree up from a low hitting a top level. Indeed, each past high and low will create cycle turns when angles down or up from those levels intersect. Since these intersections are numerous, we want to concentrate on only the larger ones for their greater influence. This is implied in the prior paragraph when I mentioned that all bull and bear markets begin and end on these angle intersections, particularly *weekly* and *monthly* angles!

## Examples of angle techniques:









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# The Hourly Chart

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The primary chart used for forecasting and day trading the markets is the hourly chart. This is simply a chart where each period bar is one hour's duration. There is some debate as to how many hours should be in a daily hourly chart. At present the stock market opens at 9:30 AM and closes at 4 PM, or a period of six and one half hours. Many people use 10 AM as the first hour even though it is only a half hour. Others use 10:30 AM but end up with an extra half hour at 4 PM. The correct solution is to use a half hour chart since that correctly shows each period in an equal fashion, but the half hour chart is not as good for long term forecasting. My method is to use an hourly chart with six hours in a day with the first hour being 11 AM. This gives the first hour one and a half hours, but this is far superior to the 10 AM method. Many times that first half hour ending at 10 AM does not include all the openings due to delays. Additionally I find that a half hour is simply not enough time to get traders to make a commitment for the morning. I have found that it takes about 45 minutes to a full hour to get day traders to commit and readings taken before that time period are often erroneous. Specialist openings where the specialist manipulates his stock up or down artificially to get rid of, or purchase inventory, also affects the reading. This is done at the opening but is still often going on by 10 AM. I find that the 11 AM reading represents a smooth continuation from the prior day's 3 to 4 PM hourly reading while the 10 AM usually gives an erroneous one that is erased by 11 AM. Suffice it to say I have made a study of the two charts and the six hour chart is infinitely superior. After several thousand hours have passed from a major high or low, the six hour chart still turns the market at the calculated hour, whereas the seven hour does not.

I think a lot of the basic truth behind this has to do with the numerology of the number 6. This is one of the master numbers. In Genesis, God worked for six days and rested on the seventh. Six times six is 36 and ten times that is 360 the perfect circle and number of degrees of all cycles. I could go on and on about the number six but will have to leave some of that work to you. Basically in this book when I refer to an hourly chart it will have six hours noted in a day. Those hours are 11, 12, 1, 2, 3, and 4 PM Eastern Times.

The reason these hourly times are important is that trading can be very precise and the market will turn at cyclic intervals that are extremely precise. I have seen hourly culmination's to the exact hour several thousands of hours after an important high or low. For example if the Dow Jones had a major high at 3400, you could bet anyone that EXACTLY 3400 HOURS later a major turn would manifest in the market worth trading. The reason for this is not the purpose of this book but is covered at length in my other works. Incidentally I doubt many traders other than myself know this fact, but in August of 1982 the Bull Market started from a Dow Jones closing low of 770. In August 1987 when the market topped it was 7700 trading HOURS from that low! Coincidence?

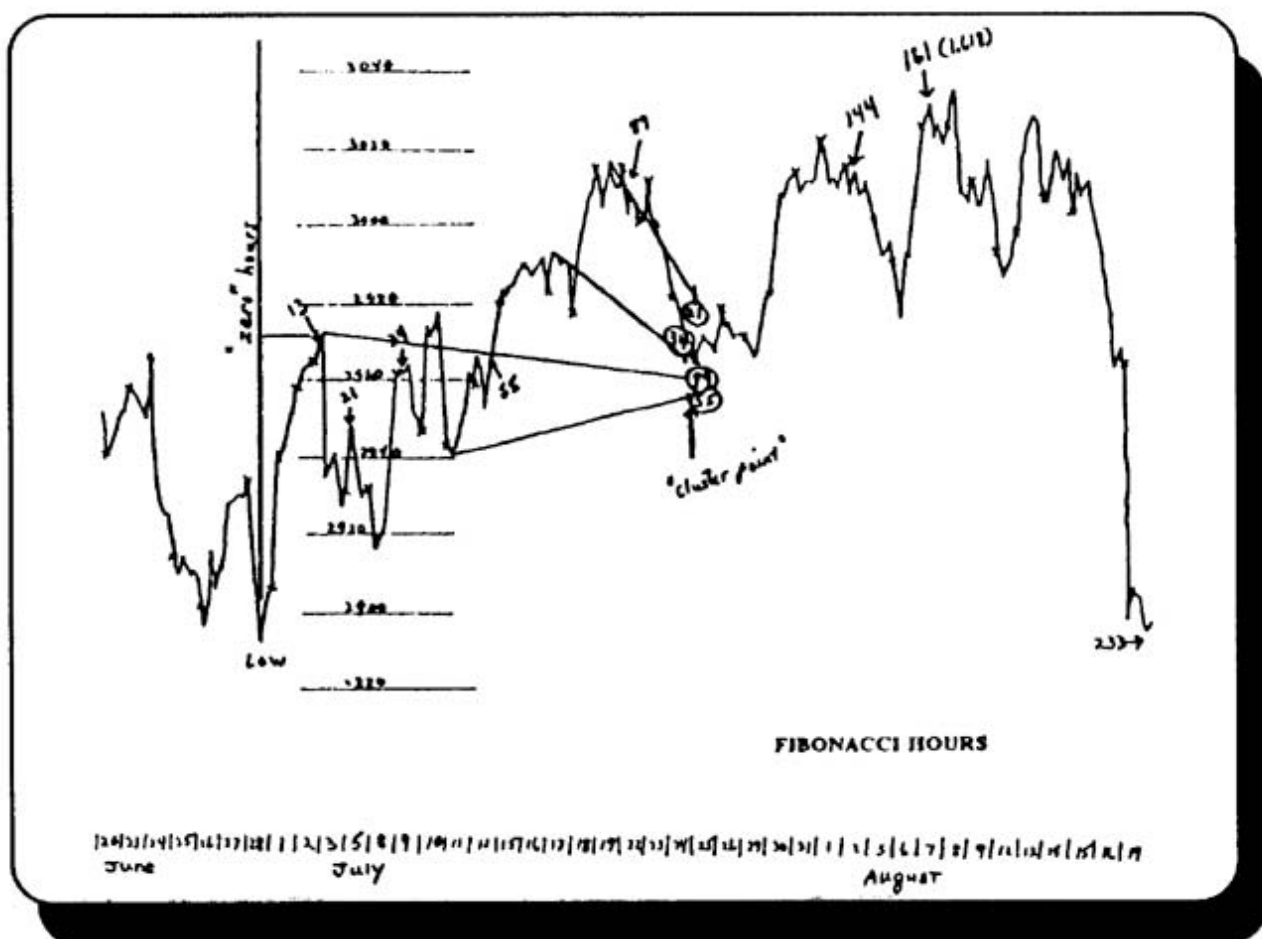
As traders we know the famous Fibonacci sequence of numbers that are an additive series starting with 1 and adding each number to its neighbor to get the next number in the sequence. It goes like this 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, ..... This sequence has the important property of demonstrating the golden ratio between its adjacent members (divide any two adjacent numbers into each other and you get 0.618 and 1.618). The golden ratio 1.618 has for all eternity been considered one of the key building blocks of the universe and shows up in all of nature, mathematics, and stock and commodity market data. The lengths of various market movements are often Fibonacci ratios, and the simple absolute numbers mentioned above usually manifest like clockwork in turning the markets for trading purposes when using an hourly chart. That is to say that from every high and low we count 1, 3, 5, 8, 13, 21, 34... hours, and we will find that most of the turns will come almost exactly on one of these Fibonacci hourly counts. It is extremely important therefore to keep track of these counts on our charts. Most people are shocked at this simple fact when it is first pointed out but I assure you it is true and has worked for hundreds of years that I have examined data for. This greatly improves our trading since we now are not afraid of a reversal each and every hour that we are in a trade. For instance if we buy into a dip and the market does reverse back up, when do we sell? Most traders become shaken out of a position the very next hour with a small profit. Using Fibonacci hours, however, allows us to only take a look 3, 5, 8, or 13 hours later and forget about worrying about the other hourly intervals. If the market goes into the sixth hour, we will expect it to go at least to the eighth, and if into the ninth, it will go to the 13th. I cannot emphasize enough how valuable this information is when trading futures and options. My experience is that the vast majority of day trading moves last 13 to 21 hours. If you make a habit of paying close attention to hours 8, 13, and 21 from major turns, it will improve your trading dramatically.

Our basic strategy is now refined to looking for an entry point with a reversal bar signal, then counting our hours paying attention at the Fibonacci turning points, noting if circular arcs or trendlines intersect at certain time periods that also correspond to a Fibonacci time zone and therefore hold high promise for a turn in trend. We also need for future reference a continuous count of the exact number of hours transpired from each significant high or low over the year. Major market moves occur at 100 hour intervals but particularly at the 500 multiples like 1000, 1500, 2000, 2500, etc. Also of greatest importance is the long Fibonacci counts of 1382 and 1618 hours. You will be startled if you examine these facts.

Since these Fibonacci hourly turns work all the time, it sometimes can get confusing as to which hourly turn is the most important. The rule is generally the longer the sequence the more important the turn. Three and five hour movements usually cannot generate enough momentum to make big profits, but 13 and 21 or more hours in a trend is a good move. (Remember with 6 hours in a day a 21 hour movement is over 3 full trading days!). Additionally, counter trend movements will usually manifest for a Fibonacci period one or two less than the main trend, such as a counter trend starting at the 13th hour and lasting 8 or 5 hours, not 1, 2, or 3; and a 21 hour turn giving rise to an 8 or 13 hour reversal.

Each of these main trends and counter trends arises at Fibonacci intervals and this leads to another important observation rule. This is, that at major turns worth trading we will see *clustering* of many Fibonacci turns. For example we may want to mark on our charts the Fibonacci hourly sequence ahead of time well into the future so as to be prepared for future turns. From each high and low in sequence we make a "tick mark" on our paper every 1, 3, 5, 8, 13, 21... hours from each swing. What we will soon observe is time period clustering such as 13 hours from a low coinciding with 55 hours from a past top and also 21 hours from another top. In this case we would have three turns (13, 55, 21) all coming due at the same hour. That hour will very likely be a major turn of significance. To plot these efficiently we usually make up a tape measure consisting of a strip of our graph paper taken off the bottom edge and on this tape we mark each Fibonacci hour of 1, 3, 5, 8, 13, 21 out into the hundreds if not thousands of hours. We then merely line up this tape across our chart and quickly tick off the times from each high and low in sequence and note the clustering. Additionally this method affords us the opportunity to run the tape BACKWARDS with the zero time at the present hour and the Fibonacci hours going back into the past in an effort to observe whether past highs and lows line up on the tape. If that happens and we have several "hits" we know the current hour is important. Usually this method will pinpoint a time soon to be reached in the future where numerous hits will coincide and we can be ready for it. As market movements expand along the Fibonacci number sequence, we will also observe contraction along this ratio also. Using the tape measure approach backwards warns us of these contracting phases. Note also another technique that arises from this. Since the Fibonacci series is additive and each number added to its neighbor eventually yields the golden ratio of 1.618, you should be aware that ALL additive series eventually end in the Fibonacci series or golden ratio. Even a series like 11 plus 50 equals 66 plus 50 equals 116.... will eventually yield a ratio of 1.618 of each number to its adjacent number. Knowing this we can project future turns by multiplying 1.618 times the time interval between two adjacent highs or lows, or even a high and low, and the subsequent time period indicated will be in Fibonacci ratio to the two and give us a turn. Likewise we can ADD the two time intervals between three points to get the forth point in time! This easy technique should not be overlooked.





The above chart is a reproduction of my Dow Jones hourly chart using six hours in a day and showing an "X" for each daily close. Note that this is not a bar chart but a *line* chart with a straight line connecting each "dot" that represents each of the six hourly closing prices at exactly 11, 12, 1, 2, 3, and 4 PM. The grid cannot be seen on this drawing but the graph paper can be either 10 or 20 to the inch but it must be one Dow Point to one hour. This particular illustration shows Fibonacci hourly counts from the major low and how they "cluster" at big turns. Note too, that the farther away from the origin you go, the more powerful the cycle turn is when you reach a large Fibonacci number. You will also note the easily identifiably "stair steps" from each swing low that defines the bull or bear trend and how the "crash" occurred when several small lower highs and lower lows developed, and then the last significant swing low was broken near August 16-19.

Before leaving Fibonacci ratios I should note that the use of timing angles for square outs between highs and lows can also be accomplished by using Fibonacci angles. These angles when run down to zero or up from zero will always yield a Fibonacci relationship when they square out a high or low with a prior one. A timing line of 1.618 points per one unit of time will yield a Fibonacci relationship as will a simple angle of 38.2 degrees, or 61.8 degrees! The master secret of the great pyramid at Gizeh of course is that the angle down from the top is 38.2 degrees and this relates the circle to the square to the triangle and ties in the orbit of the sun, moon, and earth! Much more could be said, but I would give away the store.

A more practical aspect of hourly chart reading is to note the intra-day highs and lows each day paying attention to the hour. A good method is to construct on a separate piece of paper a table with the hours 11, 12, 1, 2, 3, 4 and check off each as to whether a daily high or low was seen on those hours. As each day goes by and these columns are lined up, you will soon note two to three day patterns of strong openings and strong closes and which midday hour is the usual low. These intra-day patterns follow almost exactly for three days at a time and then reverse almost precisely at the opposite hours. You will then note that which ever hour mid-day is the low or high hour, that hour has very good forecasting ability as to how the day will end and whether or not the following day will be up or down.

The common pattern is for bull moves to show strength early and late. This means a strong opening and a strong close. The midday is the counter trend pull back. Most bull moves have an up 11 AM hour, a mid-day decline and a strongly up 3 to 4 hour. On a slightly larger scale, a weekly bull trend will have a strong Monday, Tuesday, and pull back into Wednesday, Thursday morning, then a strong Thursday afternoon and strong Friday. The bear trends are just the opposite. Please note that these patterns are "nested" so based on strong Monday we could then forecast a possible up week and expect hourly strong turns at 11 and 3 to 4. When these hourly turns first start to miss the mark, we get early warning that the daily pattern may be turning and that in turn may change the whole week's character. It goes without saying that you should note these patterns when entering trades to set up your entry and exit strategies on more than just a trendline break or circular arc. All technical tools and time cycles will fit together when you have made a correct analysis.

Perhaps the most basic principle of hourly trading is to respect the Specialist. On the floor of the NYSE this man opens and closes the book on each individual stock and can clearly see all the floor brokers standing in front of him. His job is to make money for himself and to avoid risk while having at times to take in inventory he does not want simply because that's one of his responsibilities to go counter to the market and provide liquidity. The opening price and the closing price are therefore very important to note especially from a vantage point several hours later in the day. As a rule of thumb you never want to buy stocks that are lower than their opening level and this can usually be extended to their 11 AM print. In these cases the Specialist often sees many sellers around and quickly opens his stock up on light volume before the sellers put in their orders. He then shorts the opening and lets the sellers work the stock down all day where he covers his short at a lower price. When he opens his book down it frequently means there are no sellers around and he wants to attract some sellers so he can buy their stock. These principles lead to the strategy of buying stocks down on the day perhaps a dollar or fifty cents BUT which are not below the opening level (i.e., they opened on a gap down). These issues usually come back to close unchanged on the day with a big up opening the next day where you would normally sell. Compare this with a stock that opens unchanged and then goes down fifty cents on the day. This is usually a case when sellers have entered the market and will be there for quite some time.

Also note that on big down days, nobody, especially the Specialist wants to own stock. As a result he will usually "be stuck" with inventory by midday and knows if he does not get out of

it he will end up with a lot more at the end of the day when day traders stick him with market-on-close sell orders. As a group the Specialists then usually engineer a late midday rally to attract shorts to cover thinking the market's going up, the specialists then sell out and go short themselves to get ready for the closing sell off. The end result is the normal pattern where in a downtrend that closes at the low of the prior day (meaning the Specialist was forced into buying on the close) the openings the next day are frequently up on light volume as the Specialists work quickly to get rid of the inventory and set up shorts for the day. Because of this you will almost *never get a reversal buy signal from an up opening after a weak close*. However, when you get another down opening, you can get a reversal buy signal. In these cases the Specialists come in with stock from the night before but do not see any sellers. They then open their stocks down to "test the waters" to see if sellers are there. If not, they hold onto their inventory and proceed to mark it up to hook shorts into covering and get the rally going. It is these natural and normal inventory adjustments by the Specialists as a group that often profoundly effect the market but whose actions clearly show up in an examination of the first and last hours.

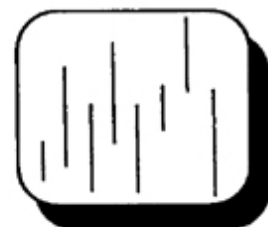
Similar to the Specialists are the large institutional stock brokers in their combined effect on the first and last hour readings. In the normal situation a large mutual fund calls a broker and gives him a 100,000 share order. The broker seeing a large commission is impatient to get the trade done knowing that unfinished orders are often canceled by the fund manager and the commission escapes. In these situations (almost always) as soon as the market opens the broker forces the trade to get at least 20 to 30,000 shares done. Once he reports that back to the fund manager essentially notifying him it is too late to pull the order, he only then becomes "responsible" and tries "to work" the order for the customer to get him a better price. If its a bullish day he will just lay back for a few hours to see if any stock comes in for sale, but by 2:30 he's getting worried that if he does not complete by 4 he could lose the remaining shares the next day so he usually get aggressive and forces the issue from 3 to 4 PM. In the "old days" when being a stock broker meant having some integrity the broker would simple lay back and bid for very small amounts of stock not forcing the issue and often the order could take a week or so to fill but the markets would be less volatile and the customer would get a better price. Of course the funds are themselves to blame for this practice by having driven the average commission down to 2 to 3 cents on size orders compared with former 10 to 18 cents. The result has been a brokerage community which no longer cares for the customer's orders since they are not profitable but who now trade for their own accounts against the customer's order. In any event intra-day patterns particularly the first and last hours need careful study.



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# Emotional Charts

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Often I see a chart, frequently an intra-day hourly, or even five minute chart that looks extraordinarily volatile. I often remark at these times that the chart is *too scary to go down*. When you see frequent whipsaw moves in a chart it reveals emotionalism where the participants, both buyers and sellers are nervous. The rule of thumb is that the chart eventually breaks out or breaks down in the direction that it is gradually trending. The vast majority of these patterns occur just before big up moves, especially if the series of plunging lows are each slightly higher on each successive plunge. This emotionalism usually forces one side or the other to capitulate and reverse position during a runaway *straight-line* move, just after the emotional period. After *that* move, the market usually reverses and the original nervous players finally are proven right.

On hourly charts I find that the most powerful moves are always preceded by a period of a few days of extreme emotional up and down reversals. I now have learned to seek out these patterns knowing that their resolution means a quick and certain big move. These are the kind of moves you want to use leverage on such as with futures and options. Many of these are short covering squeezes where the entire futures pit is betting in one direction but uncertain. Often one short covers, driving the market up only to have a new short put on a big position and send it right back down. Only after everyone eventually gets short is the entire pit trapped, and a stampede usually results. On individual stocks these up and down choppy periods are the tug of war between the last of the bears and the new bulls on a busted stock just before a new bull leg up.

The key seems to be five alternating higher bottoms to be certain that a genuine uptrend has actually started. On an hourly chart, as soon as I see at least five higher bottoms after a major break, I know the uptrend has resumed. These higher bottoms naturally require a good 12 to 18 hours of activity, since each minor fluctuation might last one to three hours before reversing and in order to get at least five consecutive higher bottoms on plunges, we also need at least four rallies up that fail. Five is the key number to remember. Many a market movement lasts until three bottoms have been made and then collapse, and occasionally four higher lows are seen, but when five bottoms are seen it is almost a certainty that the trend is up. This is a most important principle of investing and will make you huge amounts of money if paid attention to. Most traders think a trend reversal can only occur after a price level is exceeded or a downward sloping trendline from the last top is exceeded. We know from our basic trend principle, however, that the trend is a pattern of higher bottoms and higher highs for an up trend and this pattern may appear significantly

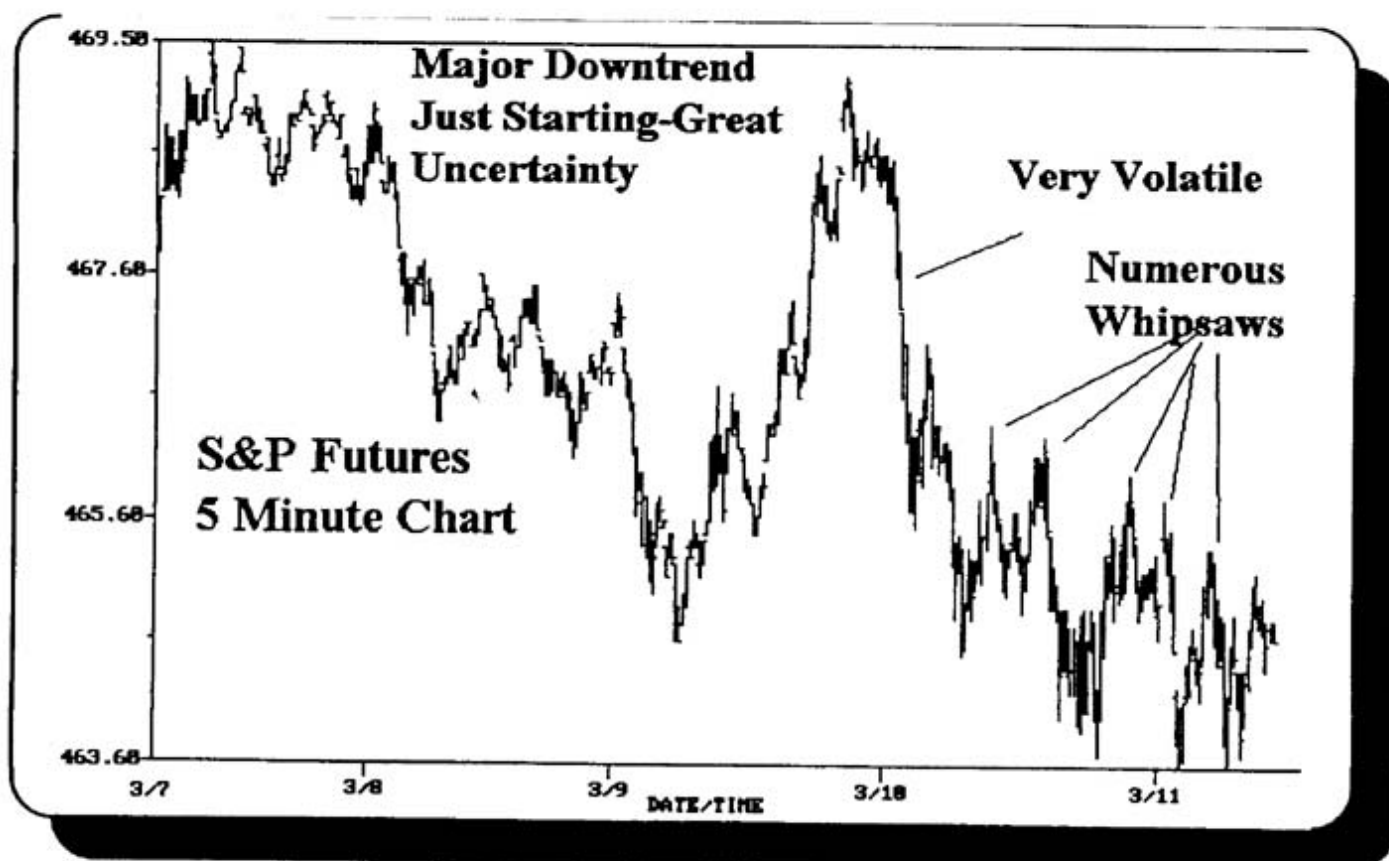
below any resistance level from a trendline. In these areas I often find myself comfortably invested while most traders are nervously waiting to see if the trendline will be exceeded and are often forced into breakout buying just when they should be selling. Option premiums at these levels are likewise very favorable.

Always keep in mind that the “wiggles” on the tape are emotionalism of the crowd and if examined from the safety of an analytical vantage point a sensible trading strategy can often be constructed with an almost certain knowledge of the trend.

Most intra-day patterns have an emotional tug of war during the mid-day hours of 12:00 to 2:30 PM EST. These daily emotional patterns are caused by the pit day traders who never know if the market will reverse on them or not. In these cases it is helpful to note where the emotional action takes place. That is whether it is a consolidation zone just above a breakout or is it a consolidation just after a breakdown. The odds usually favor a resumption of the major trend in these cases.

One of the easiest trades is when emotional trend reversals take place within a powerful upward sloping parabolic arc formation. This is the last acceleration phase just before an important top and the market is afraid of heights or just the number of consecutive days up the market has had without a technical pullback. In these creeping moves it is almost a certainty that a huge up move will take place to stampede the market into a “blow off top” where everyone capitulates and simultaneously goes long. It is amazing to see that these patterns so feared by traders have so little risk from a stop loss viewpoint. These moves are rapidly climbing a parabolic arc that is clearly defined and a simple sell stop placed below that arc is almost never hit until the final high is in. That trade appears to the participants too dangerous to undertake and so few people really make big money on these moves that are rather easy technically and rewarding with big price moves in very short periods of time. Only a study of these patterns will allow you to have the confidence to trade these culmination moves. The downward sloping crash arc is nearly identical and likewise prevents people from shorting because of a big fear of a quick reversal to the upside. As long as the arc holds you can assume it will go to its maximum vertical exhaustion phase before reversing. The real key in these moves is to observe abnormally small “creeps” *for many continuous bars in a row*. This is almost always the sign of a very powerful move that will not be exhausted until the “big bars” materialize.

In the final analysis, learn that all of trading is an emotional experience. Good traders have disciplines that prevent them from getting caught up in the greed or fear of the trade. If you sense the market is “too dangerous” to do something, know it’s not. It is only your greed for money that prevents you from analyzing the situation. The trend is your friend and if you trade with the trend the market is never dangerous. What is dangerous is not to realize you are caught up in emotionalism and you are making financial decisions that will affect your life.



The above chart while only a five minute chart is, however, typical of nervous markets where a major change in trend may be taking place. On the above chart a major downtrend has just started and undoubtedly the entire pit is aggressively short and nervous. A big rally is likely, but just as likely is a bigger break after that rally comes and relieves the psychological pressure. Remember we need higher bottoms to turn this trend up and a solitary big spike rally will not do that. During nervous markets like this, it pays to find the average measured moves and also the extremes. Quite a few trades can be made before this nervousness dissipates, or the trend definitively changes.

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# Common Patterns

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The most common problem for the trader is determining if the existing trend is changing. After a long decline or advance, one naturally gets nervous about a position reversing and what kind of trading strategy to employ. Common situations are a straight line plunge decline and trying to figure out what kind of bottoming pattern will emerge to turn the trend back up. Bottoms can be "V" bottom spikes; rounding into a bowl; or double, triple, or multiple testing plunges to the same area before the real advance gets underway.

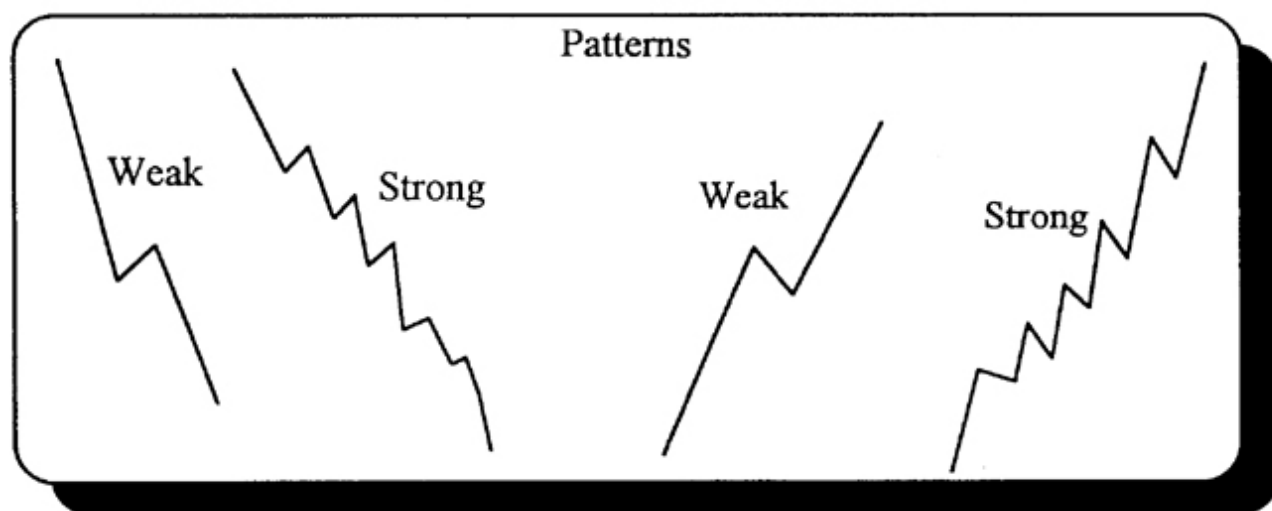
The item to note about patterns developing is where the first "wobble" occurs. By this I mean a visible counter trend movement that then subsequently fails and the existing main trend continues. Usually there will be three or five such waves before a low is reached, although I have often seen 7, 9, and even 13-15 in strong trends before a big reversal is made. What is not usually known is that these waves are *extremely precise* as to where they occur. They are not random at all but are a mathematical harmonic of the total distance the final movement will extend to. Sometimes they occur at the exact midpoint or the one third mark, but often are at Fibonacci ratios of .236, .382, or .618 of the total distance. With our technique of "measured moves" we can usually estimate early into the new trend exactly how far it will travel based on past measured moves that have a similarly placed "wobble". Larger waves are usually proportionate so the same symmetry on a smaller past observation can be applied to the existing larger movement deriving the appropriate ratio expansion factor from the first counter trend mark.

The most basic principle I wish to convey to you is that the more "wiggles" a trend has, the *stronger* it will be and the more difficult to reverse. In a Bull Market these nervous uptrends with lots of wiggles are frequently referred to as "climbing a wall of worry." The "worry" part is the numerous minor counter trend movements the shake traders out of their positions. These patterns are *extremely reliable*, so much so that I make a habit of searching for trends with frequent whipsaws to trade in. Once the main trend is determined, you merely buy every dip, or short every rally, and this will be successful for a great many trades in a row. Traders have a practical rule to *do the same thing until it loses money* and this is based on this principle of the reliability of "wiggles".

Recently the stock market broke and plunged about 100 Dow Points in two days. Many people were frightened and called me for advice. On my hourly chart I noticed a "straight line" decline that dropped almost 8 to 10 points *every* hour for the two days or about 50 points each day. There

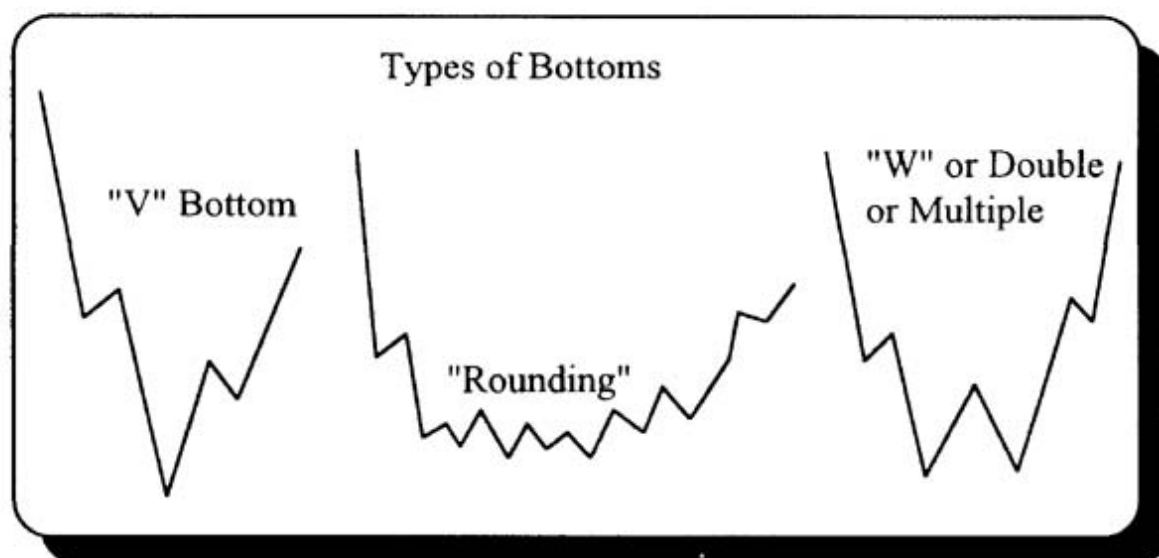
was only *one two hour counter rally* of about 10 points in the entire move and that occurred at about the midpoint of 50 points down. Seeing that *pattern*, I knew that the trend was *not* very powerful because it was a panicky plunge without *counter trend self correcting rallies*. Without the counter trend rallies for the shorts to cover and the bargain hunters to buy, the odds favored a climax "v" bottom low with a primary uptrend as soon as a technical buy signal was generated. Sure enough the first few hourly rallies off the low produced numerous nervous wiggles that resulted in higher bottoms. As soon as I saw five complete wiggles that were higher bottoms, I knew with absolute certainty that the trend was up and a complete retracement to new all time highs was just ahead. This information was given on the hourly chart long before even a 38.2% retracement was evident and most traders simply shorted into the rising trend and lost money as the market went higher and higher.

The principle here of the rising bottoms pattern with frequent small counter trend plunges is a very powerful tool. The vast majority of traders know so little about the power of chart interpretation that they must wait for at least a 50% retracement before they think the trend can change to up again. This is simply not true. You need only 5 higher bottoms to be certain and these can occur within 10 % of the low price. The *pattern you must fear* when buying into a rally off a low is a *big rally that is a straight line affair without counter trend interruptions*. That is a sign of the Bear Market trend short squeeze rally, and it can only be shorted. In those rallies the shorts are forced out and the movement is extreme but usually collapses as soon as the shorts are out.



Remember that the strong numerous "wiggle" patterns assume that each wiggle is higher or lower than the last to confirm its strength. Numerous wiggles that occur at the same level do not necessarily tell us much. What we are looking for is minute bullish or bearish patterns of higher bottoms to be bullish, or lower tops and lower bottoms for a declining pattern. Even though these may occur on a very minute basis such as on an intra-day tick chart or a five minute chart, the patterns are reliable for much longer term trends.



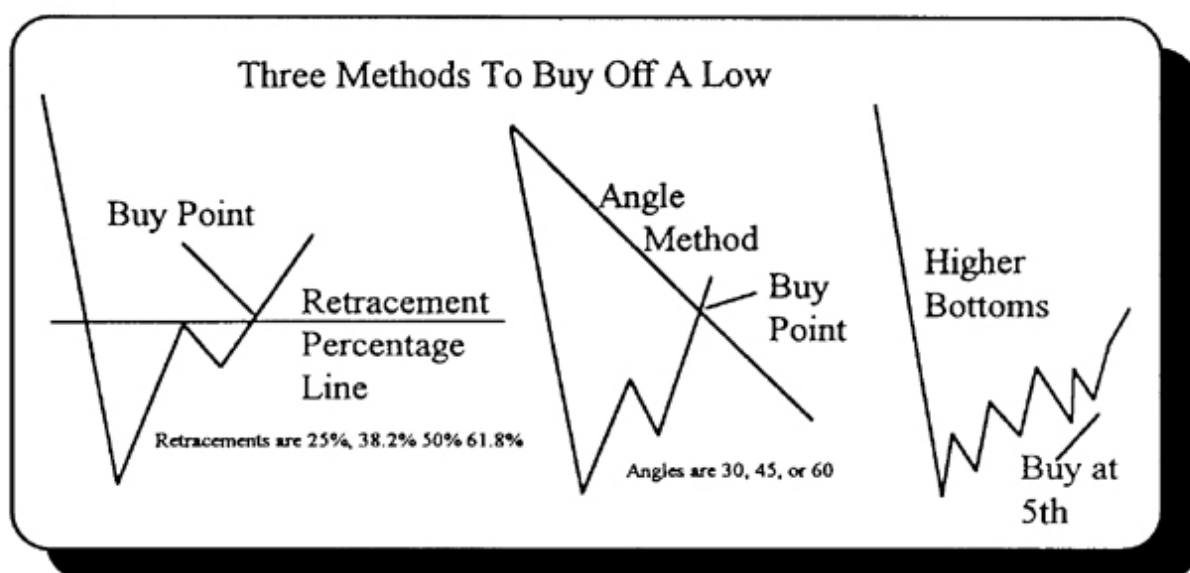


In looking at the above types of bottoms, the main question is: At what point do we know it is a bottom and not a minor upward wiggle? The usual solutions are three. The first is the use of retracement percentages. Down trends can rally back one quarter to one third of the drop and in extremes, one half or even .618. This type of analysis is most common and does not give us a position until well off the bottom. For that reason I try not to rely on retracements.

The second method is momentum, and the most common application is the use of angles. The basic principle is that a declining trend rarely regains the 45 degree angle coming down from the top until the trend has changed. This method may also only work when a rally is a great distance off of the bottom and not give us a "cheap" entry point, but sometimes a long sideways bottom flat breaks through the 45 degree angle just by going sideways and does give us an entry right at the low. These angle techniques are based on the assumption of momentum exhaustion and one buys when the angle is broken with a stop loss at the low. The three most commonly used angles are 30 degrees, 45 degrees, and 60 degrees. But you will also note the geometric angles of 1 x 1, 1 x 2, 1 x 4, 1 x 8, etc... work nicely. Angles are especially suited for covering shorts rather than going long, but if you do go long on the assumption the trend has changed, you then use a rising angle from the low point to confirm the assumed uptrend, and that rising angle is your stop out point.

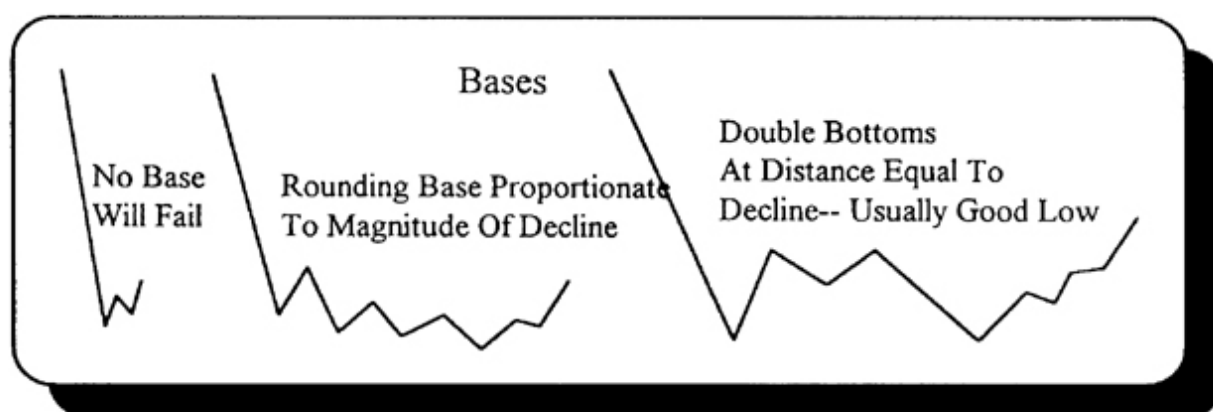
The best technique of course to determine reversal of trend is to spot a *signal reversal bar* and then watch for a series of higher bottoms to identify the bull pattern. This is the single most reliable method of determining the trend.





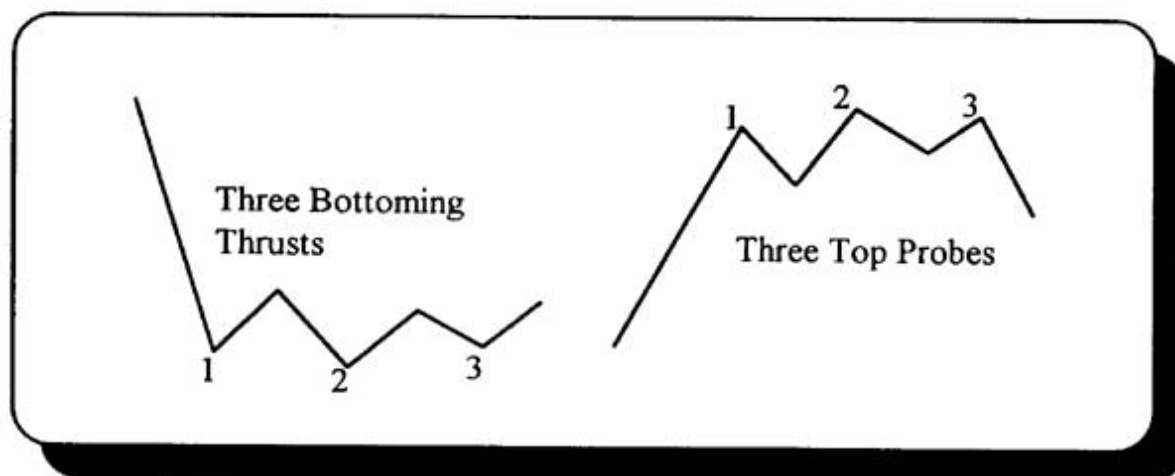
The above methods apply equally well to selling at tops. Just turn the charts upside down and apply the same principles.

In trying to determine whether a low has been made keep in mind the overall symmetry of the chart pattern. If a long term decline has been in effect for say nine months, and the decline was nicely defined with parallel channels, do not think an uptrend reversal will come easily. Usually to break out of a parallel channel decline you will need an advance to at least twice the width of the channel and the advance will normally take on a right angle (90 degree) slope upwards from the plane of the decline. The *time element* is usually similar in retracement percentages as are the prices. In other words a decline that has been going on for ten months may have to base for one quarter (2.5 months), to one third (3 months) before a major up move begins again. Explosive upside reversals come rarely, only at the beginnings of new bull market trends. Most other advances require an appropriate base building period and a rounding bottom.

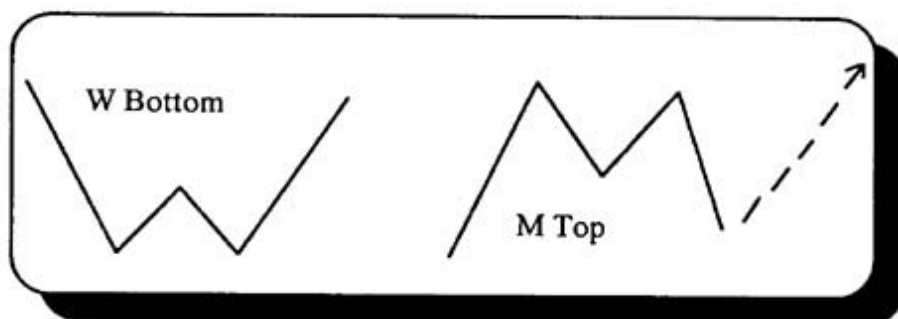


## Three Drives To A Low (or High)

Many bottoms and tops are only complete after three attempts are made to break to a new extreme price. These patterns are often called "head and shoulders" or "triple bottoms or triple tops." Basically the first attempt to turn a powerful trend is only partially successful and nervous traders are quick to abandon the trade and prices settle back to where they were before the attempt. Keep in mind our principle of counting higher bottoms that states that three often fail and sometimes four, but if you see five higher lows you can rely on the new trend. Triple movements work at least half of the time, however, so three drives to a low or high should be watched closely.

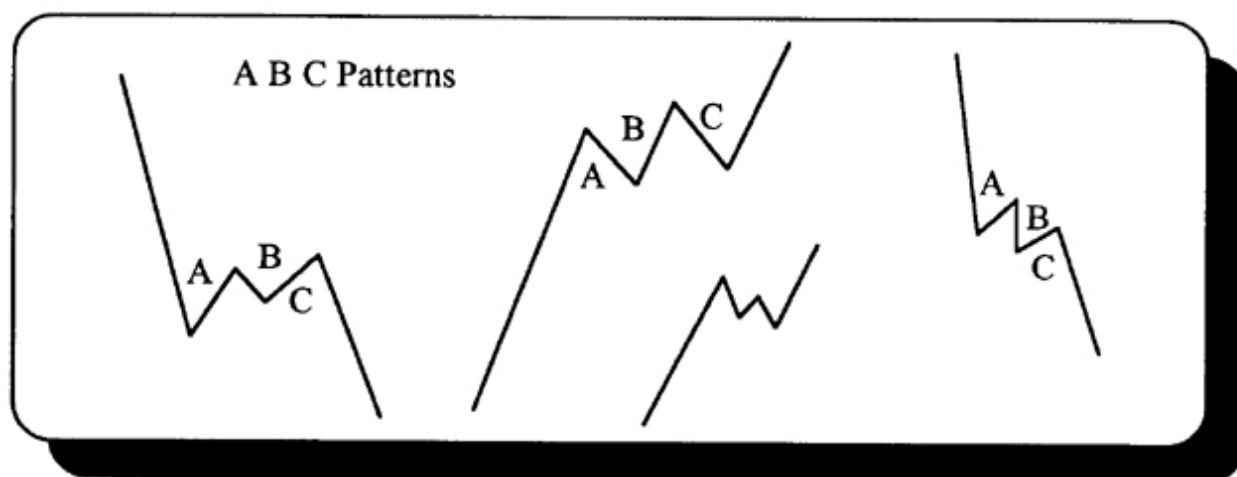


Another frequently seen pattern is the "W" bottom and the "M" top. In the case of the W bottom, it usually represents a good low for an advance, but the M top is almost never a top! In S&P futures trading an M top usually gives a scary decline to a slightly higher bottom at the point of the right M leg, slightly higher than the left M leg. An advance to new highs above the top of the M is then the usual result. This is worth remembering since this pattern is easy to spot and is very emotional but reliable.



## A, B, C Corrections

At the end of many primary trends we find counter trend movements called "A B C" corrections. This is really *just a three count alternating wave* that is very symmetrical. Usually the A and the C legs go in the same direction and are approximately the same size. After this pattern completes, the primary trend resumes. This is another reason to favor the five higher bottoms count before going long, so you don't buy into an ABC just before the next big decline. These counts take the usual form as follows:

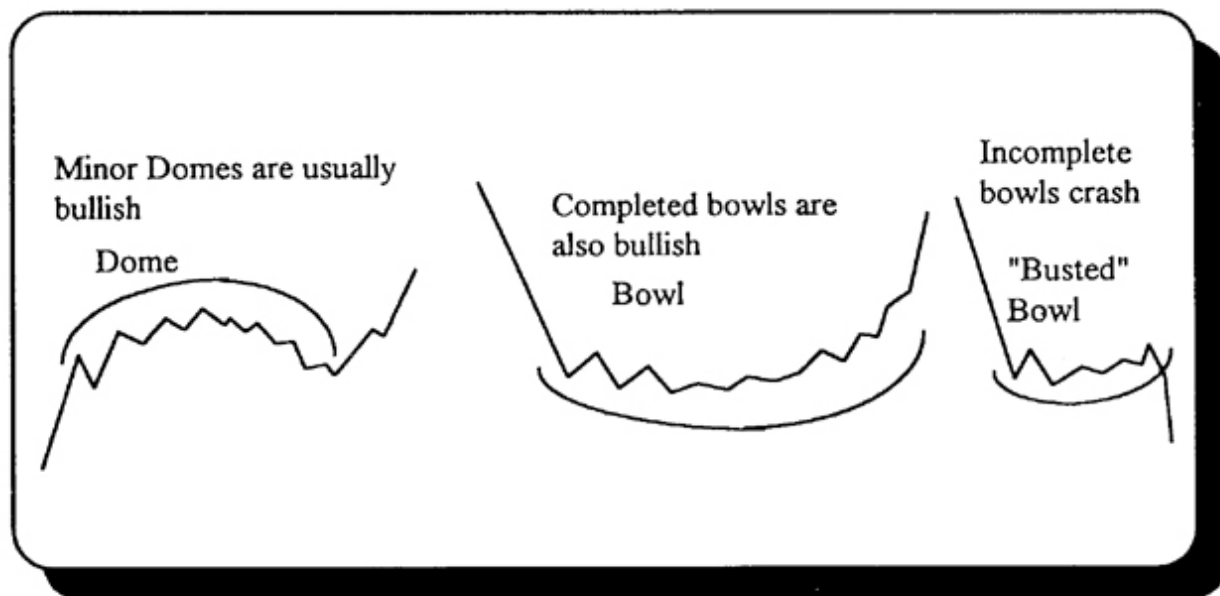


These patterns are very symmetrical and represent simple counter trend rally attempts that are a dead give away that the main trend is quite strong and is not going to reverse any time soon. Note that the A and C legs are usually the same length, and sometimes the B leg also. The retracement levels obtained on these legs are usually very small and this too is a sign that the counter trend has little strength. When you see this three wave pattern with little price movement counter to the main trend you should be prepared to go with the main trend as soon as a new breakout extreme is hit. These patterns often show up at the midpoint of the bigger leg so a trade at the end of the C leg is usually quite profitable.

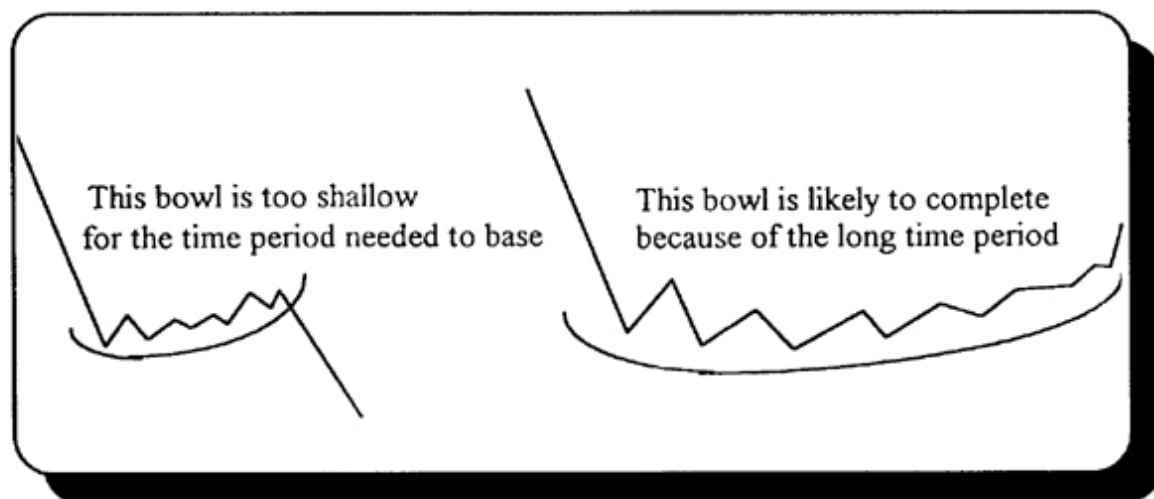
## Bowls and Arcs

We have talked about circular arcs previously but we have not discussed the general principles of their resolutions. Basically, a gradual roll over "dome" arc forming an apparent high is actually bullish, and when the dome is broken out of, a big leg up usually ensues. A bowl formation on the other hand that appears to form a bottom, is quite dangerous if broken down from. A downside breakout from a bowl leads to a crash collapse. Especially vulnerable are bowls that are only half to three quarters formed. These bowls would look like a figurative clock from eight o'clock to five or four o'clock when the breakdown occurs. The only bowls that are bullish are the ones that make it past four o'clock headed for three. These are more usually referred to as "cup with a

handle" patterns, whereby after the cup pattern is formed from nine o'clock to three o'clock, a big "spike" handle is seen to the upside before the first correction. These patterns look as follows:



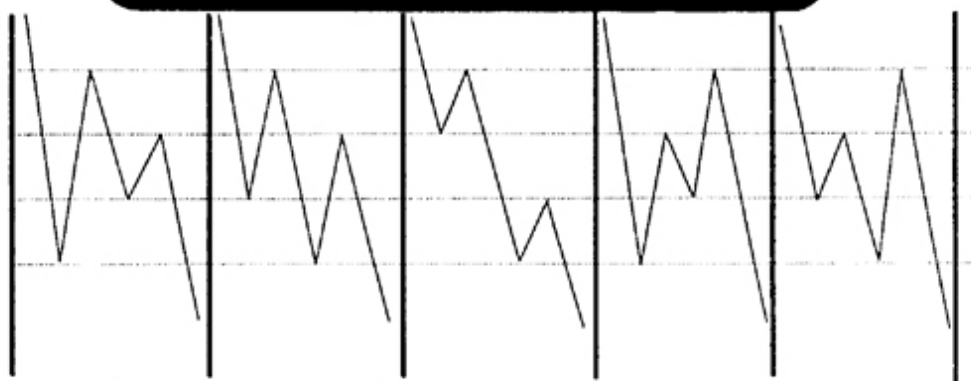
Usually you can see the symmetry of the pattern unfolding and know if the bowl will collapse or complete. For example, during a major decline of several months a minor bowl may form, but if the time period for the completion of the bowl is small, then that might be inappropriate for a major bottom and will only serve as temporary support until the shorts cover and when the bowl breaks the next leg down will start.



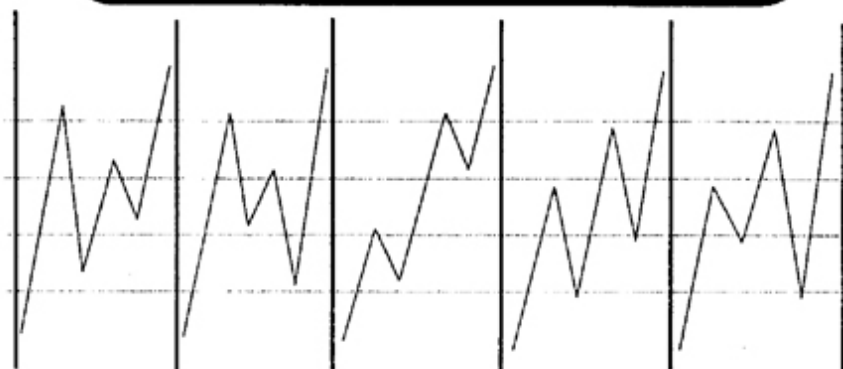
## The Five Basic Bull and Bear Patterns

Although many technicians have studied charts over the years and have their own favorite patterns, I have come to the conclusion that these standard patterns are the most basic and repeat over and over. These top and bottom patterns are really the inverse mirror images of each other and with subtle variations seem to cover a myriad of possibilities but nevertheless if you memorize these you will have a big head start.

### All Possible Downtrends



### All Possible Uptrends



Note these lower patterns are just the inverse of the patterns above them. These are *complete patterns* and then you would expect a *new* trend to emerge. These may be seen on short term charts as well as very long term ones but the basic completion wave structure is almost always the same.

You could make a study of just these patterns for the rest of your life and that alone would be a rewarding exercise! I suggest you spend some time with these before going on.

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# Long Term Charts

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The difference between long term and short term charts is the importance of cyclical influences on the long term chart. Short term charts are filled with numerous emotional reversals that although likewise due to cycles are much more random and subject to “slippage” and “whipsaw” news items. Longer term patterns stretching over many years show accurate trends and those trends are not easily changed. This should make chart interpretation easier, but so many people get caught up in the short term minor reversals they easily lose sight of the bigger picture unless they have a firm grounding in long term cycles.

The basic accumulation or distribution patterns usually take the form of three years up and one year down, or five years up and one and a half to two years down. Major highs and lows usually come out near anniversaries of prior highs and lows at cycle lengths of five years, seven years, ten years, twelve years, fifteen years, eighteen, nineteen and twenty years, thirty years, fifty years, sixty years, ninety years, and one hundred years. These are complete long cycles and each individual stock will tend to follow one or a few of these different lengths but not all. I only mention all (or at least the more important) long term cycles so you can quickly check the historical record and spot those cycle lengths to see if obvious “measured moves” are at work nearing those anniversaries.

Chart books with long term charts are not really that hard to find and many have typical chart time periods of twenty to thirty-five years for many issues. Longer term histories can be looked up in libraries or on computer data bases. Often a good place to start is with a chart of the market averages and you would spot the major highs and lows in history that seem to be currently repeating and then go back to newspapers near those anniversary dates and just look for the most active issues that are being written about in the popular press. These issues are the ones that have common cycle lengths as the overall market for the current market repetition.

Basic analysis would begin with the observation of a possible five or ten year anniversary coming to an end near a measured price move and a possible long term trendline penetration. Strategy is to then assume that the new reversal trend will last for a few years and then go to the shorter length charts such as the past few months of dailies and watch the swing lows and highs. Remember our basic principle is that declines cannot last more than ninety days in a long term Bull trend, nor can rallies last past ninety days in a genuine Bear trend. Once we have a ninety day penetration we can assume that the new long term trend will go in that direction for at least a year and we can start to project some average measured moves or circular arcs from the past few years. Keep in mind that near the end of a long term cycle we will find a *signal reversal bar* sell or buy signal on a *monthly*



**chart.** If you do not have monthly charts you can easily visualize such a final high or low bar by noting the extreme price high or low during the last *four weeks* of the existing trend, and when that four week extreme is broken, that would be the monthly reversal signal. This principle is a good one to keep in mind all the time as we note large price impulses on our shorter term charts such as hourly or dailies. If these big price changes exceed the extremes of the past five days for example on a daily chart, it is a good probability the move is the result of a breakout on a weekly chart and you might want to refer to a larger scale chart.

The other principle to keep in mind at these times is the support and resistance levels generated from the monthly signal reversal bar at the turning point extreme. On a monthly bar chart the range from the high to low on that very last bar can often be ten or more dollars, but we know that once the breakout occurs the secondary test will only pull back to the high or low of that extreme bar depending on whether a buy or sell signal was given. Knowing and recording where that price level was at the breakout will come in handy many weeks later on the subsequent test when most traders are afraid of prices going all the way back to the extreme low or high price. This is a very important point to consider when looking at long term charts and you should review the **Trend Section** again if these reversal signals are still unclear.

Knowing that long term cycles tend to come out near cycle lengths of 5, 10, 15, etc... years, we also can expect to find reversal points in our cycles near subdivisions of these primary cycle lengths. In other words if a ten year cycle is present, expect to see turns at 2.5 years, 5 years, and 7.5 years in addition to 10. Near the turns we watch our dailies for our natural common cycle lengths of 3.25 and 6.5 week cycles. Once we find these turns we can drop down to any smaller scale to trade within the now clearly defined five or ten year pattern. This type of analysis is best used for long term investors and fund managers who are looking to double large amounts of money over a few years. Traders of course will mostly stick to hourly charts and occasionally dailies, but it is still nice to have a firm grasp on the longer term outlook first to give us a little more conviction in a whippy market.

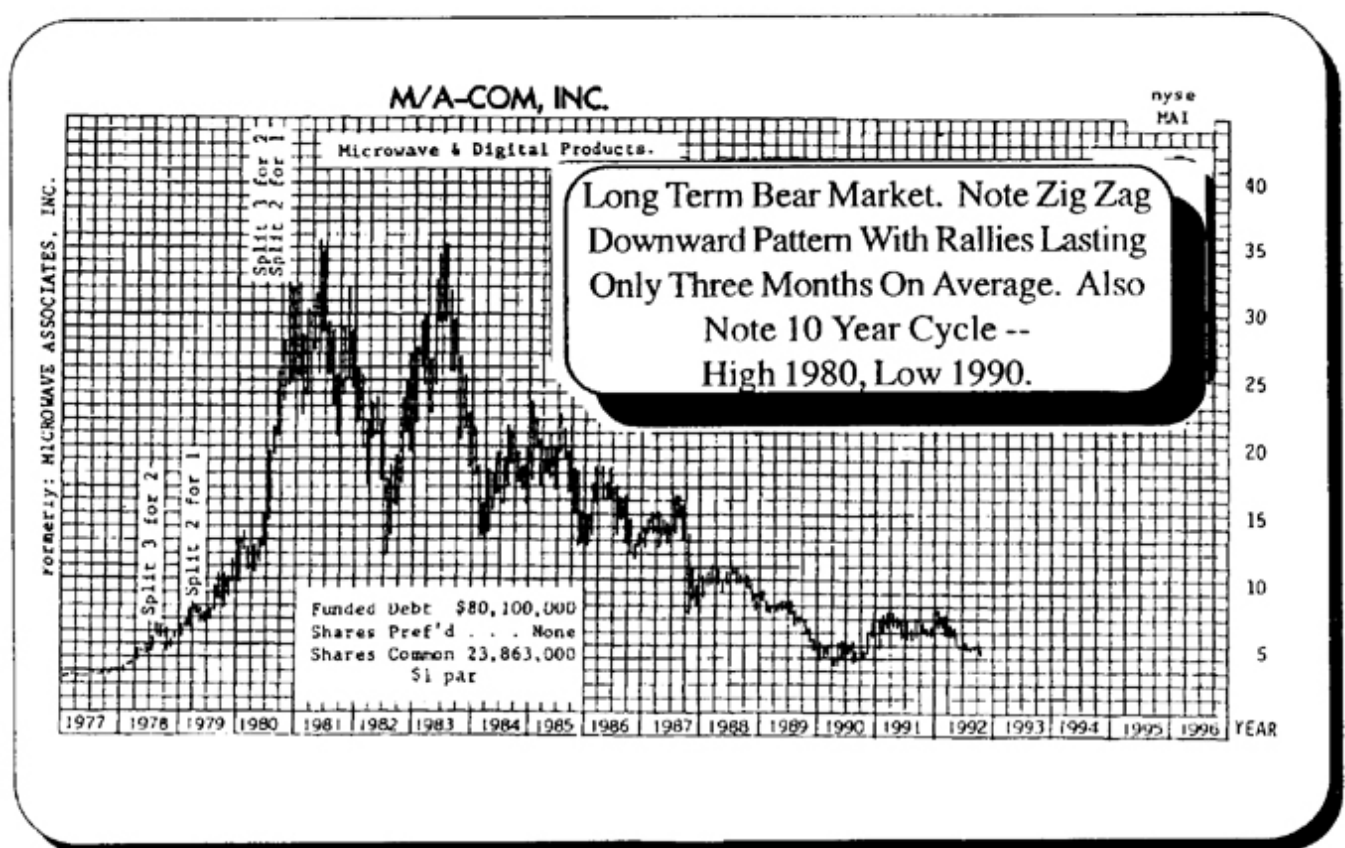
Another good technique for looking at long term patterns is to follow our numerological 360 cycle numbers. Common cycles are often found at 30, 45, 60, 90, etc... weeks and months all the way out to 360 for the end of a big cycle. Especially important are 45, 90, 180, and 360 weeks and months. If you ever get lost in the patterns it usually pays to just look back these 45 and 90 harmonics of weeks and months until you see an identical pattern. This happens much more frequently and more precisely as to exact price movements, than most people could ever imagine. Try it some time and you will be both shocked and elated.

Long term analysis in particular lends itself to subjective sociological analysis of cycle influences on the masses. That is to say, at common known cycles like twenty, fifty, sixty, ninety, and one hundred years, most common social practices return often with uncanny similarity. The building of the Berlin Wall and its destruction 45 years later is an example. The hundred years between the Lincoln and Kennedy assassinations is another. Many similar events such as labor strikes,

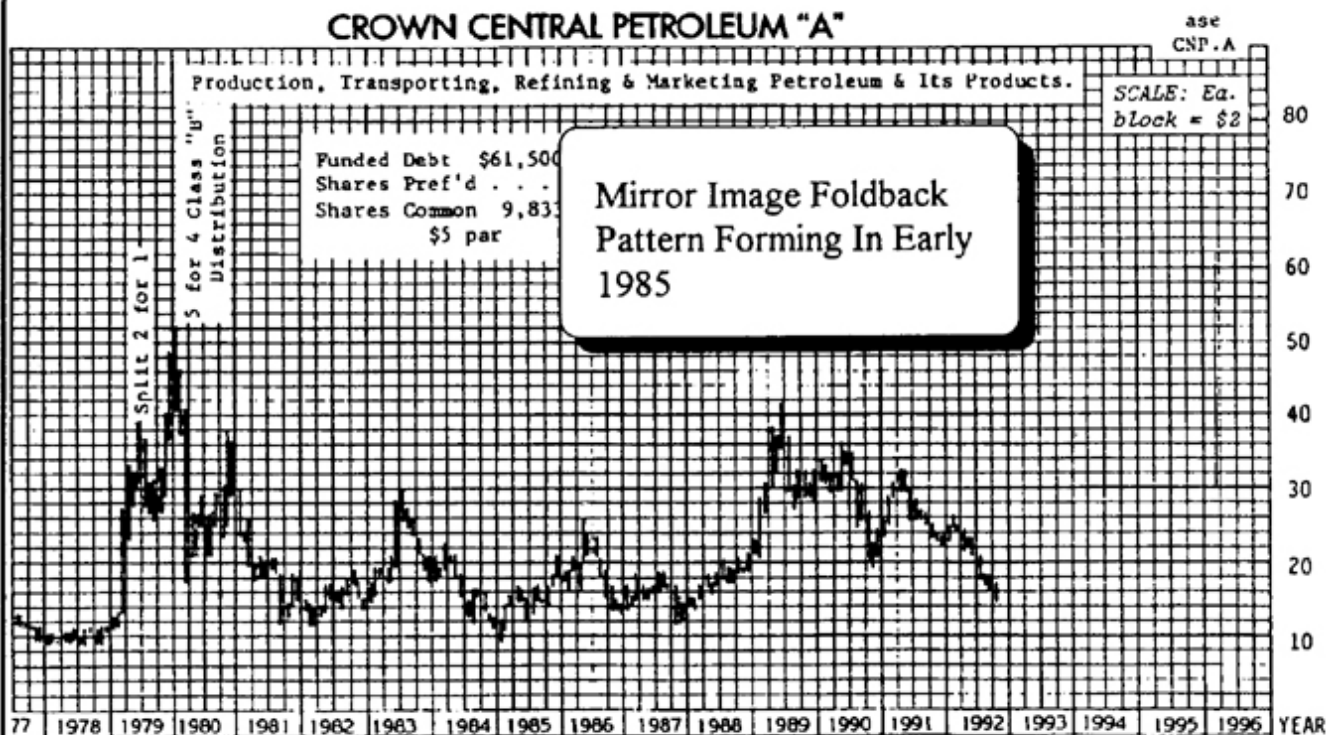
industrial bankruptcies, or wars also color the historical event and give reliability to our cycle choice as the dominant one operating at the present time. Once we see the similar sociological underpinnings, we can forecast a similar outcome. Keep in mind the principle of alternation which in cycles means that the past will repeat either exactly or exactly backwards. The cycle beginnings and endings will have the same time periods but often with exactly opposite outcomes. The actual outcome can usually be deduced, however, from an analysis of the individual elements that make up the larger theme at work in the cycle.

In keeping with the idea of alternation of cycles, one of the most powerful techniques in all chart pattern interpretation is that of **mirror image foldbacks**. This is a very important idea, and I devote a complete section of this book to it. Suffice it to say, on long term charts, patterns are often easily recognized as being exactly backwards to a prior pattern. These shapes are often symmetrical about a major high or low which becomes the foldback and each "wiggle" or wave in the up pattern is mirrored with a similar wiggle in the down pattern. When you see the obvious patterns, be sure you use them! They are highly reliable and can last for years before disappearing.

### Long Term Chart Examples:



# CROWN CENTRAL PETROLEUM "A"

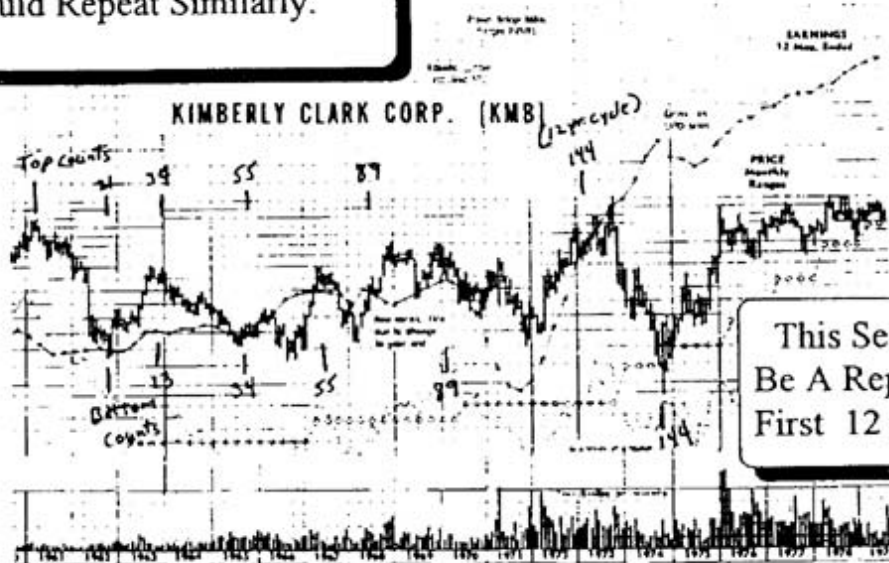


# MERRILL LYNCH & CO., INC.

Axis Orientation  
Angles On A Long  
Term Chart. Note  
Offset Of Angles  
From 45 Degrees



Long Term Fibonacci Monthly Counts From A Major Top And Then The Next Low. Each 12 Year Cycle Should Repeat Similarly.



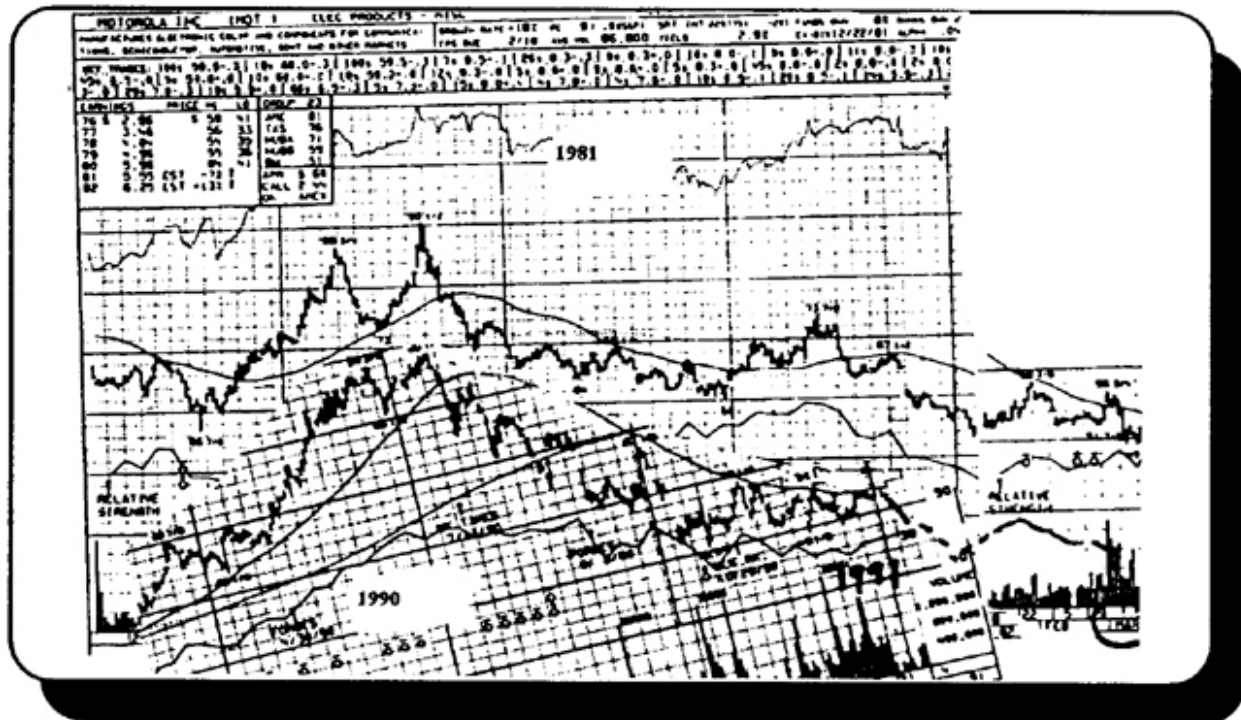
This Section Should Be A Replay Of The First 12 Years

The above chart shows a long 12 year span encompassing 144 Fibonacci Months. This was one of W.D. Gann's master cycles. Often you will see the same kind of up and down bull and bear markets repeating at this time cycle length. The repetition will not be exact but the subtleties of the wave forms will be similar. It is important to note that *near*, but not exactly on, these time counts a major trendline was usually broken, and a *signal reversal monthly bar* was generated. In all technical analysis, particularly cycles, we need confirmation of a change in trend. If you study the above chart you will see multiple confirmations from angles being broken, time counts up, reversal bars, mirror images, and circular arcs or measured moves being completed. It usually pays to spend some time (several hours) on a long term chart first. Once that analysis is done right, you don't need to look too closely for many more months.

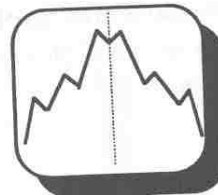
Long term chart analysis is ideally suited to cyclic pattern recognition. By this I mean that, since cycles repeat, it is usually evident visually on longer term charts that a near identical pattern is forming again. If you take the time to look you will see spectacular reproductions of prior cycles often down to the slightest subtlety. Once you make a thorough study of a stock on a long term chart and have identified its common long term cycles such as 5 years, 7 years, 10 years or other, you look closely at those time intervals to watch for wave structure and patterns repeating. Once you find a good fit you can trade with incredible success for months at a time. Often these patterns will follow exact replications for up to six months or even longer and if you are lucky enough to have noticed the pattern forming, you can become rich. The following two examples are General



Motors following a six year pattern in 1984 and 1990, and Motorola following a nine year pattern in 1981 and 1990. Please note that it is the wave structure or pattern that is being reproduced and not just the time count of so many days from high to low, etc. An analysis of the past wave alternations in terms of percentage fluctuations and retracements is the key as price levels are often different but cycles follow circular motion so percentage fluctuations should be close on each pattern.

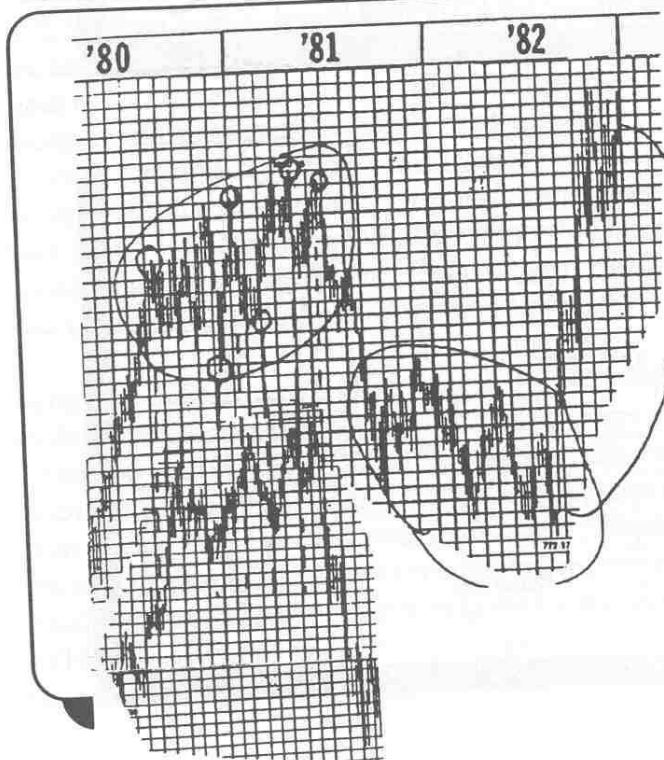


## Mirror Images



Time has always been a study for philosophers and scientists. Being a market philosopher, however, lends itself to the perfect study of the subject. As Einstein believed, time is a relative concept distorted by one's own internal frame of reference. Our biological electrical nervous system and the speed of brain impulse synapses are our only reference guideline for time in the waking state. In sleep, time disappears. In the stock market, *time goes both backwards and forwards!*

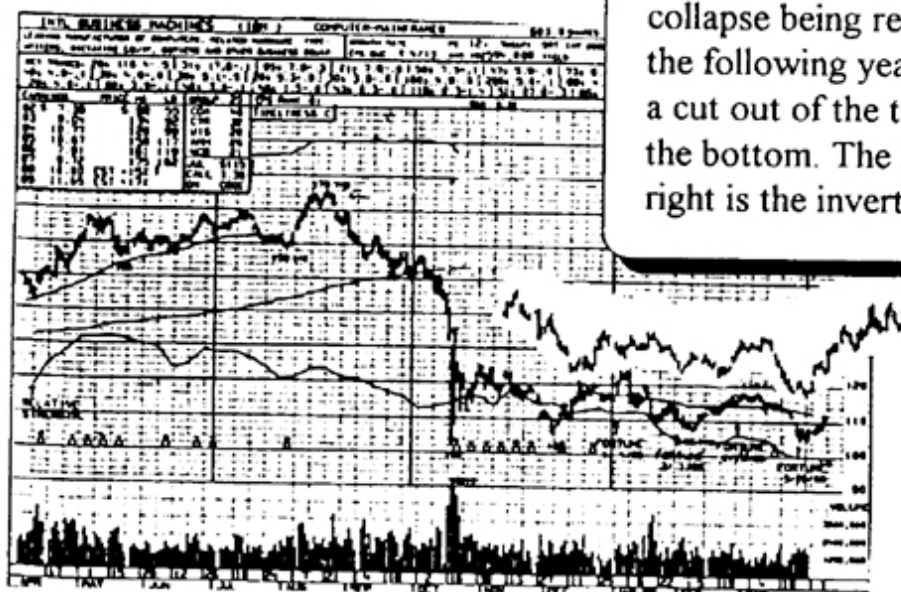
Charts clearly seem to indicate that time goes in one direction, stops, and then goes in the opposite direction causing price patterns to repeat over and over again with the exact same subtle nuances but backwards. The only difficulty in this type of analysis is that time also appears to have a *variable speed* so when going forwards and creating a price pattern, the speed may change when going backwards and the pattern repeats but appears distorted due to the change in speed on our constant time plotted axis of our chart.



Here we take the '82 low and "flip" it vertical so the low is now at the top. We then move the pattern down underneath the 1980 to 1981 top and we see the identical wave structure in both the high and its reversed reflection in the bottom! These foldbacks work for near term cycles -- not 10 year highs to low comparisons.



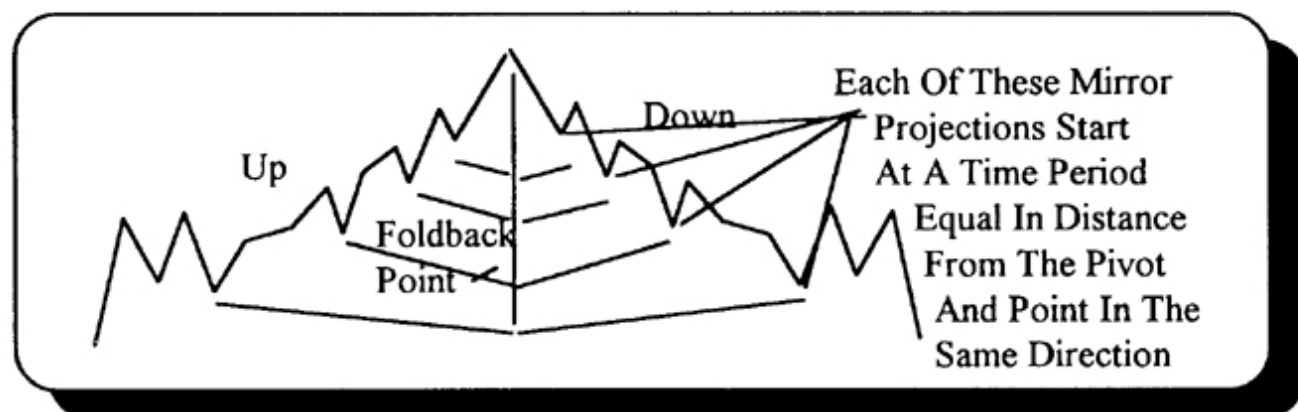
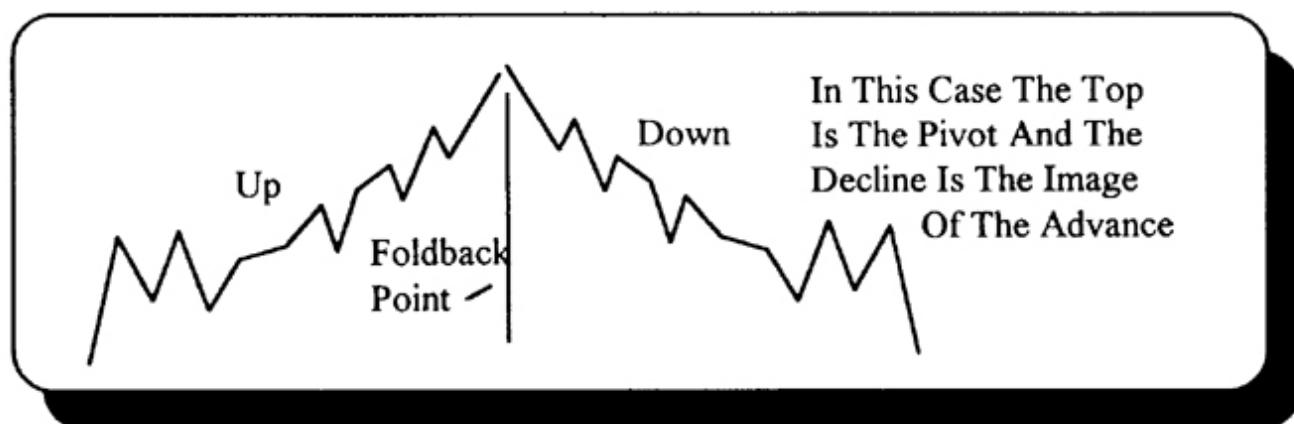
It has often been noted that the pattern going up to the top repeats as a *mirror image* on the downside after the top is in, and the top itself (or bottom) becomes the *reflection point* for the entire detailed chart pattern. The proof of this can easily be seen on the above chart pattern which recreates the 1982 bottom from the 1981 top. The fact that this pattern is almost exactly backwards clearly shows that the emotional greed at the top is the mirror reflection of the emotional fear at the bottom. This chart is created by taking the bottoming pattern in 1982 and flipping it upside down and backwards and then comparing it with the prior top in 1981. When the two are lined up under each other we see that all the "waves" match up showing that the emotional greed at the top is reflected in the emotional fear at the bottom.



IBM Chart showing 1987 top and collapse being recreated in the low the following year. This chart shows a cut out of the top graph overlayed the bottom. The low on the bottom right is the inverted top!

You may at first have a difficult time understanding this idea especially if you are not familiar with charts. I can assure you, however, that I have spent most of my adult life studying this concept and it amounts to roughly 60% of my entire chart analysis time. It is the only way to draw long term accurate chart drawings often years ahead of time that come remarkably close to actual future price fluctuations. Basic analysis begins by finding an obvious reflection point that looks symmetrical. Since patterns tend to persist for long periods of time we can trace an obvious pattern backwards and forwards for many years and still get reliable results. The first step is to start with a major high or low and count the days to the *first significant change in direction in a backwards fashion*. In other words, from a low count back to the previous high, back beyond that to a prior low, then back beyond that to a prior top, etc. We now go forward in time and note the same number of days from today where each of the past changes took place and we can make a "stick figure" drawing of the up and down swings from the past and extend them into the future. If we find

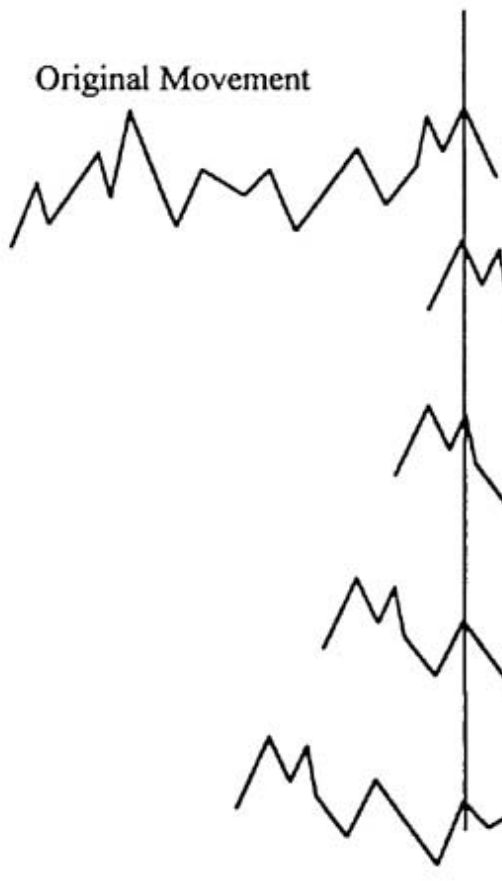
that a prior high becomes a future low we then expect the next prior low to likewise invert and now be a high. We do this exact same procedure from each major high and low over the course of the year and continue these counts backwards and forwards into the future for years and years. On my work papers I have often traced back fifteen to twenty years of history and retraced these



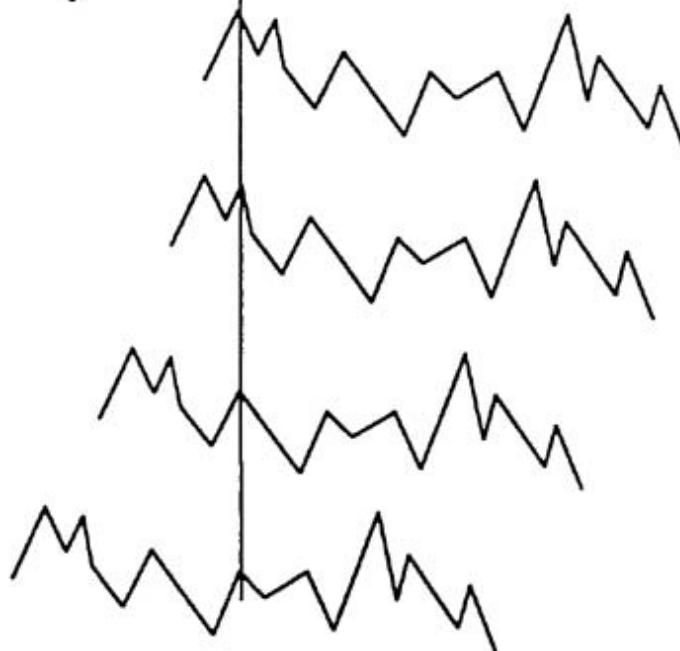
same fluctuations forward in time another fifteen to twenty years and have often found many exact correspondences. This works of course because of the existence of cycles that return again and again in a circle at recurring intervals. If we trace backwards enough, eventually we will hit the length of the cycle and the fluctuations will repeat again. Finding the major beginning and ending points is the more difficult aspect but obvious symmetries are usually quite visible to most people.

The best analysis usually consists of making a large workpaper and start on January 1st each year. You count backwards in calendar days to each major high and low over the past decade or more, and then project that count forward in time but opposite in direction to the prior movement. This can be done on ten or more lines down the paper so you have a series of forward moving "stick figure" graphs, each of which is continued into the future as far as you want to go. The real analysis comes in when deciding the direction of the swing moves for the coming year. You will have a number of differing conclusions based on each individual stick figure graph, but in most cases a number will "cluster" around a common time period pivot. You then watch the current market as it enters that pivot area and follow the stick figure that most closely resembles the graph of the current move. For example:

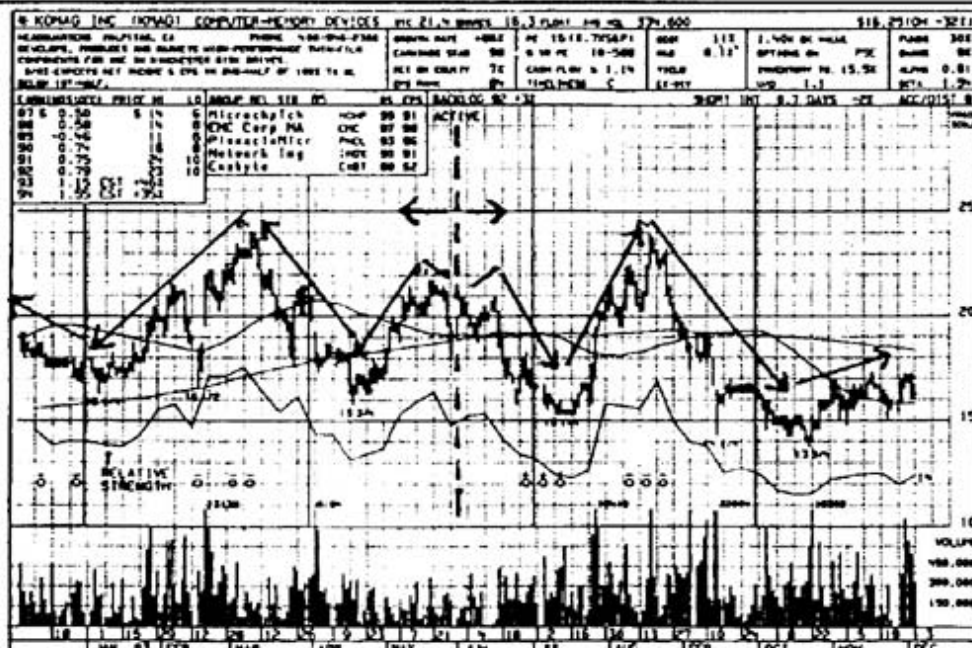
Original Movement

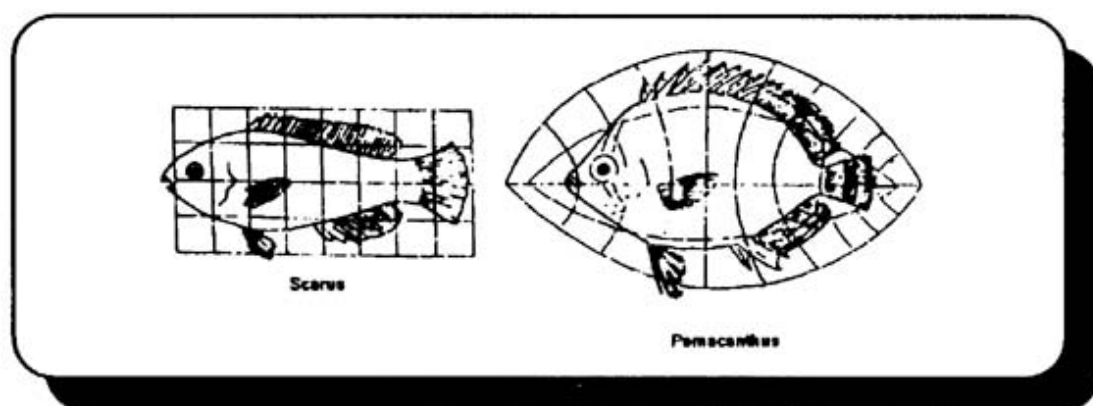


Inverted Mirror Projections Using Each Consecutive High Prior To The Pivot Point And Folding Back Into The Future



This Is Not A Good Example Since Its Not A Real Price History, But If It Were You Would See Common Clusterings Of High And Lows Into The Future And Those Pivots Would Be Your Cycle Turns



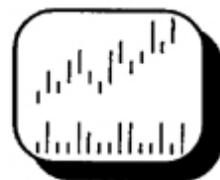


The above drawing shows two different species of fish. It is clearly implied in the drawing that somewhere in the genetic ancestry of these two, a warping of the genes took place as the second fish appears to be a distorted image of the first created by twisting the major axis lines of the drawing. This picture is what I believe we are actually looking at when we see chart patterns. The mirror image symmetry we often see is just a minor warping of the axis lines of the plotting of price and time while the more frequent complex structures are nothing but more exotic twisting of the time axis with different speeds. I am certain that some time in the future three dimensional computer drawings will be able to interpret all our common stock price patterns, making the first users of such technology quite rich!

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# Volume

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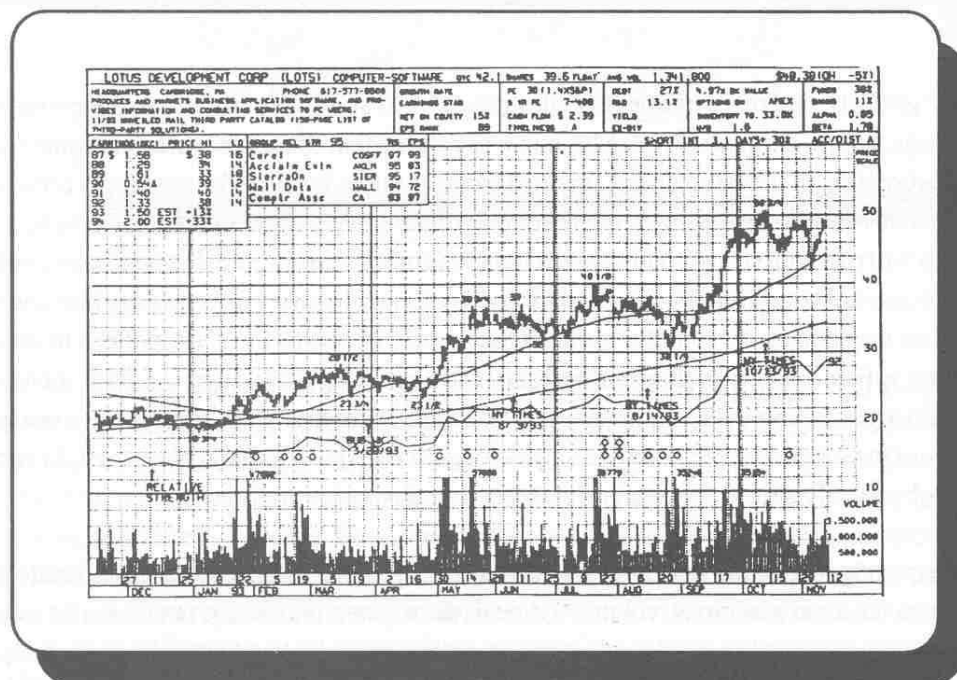
It has been rightfully said that volume precedes price. Most significant moves in the markets are caused by large supply demand imbalances and it is volume that makes the difference and moves prices in the direction of the large orders. In most cases, volume is said to be positively correlated. That means that volume goes up with the real trend of the price action. Or, if prices are in a Bull Trend, prices will rise with rising volume and a light volume decline is bullish, and a heavy volume advances the normal condition. For the Bear Trend, volume increases as prices decline and light volume rallies are seen on the counter trends. One merely observes the chart pattern to note the large volume spikes *over several months* to see if the overall pattern is rising with increasing volume (Bullish) or falling with heavy volume (Bearish). More than that, volume does not tell us much. Many of the biggest price movements in history have frequently taken place on light volume with large volume only appearing near critical turns and time cycle endings.

The most frequently held belief seems to be that volume is Bullish. This is almost completely false. It is true that, in takeover situations, volume indicates the move is underway, but in almost all other situations, volume is indicative of a top! Only in situations where the market has been declining for some time and volume dries up to its lowest level in weeks and then the prices rise on increasing volume, is the situation bullish. The typical case where heavy volume is seen is very near the top of a move where buyers and sellers meet in a tug of war and when the volume declines prices usually do too. Normally this is only a small correction that will last three days to three weeks, but nevertheless it will be a top. Big price movements usually take place without too many people noticing. The typical stock will creep up a quarter of a point per day for several days until heavy volume comes in as everyone jumps aboard the move and on that final day the stock goes up a dollar or so and then tops out. Most people need instant gratification and frequently buy or sell at these heavy volume extremes and get trapped on the wrong side of the market. The better trades are to buy the light volume declining days and to sell on the heavier volume rallies.

Keep in mind when looking for volume signs that bull and bear market movements are parts of the psychological process known as *accumulation* or *distribution*. The accumulation cycle is the Bull Market and the distribution is the Bear Market. These accumulation/distribution periods often last for months to years because it takes innumerable institutions that long to acquire their shares or to completely sell out after a bull move is over. When looking at the chart you would want to look



for the tell tale volume spikes to see whether accumulation or distribution is underway. When these spikes are present there is a good trending market to actively trade. Much later in the cycle, the volume spikes disappear, the stock goes flat for many weeks to months, and these periods are not conducive to good trading opportunities.



The above chart of Lotus shows the basic volume accumulation pattern of big spikes correlating with breakout advances and then sideways corrections on lessening volume. Note the classic "stair step" pattern of higher prices over months with continued heavy volume near each advance. When volume reaches its lowest level the price advance again resumes. As long as these spikes continue the basic accumulation process is at work and you do not have to worry about a major break in the long term trend. Only after a long period of little volume activity, and then declining prices on heavier volume, would one become concerned. Keep in mind that institutions who buy stocks showing these positive volume correlations have no intention of day trading but are looking out six months to a year or more and price levels at least 50% higher, or the trade wouldn't make sense to them. Unless the fundamentals change dramatically, you can assume that you have *at least six months of clear sailing to buy dips* on these patterns before the long term trend will change. If you do see a pattern with heavy volume declines you may want to go back over the history of the past year or two to see when the big volume buyers got in and at what price. This is not to say you

will not see big volume declines in a bullish pattern -- you will, but you should not see consistently heavy volume breakdowns that last more than six weeks on a daily chart. Remember our definition of a Bear Trend includes breakdowns to price levels not seen in 90 days or more, so heavy volume on lower levels more than three months from the top probably spell trouble.

Another fundamental rule of technical analysis is that "distribution always takes place after the top." What this means is that you don't have to be concerned with guessing the high price for a move. Only after a good correction of 10 to 20% will the rallies back occur on very heavy volume. To the uninitiated this looks like positive volume correlating with a rising market. If, however, the top is in and the stock is making a series of lower tops and lower lows' pattern, any volume occurring even on up days is considered distribution or liquidation by the big institutions. Institutions have very large positions in stocks and frequently a big fund might own 3 to 5 million shares or more of an individual issue. These investors are in for the long haul and can only get in and out of positions over many weeks to months. Once the break is big enough so that they believe the upside is limited, they will patiently wait for the next rally to unload. This is called *distribution* and is done after the final top is in. Bargain hunters and shorts usually buy the stock from the large institutional sellers but these new traders have short term investment horizons and the stock will be back on the market for sale within days to a few weeks.

The distribution phase is just like the bullish accumulation phase only backwards. Heavy volume breakdown spikes will be consistently seen over many months as the stock moves lower and lower. You do not want to own these types of stocks until a period of several weeks has passed since the last volume spike and the stock is now rising for at least three months without making a new low.

In regard to the market averages, increasing volume often accompanies advances and when an average of say 5 trading days or so of volume starts to decline the top is usually in and a correction is due. As long as the volume is increasing the advance may continue but look for the change in volume to note the *cyclical change* taking place. Cyclical is the key word to remember about volume since it is only on cycle turns that there is widespread participation and volume can change hands. If you are looking for cycles, look to the active issues.

The declining phase likewise is measured by increasing volume and when that dries up the decline is over. For years I kept an hourly chart of the Dow Jones Averages and noted the volume for each hour under each closing hourly price. The volume almost always gave a clear cut indication of the change coming the next hour as volume dried up to the lowest level in a few days. This light volume was obvious if noted hour by hour but often the last hour of the move would be a big price decline on light volume. The big price decline scared everyone from buying into the dip, but the volume dry up was the telling key to the big reversal to be seen by the next hour.

Besides stock volume, option volume is even more important. Although this is a subject requiring a book by itself and is covered in my *Geometry* book, I will mention that volume in options is both bullish and bearish depending on whether the volume on the option is reflected in the stock's price action. That is to say a large option trade such as a thousand options on IBM would be bullish if the option price is up but the stock price is quiet. This usually signifies big leveraged money racing the tape ahead of a big stock buyer asking around for stock, or it could be just illegal inside information about a takeover or upcoming analyst recommendation. This is to be compared with IBM up a dollar or so on an obvious bullish day with everyone participating, and the options are also up on heavy volume. This usually means a top as people are buying both stock and options but someone is selling the options to those people otherwise the option volume would not be seen. A light volume option day with a heavy stock volume day would be more bullish. Also keep in mind the fact that most arbitrage buy or sell programs in the market these days are preceded by big OEX or index option volume. Most firms trade for their own account and when they get a big buy or sell program the first thing they do is stock up on puts or calls. You will almost NEVER see market movement when these firms buy or sell their options because they always race the tape and *only hours later* show up with the program to execute. What you must do is constantly note large option transactions and particularly note the time and price they trade so you can refer back to those statistics later in the day or the next day when you see the big program hit. From that point on you will know that the program will not end until at least a half hour AFTER you see those same options being traded out with the same volume of contracts!

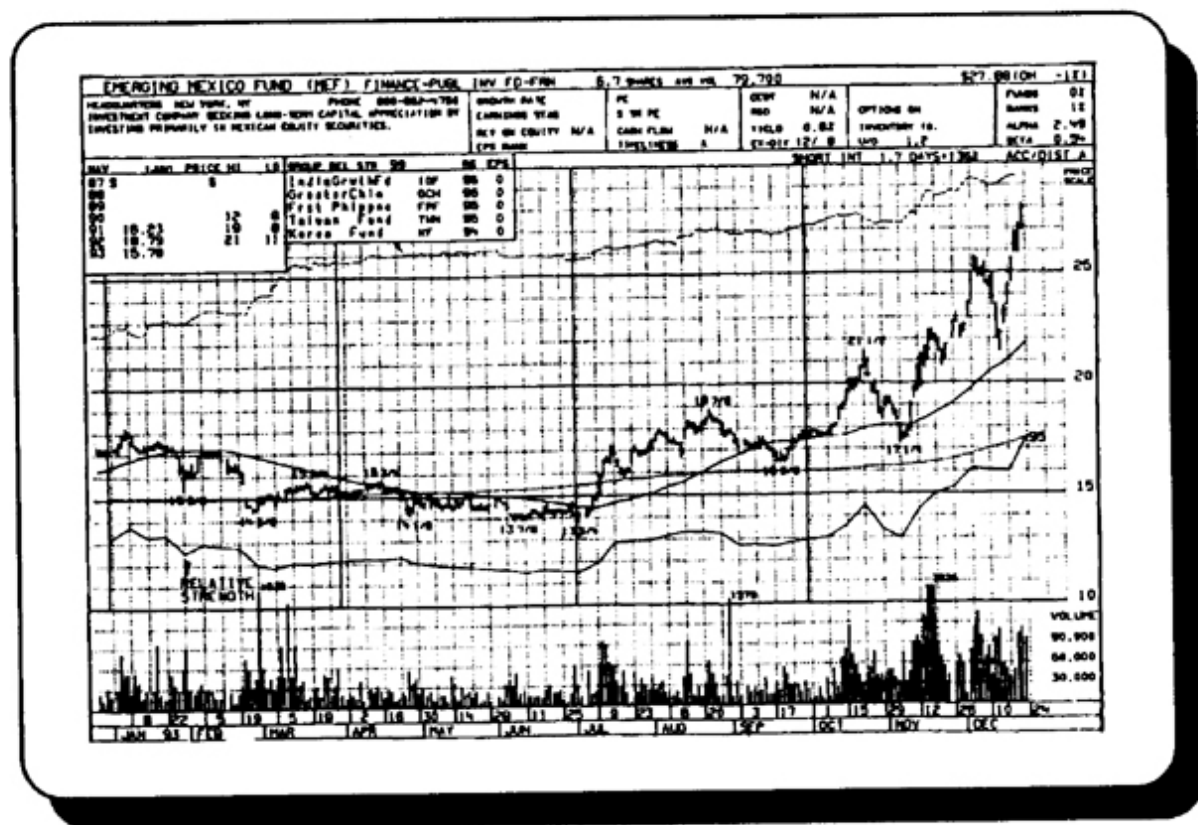
I would say that for most chart reading volume is strictly a secondary consideration. Prices are much more important and cycles in the final analysis are what cause volume to come into the market and begin and end moves. Volume is often the cyclic tip off to a change but the volume itself is not that important.

Presently volume is more important than in the past since it frequently indicates the presence of large institutional investors and this kind of sponsorship is what is needed to cause large price movements. Long term investors particularly need institutional sponsorship to keep prices rising and periodic volume spikes indicate that presence.

In the final analysis volume is needed to change direction and indicates cyclic turning points, but prices themselves are what make us money. We watch volume patterns to note the coming change but trade off the price reversal buy or sell bar. At the end of the trading day it is the price we must adjust our balance sheet to and not the daily volume.

One final important point: This point is too important to mention in a book as inexpensive as this, but I know the vast majority of you are too lazy to follow up on it anyway. For the selected few, here it is: the market always changes direction when the total capitalization of a stock turns over in proportionate increments. If a 50 million share issue trades 50 million shares, the market will turn.

In an active market this could take two months — in an inactive one, six or eight months. This is the key to success.



The chart above is the classic "perfect" chart. It shows a new bull move just starting with an initial impulse wave moving up at a near 90 degree angle accompanied with heavy volume. There are several more such impulses over the next few weeks — all on good volume and at the end of each pull back correction, the stairstep lows are all nicely higher. There is also the general appearance of a circular arc in the making with rapid acceleration to the upside. This classic chart pattern should be memorized. Whenever you see it you will make a lot of money being long on it.

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# Strategy

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Reading chart patterns is an art. It is a lot like chess. Millions of people play chess and millions of people read charts but there are only a handful of grandmasters at each vocation. Anyone can learn common chart patterns and anticipate when a trendline will break. But, it is only the grandmaster who can think fourteen moves on the chart pattern into the future. What separates the professional from the novice is the ability to see the possible chart patterns forming *IF* such and such an event unfolds. The breaking of the trendline is irrelevant. It is the possible regaining that trendline, or the magnitude and time duration of the change in trend that is important. In this regard professional strategy is what separates winners from losers.

The average investor has no idea what strategy is. He seems to think that you buy or sell what the people on TV recommend, or what the analysts at big brokerage firms think are going to do well. He does not even conceive of the idea that for every buyer of stock there is a seller. Only one will be right on the trade. If everybody is making money, who is losing? It might be better to think in terms of entering the ancient Roman Gladiator pit and knowing only one comes out alive. Trading on a professional basis is like that. You must use strategy like an army general to trick the enemy into making a mistake if you are to steal his money.

Up to this point I have tried to train you in some basic good habits like determining the main trend and then *waiting* for a counter trend movement to enter the trade. At least this way you will not jump in emotionally without even thinking about what you plan to accomplish. What is really required, however, is an entirely different **frame of mind**. To the *Professional*, and I mean that term as it is defined — *one who makes his living doing it*, stocks or commodities, futures and options, are but mere pieces of paper in a greater fool theory, game. That is, there is no *real value* to these pieces of paper- they are only valuable if someone is willing to pay more than you did to buy them from you. It is a never ending source of amazement to me to witness the extreme confidence the public has in their government and the capitalistic system of paper money. Anyway these pieces of paper we buy and sell every day are only valuable for short periods of time, or I should say their value is only *perceived to be* constant over short periods of time.



The person who falls in love with the “investment story” will never make a success at trading. You must be like a retailer who buys cheap and sells with a reasonable markup, but sells often and changes inventory with the latest “fashion.” Getting stuck with old merchandise will require a loss liquidation sale.

Stocks change in value every day based on emotional perceptions. There is no value *per se*. It is the emotions of the masses that drives the supply demand equation. The professional chart reader knows how to look at a chart and *see emotions*. Measured moves, arcs, trendlines, and a host of other tools are used to constantly redefine that emotional perception to exploit trends by buying fashionable merchandise and waiting for the store opening a few hours later or the next day when the buyers will be emotionally anxious to buy. The idea here is to turn over the inventory frequently with a small reasonable profit that will compound into significant sums over time. The grocer does not buy a head of lettuce at \$1 and expect to get \$3 or \$4 for it. He expects to mark it up 10 cents and sell it as often as possible and in large volume. The delivery truck comes back every day. Stock speculation is no different.

This being the case, you as the retailer **and in business to make a living** cannot afford to just buy and sell every day and at every price level. You must have the patience to specialize in wholesale buying and retail selling. Charts tell us what the market will bear. Steep angles show very popular merchandise whose fashionability will not change overnight. A broken trendline shows a change in buying habits. Arcs show the culmination of a shopping spree.

When looking at a strong trending market that has a parallel channel defining the move, you should measure the average width of the channel to see the average range between high and low fluctuations. Being a humble grocer we have to frequently buy and sell at the most popular and frequent fluctuation even if that seems a small reward. It is all the market will give us. We cannot afford to make a big play and try to double our money over six months on something not seen in the chart history at present. That’s an entirely different game than professional trading. We must buy dips from each high *at the average normal observed amounts*, and immediately offer for sale this merchandise on the rack at the *normal markup* fluctuation price. Trying to get more will mean fewer trades and greater chance of loss.

If you trade options you will have a choice of buying a \$1 call and selling it at \$1.25 or waiting and trying to get \$3. Which is better? There is *no question* the better strategy is to get the 25% markup and sell at \$1.25! If you put odds on it you would find that the chance of predicting the direction of the move (being right on the trend) might be 70-80 per cent. But, what about the odds once the move starts? They dramatically change! Once the move starts they start to decline so that when your option goes from \$1 to \$1.25 the odds of the NEXT 25 CENTS BEING UP might only be 50-50. These kinds of odds are gambling, not speculation! Remember as professional speculators we want to set all the odds in our favor. We want to

choose *when to trade, what to trade, how much money to trade with, and what odds of success we need.* If we let the market dictate the odds we turn away from professionalism to crude gambling. Returning to the option example, if we watch our call go from \$1 to \$1.50, \$2, \$2.50, to \$3, we would see the odds go from 80% down to less than 10% *on finally banking the money.* This is the whole point of this book. You are supposed to bank profits every night. If that takes lowering your sights and getting small gains, so be it. By the way making 25 cents on a \$1 call is 25 per cent and if that can be compounded with ten successful trades the capital will increase nine times from \$1 to over \$9! ! And, this is with odds of 70-80 per cent. Only a fool would ignore this to wait for the one in ten chance to increase his capital to \$3!

In setting the odds at which we will trade, we must consider time as well as price. We cannot get caught trading a large inventory when the markets are inactive and quiet nor can we refuse to carry a full shelf of inventory when the hordes of Christmas panic buyers surface. We trade the active markets and use the charts to show us the active ones with big volume of sales and very steep angles of ascent. We also cannot allow ourselves the emotional luxury of jumping into a trade every day in the first half hour and not having any capital left for a good midday reversal or end of day dramatic finish. We must constantly be alert for the wholesale truck making drop off deliveries.

Almost all strategies encompass the deliberate undertaking of risk. Good trades almost always occur when we think we will lose a little on the entry point because we are taking a position against the minor counter trend movement and we expect it to possibly go through us before reversing. We buy into a dip near known support or sell at resistance levels. We deliberately take on this risk because we have clearly defined it ahead of time. We know when we enter the trade what the extreme movement might be, and the normal time period for reversals. We are willing to use a one or three dollar stop loss on our entry point and we expect to face our maximum risk immediately at entry point. In interpreting our chart patterns, we have calculated ahead of time the *three or four possible outcomes from any chart reversal* and have planned accordingly. If we do not have a clear entry point or it is too far away from our pre-defined risk management point, then we do not make the trade. Remember it is our **business**, and **we make the rules.**

The most common mistake futures traders make is with stop loss points. The trailing stop should only be used for the entry point or the immediate fifteen or so minutes after that entry. This is because as professionals we buy into the countertrend decline and if we are wrong it will be painful. After a few minutes in the trade we will know if we were right and will be making money *or we are wrong on our guess and must close out to try again later.* If we are not making money on the trade after a half hour, we should close it out or try to scratch. If the trade is in the money in the first fifteen minutes, we always move the stop up to our entry price and try and get a "free ride" on the trade. If we do this, the odds go to well above 90% in our favor of banking money on the

transaction. To arbitrarily use a trailing stop for hours or even days is just plain stupid. Then again most S&P Futures traders have sights set way too high. They usually expect to trade for 300 to 500 basis or \$1500 to \$2500 profit per contract so they are willing to risk \$500 on a trailing stop of 100 basis. This seems logical but does not fit the facts. Most of the time the daily fluctuations in the S&P's will not reach 300-500 basis so the profit target is unreasonable. What is reasonable though, is the 100 basis trailing stop which is hit daily and most of these traders consistently bank \$500 losses every day. What should be done is to lower ones' sights to scalping \$500 profits with 100 basis targets and using timing stops of fifteen minutes in the trade or 30 to 50 basis trailing stops. Often by lowering ones' expectations to smaller average daily gains, the rate of successful hits rises from 50-50 to over 90% and the compounding effect is mind boggling.

Another rule that will eliminate 90% of all losses is to raise our stop immediately to our cost or cost plus commission just as soon as we have a small profit or are in a non-losing trade for more than 15 minutes. Commissions on futures transactions are practically nil compared to average profit expectations. To let a winning trade turn into a loser and get stopped out with a trailing loss stop when we could have scratched or made money is perhaps the most grievous sin any trader can make and has absolutely no reason to make.

Over the years, I have had the privilege of working with and knowing some of the worlds best traders. What I observed most of the time was that the truly successful ones were "gimmicky" traders. In other words they really treated the market as if it were a *game* and the only rules were to **lose as little as possible** and to bank a profit *every single day* no matter how small. In one case I knew a very successful trader who made millions every year, but would be scared to death to make the first trade every day and chose little ones that would only net \$100 or so and to get that in the bank as soon as possible. Only after that trade was successful would he become more venturesome. Another trader watched the tape for hours on end observing basing areas where everyone knew a big breakout was coming. After a three to five hour trading range in the S&P's was broken out of, he would quickly enter the trade, and although it was obvious to everyone that an S&P breakout of that duration would yield at least a 200 basis move, he would jump in, buy and immediately offer his contracts for sale up only 30 basis higher. This had the affect of allowing him to have a success ratio of over 99% profitable trades. Although the profits were small, there were almost certain and it was like found money on the sidewalk to him. In only a few years he ran a few thousand to over 10 million with this technique. I am consistently reminded of this *strategy* almost every day when I see customers get stopped out for 100 basis losses because they insist on getting 150 to 300 basis gains and just miss cashing in before getting stopped out for a loss.

Please note that this traders' success was entirely due to **strategy** since his *game* plan was to scalp a small profit when everyone else would not even remotely want to do that. Because the market is not as predictable as most people believe, this strategy yielded 99% trades when the



obvious big move only worked half the time and the losses and gains ended up in a break-even with no real net profit in the bank for the masses that expected big things.

One of the reasons most people do not take the small trades that add up to real money is the fear of commissions and “churning.” In truth this is what wholesaling is all about — rapid turnover and small margins. Commissions are the same whether you bank a small profit every day, or a large loss every several days. Preconceived attitudes about what is right or fair will ruin you. Putting more money in the bank than you had the day before is the only consideration.

Chart reading can very easily pick the winners for you. You must *wait* to execute and then take the money, and patiently regroup for the next offensive. Remember we are using charts to point out the emotionalism of the masses. That is our advantage as technicians. Not to use that advantage by just “jumping in” is a waste of your intelligence. Once we see the major long term emotional situation, we plot a strategy to go opposite the minor temporary emotionalism. Hence we “buy the dips” or “sell the rallies” depending on whether we are bullish or bearish. Furthermore, once we set our strategy as to exploiting the *trend* by buying or selling, we must now have a strategy to *limit losses* if we are wrong, and we must have a strategy *as to when we take profits*. All of this requires thinking ahead of time. We are responsible for setting the odds of our play and we must be constantly aware that these odds change all the time. Without a preconceived strategy we would end up executing in an emotional fashion like all the other “also rans.”

When using strategy to enter a trade, do not forget the strategy to exit the trade after entry. Many traders watch for a base breakout and jump in long knowing they will make 30-80 basis on the trade. What usually happens is that jump in and then just watches and waits to see what develops. It might be a better strategy to place a sell order 30-80 basis above the entry point at the time of entry, if indeed that was the strategy. Most people get caught up in the emotionalism of the trade after the entry and often lose sight of why they really went in and for what profit objective. As a result, they get trapped looking for more and end up with a loss, when the original strategy thought out before the trade was entered was the correct one.

You must learn to think like a gambler. Gamblers think in terms of odds. With good technical analysis of our chart patterns we can probably be right on the trend 70-80% of the time. But, this is only one set of odds. There is also the probability of *how far a move will carry*. Betting on a \$1 advance is one thing, but betting on a \$10 advance is something else. In each case, the **initial odds** for getting the trend right are perhaps 80%. But, the *purpose* of trading is to **bank the profits**. These odds rapidly decrease as the move gets underway. 80% initial odds may be 50-50 when the stock is up \$3 and only 10% when up \$8. You should constantly be thinking **what are the odds of the next \$1 move?** If you find that your answer is 50-50 or less, you are a gambler, not a professional speculator. You must stop trading as soon as you find you are no longer speculating and you have let the game dictate the odds to you.

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# Intra Day Patterns

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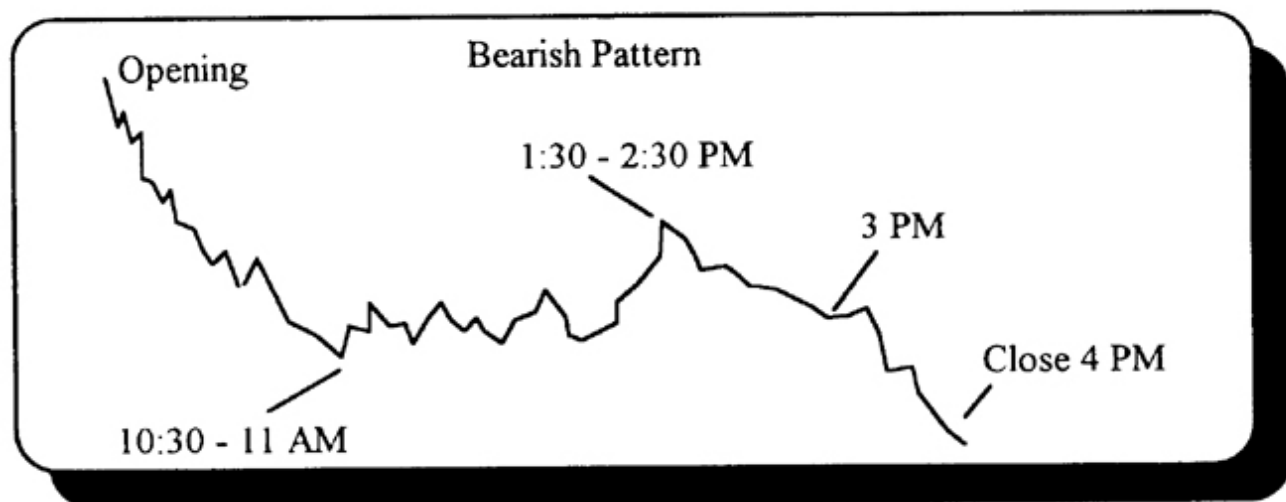
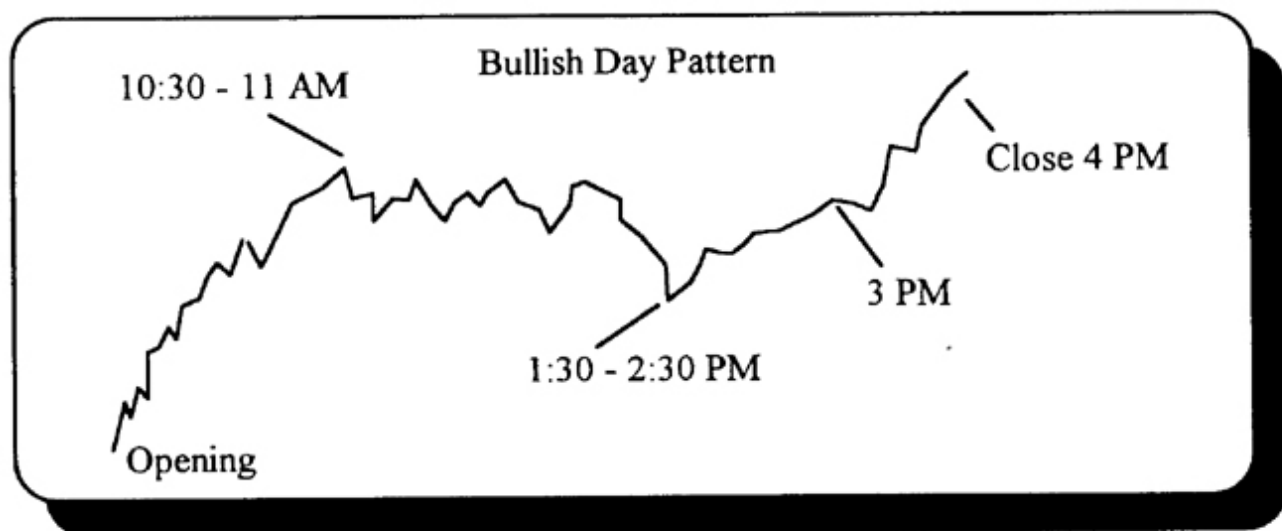


Most futures and options traders are day traders. That is they buy in the morning and sell by the close. The vast majority do not carry positions overnight. As a result there is a rush to get in and out in the first and last 15 to 20 minutes each day. This busy period is called the "opening bulge" or the "closing bulge." The normal pattern of day traders buying or selling with the trend of the market usually sets the daily theme right from the start. Not only are futures and options professionals better skilled at trading but in recent years there has been a tremendous amount of "front running" large orders and entering trades with illegal inside information. Front running is the practice of quickly entering orders ahead of large block transactions or in front of soon to be executed arbitrage program orders. In recent years, the rise of behemoth mutual funds and pension funds who come to market with orders for 200,000 to 500,000 shares of as many as 200 different issues at one time, have given rise to massive amounts of front running. These huge institutional orders can take several days to fill and are carefully executed secretly to maintain market order. Unfortunately, at least 50 to 100 important traders and individuals are always tipped off ahead of time when these programs are operating, since the knowledge of such orders is worth millions in the right hands and the right hands always get the information. That is just how the system works. In any event we as independent traders can easily spot such activity in our charts and trade along with the big inside money. Remember that people who have near certain information, either illegal or just in the course of executing large trades; these people do not waste valuable capital on these trades since they are virtually guaranteed. They use lots of leverage like futures and options to get the greatest return in the shortest time. As a result these trades show up in the morning bulge. Our job is to decipher from the early morning pattern if these knowledgeable people are buyers or sellers so we can join them.

The typical bull market pattern as mentioned previously is early strength (opening to 11 AM) and late strength (3-4 PM). Bear patterns are the opposite. The actual intra day pattern for a bullish day would be an up opening that goes straight up for at least 20 minutes and sometimes an hour. By 11 AM most bulls are committed and the pattern creates a consolidation trading range with some several swings up and down in a retracement zone of the mornings' advance.



These swings usually don't take out the daily high nor approach the low. Usually around 1:30 to 2:30 (EST) there is a "false breakdown" plunge to a slightly lower low than seen so far since 11 AM. After this false breakdown the big rally of the day ensues and goes straight up into the close and a new high for the day. The bearish days are nearly the same type of pattern but opposite. A rough sketch of the daily tick chart would look as follows:



These above patterns are very typical. Even so there are to my estimate about 7 or 8 basic permutations, but all usually follow the opening closing same direction, midday counter, rule. The most obvious feature of these patterns gives rise to the important "opening bulge" rule. This rule works 70-80% of the time and basically goes like this: The EXTREME HIGH OR LOW for the entire day is made in the first 20 minutes of trading. At first this does not seem to be worth much but if you stop to think about STRATEGY for the midday and end of day, the rule gives two very good trades and perhaps a third. The opening trade is the trickiest. We will not know if it is a high or low for at least 20 minutes, so what do we do? Cautious traders will do nothing or go with the obvious bullish/bearish daily trend. You could also guess using a timing stop of perhaps 15 minutes to make money on the guess or close it out

and reverse. The more reliable information is after we see the 11 AM high or low. We now know which way the primary trend is and how the day will close. We also know now that a false counter move will occur mid-day and will fail giving rise to a good trend into the close. We may want to short the false breakout attempt on a bearish day that comes from 11:30 to 1 PM and stay short until the close.

It is the characteristics of these counter trend moves that accounts for why most S&P traders who use a 100 basis trailing stop are always stopped out mid-day for a loss and lose their positions when their early morning outlook was usually right. In the quiet mid-day lunch hours, it is easy for the pit traders to run the stops and load up on these false bottom breakdowns, at which point we double up and go long for the close. Unfortunate doctors and lawyers seem to only trade S&P's with stops and badly at that. I can say from experience that if you are not making money day trading, try NOT trading until at least 2 PM. The vast majority of people cannot because they are so emotionally involved and must be in it in the first minutes. Often those trades are not the good ones.

Reversals of trend days are more tricky. With our strong opening, strong close pattern for bull moves, we normally expect the market to open up or be up within the first 20 minutes the next day. Good reversals in trend, however, usually come by reversing the opening bulge after twenty or so minutes but first opening in the same direction as the 3-4 PM trend the day before. In other words if 3-4 was down, only a down opening that later went up would reverse the trend. An up opening following a down prior close almost never reverses a market. That is usually a specialist opening to attract short covering that will unload inventory from the night before, and once it is unloaded, the specialist goes short himself and then lowers his quotes for the rest of the day. In Bull trends, traders know instinctively to go long a strong 3-4 close and hold overnight to sell into an up opening. This can usually reverse a market back down but the trader who sells out on the opening bulge does not miss anything by doing so because even if the trend does not reverse, we know there will be a counter trend dip mid-day to get back aboard for the end of day rally. Strategy is to always remember the 3-4 closing the night before and assume a continuation by 11 AM but to then watch out for the reversal.

If a bullish day is going to turn into a weak close and a down next day, you usually have an abbreviated plunge by 1 PM and an immediate rally that is at a new daily high by 2 PM. This is usually a weak point of the day with the firming up part not until 2:30 to 3 PM so a 2 o'clock high is a good sign of a weaker 3 PM reading and a "busted" last hour reversing the trend.

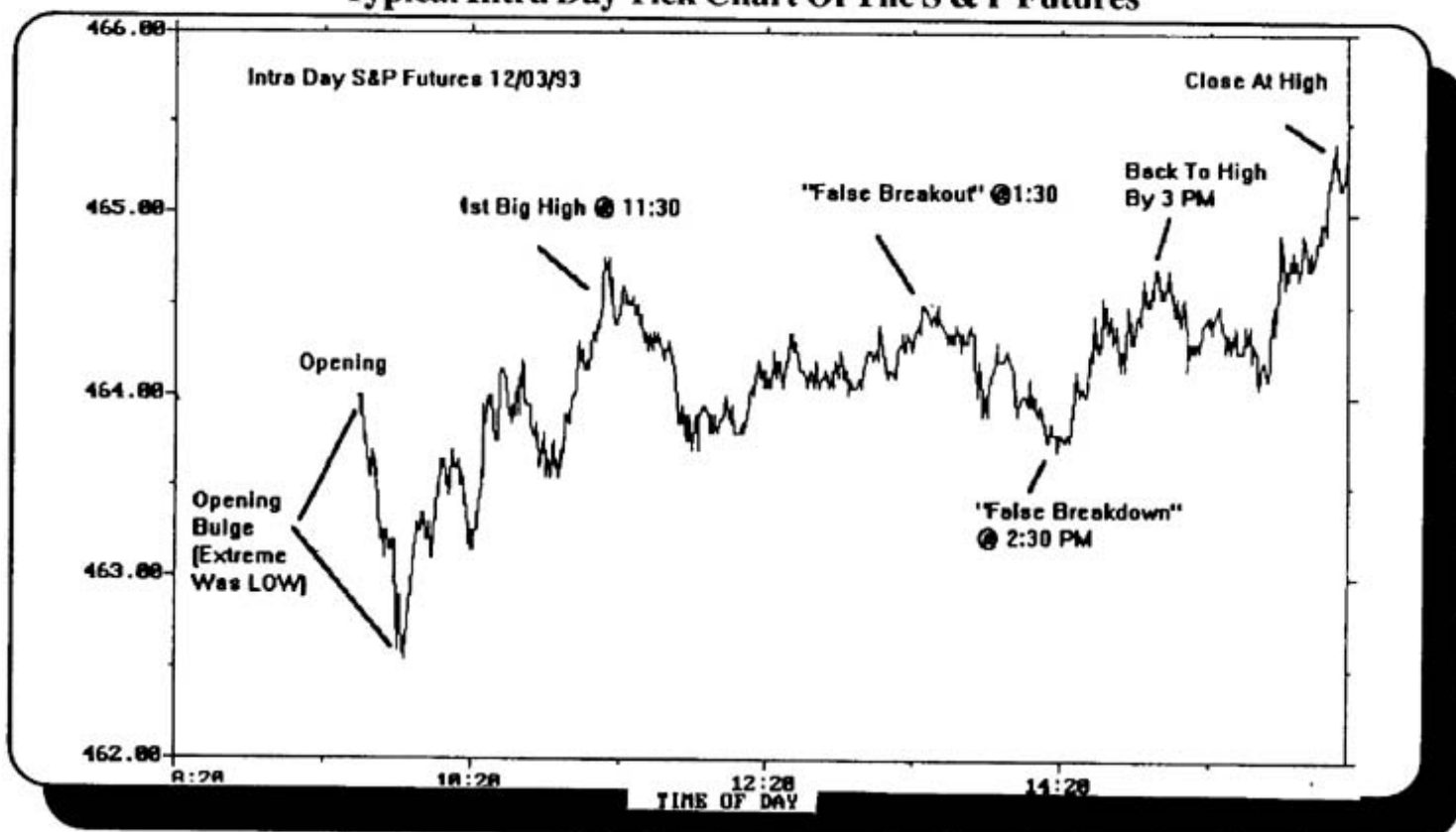
These intra-day patterns, although ideally suited for futures and options, are also very good for stock trades. A declining issue will usually hit bottom by 11 AM and base and show good strength by 2 PM. By 3, it is usually back up on the day, then has a strong close, and follows

thru the next day. It pays to watch the 2 PM reading on stocks and compare it with the 11 AM reading to see if the readings are stronger or weaker.

Keep in mind that the big money likes to trade with a sure thing, and will concentrate buying or selling in the last hour so as to be as close to the closing trend underway as possible. Consequently most traders start to make big commitments by 3:10 PM for the final trend. Additionally, the big mutual funds and pension funds that are always fully invested long will often hedge just after 3 PM if it looks like a weak close and a market decline coming. Many funds sell S&P futures short against longs, or sell OEX options against the portfolio to hedge. The selling of those highly leveraged futures and options in itself will often exacerbate the downward trend and make the nervousness a self-fulfilling event. Day traders should therefore keep an eye towards not only the trend at 3 PM but the action in the futures and options pit to judge whether the leveraged players are making a bet against the existing trend. It does not usually pay to go against those with big pockets.

One of the overriding keys to intra day trading is the position of the "leveraged" money such as options and futures. When trying to analyze the intra day patterns, you should know that these leveraged players will go in the same direction as the general market. If you find a possible deviation from the usual pattern as to opening and mid-day highs and lows, you should look to the option premiums to see if the calls are expanding in premium with a rising market or the puts going up with a falling market. If you see the opposite happening, be prepared for a reversal in trend. These days with the large institutional dominance of the market, almost all reversals will be forecasted first with the futures and options, and only then show up in the broader averages and stock prices.

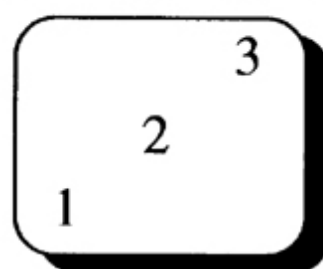
Typical Intra Day Tick Chart Of The S & P Futures



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# Step By Step

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## Putting it into practice

Some aspects of chart reading are skills and some are subjective interpretations. I honestly think, however, that the vast majority of people are capable of successfully day trading if the principles in this book are studied. Some are obviously more important than others. In an effort to summarize the book I will attempt to chronologically list the first and most important steps you should follow when you first pick up a chart.

**1- Look at the entire chart history and see the broad general trend**, whether flat, or sloping up or down. Imagine parallel trendlines if possible. If a very long term chart (5 or more years) is available, see if accumulation (bull market) or distribution (bear market) is going on and what strategy will be needed (buy dips or sell rallies).

**2- Note the “big bar” impulses** to make sure they follow your assumed trend direction. Note volume to see if it confirms. Make sure the weekly and daily “stair steps” that define the bull or bear patterns are evident in your assumed trend. Note the type of “personality” the chart has (spike highs and lows, rounding bottoms, *kamikaze*, etc.).

**3- Look for obvious symmetries and mirror image foldbacks.** This could be considered the first step but symmetries are often so subtle they only show up after a much closer examination. This search for symmetries should include bowls and arc patterns developing.

**4- Note the high and low ranges** to see if the pattern is volatile enough to trade and where in that range the current price is located. This also includes examining the average measured moves in the history, and noting if big potential exists such as a breakout from a large base (length of base equal to height of move).

**5- Check for time counts.** Three and one quarter week cycles, Fibonacci hours, 30, 45, 60, 90, etc., calendar and trading days from major highs and lows. This will warn us of impending cycle turns.

**6- Look for trendlines and timing angles** such as 1 x 1, 2 x 1, 4 x 1, etc. Are we breaking out or breaking down? Momentum? Is the move just starting or finishing?

**7- Wave counts and specific known patterns.** Obvious patterns are more reliable for good entry and exit points.

**8- Find the most recent impulse wave and try to locate where you are in terms of wave 1,2,3,4,5.** Note prior retracement percentages at each prior wave culmination.

**9- Is the pattern obvious to everyone? How are the masses currently reacting** to this chart pattern, and *what strategy will be employed to exploit their weakness* in interpretation? Usually the best trades are the typical “wave 4” mini crashes that look scary but always lead to spectacular up legs. Learn to exploit the masses’ fears.

**10- Decide on a strategy,** chose entry and exit points. **Calculate projections and alternatives.**

**11- Look at the last 5-10 reversals and see who “won.”** Traders know to do the same thing over and over until it does not work. What strategy -- buy dips, or sell rallies -- actually made the most money over the last several swings? **Trade with the winner’s strategy.** The vast majority of people want to plan for future trades. Very few will take the time to examine the past. It can be very beneficial to review the last several days first, and see who did what based on what the patterns looked like at that time, and find out why the losers lost.

**12- Look for buy or sell signals that do not work.** A pattern’s potential that is not exploited tells you much more than the pattern that works. Pay attention to technical signals that have little influence. This usually means a much more powerful underlying cycle is present than realized. Remember that one of the basic tenants of cyclic forecasting is that in a bull move the up parts of the cycle are exaggerated and the down parts are attenuated. In a bear move the down cycles show the stronger influence. If you are following a 6.5 week cycle and suddenly find the lows are lower than the last cyclic low, it probably indicates a bigger and longer lasting down cycle is starting to manifest. You could now predict that the up phase would be weaker than the last observation.



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# S&P Futures Trading

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Perhaps the most important market for using technical analysis and chart reading is the S&P Futures market. Fundamentals mean nothing here since the average volatility is so great that by the time the fundamentals are truly known most traders would go broke. Additionally this market is driven by a great number of diverse players whose objectives may be opposite to the general market's direction or trend. Basket programs may buy stocks but sell futures making the S&P's appear to be going down when the stocks are clearly going up. At other times, ratio strategies may require either the purchase or sale of futures, while taking the exact opposite position with twice as many call or put options. In the final analysis it will usually be nearly impossible to learn the motives of the S&P traders as to why they bought or sold and these motives may be completely irrelevant to your particular objectives. The only thing that is important is the direction of the trend during the time period you will be trading. Whether it reverses tomorrow or next week or whether it is part of an elaborate hedging operation has no bearing on your decision to buy or sell -- only the price direction.

For these reasons chart reading is the only means to consistently win in this market. Since arbitrage programs are frequently active in this market, it does not pay to have a very long term perspective. Huge moves can take place in only a few hours to a day or so and be completely gone within a day. Because of this, strategy must emphasize trading and not positioning for a long term trade. Most traders who are successful in this area average three to five trades per day, and on very active days, may trade 15 to 20 times. As mentioned elsewhere in this book, you will probably do better in this market if you lower your sights and scalp small trades than insist on getting the bigger moves of 300 to 500 basis or more that at best only come once a week. Most winning strategies focus on scalping 80 to 100 basis per day, but often that total may take three individual trades. Trailing stops are only used for the first fifteen minutes when you are usually entering a counter trend movement and do not know as yet how far it will travel. After fifteen minutes, however, you should be able to tell if you are right or wrong on the trade. Either way it is usually time by then to scalp a profit or scratch or eliminate a bad trade. Holding futures for hours and not making money is a good way to lose money!

You must constantly try to avoid reasoning *why* the futures are doing something. As mentioned above, many arbitrageurs have differing motives than you and must execute orders to facilitate various strategies, and this may only be a minor temporary influence.

Nevertheless you must trade with the size orders in the pit or you will end up losing. The successful traders will therefore always follow rules and chart reading principles with a very rigid interpretation of these rules. Thinking should be limited to entry and exit point strategies and possible chart misinterpretations.

Since trades are frequent and small, elaborate sophistication is not needed to become a success at scalping, but many of the principles in this book could make you spectacularly successful due to the numerous opportunities to identify good trades when more traditional methods are confused as to the actual trend. Basic principles should be our starting point. These are as follows: trend, arcs, measured moves, bar counts, waves, and angles. These methods have been explained previously but a quick review seems in order:

1) **Trend**

Higher bottoms, or lower tops and lower bottoms? What period do these trend bars encompass? Is there a possible reversal bar signal due or just seen?

2) **Arcs**

Can we draw an arc to determine support and resistance? At least we can draw a circle around a significant low to high or high to low to get possible measured moves and radius and diameter lengths for future movements. What shape do our arcs describe? Are they just starting or maxing out? Is there an arc intersecting with an angle or support or resistance point? Where do the tops and bottoms of our circles create support and resistance?

3) **Measured Moves**

In conjunction with our arc analysis we can use a compass or ruler to “measure” normal fluctuations over the period relevant to our trading. That is if we are trading on a five minute chart, we learn the most likely 5 minute reversal patterns, but at the same time we must at least examine an hourly chart of three weeks or so to get a feel for the maximum extremes we are likely to see at some point. Remember our basic scalp should be confined to the run phase of the accumulation, distribution pattern and even on a minute scale such as five minutes, these measured moves are the run phases and once they are done we will end up in a support or resistance area and we do not trade in those areas!

4) **Bar Counts**

Numerology is extremely important. Although I cannot even begin to scratch the surface of such a subject in a simple book such as this, I will tell you that numbers themselves are alive

and live in another dimension distinct and apart from us whether or not you know it! They have the power to reverse markets. You must keep number counts from every important high and low! At a minimum, keep track of Fibonacci numbers and square outs where major highs and lows are equal in time counts to their price levels. Because human beings on a subconscious basis convert numbers into circular measure, all highs and lows in history will be proportionally related. If you believe an important turn may be at hand, you should be able to confirm it with number counts and proportions of previous highs and lows.

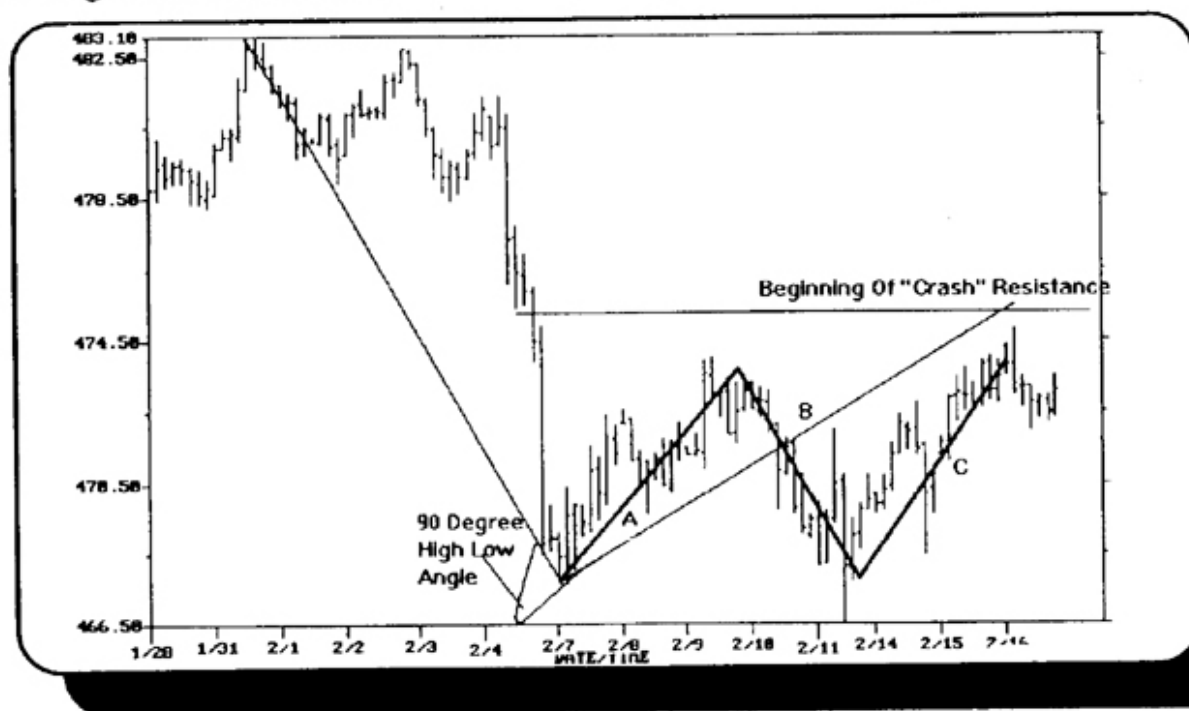
## 5) Waves

At the end of all big moves watch for wave formation and patterns. A, B, C patterns are easy transitions to large move resumptions and usually appear at the end of normal measured moves. Measured moves with clear five wave segments bear close watching. Three's, five's, and eight's are also important wave pattern segments. Remember the purpose of the wave count is to project prices for the move and our strategy should be ready for a major change in trend if such a probable projection pattern shows up.

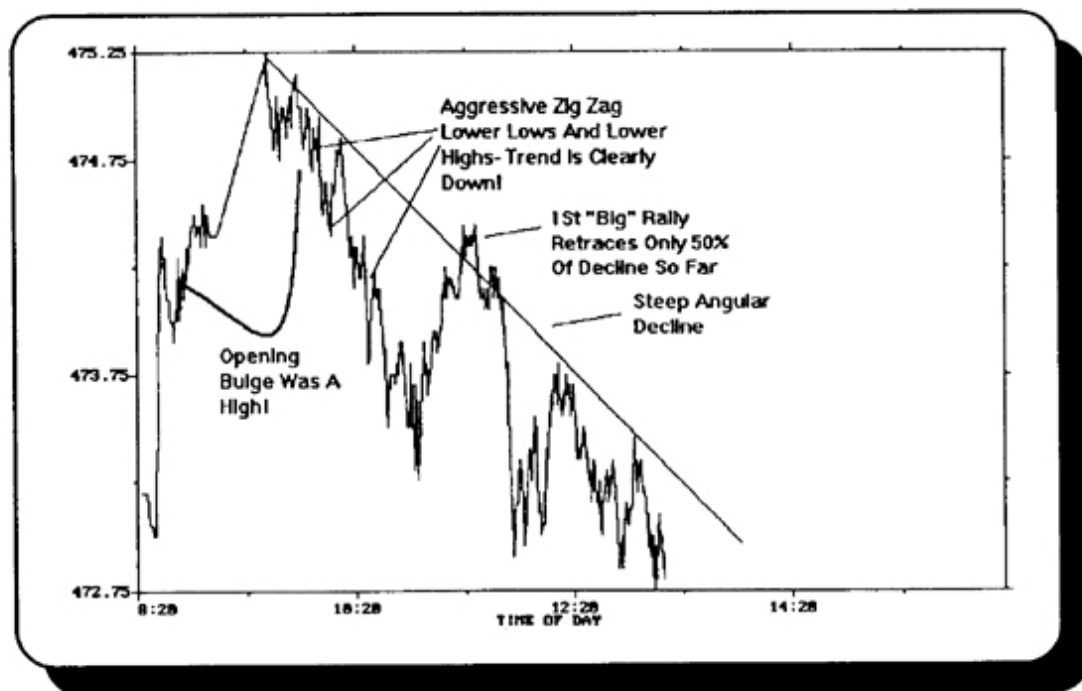
## \* 6) Angles

If we are trading a move that is some distance from its origin, we would want to watch angles closely for change in momentum and time cycle intersections. After an initial impulse wave, we can usually rely on a secondary impulse from the 45 degree angle or from an angle rising from the "zero" point. Measured moves should be apparent at these points of support or resistance also. Remember to adjust the axis of your primary angle to the major thrust vector of the movement. This is a very important point when trading on intra-day charts! Forty-five and ninety degree angles out from these adjusted axes are deadly.

The following charts will demonstrate the analytical process for trading. We start with the hourly chart.



The first thing we note on this hourly chart is the trend, and that appears to be down. A major break occurred some nine days back but the price structure still has not regained the breakdown level. The top of the recent rallies at the end of legs "A" and "B" were near 38.2 percent -- a normal bearish retracement, and even if a 50% retracement goes to a slight new high above "C" it will just hit the massive resistance line labeled "crash resistance" and it will also be near the 90 degree maximum resistance rally line drawn up from the first low. The obvious A, B, C, corrective pattern is evident so we can possibly expect another big downleg once C is officially completed. As of the last bar in this chart a signal bar reversal sell signal was given 4 bars back and the current price is resting at that failure level. Strategy is to think bearish and short, but be aware that if the 50 % retracement level can be regained, then the A, B, C pattern could actually be a double bottom and a new all time high could result. Hence we want to short a *weak* market but not a *rising* one. If we do short a failure we can use the current high as the stop out point and project lower prices below anything shown on the chart because that is what an A, B, C failure implies. Usually, it occurs at the midpoint of the bigger move, so as much as the all time high was above the A leg starting point that distance will be measured down from the C ending point.

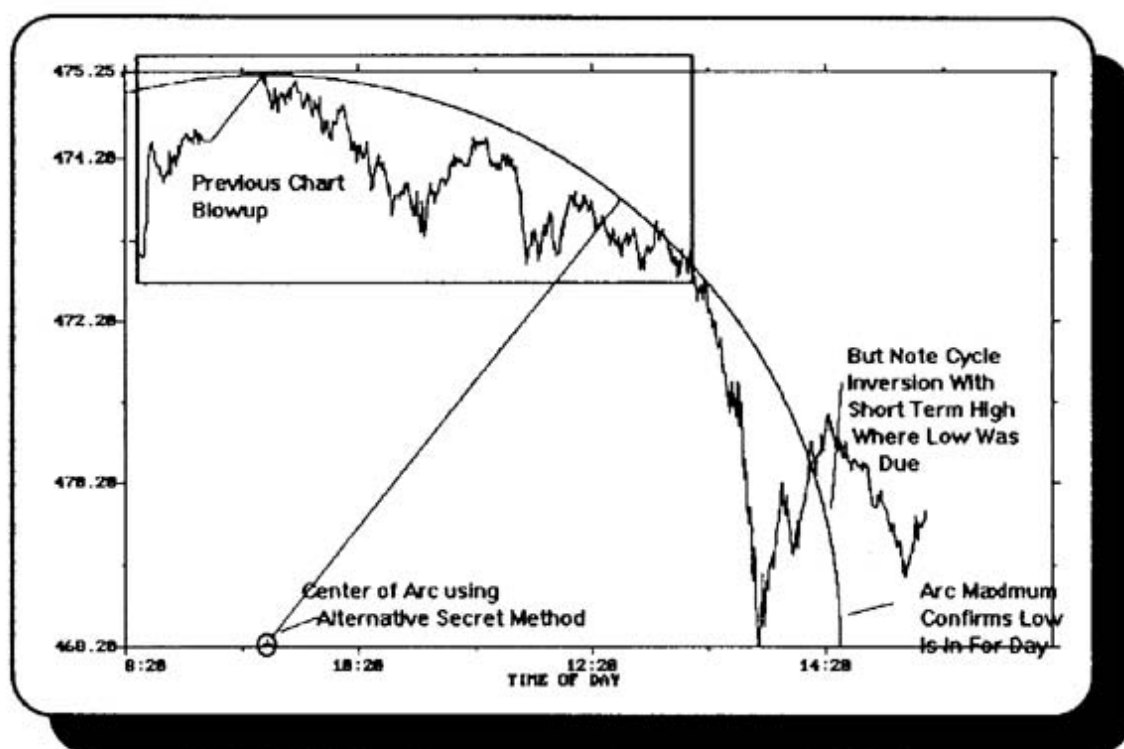


This next chart is a tick chart (every tick printed) of the S&P futures the next day. We come into the day looking for weakness to short or a rally that penetrates the 50% retracement level @476 to change to a bullish bias. We now remember the most important aspect of all of day trading -- the

opening bulge rule. To repeat, this rule states that the *extreme high or low* for the *entire trading day* will be seen in the first 20 minutes of trading (with 70-80% probability). Once we can get a legitimate trend (zigzag pattern) we can trust the bulge. By 10 AM, it appears to be a top and we go short, or we have *guessed* and shorted at the 50% retracement approach looking to cover if a higher high is made after the opening bulge rule period. We can immediately see several powerful impulse waves to the downside even on this very short term chart. Those are the “plumb line” drops that break to each new low. This indicates serious selling. Indeed in the first full hour of trading we do not even see one full fifteen minute rally! If we are scalping, we cover each 80 basis and look for a 40 basis rally back to re-short. If we are very bearish and are looking for a full day to three day swing trade we will not think about taking our first profit until we get towards the low point where the first signal reversal bar buy signal was generated on the hourly chart (see 1st chart start of A). This level is near 469-470. Keep in mind that *we must take our profits at each potential reversal point and not wait to see if the market will turn*. Most of the time this kind of exit will give us the maximum profit before we see the reversal buy signal bar. That buy signal bar is usually used to go long but taking profits where we expect low probability of further progress is our discipline. Remember we are constantly thinking — is this trade for the *next 50 basis* a *50-50 trade or an 80% probability*. We close out immediately when we get a 50-50 trade. Also remember we can always re-enter the trade if it keeps going and we will always consider having a sell stop at the low of the day anytime we exit a short trade guessing about a reversal in trend.

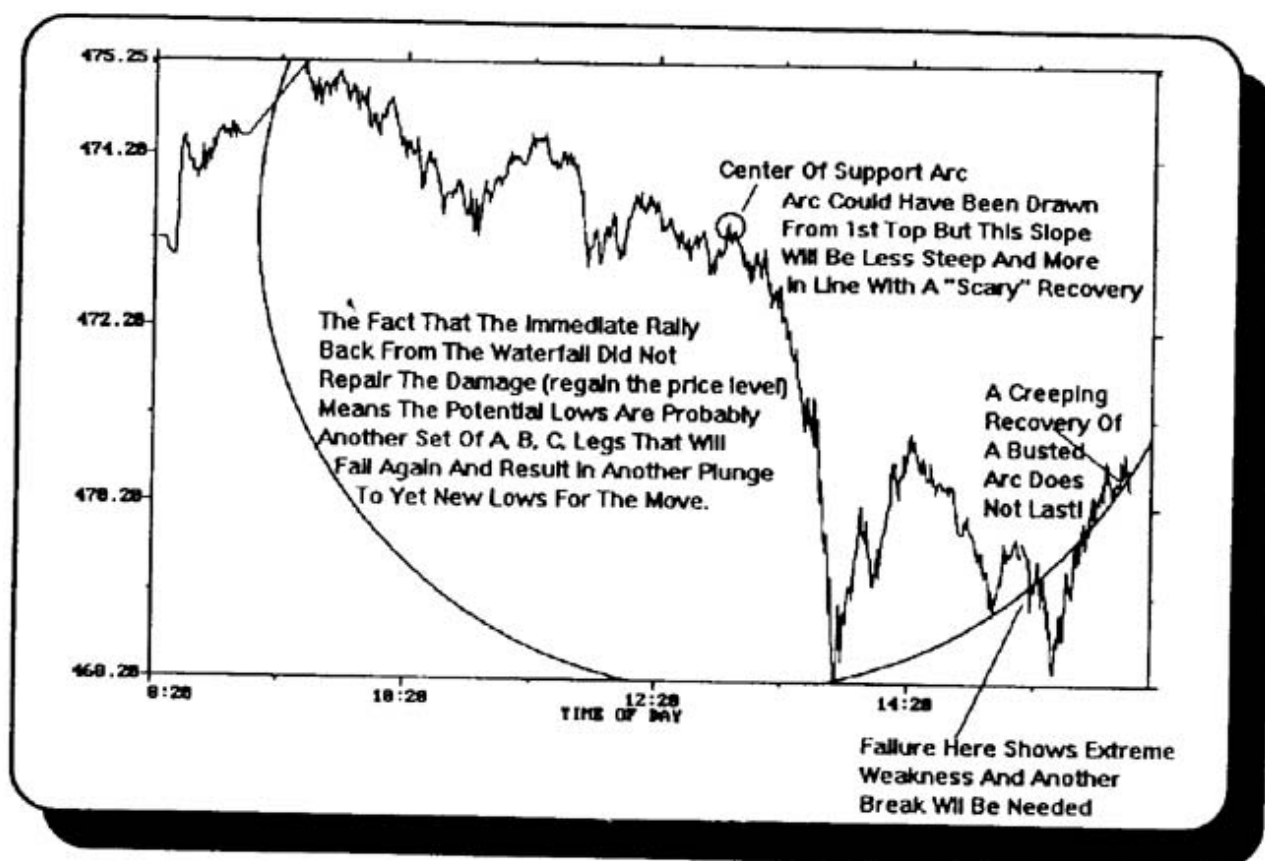
As we enter the mid-day period we are thinking about the normal intra-day patterns for a down day which this appears to be. In these situations we expect a rally phase anywhere from 1 to 2:30 PM Eastern Time so we are thinking about a strategy to exit our short and where to re-short. We know we want to be short by the close and possibly have a big break again from 3-4 PM. Our chart, however, is not rallying and is declining in a wedge and if whose flat bottom breaks, we will see a big drop back to the lows. We also have some data now to calculate the possible low. The major high seems to be clearly in with the opening bulge at @ 475.25. We now calculate our expected Gann square of nine chart support levels by subtracting root increments from this level. The square root of 475.25 is 21.80 so we can subtract one eighth or .125 to get 21.675 and square to get 469.80 as a target. A stronger level would be the Fibonacci increment of .1459 (1.618 rose to the negative 4th power) or 21.80 minus .1459 equals 21.654, and that squared is 468.90. If these are broken, the major .236 level and the quarter (.25) would give us 465 even and 464.40. One of these should do for the current day's operation. Especially, keep in mind the next larger frame of reference. The final high was reached some two weeks prior at a level of 483.10 and the major .25, .382, and .50 ratios equal 472.15, 466.45, and 461.40. Any expected major reversal will most likely combine common harmonics of each of these swings. Our next chart shows the outcome.



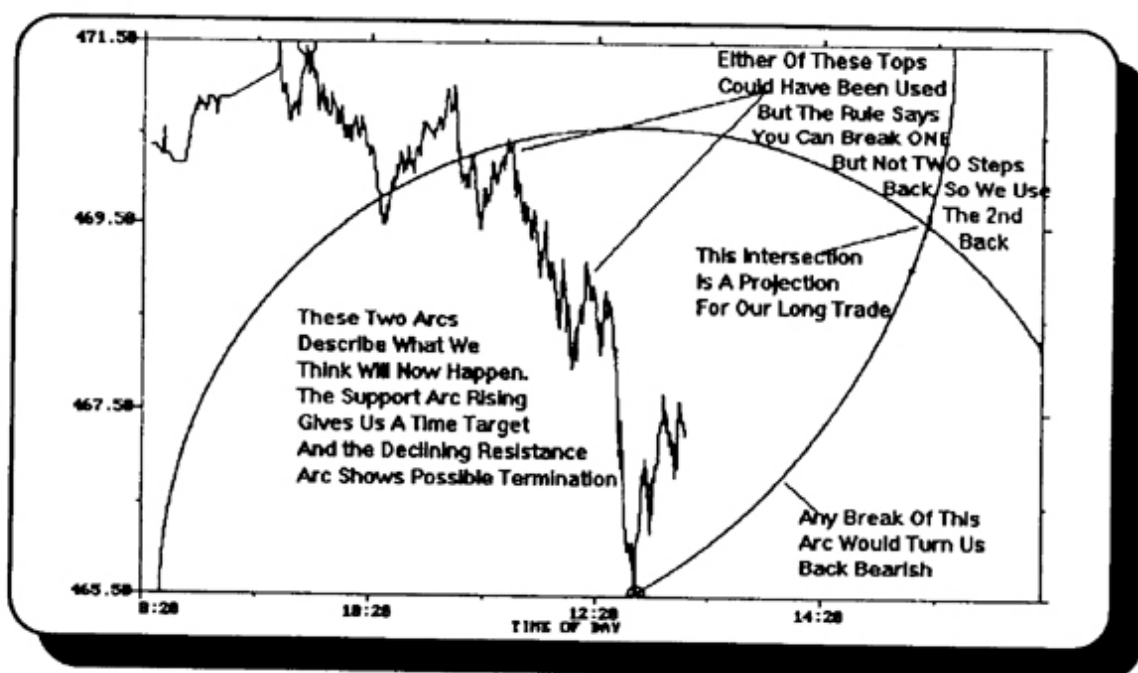


This chart shows the waterfall culmination of the day's deterioration. After such a big climax we cannot rely too heavily on the normal day pattern of a small rally and then another big break into the close. It is more likely to see a "whippy" tug of war between the super bears and the bargain hunters with several whipsaws. Strategy now must be to only trade rally spikes since a big break always leaves a "lingering memory" and the market will be quick to plunge on any future sign of weakness.

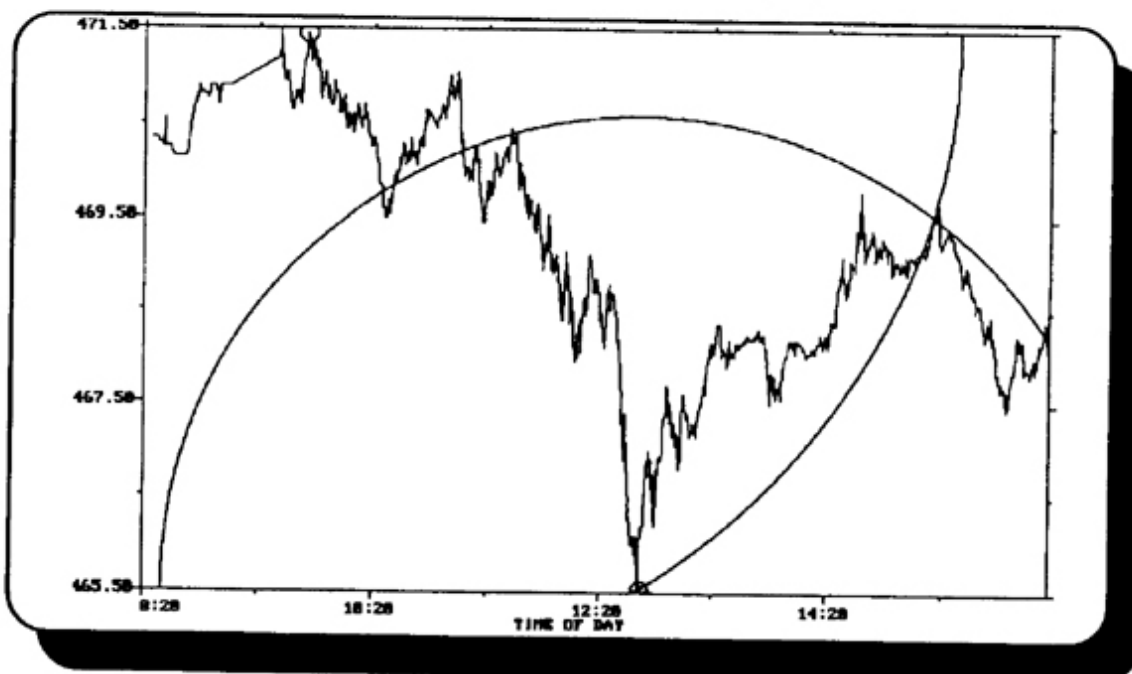
The arc drawn here is drawn after the fact using the actual low for the center point. This is merely to confirm that the arc influence is indeed dead for the rest of the day. If the arc had not gone maximum vertical down, we would expect another waterfall decline before day's end. Because it is over, we can now expect a normal retracement rally of one third to one half the distance back but most likely a one-sixteenth root up from the low, or  $468.20 \text{ square root equals } 21.636$  plus one sixteenth or  $.0625 \text{ equals } 21.70 \text{ squared, equals } 470.90$  for the expected top. Note this is almost exactly where the rally went. We would now swing some support arcs up from the low to watch for when the rally starts to fail again. The next chart shows the support arc and the markets extremely weak reaction to that support arc.



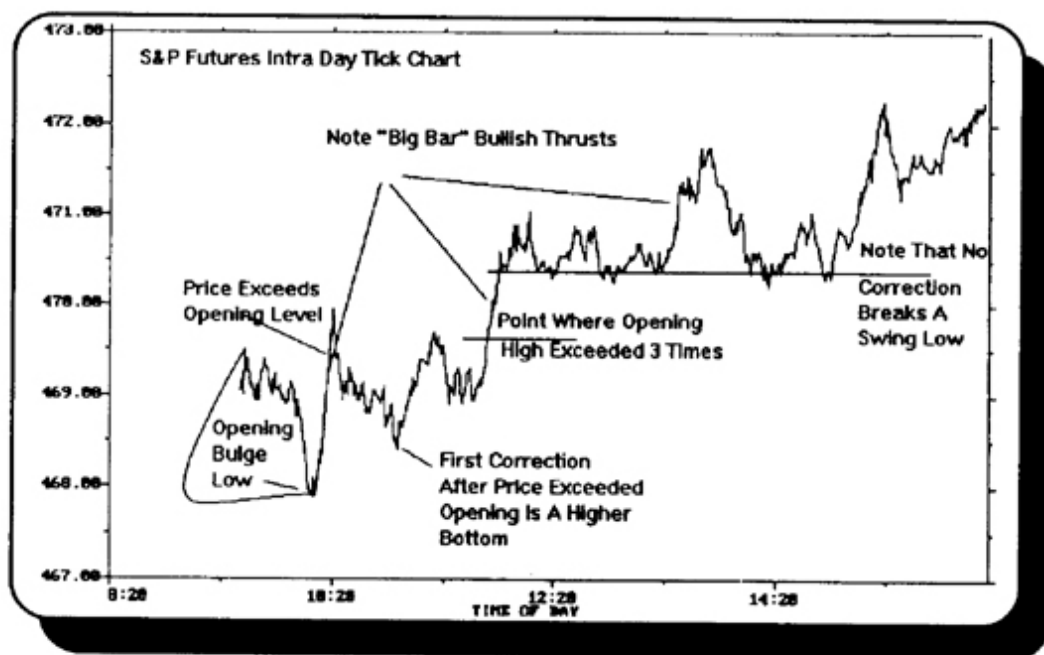
In this chart I have used a slight variation of the arc radius, measuring from the "obvious" mid-point and the last important high prior to the waterfall. This complete circle will now describe all the behavior from the final high to the final low, even if that low has not been seen yet. If it has not, it will occur as the rising arc near 4 o'clock reaches up to the maximum 3 o'clock. We now see a pattern almost identical to our first one on the hourly chart which was labeled A, B, C. Our strategy is to short the next sizable break back under the arc that the current price is climbing. Since this appears to be an A, B, C leg again we expect prices to fall to yet new lows again before we will look to take profits. Keep in mind, however, that this will be the third such breakdown and we are pressing our luck to expect the market to drop forever. Any double bottom or slightly lower or higher low from this point on could be a good stop and reverse long point for a more significant rally both in price and time duration. We also are reminded of the bigger picture that projects a possible final low near 466.45 (483.10 -.382 sq. rt.). Our plunges so far have been ugly, but, until that (466.45) number is decisively broken, we are still just in a minor correction in a long term bull move. Things could radically change, but for now we will take what the market and our arcs give us.



The next day, we see *another* opening bulge high and waterfall pattern. Clearly the market is beginning to act bearish but on a daily basis oversold. Note we hit a new low for the move but regained the old. This is a potential major buy signal crossing 466.45 and we would take it. The vast majority of big reversals go to a new low under a recent one and then reverse after the stops have been cleaned out. The chart below is the result of the projection above.



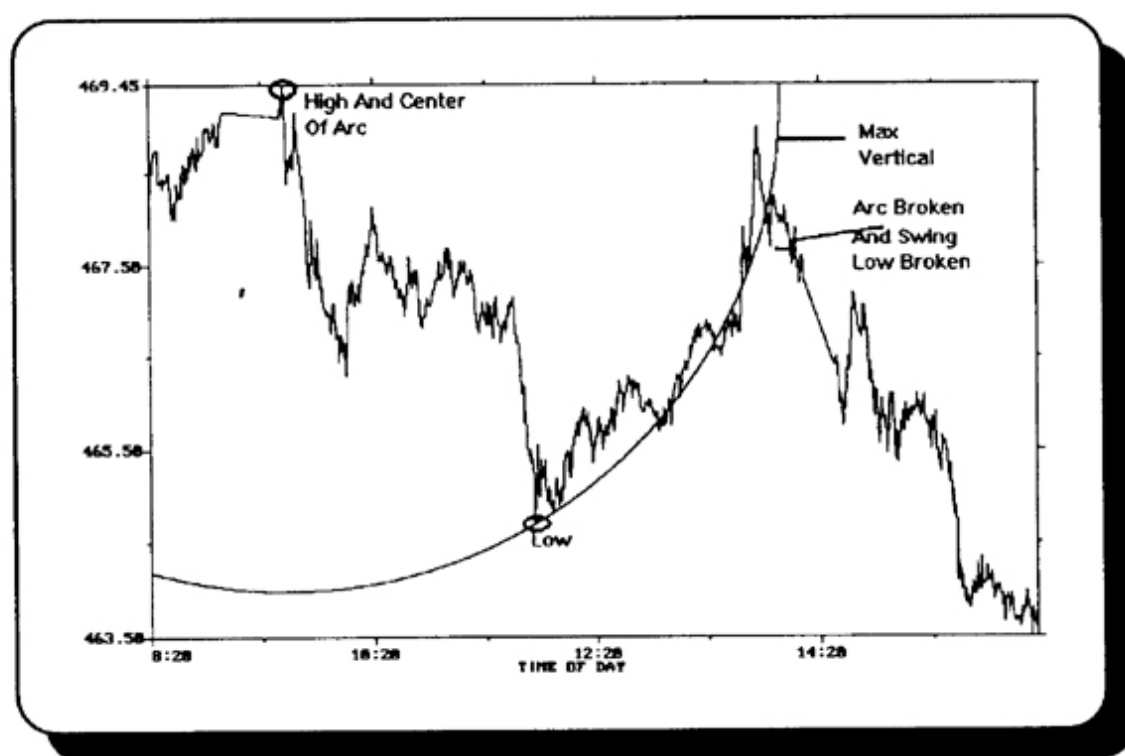
The next day, we see a typical bullish day and a very strong bullish pattern. This is a classic bullish chart and it is so basic and simple you would think no one would lose money trading that day. The problem of course is our emotionalism and rationality. We think too much most of the time and need "reasons" why something has to occur. The prior three days' action was extremely bearish so now the entire trading community is aggressively short and wants to stay short. Because of this we see a classic very bullish pattern with no pullbacks and yet everyone in this kind of environment refuses to objectively look at the pattern to see the technical strength caused by all the shorts choking to death. It may only last a day or so, but as chart technicians we do not care. We are only in this for the money! If the trend is up we should note it.



Also note the obvious "measured moves" of each impulse up move. As traders we would measure these movements each day and enter or exit trades when these normal extremes are reached. Keep in mind we do this daily to fit that particular day, but we have also previously noted the average fluctuation ranges for the past three weeks on the hourly and daily charts also so we are prepared for any surprising extremes. I have often had conversations with traders who use three or five minute moving average crossover lines to trade S&P's. What typically happens is several days to weeks of great success and then a big wipeout when the extreme hits. You must know the extremes seen over the past few months and be cautious about becoming trapped in a mechanical

system based on a very short term moving average which is only working off data from the last couple of hours.

This next chart is just a beautiful example of a circular arc and how profitable a knowledge of them can be when intra day trading. This arc is simply drawn from the opening high to the mid-day low and swung up. This information would certainly have provided you with at least two good trades of significance with very close stops and little risk.

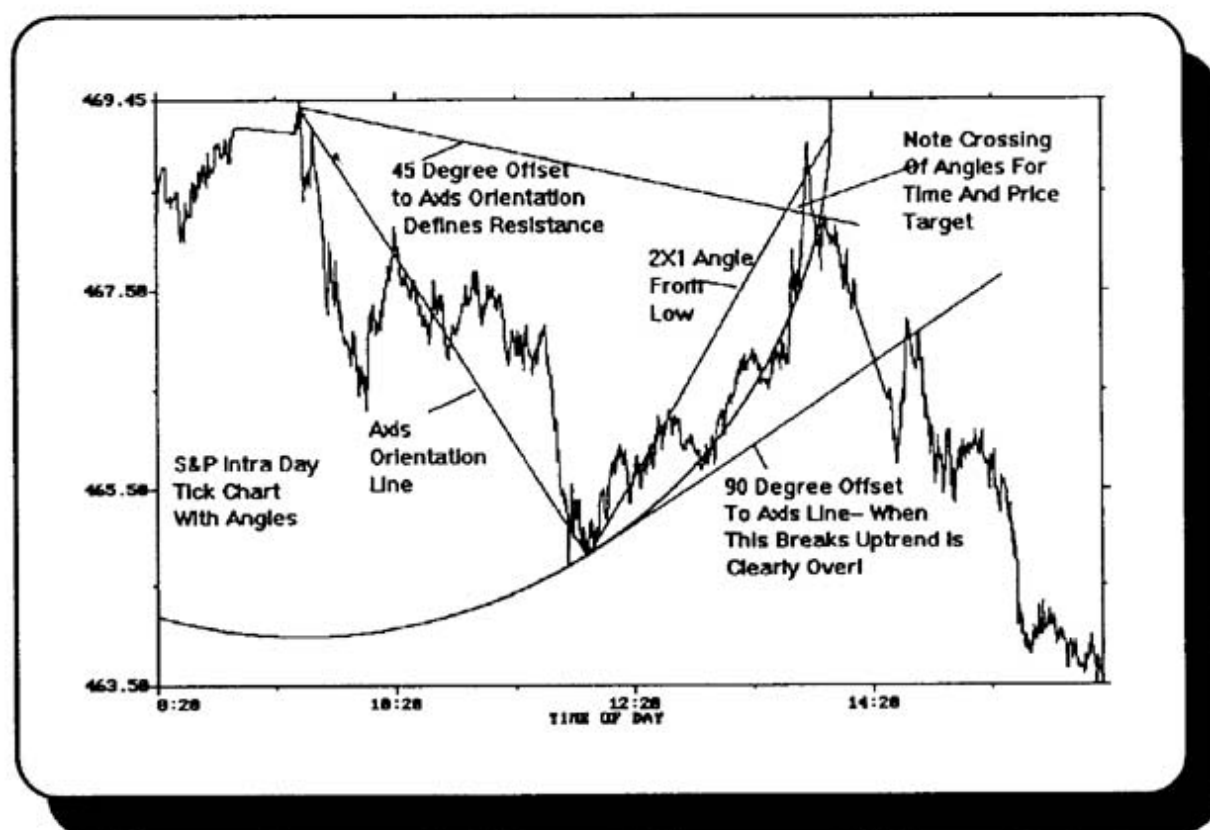


This next chart is the same tick chart but with our axis orientation technique and various angles. Remember the major axis thrusts on any chart are very significant for determining the true trend. We can take any major up or down move and draw a straight line from the high to the low to get the true axis orientation and then we apply or timing angles. The most basic angles would be the



45 and 90 degree major resistance lines. After that, you could add 2 x 1, 4 x 1, or 8 x 1 and even 30 and 60 degrees, but most of the time a few basic ones are all we need.

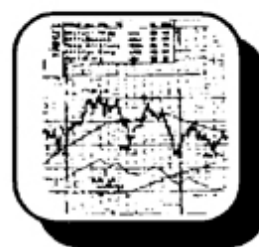
I am sure much of this is new to many of you and you can easily become fascinated with the aspect of exactly predicting each high and low. After having done that myself for some 23 years now and often getting the exact high or low within five minutes and 20 basis in price, I can tell you it is not worth the time to be so precise. As traders we are only interested in making the easy money and avoiding risk. Getting the exact high and low can be done but violates the basic principle of taking on more risk. The odds of success get smaller the more precise we get. In the final analysis, a few simple arcs, angles, time counts, and support and resistance numbers will make all of you rich if you do not get too emotionally involved.



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# Trading Stocks

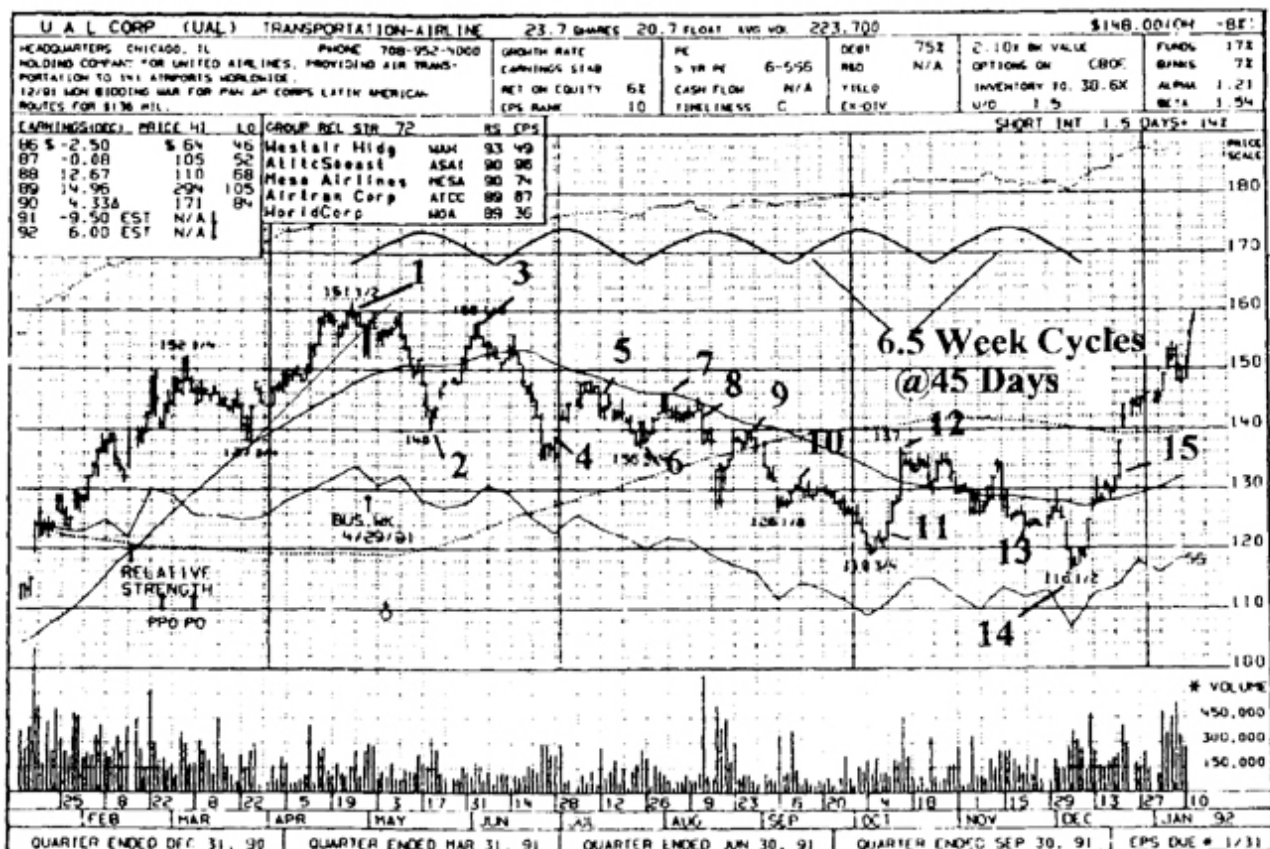
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Stock trading analysis is not much different from intra-day S&P Futures trading, but since the average time horizon for trading stocks can be 3 days to 6 weeks or even six months in the case of mutual funds, time analysis is weighed more heavily than just simple buy or sell technical signals. That is to say, a daily reversal bar signal may not always be taken, depending on the long term outlook for the issue. The complete bull cycle often lasts 3 to 5 years and within the waves making up that cycle, the counter trends occur every 9- 10 months on average, and they last 90 days or so before the main trend again resumes. Our first consideration is therefore to see where the major high or low for the past twelve months has occurred and determine whether it is indeed a high or low. Once that has been determined it is a simple process to buy dips or sell rallies for 3 1/4 or 6 1/2 weeks at a time and use trendlines and resistance numbers for guidance.

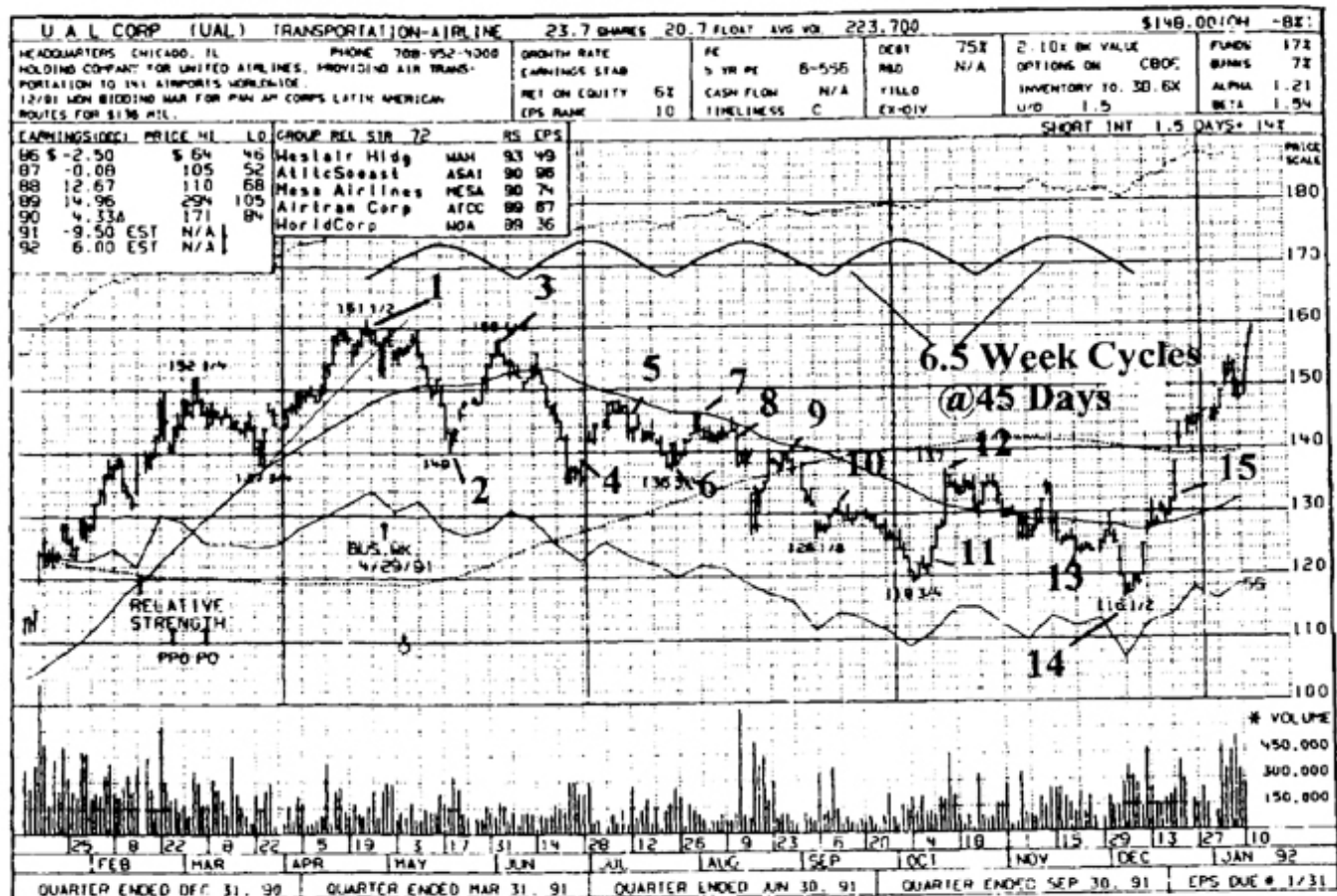
I have chosen UAL as the example for this study since it is a good trading stock. Often the higher priced stocks attract many day traders due to the frequent dollar fluctuations and these movers usually respect the common principles of trendlines, support and resistance numbers, and time cycles. In the following discussion, please follow the explanations by referring to the chart. It seems like a simple exercise and you may be tempted to skip it, but I urge you to follow along to see the reasoning behind the strategy.

The chart on the next page is a daily chart from 1991 to 1992. For demonstration purposes we have to start somewhere so we will just assume we want to start trading near the high in April. This is an obvious choice because the high price is \$161.50. A little numerology and decimal point moving should quickly point out that this is the golden ratio of 1.618 or 161.80 -- a good place to find an end to a movement! Reviewing the "information box" in the upper left hand corner of the graph, we see that last year's low was approximately \$84, so \$160+ is a double and a good place to see a high. The actual high was due about a week before the reference point # 1 because that was the period that was exactly 3.25 weeks up from the last low and a signal reversal bar sell signal had just been given three days before the final high. But, after seeing the \$161.50 false breakout price and then another reversal signal sell bar, we must now sell out and go short using



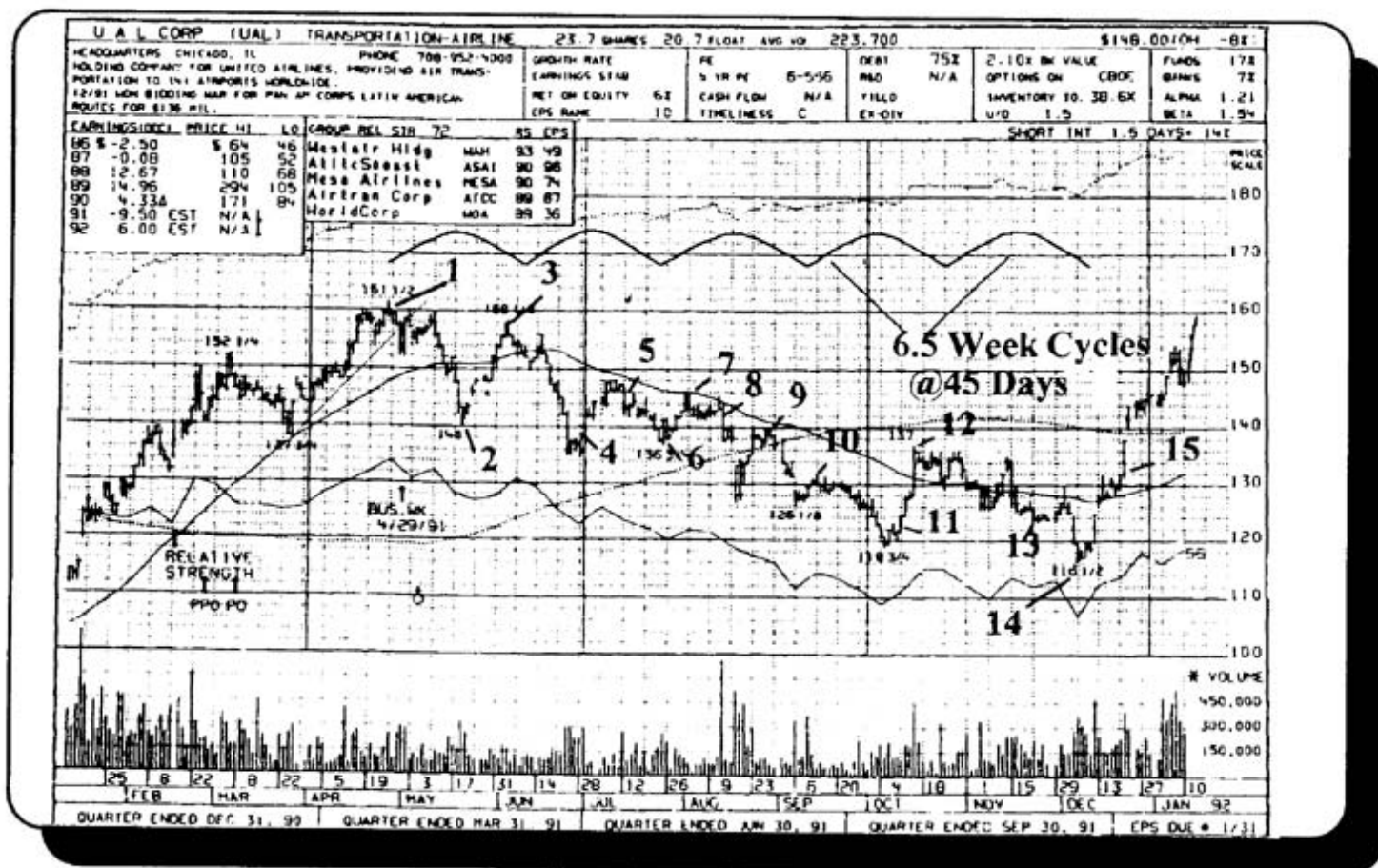
that high as our stop out point. Our minimum expectation now would be a typical 3.25 week down cycle from the high. These typical cycles of 3.25 and 6.5 weeks or about 22.5 and 45 days are the most frequent trading cycles and the larger 6.5 week component is drawn on the chart starting with the high and represented as "waves" with the low being the beginning and end of each cycle. Our minimum price targets are the square root decrements of our high of \$161.50 or  $.50 = \$149$ ,  $.618 = \$146$ ,  $.75 = \$143$ , and  $1 = \$137$ .

We also believe the seasonal tendency for this stock is for highs and lows in April and October since we are 3.5 years from the October 19, 1987, crash low and 18 months from the infamous UAL collapse in October 1989 which led to a 200 point Dow Jones decline. Consequently, we are now short with a stop at \$161.50 and we see 5 days later a rally back attempt that fails exactly at the low of the **high signal reversal bar**, validating that as a good signal. Six days later we again see a last attempt to rally past the low of the high bar and that failure results in a swift \$10 plunge for the week. We are now looking to the following week for a possible low since it will be 3.25 weeks from the top. Reference point #2 shows that low with a nice clean signal reversal buy bar that also coincides with a double bottom support area from eight weeks earlier. We can now cover and go long using this new low as our stop but will always use a trailing rising stop along a 45 degree angle coming up from any low we buy. That 45 degree angle defines the basic uptrend and at a minimum should be our stop. During this advance, not a single day's low is broken indicating a strong trend



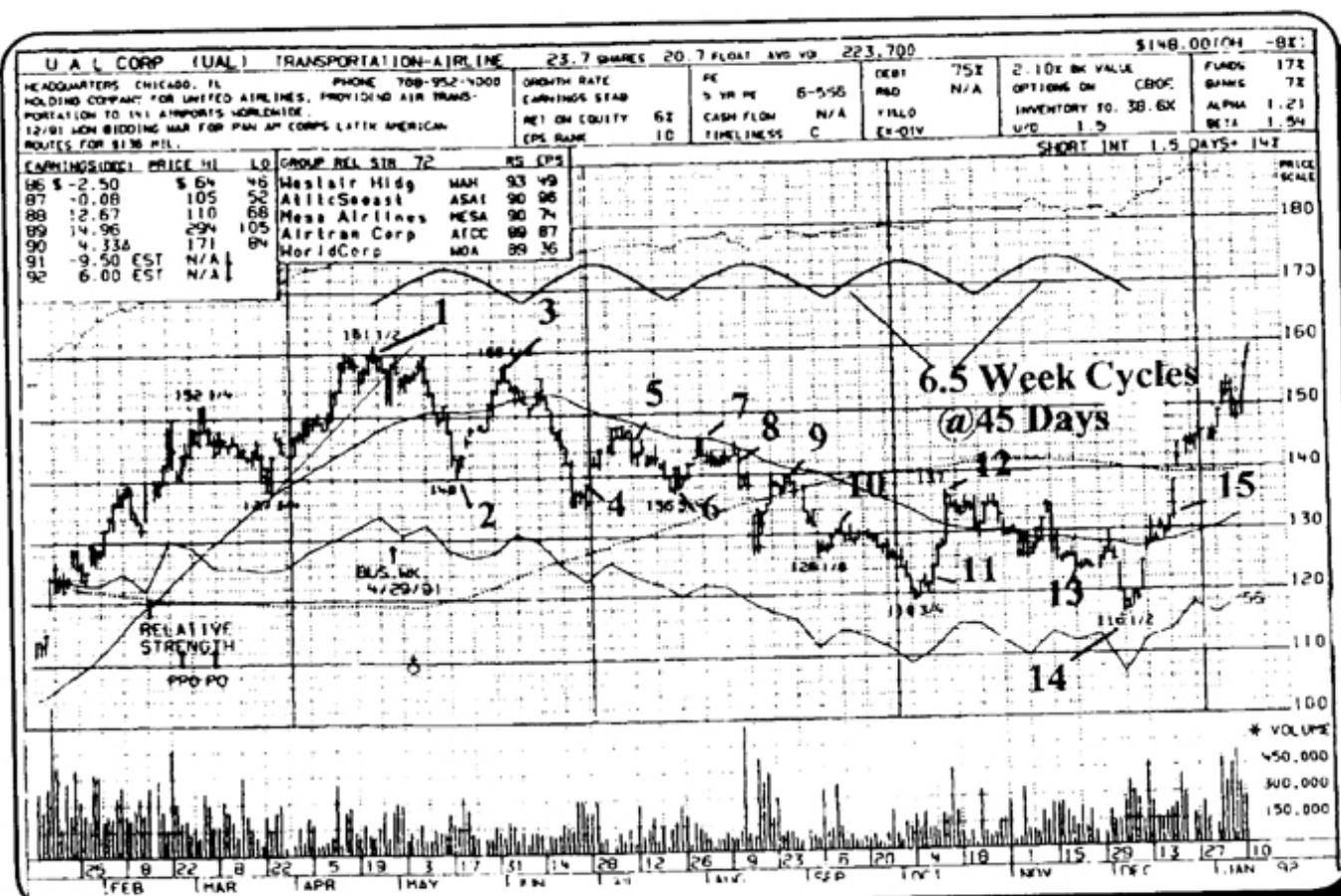
but we expect resistance as we approach the low ranges for the week of the final top. Remember that on a weekly and monthly chart we now have a signal reversal bar too, and a rally back to the lows of those bars will most likely result in a failure and confirm another sell signal. At point #3 we hit resistance and generate a signal reversal sell bar two weeks into the trend. At the 3.25 week time mark we see one final spike up failure and another swift decline sets in. We are now short from the signal reversal price zone of @ \$156. Coming down off of that we break the price low from point #2 and now we have a long term sell validation of lower highs and lower lows spread over two months. It could yet be an A, B, C correction, but any rally that now fails and makes yet another low would confirm a long term top and a down trend for at least six months' duration from the April highs. At point #4 we cover because it's 3.25 weeks from the last high and we get a signal reversal bar coming after four days of holding the same price level of support. We cover and go long @ \$138. Please note the four day low at this price hesitated because it was 1.382 numerologically and that fit in with the top at 1.618. At point #5 we form a 3-4 day top at the exact 50% retracement of the last swing down from \$158 to \$136 or @ \$147 and we break down. The next high at point #5 is only 1 5/8 weeks from the low, or 1/2 of the 3.25 week cycle. This usually happens at the midpoint of a 6.5 week cycle down so we can expect the original sell from point #3 to last a full 6.5 weeks before we will see another rally. This low comes in as scheduled at point #6. Point #6 is also a double bottom that stops at the high of buy signal #4 confirming it as a good up trend and there is also trendline breakout from the past two week decline, so we must go long again with a stop at





this recent low. The rally is short lived, however, because at point #7 we hit the low of the point #5 reversal sell bar and we go down. There is now a one week tug of war between the bulls and bears from #7 to #8 because the top at #7 does not exceed the low of the sell from #5 and the low after #7 does not break under the high of the buy signal bar at point #6. Point #8 resolves this for the bears and we return short once the high of point #6 is broken, invalidating that signal and indicating a new low for the move just ahead. This is the gap down and the penetration of the 200 day moving average which also validates the long term sell signal we saw at point #3 based on the weekly and monthly reversal sell bars. Point #9 is a feeble attempt to close the down gap and regain #6 but another sell is generated and we slide into the low just before point #10. We are looking for a major low here since it is 3 cycles of a full 6.5 weeks from the all time high at point 1 or 19.5 weeks. A feeble rally ensues that reverses 3 days later and we erode into the low at point #11. Point #11 generates the best looking rally so far for it regains the last top at #10 but cannot regain the 2nd one back at #9 -- which is typical bear market stair steps. Two and a half weeks of sideways trading results in a sell signal which declines to point #13 and rests on the high of the point #11 buy signal. Long before this moment, however, we should have been able to solve the puzzle and know with almost absolute certainty the day and price of the final low and the start of the new bull leg up. This is point #14. How do we know that the low on that date, at that particular price, is it? There are innumerable clues.





First the top was 161.5 and the low day indicated at #14 was 162 trading bars later for a major Gann square based on the high. Next the price of the low was 116.5 and if we use numerology here we see that 116.5 is a transposition of the digits in 161.5! You may not want to believe in this but I have seen it too many times not to take notice. Also note the top of 161.5 divided by the Fibonacci ratio 1.382 equals 116.85 for the low. Also note 161.5 minus 45 equals 116.5. Also note that on the Gann Square of Nine chart a high of 162 would have 115 as the low, one full cycle around the chart. The date of the low is near a natural square (25) in months from the October 1989 low, and it is 8 Fibonacci months from the top. It is also 5 Fibonacci cycles of 6.5 weeks exactly from high to low. Additionally I would note that the price on the low day finally closed a gap left open from January when the last leg up began. There are many other reasons for the final low and date to coincide but you get the point.

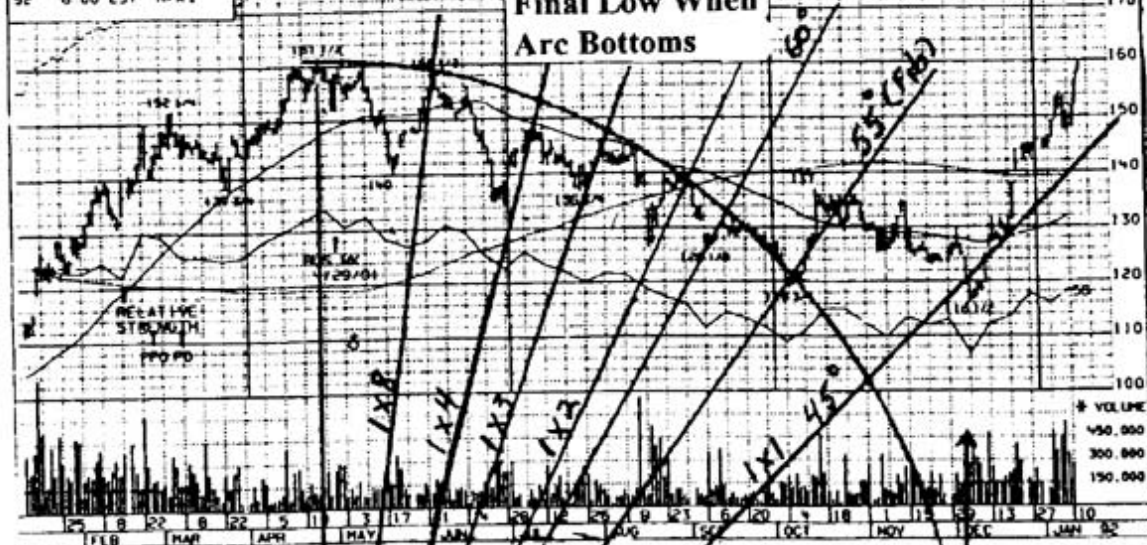
On the next exhibit we look at the same decline but from the perspective of angles and arcs. You can instantly see why all the highs and lows came out where and when they did on this chart! Every time an angle was hit, we got a rally until the angle intersected the arc. These zero price angles will make you rich many times over if you just look for them! If you spend some time looking at this chart and studying the exact turns at each and every angle, you will finally grasp the realization that news items and earnings have absolutely nothing to do with investing! All human behavior is emotional

UAL

86	5	-2.50	5	84	46
87	-0.08	105	52		
88	12.67	110	68		
89	14.96	124	105		
90	4.33	171			
91	-9.50	EST	N/A		
92	6.00	EST	N/A		

Meatstair Hldg	MAH	93	48
AlliSeaest	ASAI	90	88
Mease Airlines	MESA	90	74
Airtran Corp	ATCC	89	87
WorldCorp	MOA	89	36

Trend Fitted Arc  
From Top- Note  
Final Low When  
Arc Bottoms



To Zero  
Price

Angle Method  
1x8, 1x4, 1x3, 1x2  
60 degrees, 45' (1x1)  
55 degrees (Fib)

and cyclic in origin. What this chart really shows is the hopelessness of the human condition for the masses. They are constantly deluded into thinking some news item or event is *causing* the stock fluctuation. One look at this chart will tell you that is impossible. All I have done here is lift you above the crowd, for perhaps a more divine perspective.

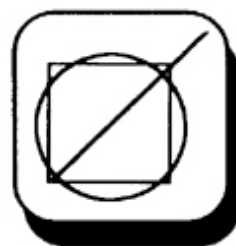
I could have also shown a nice chart with the angles from the top of one point per week, per month, etc., and it would give the same results. This one shows them a little more elegantly.

All of these methodologies work together and you should try several to find strong correlations before you invest your money. At the end and beginning of all great cycles, all numbers and time periods come together. Only a geometric and cyclic approach will identify them for you. Vow today to throw away your newspapers and stock brokerage reports. You only need charts!

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# Advanced Techniques

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Basic principles can be elaborated upon to acquire an infinite amount of time and price data with which to make forecasts. The natural forces operating in the speculative markets through the mechanism of human emotions can be defined with very good precision. Just as with mathematics, we can apply principles and axioms to develop theories and hypotheses that will shed light on possible outcomes to our stock market riddle. Starting with the basics of trend and impulse direction, we then use measured move vectors to get rough approximations for eventual exhaustion and price targets. Circular arcs more closely define our measured move limits and expansion of other geometric shapes like circles, squares and triangles will give us the rest. In this section we will examine some of the basic expansion techniques to define and identify points for forecasting long wave sequences.

Our basic premise of the natural cyclic movement of human emotions through the markets is analogous to the tides at the beach. In an advancing market (Bull) each thrust or impulse wave penetrates to higher and higher levels just like waves at the beach. Our higher bottoms' definition describes the low point of each wave swell prior to the next surge. Once the high tide is reached, the waves diminish or recede (Bear) but still ebb and flow in a cyclic fashion and our lower highs and lower lows' pattern describes this movement also. What we need as an additional model is something that will project the size and amplitude of the possible tide thrusts and ebbs without having measured all the moves or having a table of high tides. There are a number of ways to do this but the most natural way, and the logical corollary to our geometric analysis of time and price, is to expand our geometric structures by known natural laws of physics.

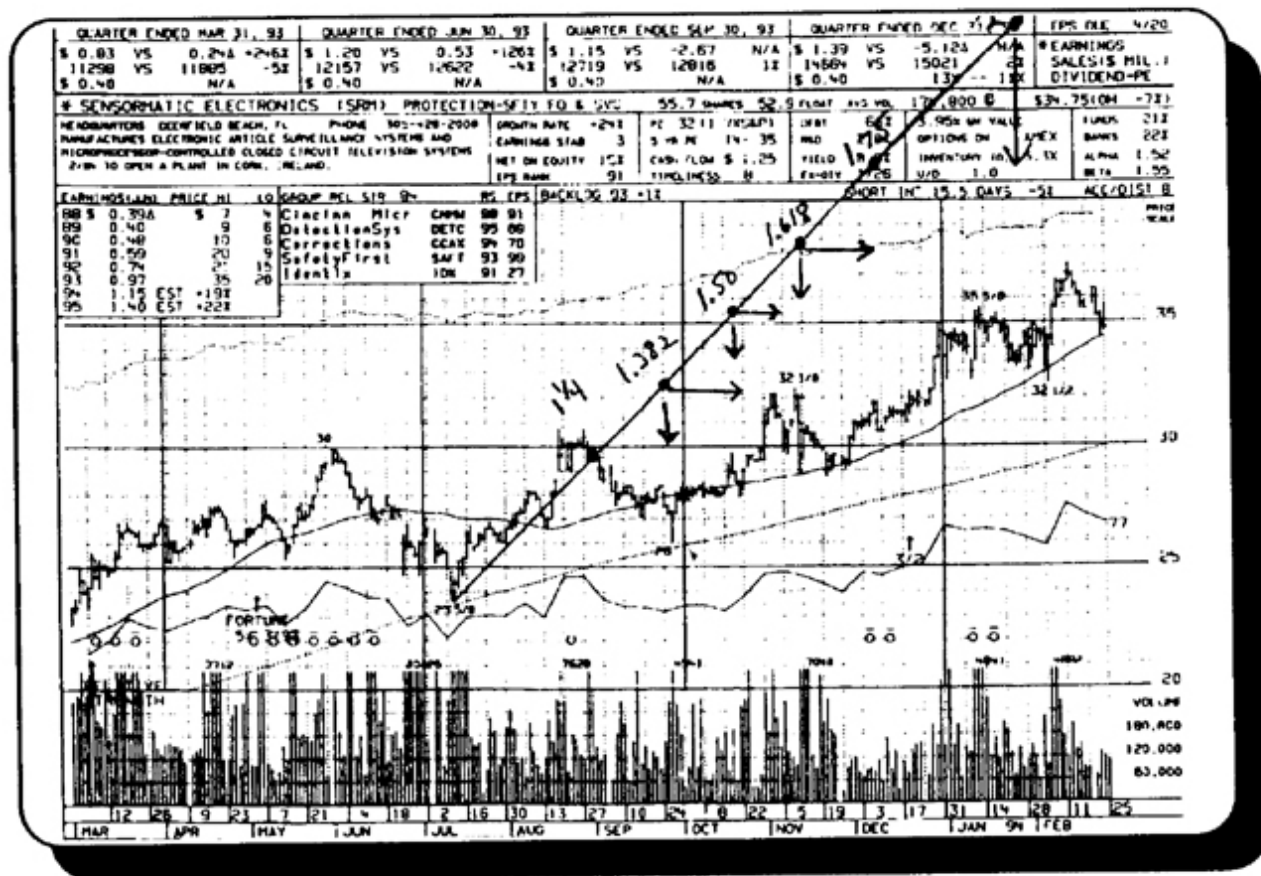
There are basically two types of cycles operating in the markets and these are usually referred to as static and dynamic. Static cycles are just fixed length cycles that repeat over and over such as every 100 hours, or every 30 days. Dynamic cycles are growth cycles where each cyclic return is elongated in time. The most well known dynamic series is the Fibonacci series of each number added to its neighbor to get a sequence like 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, etc. Another would be the natural square series of 4, 9, 16, 25, 36, 49, 64, 81, etc. When working in geometry we find another dynamic expansion cycle which equates to the roots of the geometric object. Square roots have been mentioned as the basis of the Gann Square of Nine Chart, but most common expansions





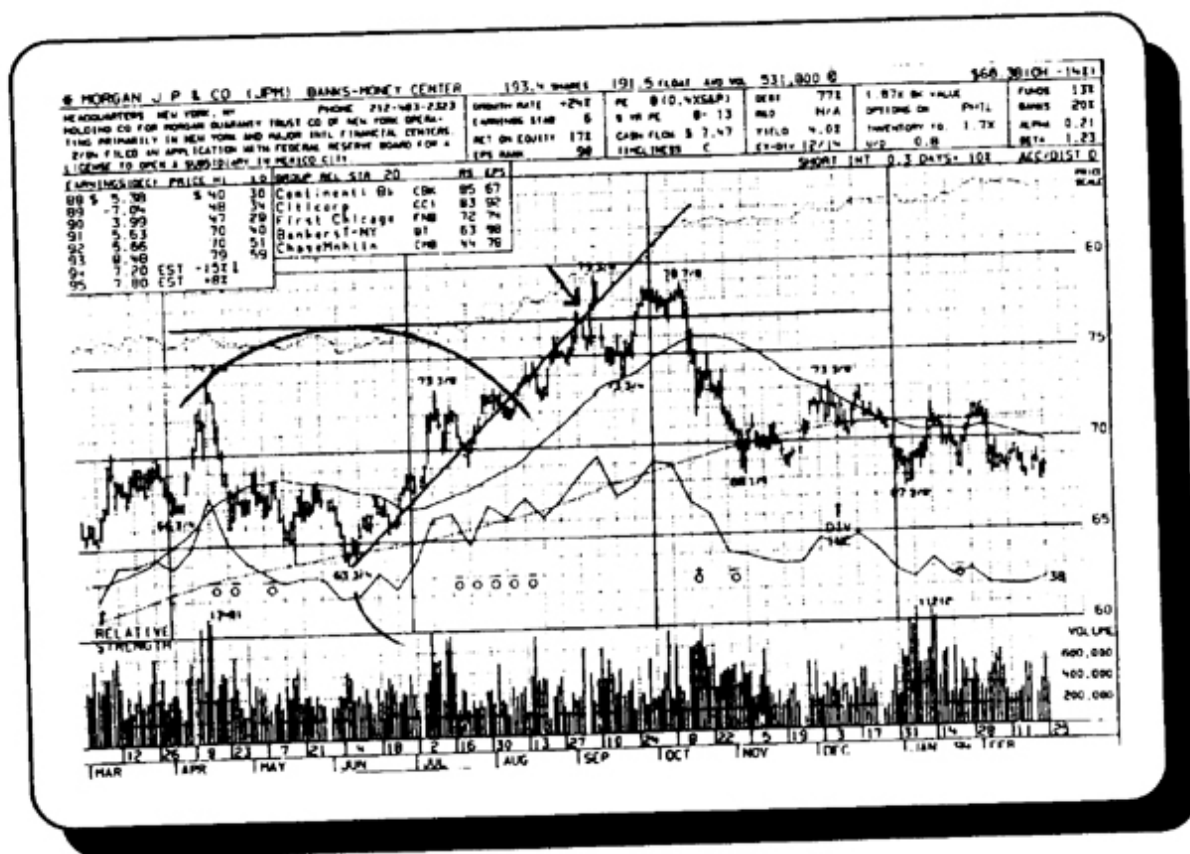
tops horizontally, it defines the eventual projected top for the move! There are many other subtleties in this technique but I cannot show you everything. Experiment! Keep in mind that circles drawn around high and lows can also be expanded by increasing the radius and diameter.

The next technique is an offshoot to the 45 degree timing line analysis. Since a 45 degree diagonal equally divides time and price, it stands to reason that if a timing angle is placed at a major high or low and extended, we should be able to see ALL turns that are harmonically related to that origin price and time. In this chart I have drawn an angle upwards and put "dots" on the angle line where harmonics (fractions) of the low price intersect that particular price on the graph. For example the low was 23 5/8 so 1.25 times that price is 29.53 and at that price we place a dot. The other expansions are noted along the timing line. The important thing to note is that at the point of intersection of the timing angle and a strong price harmonic (50%, 100%, .382, .618, etc.) we see a cyclic turn in direction of the price and that area also defines future support or resistance levels. Please note the little "arrows" going both to the right and down to point out this time cycle turns and the price level areas. Obviously this technique can be expanded to include other angles. This technique is one of the only ones that will work on a chart that is "flat" or having few fluctuations, or not enough data to draw arcs or other trendlines. In those cases this is quite handy.



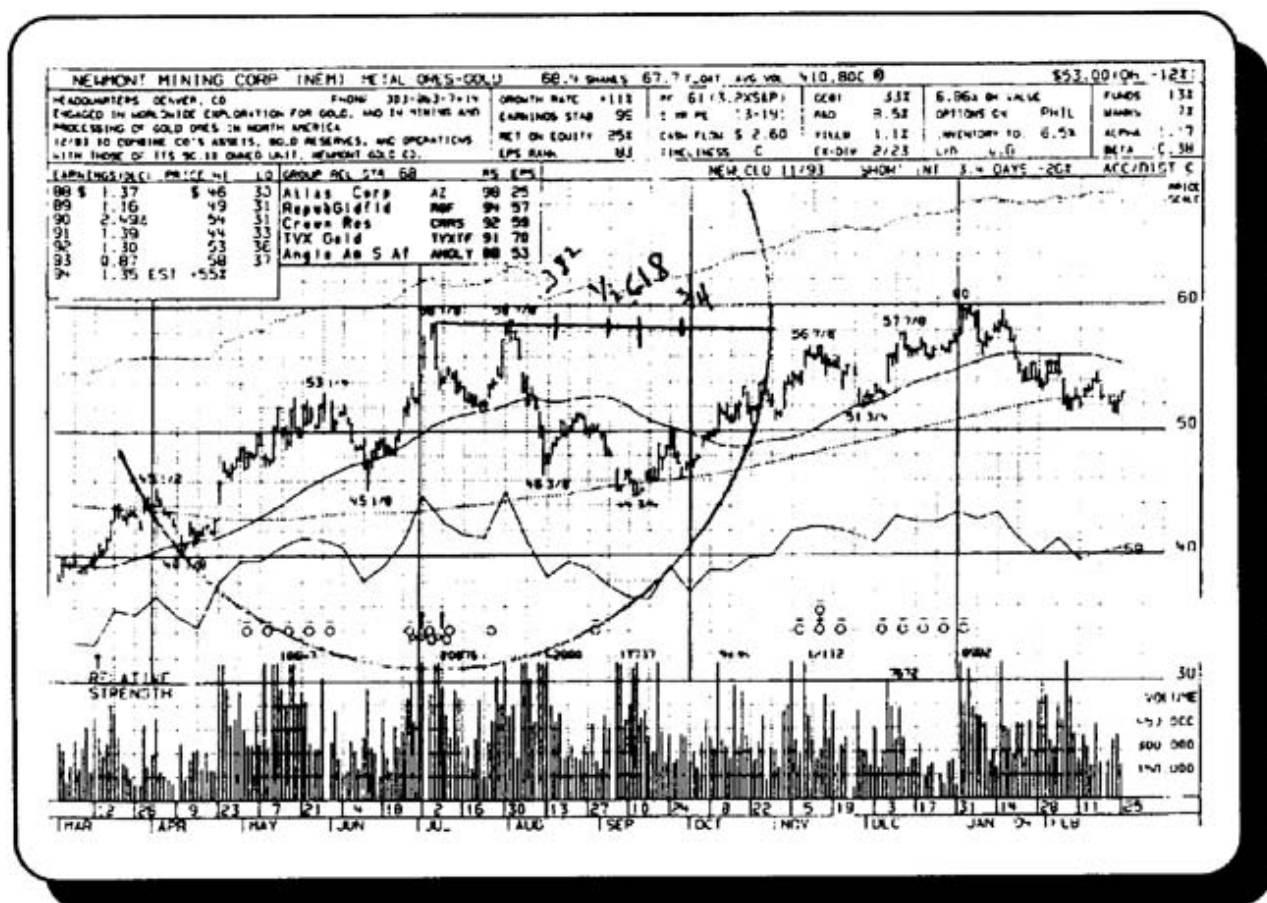


This next technique simply demonstrates the fact that circular arcs drawn from every major swing will create the major high and low resistance price areas to watch for when the stock reaches that price level at a later date. Here we swing an arc from the low to the previous high to find out just how high our target will be if that first top is ever exceeded. In this case the final high actually "overshot" the arc target (which is rare) but came close enough to warn us of an impending drop. But, note that the 45 degree timing line from the low intersected the arc target price level almost at the exact high. That would give us added confirmation that the major time cycle had run out and we would look for lower prices as soon as we saw a good technical sell signal to confirm the projection. Not shown, but just as important (especially in Bear Markets), is the case of drawing an arc from the high down through the prior low to give us the next breakdown bottoming target. On this chart you would draw it from the high at 79 3/8 in September down through the low in June near 63 3/4 and down under that final high. That approximate level would be 58 3/4 for the correction low. Please practice this technique with your charts as it is very simple and *always works!*

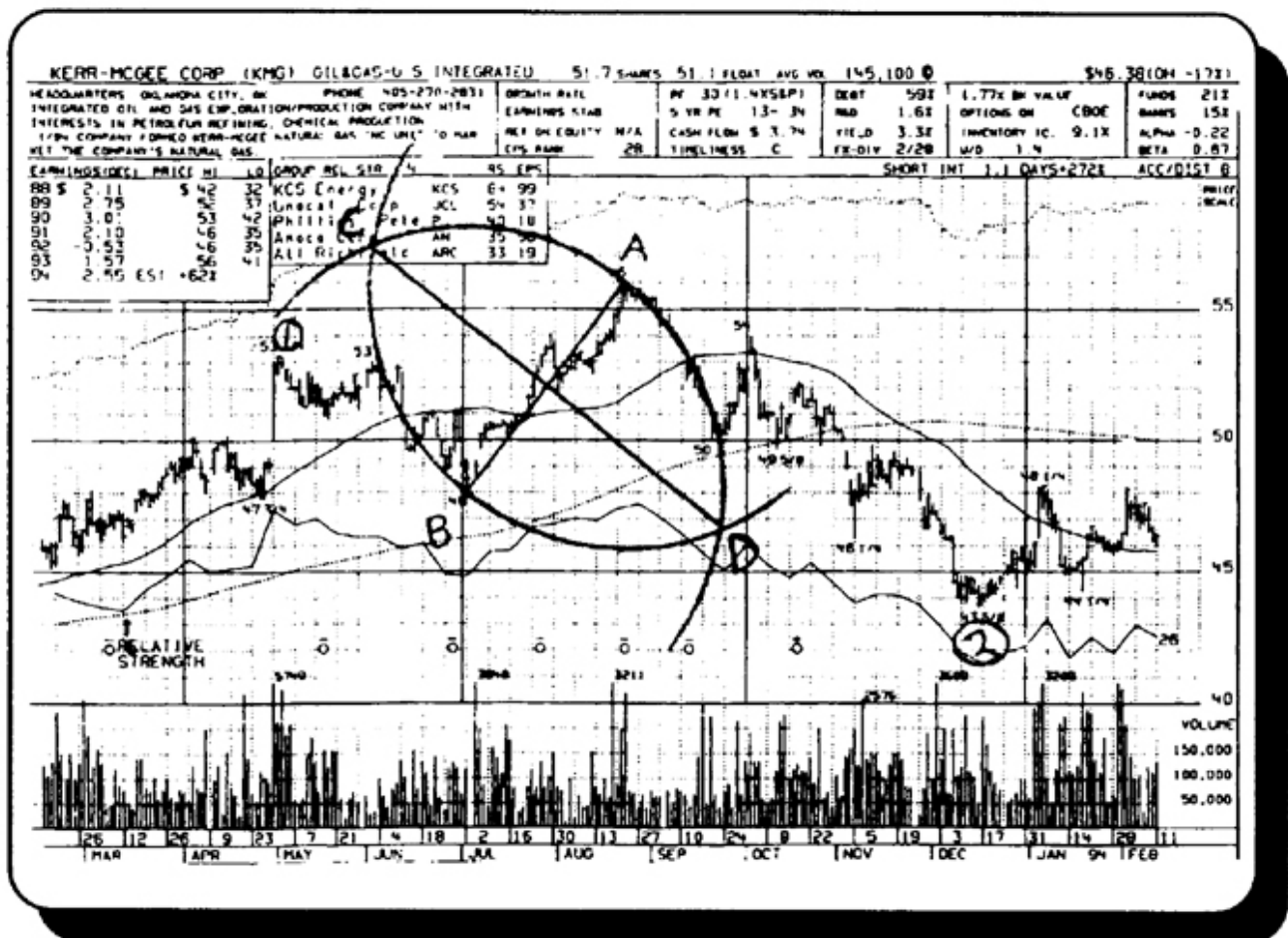


Our next exhibit requires a little more thinking and logical reasoning about the implications of circular arcs. Since we know that arcs drawn from major swings will exhibit price reversals at their ends, we can theorize that once we determine the radius of an arc (horizontal measurement), we

will be able to section off that radius into fractions and proportions, and see many minor but valuable trend changes prior to the big change at the arc's termination point. In the drawing below, I have swung an obvious arc from the first major high to the previous low and then around and up to the right. (This is the same as the bear technique just explained but not shown.) What we want to measure is the distance from the high to the 3 o'clock point where the arc goes maximum vertical and ends. On this chart I have divided the radius at the .382, .50, .618, and .75 segments. These are common harmonics but you could use others. Please note the price action directly below each of these segments. This technique could give you numerous trades depending on the length of the arc. This technique is particularly deadly on intra-day hourly charts! Please understand that this chart is completely shows the final results for you to compare, but the beauty of the method is that you can identify all the future turns while you are still at the first top point and have no knowledge of any future price possibilities. The implications of this idea are staggering and I cannot afford to say more, but you could experiment!



The next chart is the foundation of all analysis. I will keep it simple so you will just see the basics and not become confused with the elaborate details that are spawned from this structure. Basically, we swing two arcs, one from A to B, and one from B to A. We connect lines between A and B and between C and D. We now have four primary fundamental chords from this pattern. These are lengths A-B, A to mid-point B, C to D, and C to mid-point D. Note that these arise from a major swing AB. What we have are the *theoretically perfect measured moves for this particular stock!* We need only one swing observation to get them all. Note that segment length C to D is *exactly* equal to the distance A to point 2. This was known before that length was ever seen! Measure it to prove it to yourself. Also note the up impulse just before number 1 and culminating at 1. That length is mid-point A-B. Much more could be said, but this is a very advanced technique and reserved for special students. \_\_\_\_\_

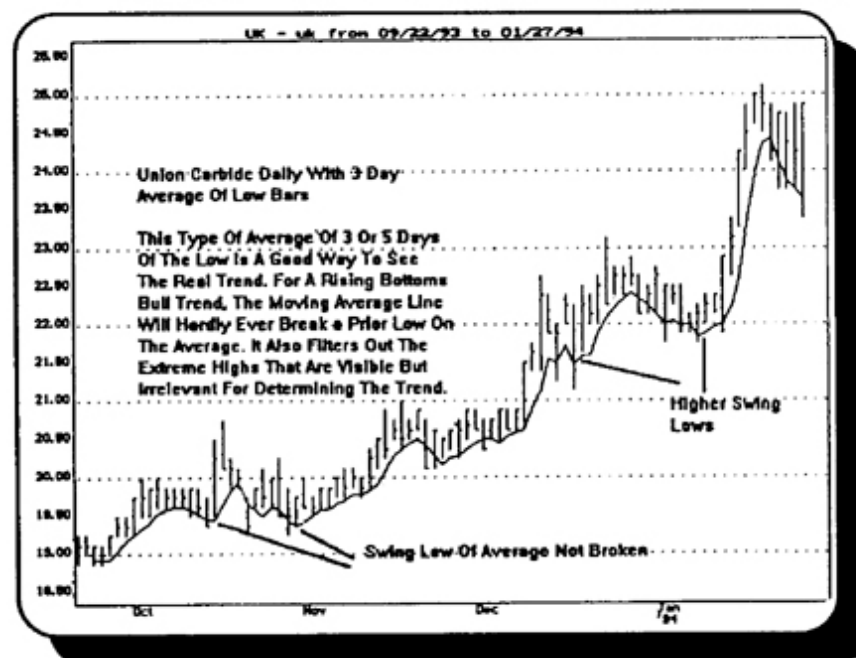
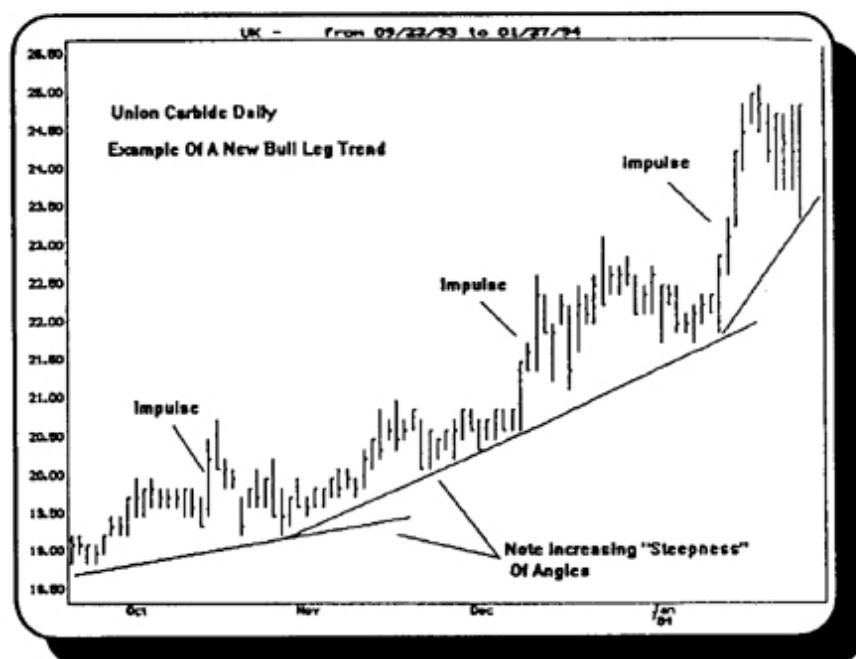


The above techniques are only a few of the ones I find useful, but they should give you enough ideas to follow up this analysis and find more uses of your own. In the final analysis, chart reading is a science, but this science pays good wages!

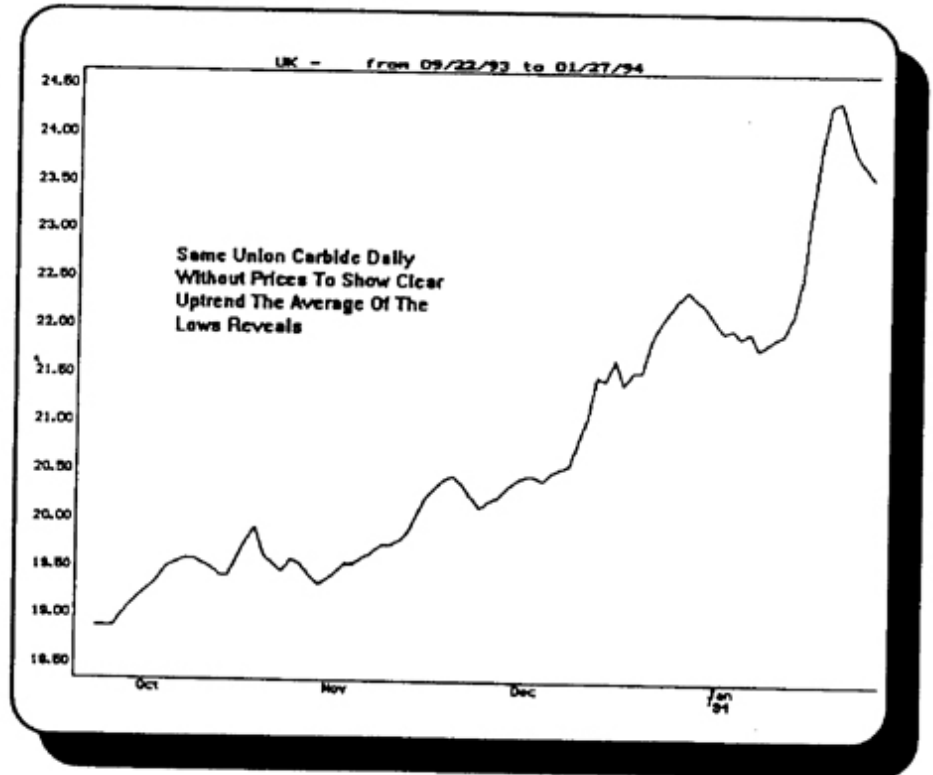
# Appendix A Examples

The chart at the right is the basic pattern of an uptrend. Note the "big bar" impulse thrusts showing emotional buying. After each impulse the ensuing correction drifts sideways to end at a higher bottom just before the next impulse. Volatility increases as the size of the trading bars increase and the stock moves up in price. Trendline angles connecting the lows increase in steepness and start to form a circular arc.

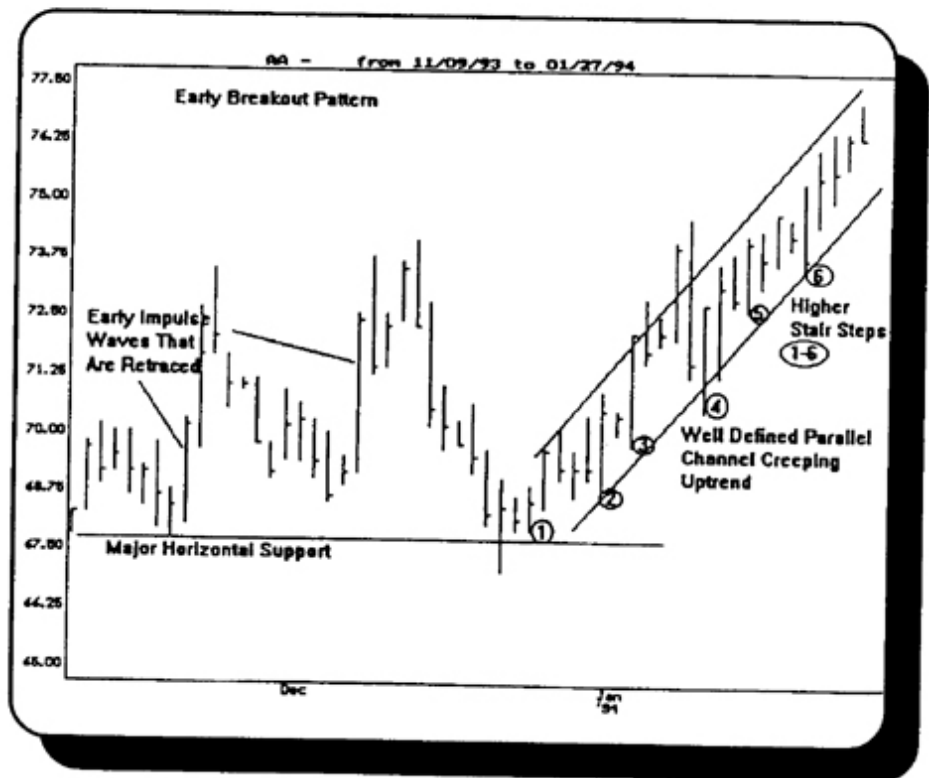
If you have a computer, you can use three or five day moving averages of the LOW to get a quick feel for the trend.



These averages of the lows can point out trends more objectively without as much confusion.

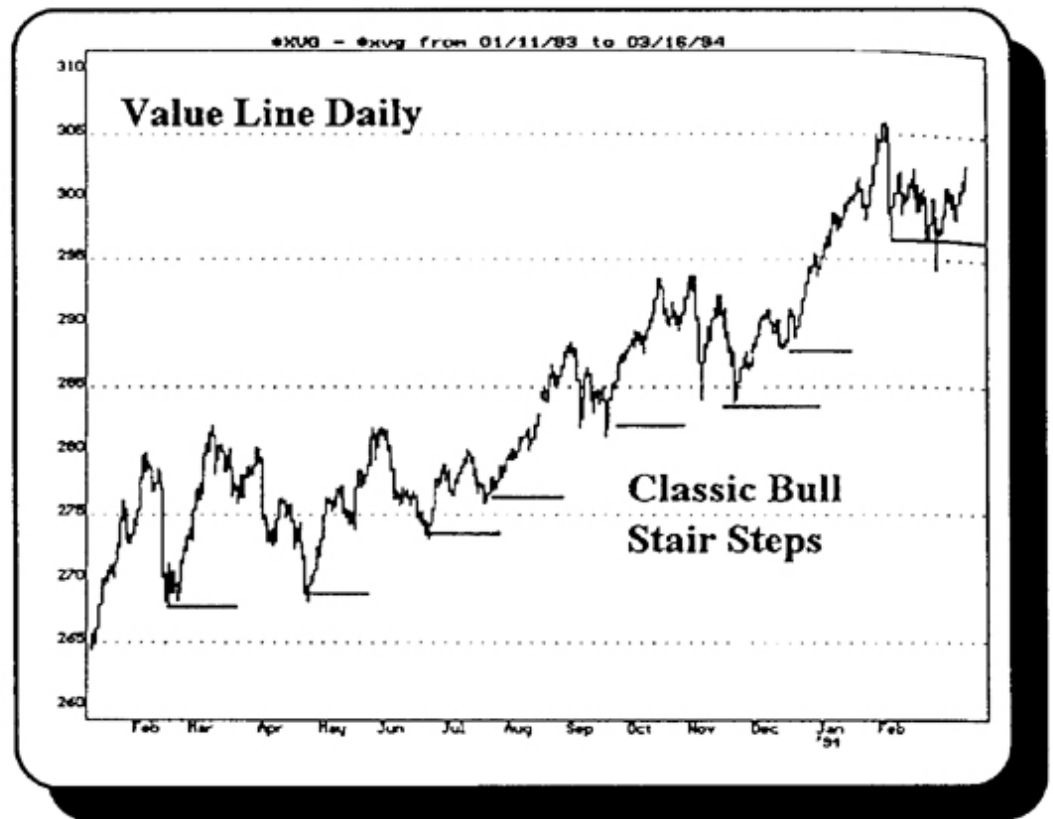


This chart of Alcoa follows a three year sideways pattern. Note the two big impulse thrusts that gave early warning before any discernible trend developed. After the last bottom, see how a tight "creeping" pattern developed showing nervousness, but this held a very angular parallel channel. This type of pattern will usually double or triple the base price within a year or so.

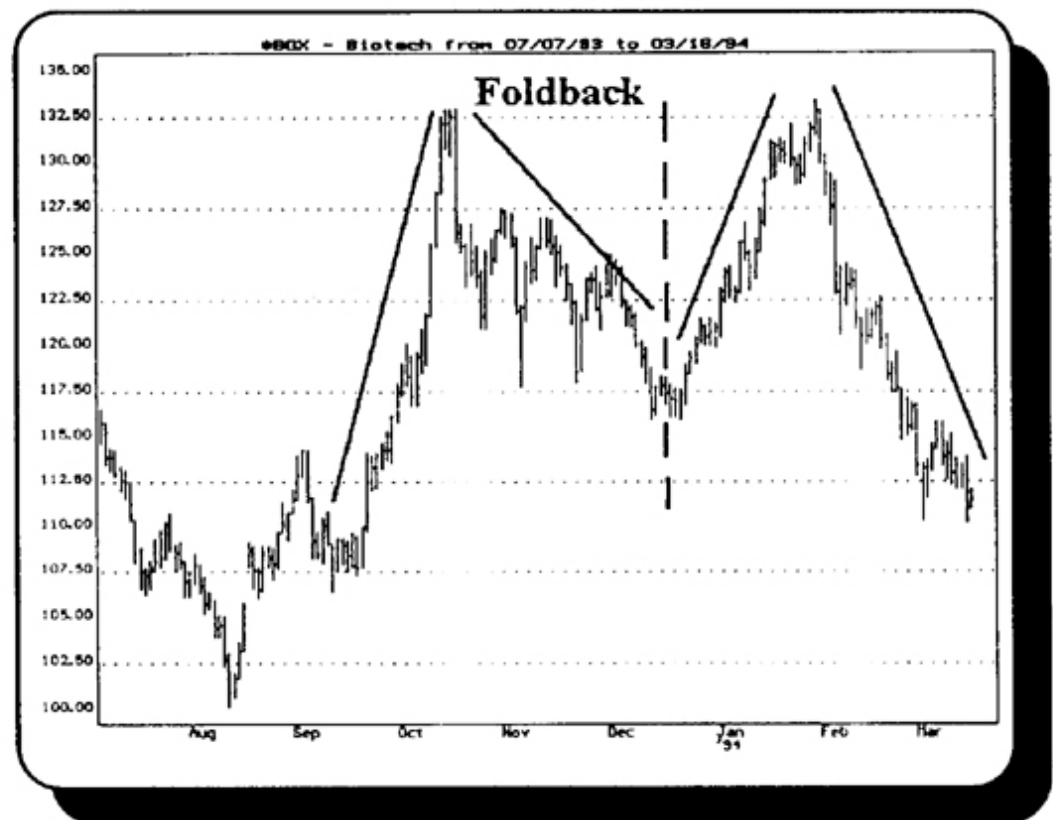




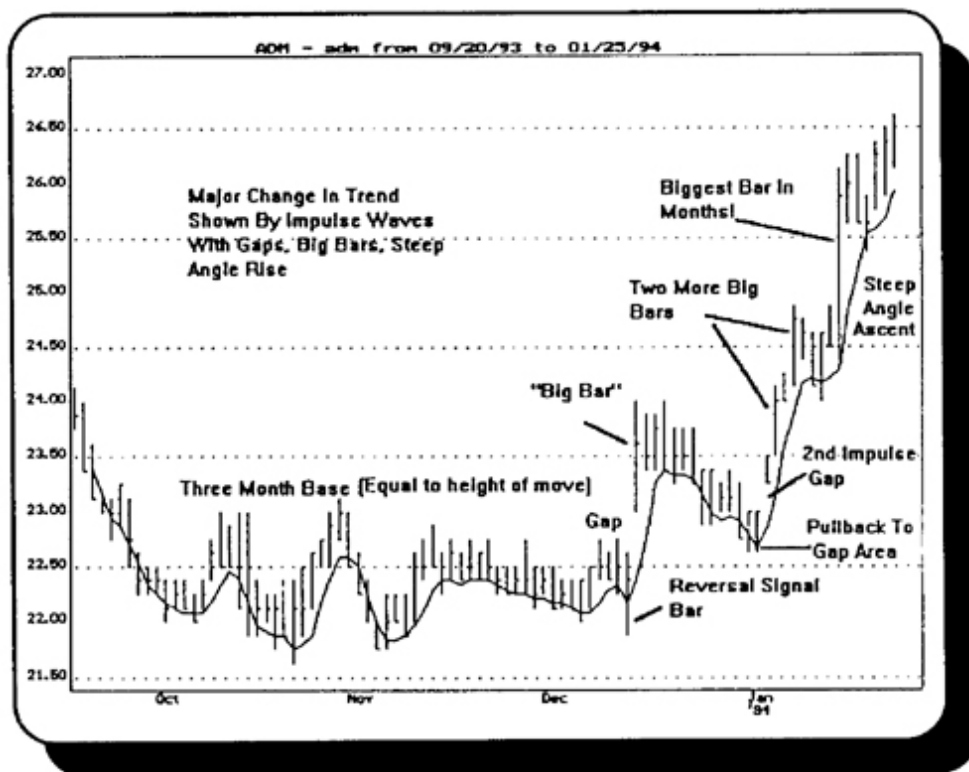
This example is the classic Bull Trend. Although very advanced in terms of the number of stair steps, it is still bullish until at least one step is broken. Even then we would know that, "You can break one step back but not two." Until we break two, the trend would generally be considered up.



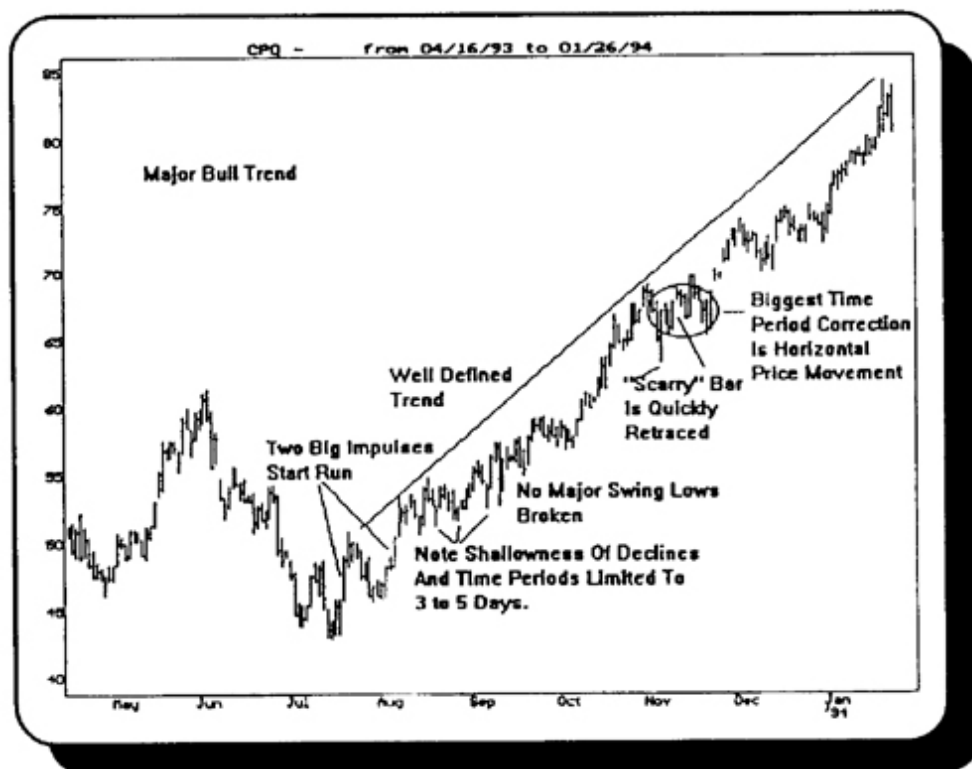
This is an obvious example of a foldback pattern. Once you see the beginnings of a very symmetrical foldback you can trade until you come to each potential foldback point. Usually if the pattern is going to fail, it will do so only at the foldback points and not in the middle of the pattern. For this reason, "long legs" are ideal for trading because of the length of time before a change can occur.



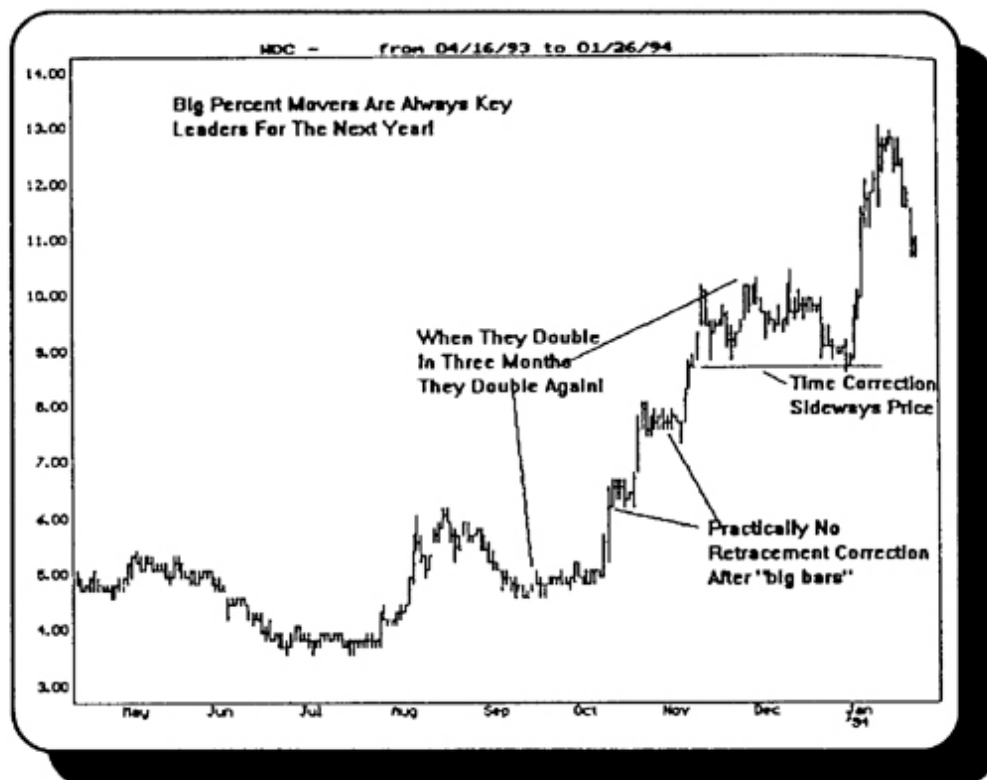
Here we see a breakout from a base starting with a I gap impulse wave. Gaps are often closed as this first one was but the second one in succession shows tremendous strength and will not likely be closed for weeks to years. Volume is not shown on this chart but this is the type of pattern you would want to see huge advancing volume to confirm a new bull move with institutional sponsorship.



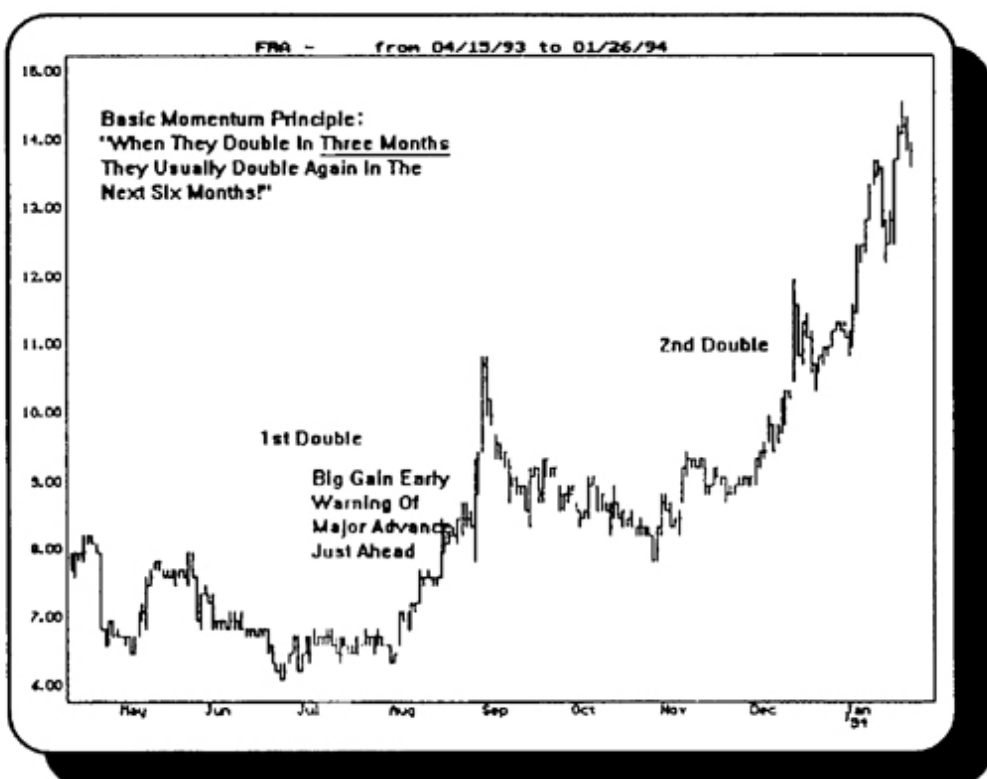
This chart of CPQ shows one of the most difficult patterns to trade -- a simple uptrend! Traders are always quick to look for tops and "extended" patterns. If you can identify this as a "fifth" wave from prior monthly charts you can make a multiple estimate of leg one or three to approximate the upside. The best approach is to look for TIME corrections such as three days or five days. When you see a larger time correction than the norm, the end could be near.



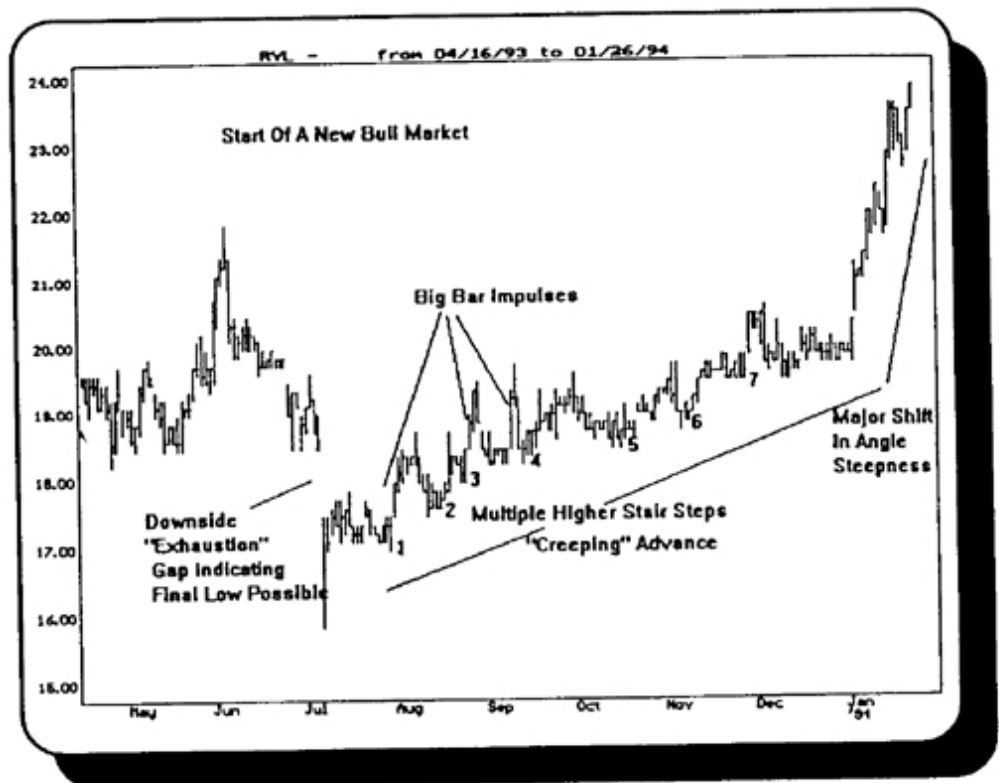
Big winners always show big momentum and most double within six months of a fundamental turn around. These situations usually go up 3 to 6 times their low prices. Volume is also necessary with these patterns to confirm institutional sponsorship, without which no big advance is ever possible.



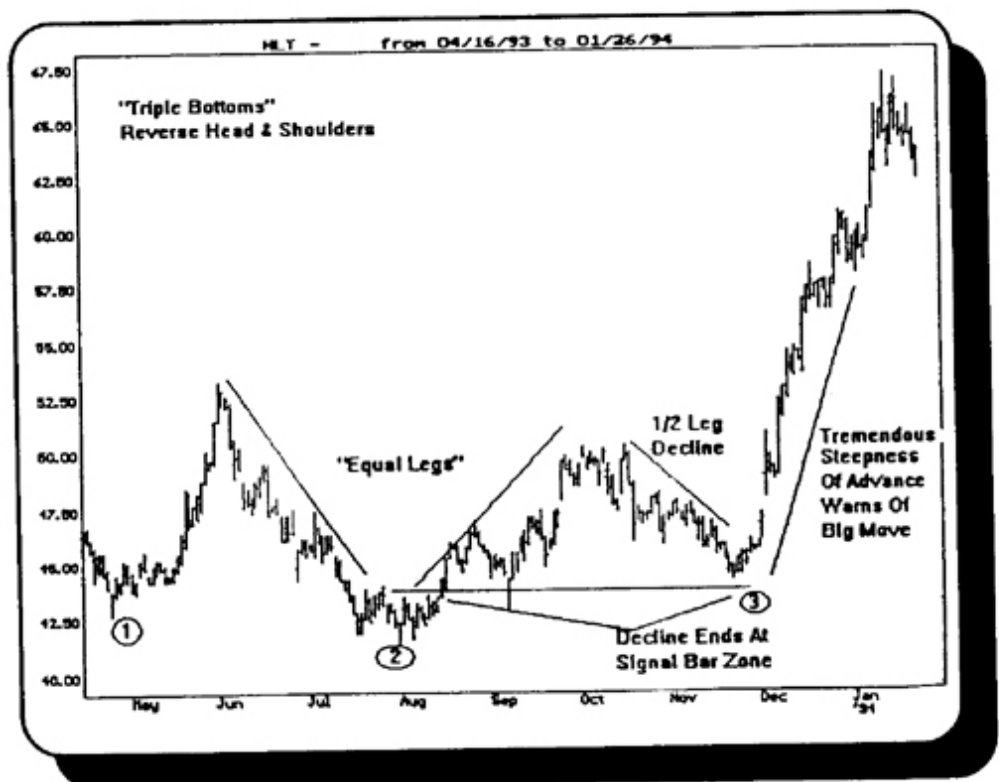
This is another big momentum play, but also note the possible mirror image foldback forming around the 1st top spike. If the low in July and August was the bottom of a many month decline, then the left foldback going towards June, May, April, etc... confirms a many month advance that the initial impulses project.



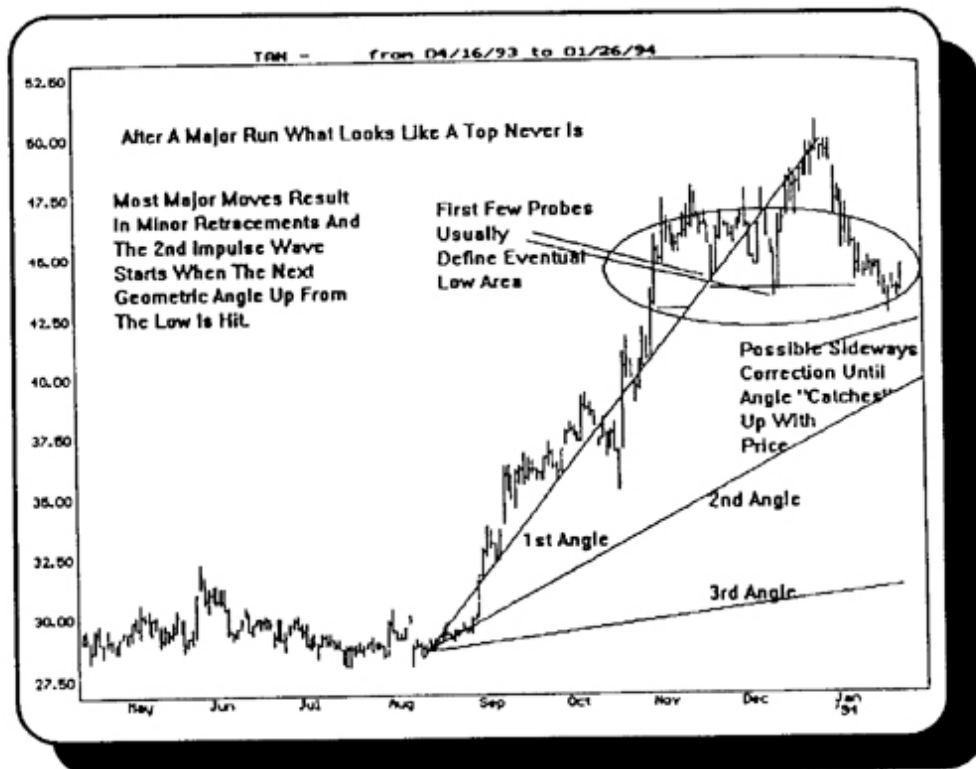
Here we have an exhaustion downside climax during the June to July period. Even though the low was made at that time and a "creeping" advance started, the basing period required had to be commensurate with the size of the break. If you measure the June high spike down to the July low and swing that sideways from July, you will see the base was equal to the decline and the uptrend could finally begin in earnest.



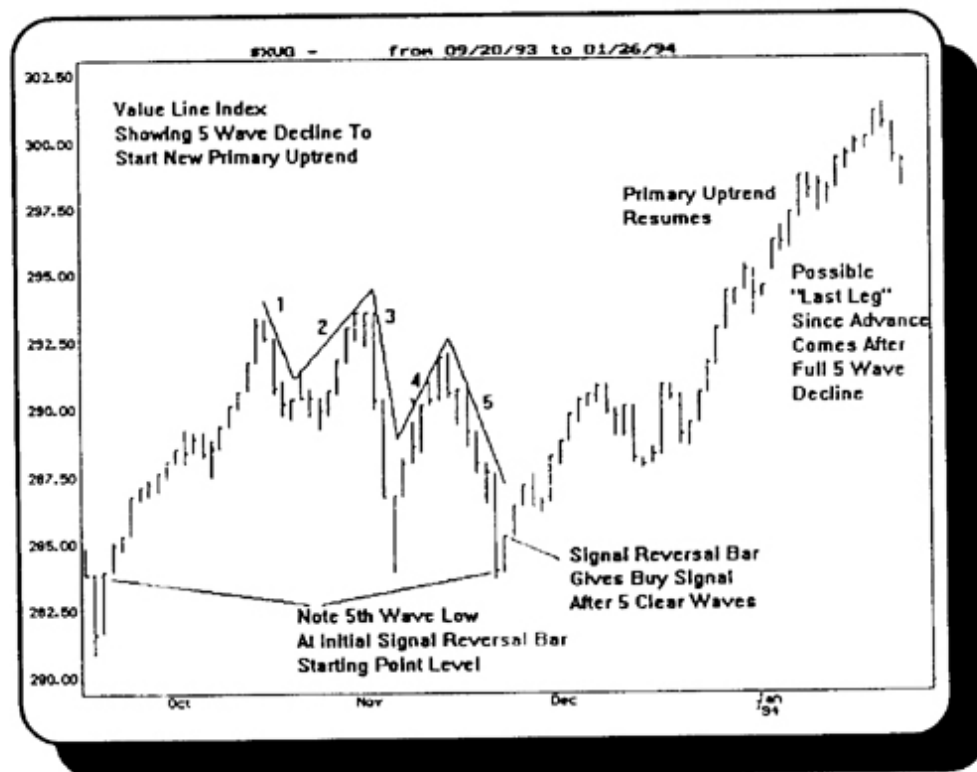
This is a typical triple bottom, reverse head and shoulders formation. The key is the secondary decline after the first impulse a following the lowest low. That decline was only half the first and it ended at the signal reversal bar buy point confirming that as a legitimate buy signal. Not shown on the drawing is a beautiful arc swung from the low at 2 up through the prior high and then down where it hits bottom at point 3 to time the up move.



This chart of Tandy is typical of early impulse moves and usually creates an atmosphere of fear of heights. Most traders want to short such a big run up, but these rarely decline, or at least take several weeks to months before a reasonable short is indicated. Strategy should concentrate on calculating retracements' areas to buy into dips for the next upward impulse wave.

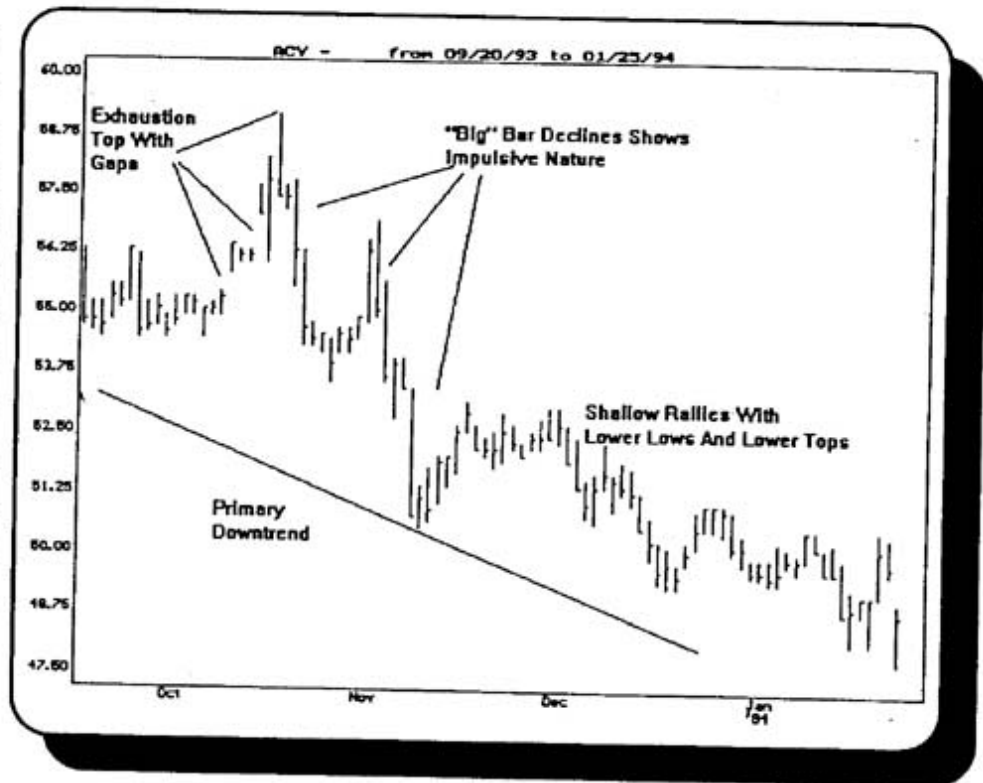


Here I have labeled a 5 wave sequence to show that the usual meaning of five waves is completion of the current trend. After 5 waves of correction, a new impulse wave starts after the 5 wave low stops at the prior signal reversal bar buy point. Note the first small top in December after the 5th wave low. At the time almost everyone was terrified of a break, but there is no such thing as 4 tops! Waves 1,3,5 are all you will get, and you must be ready to buy after the next.

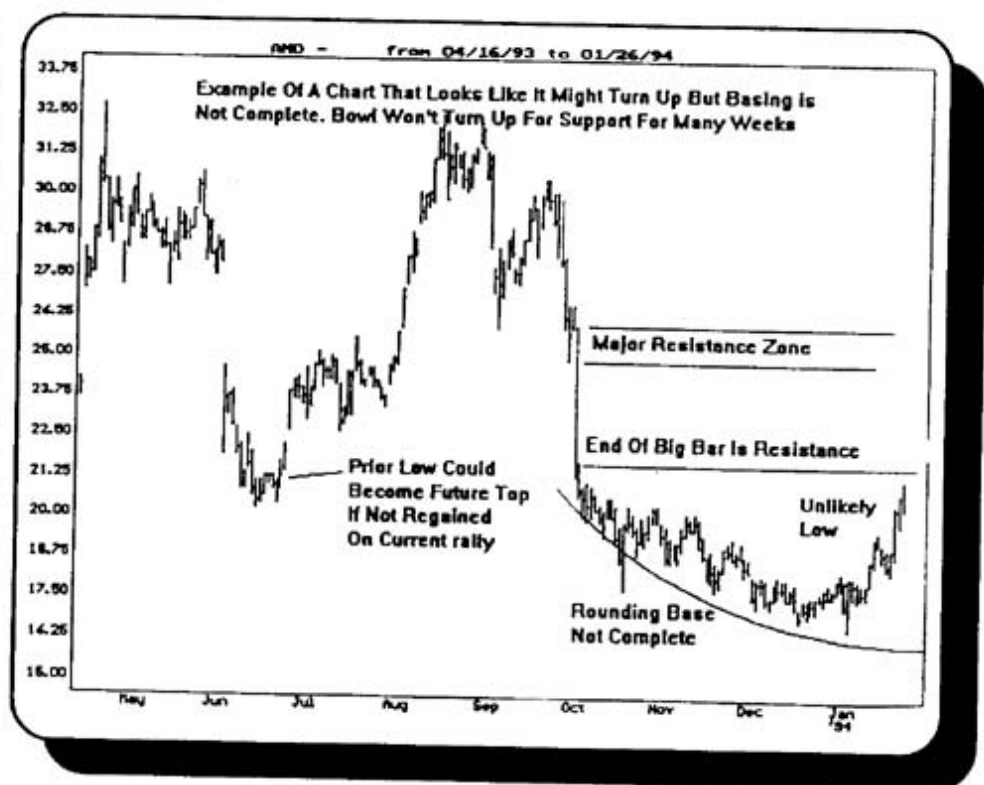




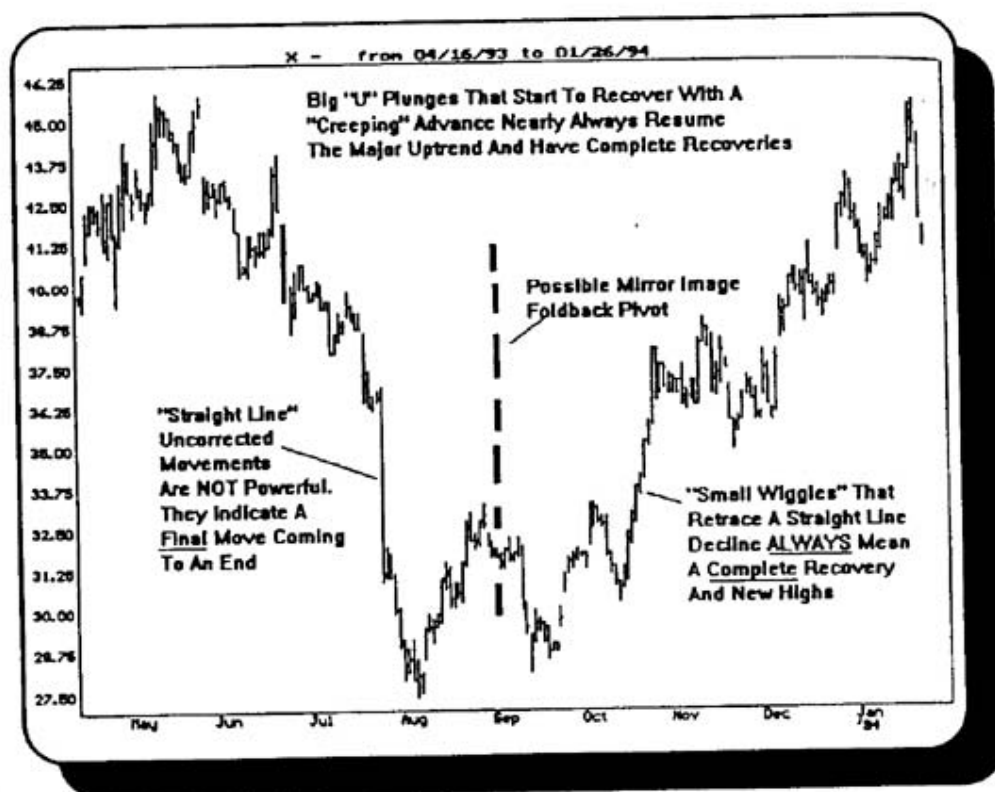
Here we see the early signs of a **reversal in trend**. A last impulse wave up with gaps is *completely erased* with big bar downward impulses. A 50% retracement is then quickly erased with more big bar liquidations. At this point we would expect at least 6 weeks to three months of price decline just ahead.



This pattern is a typical "busted chart" or one that has a sudden break of large magnitude. The momentum of such a break will last months. Never bottom fish in such patterns! Expect the basing pattern to last as long sideways as the downward price break vector. Busted patterns show a change in institutional thinking and can completely reverse the outlook for a stock for a long time to come.



This is a key chart to study. It shows the typical breakdown pattern often seen culminating in long bar "crashes." It is the "creeping" uptrend after the decline which should be noted. The more "wiggles" in that pattern, the more likely a complete recovery will be seen. In the vast majority of times when a complete recovery pattern is seen, the subsequent advance will go **twice** the distance from the low to the high. Or, as much as the price goes below the old high, it will subsequently go that much above the old high!

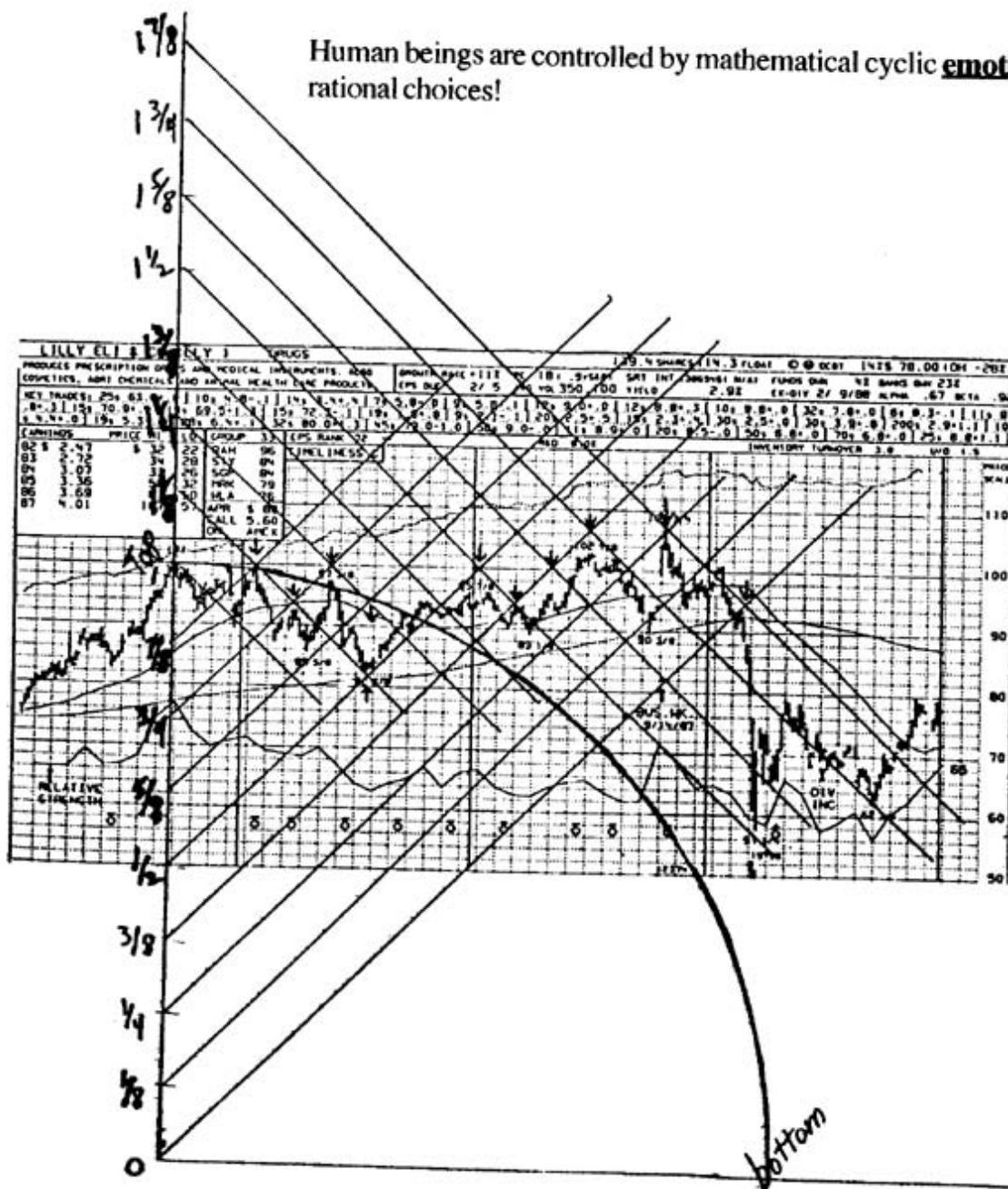


## SECRET OF FRACTIONAL HARMONIC TRENDLINES

(Gann's secret of why *Time and Price are the same thing!*)

This chart clearly demonstrates better than words the helplessness of the human condition and why people lose in the markets — **Reality** is completely different from **perceptions** — i.e., news items, brokerage recommendations, etc. have no bearing on stock price movement.

See how the top near \$100 spins out support and resistance angles at 1/8 increments. The intersections of these angles (down and up) give rise to **all** reversals in the price pattern and cannot possibly be related to random news or recommendations.

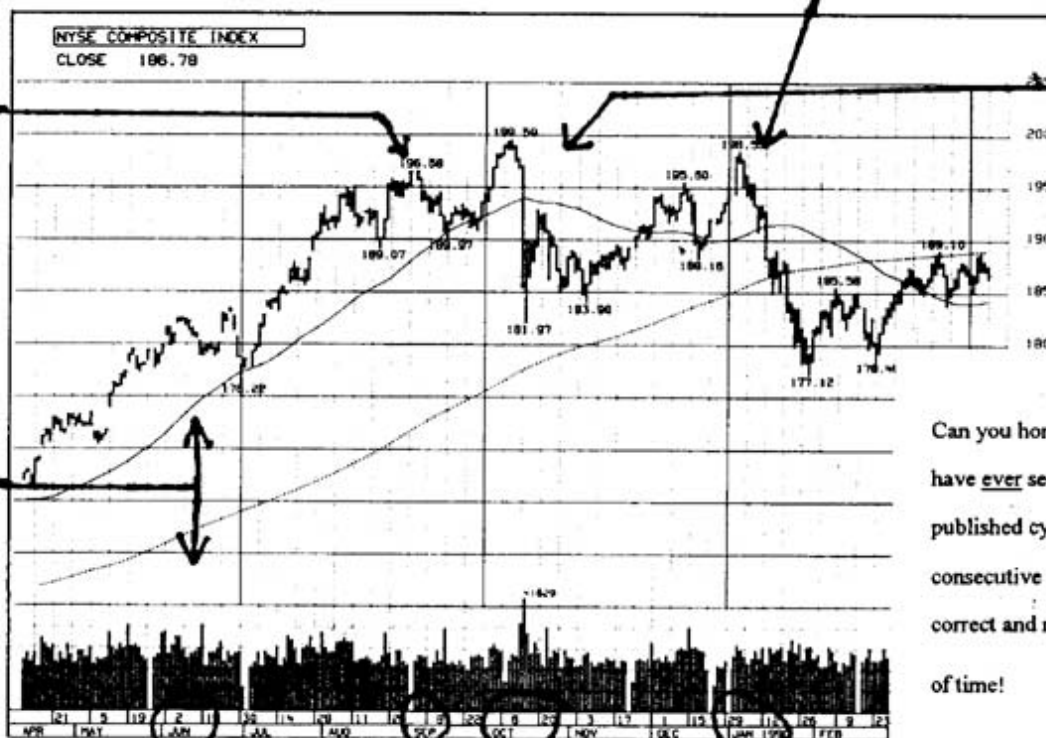


June 14, 1989

Dow 2503

As of today's date, the market has still not exceeded my resistance number of 2520 mentioned in the last report. If we exceed it in the next few days, we will probably go to 2580 for the top, otherwise the correction will start when we break 2480 and take us down to perhaps 2371, the gravity center and pivot of this year's move. The correction should take three weeks to complete. Should we start the correction from the higher level the low will be 2442. Please remember that if we are in a truly gigantic up move (2800 to 3200), we may not see a correction at all. So do not jump the gun unless we break at least 40 Dow points from any extreme high price reached.

From a cycle's perspective, I can now give you some valuable information as to the most probable outcome for the rest of the year. First, IF we get into the second week of July AND we get to or are above 2500, the odds overwhelmingly favor the FINAL TOP being made August 31, 1989, or September 5 with a price of at least 2800. Second, a crash like 1987 will again take place in October and not bottom until the second week of November. Third, another important top and the last place to get out on before the massive liquidation begins will be January 1990. This top in January could be a double top all the way back to the highs.



Can you honestly say you have ever seen such an accurate published cycle prediction? Four consecutive predictions that were 100% correct and made six months ahead of time!

Date of letter

Cyclic Top

October Crash like '87

Last Top

## Trader's Tip - "Simple Geometry"

I have been fortunate enough in my life to have been born with the special visual faculty to "see" geometric shapes in nature and thereby get a glimpse of the divine movements of WTL. In action. On the occasion of my 44th birthday and the birth of my son this week, I wish to share with you one of the greatest discoveries I have come upon. If you understand the following diagram, you will be able to solve any price projection or forecasting problem you may encounter.

Most things operate in three's.

Our first step is to get the basic "vibration" from the initial impulse wave. Since this is a vector distance we must have a universal method that will convert ANY angle of impulse to a standard time unit. This is done by swinging an arc from the primary low to the 1st impulse top and down to the horizontal. We then make a "square" out of that horizontal unit. This is labeled "box #1." We now simply stack up three boxes. Arcs swing down from each side of each box gives us our expansion time and price targets. Note that the length of the three boxes is equal exactly to the vector straight line distance from the primary low to the final high! The arc's touching the chart prices demonstrates this equality. Other commodities or stocks may have a different number of boxes but the principle remains the same. Also note that when the 3rd and 10th arcs hit bottom the long term decline is over! A slight modification of this theory will show the origin of all Fibonacci numbers and the principle underlying the Elliott Wave theory... but that will have to wait for another birthday.

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**U.S. T-BONDS**  
Chicago Board of Trade  
Weekly High, Low, Friday Close  
Nearest Futures Contract

AS OF 03/22/92

note length of 3 boxes  
exactly equal to vector distance  
Low to high

note support & resistance  
around box levels

ARC 3 units  
Box #3

ARC 2 units  
Box #2

ARC 1 unit  
Box #1

Primary impulse  
Box #1

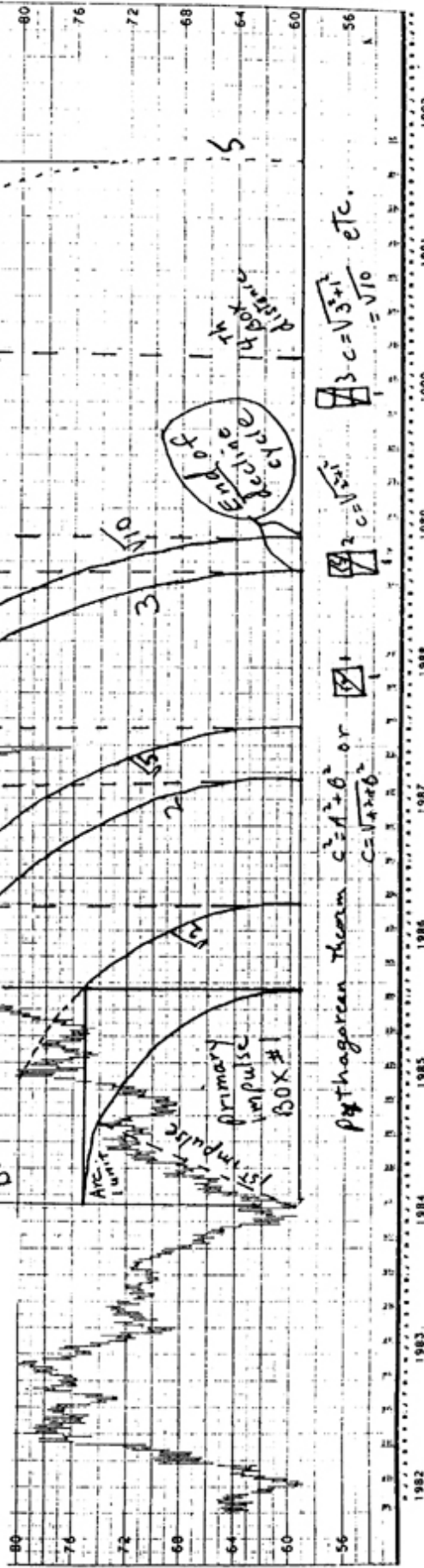
End of cycle  
at high

$$3c = \sqrt{3+1} = \sqrt{4} = 2 \text{ etc.}$$

$$2c = \sqrt{2+1} = \sqrt{3}$$

$$c^2 = A^2 + B^2 \text{ or } c = \sqrt{A^2 + B^2}$$

Pythagorean Theorem



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## S&P Futures Daily Tick Chart

