

# The Pine Valley Golf Club Course Document

By  
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## *Credits and Acknowledgements*

I would like to first thank all of those who have contributed to this design. Secondly, I would like to thank those who have provided inspiration and motivation to complete it.

Course Splashscreen: Mark "Hux" Guineven

Course Music: Smokin Joe Habiger

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Jorgen Ekroth (Final libraries)

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Special thanks to David Lurty for helping with a compiling issue and providing guidance on the optimization of the course. Mike New for using his original landplot. Joe Habiger for using his server to distribute the test versions.

Library Credits:

Textures: Scott Barker and Jorgen Ekroth

Sounds: From my own library and Mike New

Panorama: Revision of Steve Gazis background from Medinah used in GBC and a sky that Jorgen provided

Objects: Numerous sources. Scott Barker, Joe Habiger, Jorgen Ekroth, Daniel Bunch, Dammpa, David Lurty, Mike New, Joe Habiger. If I have forgotten someone I'm sorry.

Sources:

The World Atlas of Golf

The Greatest Golf Courses of the World

The Historic Golf Courses of America

The Great Golf Courses of America

The Golden Age of Golf Design

The History of Pine Valley Golf Club

The Golf Course

The Golf Club Atlas website

Multiple other images downloaded from the internet (over 100 in total)

Mapquest and Terraserver images of the course.

Hole by hole analysis from several written sources

The GBC version of Pine Valley by Mike New and myself

When I was contacted by Aaron, Scott and Jorgen we decided to create the best real course rendition thus far for PGA 2000. We feel we have done this. It has been a long journey that has created many issues I will take into consideration in my future projects, but it was worth it to see the final product. I would like to personally thank Jorgen, who in the process of this project I have grown to know a little and respect greatly. This is just another example of how many wonderful people there are in this community. Pine Valley, to me, is more than just another course. It is an experience that is unmatched by any in the game of

golf. It is perhaps the greatest architectural achievement in the history of man, to build a course with such sheer space and vastness on such a large scale. It was a joy to do this course from a base plot and see it come along over the last 6 months. I hope you enjoy playing this course half as much as I did in putting it together with the PGA designer.

Lastly, this course is not to be distributed for profit or in a compilation of courses on a CD. Violation of this could violate copyright infringement and open myself and those that have distributed the course to possible lawsuit and penalty.

God bless,

Chris Clouser, aka "The Linksman"

# *The Dream of George Crump*

*By Chris Clouser*

To many, pursuing a dream is not often a possibility. When it is, it takes passion, drive and an almost obsessive mentality to complete the task. It often also helps when you have a little bit of wealth and some supporters to help push you along. Well, this all came together on a winter day on the Reading Railroad outside of Camden, New Jersey in 1911. That was when George Crump was on a train that would forever change his life and the future of golf course design, as we know it. Crump often dreamed of having a course comparable to those in the Heathlands south of London that he loved so dearly from his trips overseas. Then one day from the view of the train he saw the perfect spot. He inspected the land and decided that was where he would build the course later known as Pine Valley.

Crump did not come to the table empty handed. He owned the Colonnade Gardens hotel in Philadelphia and had amassed quite a fortune. He immediately, upon the purchase of the 180 acres, invited several of his best friends, including A. W. Tillinghast and George C. Thomas, Jr., to join his venture. Soon after purchasing the site, he sought the foremost experts in the area of design and consulted them on how to build his ideal course. He asked CB MacDonald to appraise the site and determine if it would make a suitable track. MacDonald thought it to be the best site he had ever set foot on and thought it would be the greatest course ever, if it would just grow grass. Harry S. Colt was the next person brought in. Crump was truly impacted by Colt's designs in the Heathland regions south of London, including St. George's Hill and Swinley Forest. Colt and Crump worked together to get the original layout and holes drawn up for the work to be overseen by Crump and his construction crew. From that point on the main drive in completing each hole was Crump, until his death with only 14 of the holes completed. The two other members of the advisory committee at that time, Simon Carr and Henry Fownes, decided to let the Wilson brothers from nearby Merion Golf Club complete the construction of the 4 remaining holes based from Crump's notes and sketches. The results of this endeavor created perhaps the greatest golf course in history.

The original intent of the course was to be a challenge to the elite group of Philadelphia golfers that played at the various clubs in the area. There were many fine clubs, but none that measured up to what Crump saw as the ideal challenge. Crump felt that a golfer should be challenged to make many different type of shots. Much like William Flynn and George Thomas in their designs, Crump thought that a player should have to make certain shots to be successful at Pine Valley. There are many forced carries from the tees, but many of these are manageable. But to be able to take full advantage from the tee over these areas you must have length as well. The 6<sup>th</sup> hole is a prime example of this quality. The longer you can hit the ball the shorter the hole plays. The other key component that Crump appreciated was accuracy. The fairways at Pine Valley are almost all surrounded by brush and waste, but they are in most instances exceptionally wide and provide plenty of room for the golfer to hit his shot. The key is often in the location you place your tee shot. The 2<sup>nd</sup> provides the best example of this, as a shot that flirts with the bunkers on the right will have the preferred angle into the green as you will be hitting somewhat into the slope of the green. This challenge is often sited as a weakness of Pine Valley. But Crump did keep the shorter player in mind. He included holes such as the 8<sup>th</sup> and the 12<sup>th</sup> that would require a fine short game and allow players with modest length to keep in touch with those of more prodigious strength. As you go around the course, you will find as many shots that require a soft touch as those that necessitate brute force.

Although Crump, originally intended his course to be a challenge, he also meant it to be his legacy. That legacy has carried forward since the opening of the course to today with it being one of the premier, if not THE premier golf course in the world. Although by today's standards, Pine Valley is of modest length, it still holds a great deal of fear to many players around the world. Is this fear based off of reputation alone or is it justified? Countless are the number of stories of fine players coming to Pine Valley and getting humbled by this giant. The key to that is that every hole is possibly a birdie hole, but can just as easily lead to a large score, as each shot around the course is a challenge. There are many courses that challenge you from tee to green, but fail on the putting surface. There are also many that are very manageable throughout though until you reach the putting surface, but Pine Valley is one of the few that requires thought everywhere.

Crump also created a course that was an amazing blend of styles that created a masterful tapestry of architectural wonderment. As shown with his willingness to take input from so many sources in the development of his course, he also was willing to implement different concepts within his work. Looking around the course anyone can find the heroic aspects, such as the carry to the 13<sup>th</sup> green or the tee shot on the 4<sup>th</sup>, or can easily be placed in one of the penal hazards on the course, such as Hell's Half-Acre on the 7<sup>th</sup> hole or the Devil's Arse bunker on the 10<sup>th</sup>, or can appreciate the strategic elements of holes such as the wonderful 16<sup>th</sup> or the almost out of place 11<sup>th</sup>. As you go from hole to hole, though, they seem to all just work so well and masterfully. Architecturally speaking also, Pine Valley was the innovator of the "target" based design theory with island fairways and strategic design based on aerial shot preferences. But Pine Valley did not go as far as most current designs in requiring this through the entire course. Crump did this like everything else, it just blends in, as with the tee shot on the 14<sup>th</sup> or the approach on the 17<sup>th</sup> hole. These aspects used by Crump have made Pine Valley the epitome of architecture in the era where architecture was born and thus making it the poster child of the Golden Age of Golf Design.

With that pedigree one then must wonder what is it that separates it from all the other courses in the world. Pine Valley is clearly among a class of courses around the world that effectively are in rarified air. You can count on two hands the number of courses that exist, or have existed that could even be considered on the same level as Crump's masterpiece. Augusta National was perhaps the most strategic design, at the time of its inception, ever conceived and was brought to the forefront by the presence of Bobby Jones. But it failed in one key component that it's own designer (Alister Mackenzie) thought was a true mark of a great course, in that it was seen as imperfect by those who played it. Thus his work on that course eventually was replaced or modified to great lengths. Pebble Beach is perhaps in the most amazing location the world will ever see a golf course on. But for all it's splendor it has some holes which do not merit any discussion when your round is complete, other than what your score was on them. Granted the work of Chandler Egan has been mitigated to a degree, but it is the interior holes, which have stayed almost true to form that are the angst of the course. Cypress Point is the only other course that is as exceptional a golfing location as Pine Valley. The course makes use of three different types of areas within its boundaries and is an excellent work to study and is perhaps the finest strategic design in America. But for some reason the course just doesn't seem as brash and bold as Pine Valley. It is beautiful, but sometimes too sublime. The great Lido Hotel Course, some regarded as the best course in the world, was eliminated from existence due to the Great Depression. How wonderful it would have been to see this course now with the amazing greens and strategic work of Charles MacDonald, but again this course was eliminated and replaced by a much inferior design. Perhaps the only course that can compete with Pine Valley is the Old Course herself at St. Andrews. Although the Old Course has an immense amount of history and is amazingly exciting to play, it lacks the heroic aspects of Pine Valley. It's equal in strategy and in penalizing bad play; it just seems to come up short in this one area. Other people will throw out courses such as Royal Melbourne, Ballybunion, the National or even perhaps a modern day giant such as Sand Hills as the best course ever, but they all seem to fall short of what Pine Valley has set as the standard.

The work of George Crump will obviously live on way past this little writing or perhaps past my lifetime, but for those of you reading this I just wanted to give you some idea of the uniqueness of the course that has been provided to you for your enjoyment. Although it cannot truly be recreated, I hope you find this a suitable facsimile that helps to make you feel as if you have an inkling of the enjoyment that it is to play the course that Crump dreamed of on that winter day on the train going to Camden.

# ***THE DEVELOPMENT OF PINE VALLEY***

*By "Hazard," AKA, A.W. Tillinghast*

In an earlier installment of these recollections of mine, there was related the story of the "Birth of the Birdie," which took place during one of the regular week-end pilgrimages of a little band of Philadelphia Golfers. The name of one of these pilgrims was mentioned, that of the George A. Crump, one of my dearest old friends and one of the rarest, most lovable men I have ever known. His contribution to golf was so great, that certainly it deserves a chapter alone, a chapter, which I fear may be not entirely adequate.

I have told of our winter habit of taking train from Camden for the hour's run to Northfield. George Crump invariably was of the party and on several occasions I observed him looking intently from the train window as we passed through a section about twenty miles out. As a matter of fact his attention had been attracted by a freakish bit of country in South Jersey, freakish because it was so totally different from the monotonous flat lands of those parts. At first he said nothing to any one, but quietly, as was his wont in everything he did, he visited the tract and took option on one hundred and eighty acres of gently-hilled, pinecovered, sandy land -- the tract which he had so intently studied from the passing trains.

Then he told a few of us of a plan, which he had in mind. This was in 1912, and at the time the Philadelphia district really possessed no course of true championship requirements. The best golfers of that district bemoaned the fact that their play was over courses that were not sufficiently exacting to develop their strokes to such high standard as to make them serious factors in the national events. George Crump's dream was to build a course, which would offer a great diversity of play in really exacting form, a course that would have no single hole designed with the limitations of the ordinary players in mind. He contended that each club in Philadelphia had enough class players, who could cope with such a super-course, to insure an ample membership. With his own money he purchased the property and entirely financed the work. But, above all, his own ideals entirely dominated that plan and this truly great course must ever remain, a lasting, glorious monument to his genius. True, he sought opinions from others. I was one of the first to walk the property with him and that George Crump finally incorporated two of my conceptions entirely (the long seventh and the thirteenth) will ever be the source of great satisfaction. He also had opinions on various points from Walter Travis and C.B. Macdonald, also from many others of his friends, who, as amateurs, were capable of offering valuable suggestions because they were numbered among the great players of the country at that time.

In January of 1913, George Crump gave me permission to publish in my syndicated weekly golf column of that period, the first word of the new course. An excerpt from this read: "The Philadelphia section is to have a great golf course -- one which may eclipse all others. Although I have known of the plans for more than a year, only recently have I been relieved from secrecy and the announcement appears in print today for the first time. Mr. Crump's first thought was to provide winter golf, but I predict that it will attract the cream of players throughout the entire year."

In March, 1913, I published a full description of work already accomplished and described in detail the first four holes, which had been completed entirely to George Crump's own plan and personally directed building, and also the plan of the first nine holes and the tenth and eighteenth, all of which remained as George determined with the exception of the ninth. In May it was announced that the British golf architect, H.S. Colt, was in Canada and that probably he would visit Pine Valley to collaborate in the final drafting of plans, which he did during the following month, June, and most excellently. So it will be seen, by all this, exactly how Pine Valley was conceived, and how it developed. In some respects the course represents a consensus of opinion, carefully edited by the master mind of George Crump, to whom must be given credit to the fullest measure. Certainly one of the world's greatest golf courses, it reflects the genius of one man after all and must ever be a tribute to his memory. For George Crump was not destined to live to see his great masterpiece entirely completed. That is the tragedy of it all. Yet, it was a fortunate thing that he did live long enough to hear Pine Valley's praises from the lips and hearts of the truly great in golf, but I know that the praise from his close friends and boon companions of the links brought him even greater delight.

His sudden death might have been even more unfortunate that his passing, for he left no will to provide for the actual completion of his work or of its passing to a regular organization, an eventuality, which he had always contemplated in absolutely an unselfish way and without the remotest thought of any

profit to himself, although the project had rendered the property exceedingly valuable. However, most fortunately for the game of golf, his family, knowing well his unrecorded intentions, made possible the turning over of Pine Valley to the present club, as he would have had it.

### ***MY CRONOLOGY OF PROGRESS REPORTS***

#### **April 1913**

The new Pine Valley Golf Club at Clementon, New Jersey, which promises to offer the most notable course in the vicinity of Philadelphia, has a force of workmen removing trees and underbrush and gradually the tract is being opened to view. As the work progresses the first favorable impressions become deep rooted convictions, for the land is remarkable indeed. Everything indicates that the fond hopes of the builders will be realized.

Already seven of the holes are opened up and rapidly cleared fairways are being prepared for spring seeding. Several of the greens are ready for preparation.

Thus far the holes which are being prepared present golf of this description. The first, starting away from the clubhouse site is a fine two shotter, but it will take a drive of at least 175 yards to even partially open up the green which lies around a bend. The location of this green is ideal. The second is another two shot proposition, but it will take a fine second to carry an enormous pit which will be placed in the side of a ridge which is approached broad-side. A good long drive will enable one to carry up to the green with a cleek or spoon.

The third in my opinion will be excellent. The teeing ground will be placed on top of the same ridge as is located the second green. The green can be reached by a long straight drive which must carry the "Alpinization" at varying distances of from 185 to 200 yards — depending on the accuracy from the tee. The fairway sides, and the green sides ad flank will be guarded by elaborate variations of the Mid-Surrey mounds and grassed hollows. Two well placed shots will reach the next green, but under no circumstances can either be indifferently or weakly played. The drive is over very rough country and must carry a high ridge. The fifth is the second of the four one-shot holes on the course. A very pronounced depression, over the creek must be carried with a short iron to the green in the hill side beyond. Standing on this teeing ground the view in every direction is one to make the most exacting golfer enthuse. Nothing is lacking (even a variety of heather is growing about), and anyone who has played over the British courses must at once remark the strikingly similarity of the surroundings.

The sixth is a three-shotter, and although one cannot reach home in two, there is much to be gained by a long ball which takes the most difficult and dangerous carry. The next hole is less developed than any of these I have mentioned, but enough has been cleared to show something of its requirements. A long well placed drive must carry an enormous dip through which flows a stream of clear water. The second is a high shot with a mashie if the drive has been well hit, but if it has not the longer shot with a mid iron will prove exceedingly bothersome. The remaining holes are yet to be cleared, but the work will be pushed hard. The home hole will be one to try the soul of man. It is long two shotter — the second over a water hazard, and I can assure you that it calls for a mighty stroke. It makes an unusually fine finish.

All tests of the soil have proven most gratifying; indeed I can think of nothing which is missing at Pine Valley. My first prediction of the future of the new course is truly a conservative one, as I believe after other visits, which have been treats indeed.

#### **December 1913**

Eleven holes of the new Pine Valley have been seeded and are coming on in promising fashion. It is expected that the entire round will be ready for play at this time next year. During the month a number of the leaders of golf in Philadelphia visited the place and were amazed by the progress which had been made. It is quite possible now to describe Pine Valley as a completed course, for many of the holes are in the embryo. Those which have been played are entirely satisfying. Not long ago the discoverer and developer of Pine Valley, Mr. George A. Crump, accompanied by Mr. Howard W. Perrin, Mr. Richard Mott and Mr. A.W. Tillinghast, played golf there for the first time. To the founder was given the honor of driving the first ball and he selected a faithful old driver as the club in his bag most deserving of the historic first stroke. "Bolivar," as this particular club affectionately is named by Mr. Crump, is huge and powerful, and on this occasion it was at the business end of a long straight ball from Pine Valley's first teeing ground.

Mr. Perrin, firm in his conviction that the new course will prove to be one of the most notable in America, asserted that in years to come these four pioneers would look back to the day with great satisfaction. As he expressed it, "We are making history and with this in mind we must fancy "Bolivar" hanging in a prominent and honored place on the club-room walls." Mr. Tillinghast secured a first par — a 4 on the first hole played, and likewise the first "bird," — a 2 on the third. To the same player must be given the rather



doubtful distinction of slapping first into the lake in front of the fifth teeing ground, which he did to his great disgust on this history making day.

Only five holes were ready for play but the players made the short round frequently and they found that the distances were excellent. In the near future we will attempt a description of this new course, which has been so widely discussed and which promises so much.

#### **February 1914**

Pine Valley now has eleven holes opened for play and each week-end finds many golfers availing themselves of the excellent conditions. The last three holes to be cleared of stumps are opening rapidly, and will be ready for the spring seedling. Although there exists no clubhouse at present the players are welcomed warmly by Mr. George A. Crump, who has built a pretentious bungalow close by the fourth fairway.

#### **April 1914**

In my previous estimate of the merits of the new course at Pine Valley, I had only considered the first dozen holes, but as the ground has been cleared and the last six holes developed, I must confess that they are indeed remarkable. In as short time I hope to give a complete description of this wonderful course, and I am sure that the readers of this magazine will be quite as enthusiastic as myself.

#### **June 1914**

Pine Valley is coming on famously. The few remaining holes which were to be cleared will be quite ready for the fall seeding and since they have been opened up they appear to be even better than the constructors had even dared to hope.

#### **December 1914**

The Pine Valley Golf Club formally opened the new locker house and eleven holes on November 7<sup>th</sup>, and the members were amazed at the rapid strides which have been made during the past few months. The new building, which eventually will be used exclusively as a locker house, at present contains the temporary club rooms.

Much has been written concerning this marvelously fine course, discovered by that celebrated golf architect, Mr. H.S. Colt, but for the most part, players are familiar only with the eleven holes which are now being used. A fortnight ago the writer had the pleasure of walking over the undeveloped seven holes, and in his opinion they are the greatest of any, and Mr. Crump agrees with me in this opinion. At present the fairway is littered with uprooted stumps and underbrush, but the work of development is being pushed, and without a doubt the club will be playing on the entire course at this time next year.

As an illustration of the magnitude of the work, let me tell you that in one place, nearly twenty acres of bog will be made into a lake and it requires but small imaginative power to picture its attractiveness in the days to come.

To give an idea of the demands of Pine Valley, let me quote from the recent report of the club secretary, Dr. Simon Carr:

*The total length of Pine Valley course is about 6,700 yards. It is not a slugger's course in any sense, except in the opinion of those who fix their standards by parlor golf played only with a mashie and putter. The following is an analysis of the shots up to the green, based on the supposition of good driving from each tee:*

*3 brassy approach shots, at holes 4, 16, 18.*

*4 cleek approach shots, at holes 1, 6, 9, 13.*

*4 midiron approach shots, at holes 2, 11, 12, 17.*

*4 mashie approach shots, at holes 7, 8, 14, 15.*

*The one-shot holes are: No. 10 for a short iron, No. 3 for a long iron, No. 5, full shot with a wooden club.*

*This arrangement gives a full, well-balanced variety of approach shots as anyone could wish, and they are skillfully distributed over the round.*

Mr. George A. Crump takes great delight in pointing out to visitors the spectacular drive to the fifth green at Pine Valley. It is a longish carry across water, but as a matter of fact it looks far greater than really is, although it must be admitted that it requires a stout stroke to get home. Not long ago a gentleman, standing on the teeing ground and looking across the lake to the green ejaculated, "It is impossible! No man can make that carry."

Mr. Crump smiled in his quiet fashion and taking his driver he proceeded to demonstrate the ease with which the carry could be made, for the drive is a favorite of his, and as often as not he lands his ball squarely on the green. But on this particular occasion the wood was perverse and on doubt, after the first

few balls had ignominiously ended in the water, Mr. Crump's desperation was responsible for repeated failure. He took each stance with grim determination, and carefully he prepared to strike, and mightily he swung — but each ball seemed bewitched until the entire supply was exhausted. It was a trifle vexing to hear the knowing "I told you so" from the doubting Thomas.

#### **January 1915**

In digging one of the pits at Pine Valley, a fine specimen of an ancient Indian stone hatchet was unearthed. It is nearly perfect.

#### **March 1915**

At Pine Valley the new holes will be completed as rapidly as possible. The original plans have been changed slightly for Mr. Crump uncovered a magnificent hole when he cut the timber from the ridge which is encountered when the 12<sup>th</sup> green is quitted. The drive is across a deep depression and unless the shot is a long one the green will not be in sight. Along the left of the fairway extends a pronounced throw which will take a hooked ball and sent it far from the "straight and narrow." This new 13<sup>th</sup> certainly is one of the best of any on the new course.

#### **January 1916**

Pine Valley has secured the services of Greenkeeper Bender, who, under the direction of the late Mr. Fred Taylor, produced the greens at Sunnybrook. It will be remembered that Mr. Taylor's theories, treating to a considerable extent on the preparation of germinating beds for grass seeds, appeared last year in THE AMERICAN GOLFER. At Pine Valley some of the greens showed a condition of considerable acidity, which could be traced to the use of native muck from nearby water bottoms, which had been drained when the building of the course was started. Unfortunately the material had not been permitted to become conditioned for turf building. However, it is anticipated that the old greens will soon be brought back to a condition of excellence and certainly a similar error will not be made on those yet to be constructed.

#### **April 1916**

Mr. George A. Crump asserts that the greens at Pine Valley have recovered fully from the slight set-back which they sustained in the fall. It was reported erroneously that the acidity which appeared in the turf at Pine Valley was caused by a commercial humus, but Mr. Crump hastens to correct this misapprehension by admitting that the trouble could be traced directly to the application of certain muck which had not been given sufficient time to dry thoroughly.

Fourteen of the Pine Valley holes will be ready for play in the spring, and it is likely that the fall will find the course in sufficiently good condition to be played in its entirety.

#### **May 1917**

The Pine Valley Club has purchased large tracts of land on all sides of the course and consequently they are protected for all time against unpleasant neighbors. Included in the new purchase are sixty-five acres along the railroad tracks in the direction of Clementon. The club now owns a trifle over five hundred acres.

The turf is improving rapidly and work is being pushed on four new greens, Numbers 12, 13, 14 and 15. It is anticipated that these new holes will be ready for play in the Fall and this will complete the course. The new dormitory is completed, and the members find it extremely convenient.

#### **May 1918**

Certainly the most vital topic, discussed by Philadelphia golfers at this time, concerns the future of Pine Valley. As everyone knows, the late Mr. George Crump, after his conviction that the property possessed unusual golf features, purchased it and devoted almost all of his time and a part of his fortune to the building of the course. He practically lived on the ground, and as the months lengthened to years, a magnificent course took shape under his tireless supervision. His first reward was the unstinted praise of the leading local golfers, with whom he had played for many years. Then others of national repute visited the course and to prove that their enthusiastic estimates were not inspired by momentary impulses, they became non-resident members, visiting the valley again and again, frequently coming from remote points. In a word, Pine Valley gave greater promise of national importance than any course in America. And Mr. Crump labored on, steadfastly striving for perfection and with the course nearing completion.

A beautiful clubhouse and dormitories were built, and a number of the members of the newly organized club built bungalows on land which they leased from the club. Pine Valley rapidly was becoming a great golf center. Then suddenly the hand of death took Mr. Crump away just as he was climbing to the highest, pinnacle of his dreams. An everlasting monument to his greatness was about to be finished. To make the course and the club possible, he had spent a great amount of money and in payment he had

received from the club, bonds amounting to \$172,000. Without a doubt, he intended putting these bonds aside, that they might not hinder the club in the work of maintaining and further developing the great course which he had hewn from the rough. He was rugged and strong. Probably any thought of death had not occurred to him. But in his vigorous health he was struck down without warning, and his will, made some years ago, contains absolutely no provisions for Pine Valley, nor does any record of his wishes survive. In view of these circumstances, it is not difficult to grasp the situation. But undoubtedly a way will be found to make all things possible. Those who were near and dear to him cannot permit the work, which was his very life, to perish. Mr. Julian Storey has been commissioned to paint a portrait of Mr. Crump, which will be hung in the clubhouse. The artist has, for his study and guidance, a number of photographs. It is anticipated that the canvas will show Pine Valley's founder in golf costume, which he wore always in the work he loved so well. Mr. Joe K. Bole, of Cleveland, one of Pine Valley's members and staunchest admirers, has prepared a wonderfully perfect model of the course. In detail and in general the model is faithful and artistic.

### **July 1918**

As predicted in *The American Golfer* several months ago, Pine Valley is to be completed and maintained as closely as possible to the line which would have been followed by the late Mr. George Crump had he lived. This is good news indeed, not only to the members of the club but to golfers in general, for this course promises to be rated among the greatest in America.

### **January 1919**

One of the last year's greatest blows was the death of Mr. George Crump. At the time of his death he was nearing the completion of a great piece of work, the construction of the Pine Valley course, at Clemontton, New Jersey. From the beginning it was a gigantic undertaking and one which required much money. Mr. Crump had provided funds from his private purse and afterwards, when a club was organized, he turned the property over to the new organization, accepting club-bonds, which covered the greater part of his out-lay.

His sudden death came as a rude shock to golfers in all parts of the country, but particularly to those who were associated with him at Pine Valley. Of middle age and in rugged health, Mr. Crump had not anticipated a sudden taking away, and unfortunately his will made no provision for the taking care of the club-bonds or the completion of the work.

Fortunately, his estate recognized that this course was the dream of Mr. Crump's life and soon there were offered ways by which the club might continue. Although the course was completely planned there remained four holes to be completed and it was estimate that close to twenty-five thousand dollars would be necessary to finish them.

Now it is announced that one of the Pine Valley members has offered to furnish the funds for the work but he will not permit his name to be made public. This surely is a wonderful tribute to the game and to Mr. Crump's memory.

*{Mr. E.G. Grace, president of the Bethlehem Steel Co. has donated \$35,000 for the completion of the remaining four holes — Editor}*

### **February 1919**

Last month, in our reference to Pine Valley and a contribution which had been made for the completion of the four unfinished holes, the Editor inserted a clause which stated that Mr. Eugene Grace was the mysterious donator of \$35,000 for this purpose. Now, I know that he got this information from a source which seemed to preclude any possibility of mistake, but the following letter from Mr. Howard Perrin, President of Pine Valley and ex-president of the USGA, speaks for itself:

"My dear \_\_\_\_\_:

I notice in "Hazard's" article in the *American Golfer*, (and I am sure you know this gentleman very well) that he makes a statement relative to Pine Valley which is absolutely incorrect and which I would like to have you correct in your next article and in any other way that you see fit.

Mr. Grace did not give any money whatever to Pine Valley and I do not understand where the report emanated.

Mr. Grinnell Willis of Morristown, New Jersey, who has been very much interested in Pine Valley and was a great friend of George's and mine, and who spends considerable of his time at Pine Valley, came in to see me about a month ago and said that he would be glad to give \$20,000 to finish the four holes at Pine Valley, and in a few days he sent me a check for that amount. It seemed to me that inasmuch as the Crump Estate had returned to us \$40,000 of the \$100,000 in bonds that were held by George, for the purpose of taking care of the \$20,000 note and to finish the course, that it was only fair since we had sold

\$20,000 of the bonds to take care of the note, that the other \$20,000 of the bonds should be given to Mr. Willis instead of accepting his offer as an absolute gift.

So it practically amounts to Mr. Willis having purchased \$20,000 of the Pine Valley Golf Club five per cent Bonds and the proceeds will be used for finishing the course.

Mr. Willis asked at the time he made his gift, that his name should not be made known to the newspapers, although all club members knew that the money was given by him, but since the newspapers have gone entirely wrong on the subject, I think it only fair that the facts should now be stated.

Mr. Grace naturally is very much annoyed that he should have been given credit for something he did not do and therefore, you will be helping not only Mr. Willis but Mr. Grace in stating the facts of the case."

(ending in a purely personal strain)

Faithfully yours,

Howard W. Perrin"

#### **April 1919**

They are active at Pine Valley. The course will be completed as quickly as possible, and it is likely that the new green committee will consist of but two — Dr. Simon Carr and Mr. Hugh Wilson.

The committee will grapple with the work of improving the soil conditions for the fairway is not good in spots. When the course was seeded much of the sand was given only a top-dressing, which evidently has not been sufficient. Now it is determined to plow much of it up and incorporate with the light sand a proper amount of heavier soil.

#### **September 1919**

It will be good news to learn that at last the Pine Valley course will be open for play over the full eighteen holes in the course of six weeks or even less. There will be a house warming and perhaps, a one day tourney at 36 holes to which will be invited all the crack golfers of the country. The course has improved wonderfully of late and the architectural beauty of the new holes will charm the old members as well as those who have never seen the course. It has taken a long while, but the course is worth it, every bit.

#### ***CLOSING NOTES***

May I be pardoned again if I turn to the column of the date of January 28, 1918? Never have I penned lines with more difficulty than those which announced the passing of George Crump, and the little tribute, weak in itself doubtless, never the less came from the heart, for my old friend was a man who came hearts that way.

## *The Contributors to the Design*

The design of Pine Valley is primarily attributable to George Crump. However, as many of the architects of the period did, Mr. Crump consulted several architects and local golfers, many of whom went on to have successful careers themselves. Here is a list of those who visited the site and who are credited with some assistance in the design and completion of Pine Valley.

**George Crump** - Founder, builder, major financial contributor, designed routing and holes, and oversaw construction of fourteen holes.

**Harry S. Colt** – Spent one week surveying site with Crump during planning stages for the initial routing, Colt also made suggestions and drawings for each hole and his suggestion for the placement of the fifth hole was his primary contribution. Colt's major designs include several courses in Great Britain and Ireland including Royal Portrush, Muirfield, Rye and Swinley Forest.

**Charles H. Alison** – Representing firm of Colt, Mackenzie and Alison, met with Advisory Committee in March 1921 to discuss revisions to the course. Made many suggestions. Some were implemented and most pertained to green contour design and maintenance issues. Alison was best known for his work in Japan including Hirono and Kasamagasueki. Did several designs in the US, including the no longer existing Timber Point.

**Walter Travis** – Consultant to Crump in the early days. Was involved with a major redesign of Garden City Golf Club

**A.W. Tillinghast** – Frequent visitor to Pine Valley and friend of Crump. Claims to be responsible for "Hell's Half Acre" on the par 5 seventh and the green complex location on the par 4 thirteenth. Perhaps the most famous member of the Philadelphia School of Design. His most famous work includes Winged Foot, Baltusrol, San Francisco Golf Club and Bethpage.

**William Fownes and Simon Carr** – Two of three members appointed to Advisory Committee to coordinate completion of the design after Crump's death. Both were very familiar with Crump's philosophy and worked diligently to protect his original design intentions. Fownes was the founder and original designer of Oakmont.

**Hugh Wilson** – Consulted and was a frequent visitor in the early days of Pine Valley. Was the primary architect in charge of completing the course after Crump's death. Wilson was the main designer of the original layout of the Merion Country Club.

**Alan Wilson** – Frequent visitor to Pine Valley and primary consultant on soil and turfgrass issues during all construction years. Was a main contributor on the Merion design as well.

**William S. Flynn** – Frequent visitor during completion of the final four holes. Hired in 1928 to design an alternate green on the par 4 ninth and construct several new tees. Designed the 2<sup>nd</sup> green to the right on the 9<sup>th</sup> hole. Flynn was the main architect on several notable designs including Huntingdon Valley, Cherry Hills, Cascades and the redesign of Shinnecock Hills.

**George C. Thomas, Jr.** – One of 150 founding members of Pine Valley. Made frequent visits during construction prior to the war and traveled back to club in 1928 to consult with Flynn on the 9<sup>th</sup> hole. Wrote one of the main treatises of golf course architecture, *Golf Architecture in America*. Also was the main designer of the original layouts of several notable courses in the US, including Riviera, Los Angeles North Course, La Cumbre and Bel-Air.

**Perry Maxwell** – Supervised recontouring of several greens in 1933 and redesigned the main green on the 8<sup>th</sup> hole and the left green on the 9<sup>th</sup> hole. Also did some work on the 5<sup>th</sup> hole to the right of the green. Known by many as the best green builder in the history of architecture, particularly for his “Maxwell Rolls.” Was responsible for the courses at Southern Hills, the original nine at Prairie Dunes, Dornick Hills and the associate on Crystal Downs with Alister Mackenzie.

**Tom Fazio** – Has been the on going consultant to the club for a number of years. Largely responsible for the 2<sup>nd</sup> green on the 8<sup>th</sup> hole and designed the 10 hole short course. Has overseen several projects on the course to maintain the vision of Crump. Though often criticized in the world of architecture he has done an admirable job preserving the work of one of the greatest architectural achievements in history. His greatest works include Victoria National, Shadow Creek, Wade Hampton and several other notable courses in the last 20 years.

## *Quotes Regarding the Course*

“I think I have landed on something pretty fine. It is 14 miles below Camden, at a stop called Sumner, on the Reading Railroad to Atlantic City – a sandy soil, with rolling ground, among the pines.” – **George Crump**

“Here is one of the greatest courses - if grass will grow.” – **Charles Blair MacDonald**

“The superb hazards are a part of nature. Where does art begin?” – **Robert Hunter**

“The Pine Valley course to a greater degree than any course I have ever seen possesses individuality. Everywhere this individuality was shown, no where more than on the greens, but Mr. Crump worked constantly on the whole landscape garden as if it were a picture, adding the needed touch here and there with the patience of an artist. It was pleasant to see the varicolored bushes that marked the line of play, which were but one of the many refinements.” – **Chick Evans**

“If one could have a course with sand dunes, with water hazards both as streams and as lakes, with fairways through virgin forest, with long, rolling contours, high plateaus, lovely little valleys to play through and to cross as hazards, one would have the superlative and almost ideal golf country. Such is Pine Valley, laid out by the master hand of that sterling sportsman, George Crump. Every true golfer love Pine Valley. It may be censured by some as very difficult, especially from the rough; yet its charm is the lure of diversity coupled with the thrill of surmounting its varied hardships.” – **George Thomas**

“Pine Valley is, with the possible exception of Cypress Point, by far the most spectacular course in the world. I have never seen a course where the artificial bunkers have such a beautiful and natural appearance, and the undulations on the greens are excellent. On the other hand, I do not consider any course ideal unless it is pleasurable for every conceivable class of golfer.” – **Alister Mackenzie**

“Pine Valley is the only course in America which has been loved and pictured as a thing of structural beauty. It is a noble creation, a course of heroic carries; it has a rugged grandeur, the wealth of magnificent hazards that make it a playground of the gods.” – **Robert Hunter**

“There is no hole more exacting and thrilling to play well than this one of 184 yards. From the tee the green looks like an oasis in a desert. An absurdly small oasis, although every detail of it can be seen. The green is admirably modeled and of a beautiful design.” – **Robert Hunter on the 3<sup>rd</sup> hole**

“Again what a memorable short hole is the fifth – one full spoon over a tremendous chasm stretching from tee to green, a wilderness of fir trees on the right, big bunkers on the left. To land the ball on that green – and there is no reason in the world why you should not do it if you are not frightened – provides a moment worth living for.” – **Bernard Darwin on the 5<sup>th</sup> hole**

“I was one of the first to walk the property with him, and that George Crump finally incorporated two of my conceptions entirely, the long seventh and the thirteenth, will ever be a source of satisfaction.” – **AW Tillinghast on the 7<sup>th</sup> and 13<sup>th</sup> holes**

“What we Britons were disposed to criticize was the almost fantastic severity of the traps guarding some of the greens. They are so close to the green, so omnipresent that it is dreadfully easy to get out of one on to another and then back again to the end of the chapter. This almost amounts to eternal punishment and eternal punishment had better be left for the day of judgement. The hole I have particularly in mind is the eighth...I should like to see the green bigger and at least a measure of Christian charity shown at the back of it in place of yet another trap.” – **Bernard Darwin on the 8<sup>th</sup> hole.**

“A superlative creation.” – **George Thomas on the 10<sup>th</sup> hole**

“Mr. Crump was anxious to see a golf course embodying his ideas of the game and he discovered the possibilities, invisible to many others at that time, of the tree-covered stretch of land, and in the face of many discouragements he went ahead. Nothing was left to chance, and the result is that to a surprising degree his ideas have found material form. I remember that when I first played the course I loved it because I thought that it embodied many of my ideals, but I soon discovered that it embodied many more of which I had never thought at all.” – **Chick Evans**

“I remember that when I visited that truly magnificent and truly terrifying course, Pine Valley, I remarked to one of my hosts that if the club had any members who were rather old or fat or unskillful, they must find it very hard work. He scouted the notion and declared that such members were proud as a peacock and as happy as sand boys if they went around in 115 in place of their normal 120.” – **Bernard Darwin**



## *Hole by Hole Analysis of Pine Valley*

Pine Valley has long attracted superlatives. It is continually judged as the finest course in the world in large part because many would argue that a) it possesses more world class holes than any other course, b) the finest eighteen green complexes of any course, c) the finest collection of three shotters, d) the finest collection of two shotters (especially those under 370 yards), e) the finest collection of one shot holes, f) the finest three hole start and g) the finest three hole finish. In between, it has a great halfway house!

In addition to it being a famous test of golf, Pine Valley served as a central gathering point for architects to discuss and analyze specific design features during the Golden Age of golf course design. Starting in 1912 when George Crump acquired the property, a who's-who of architects came, saw, and in some cases contributed to its design: Harry Colt, Hugh Wilson, George Thomas, William Flynn, Charles Blair Macdonald, Walter Travis, Robert Hunter, A.W. Tillinghast, Alister MacKenzie, Donald Ross, William Fownes, Charles Alison and Perry Maxwell. They all appreciated that Pine Valley raised the standard for golf course architecture and these same architects account for the majority of the great courses found in the United States.

*1st hole, 425 yards;* Considered the finest 19th hole in golf, the 8,300 square foot green starts as an extension of the fairway and ends as a peninsula with sharp fall offs on all three sides. The demand for clear thinking is immediate: with the front portion of the green ample in width, is the golfer content to be on the front and take two putts to get down? Or is he confident enough to chase after the back hole locations where the green narrows? A wonderful dilemma posed by a bunkerless green site.

*2nd hole, 365 yards;* Some selective underbrush clearing has recently occurred on a hole by hole basis with the view that finding one's golf ball and then hitting it is an integral part to the spirit of the game. The search process for a lost ball is quicker and indeed the golfer is more apt to have a recovery shot that he could attempt. The benefit of this clearing was seen when a play-off of six men for two spots arrived at the 2nd tee. Two of the six posted a bogey and a double bogey - and they advanced! The other four men had driven poorly and found their teeballs in the sandy ruts that line either side of the 2nd fairway. They then tried miraculous recovery shots which alas proved their undoing. While this fairway is perhaps the most imperative one to hit on the course, the real terror of the hole for the class golfer is its mammoth putting surface, with its series of waves that run from left to right across the pitched green. Why the contours of this green haven't been emulated at other courses is a mystery.

*3rd hole, 180 yards;* Because of its high right side, the general right to left sweep of the green, and the bunker that protects the left side, many people consider this hole a Redan while in fact it is not. However, it may well offer more options than a Redan. Its front right hole location can be nightmarish but its back left one is lots of fun as the golfer watches from the elevated tee as his draw releases across the green towards it.

*4th hole, 445 yards;* Crump was a master at fitting the green to the hole. Given that the 4th is the second longest two shotter on the course behind the 13th, it therefore comes as no surprise to find the green is open in front and is one of the biggest on the course at 9,700 square feet. The green itself follows the general slope of the land, which is from front to back. Having one's approach finish near the front hole locations is tricky (as the ball wants to wander to the back) but the golfer who takes on the dogleg off the tee gains a real advantage by coming into the green with a shorter club.

*5th hole, 230 yards;* At Harry Colt's suggestion, Crump pushed the green 60 yards further up the hill, thus creating a long one shotter that is considered by many as being the supreme long one shotter among inland courses along with the 9th at **Yale**, the 13th at The Addington and 6th at **West Sussex**. Some golfers more closely associate this hole with Pine Valley than any other thanks to its heroic and penal nature. However, other golfers who appreciate Pine Valley first and foremost for its strategic dilemmas may find a dozen or so holes on the course more readily appealing. Regardless, the hole is another example of Pine Valley's

sterling routing as it gets the golfer from the lower 4th green by the clubhouse up to the ridge that the 6th hole plays along.

*6th hole, 390 yards;* This dogleg to the right features one of the game's finest angles of play. To carry the scrub straightahead off the tee is only 140 yards, but that would leave the golfer well over 200 yards into the green. Conversely, the boldest line requires a carry of 275 yards but the golfer would be left with a little wedge into the green. Regardless of which line the golfer takes, the closer his tee ball hugs the inside of the dogleg (i.e. the closer it is to the trouble), the better angle he has into the green, which is protected on its left front side by a bunker.

*7th hole, 580 yards;* Relatively speaking, this hole occupies the flattest stretch of property on the course, so to give the hole life, Crump left what would become probably the course's single most famous hazard - Hell's Half Acre, which bisects the fairway from the 285 to the 380 yard mark. A.W. Tillinghast was mightily impressed and would later incorporate such a Sahara bunkering scheme into several of his finest three shot holes including the 17th at Baltusrol Lower, the 14th at Five Farms course of Baltimore Country Club and the 3rd at **Fenway Golf Club**. While Hell's Half Acre puts pressure on the second shot, it's actually the tee ball that is crucial for the good player: if the golfer doesn't find the fairway, he knows that his only play will be to pitch out short of Hell's Half Acre. The green contours are often overlooked but are among the finest on the course.

*8th hole, 320 yards;* Given Pine Valley's fearsome reputation around the world, many first time players are surprised to find that they are likely to have a short iron approach shot into at least four holes (here, the 10th, 12th and 17th). George Crump believed in testing the full range of shots AND he also understood that a ticklish wedge shot could be just as worrisome/vexing as a full blooded wood or long iron shot. Since Crump's death in 1918, Pine Valley has never once fallen prey to the false quest for length that first gripped America in the 1960s and that is currently ruining such designs as Augusta National. Crump brilliantly kept the 8th short in length, thus guaranteeing that the golfer would have a pitch shot off a tricky sidehill, downhill stance. To compound matters, the tiny green measures a mere 2,900 square feet and now features a false front that Perry Maxwell built. Crump could have easily located the green some 30-40 yards further back (i.e. where the 9th tee is today) but that would have negated the need for the golfer to handle an approach from an awkward stance. The second green to the right was constructed to alleviate traffic on the first.

*9th hole, 425 yards;* Unlike many modern courses built today, Crump placed little value in having holes laid out so that the golfer could see everything. In fact, on the 4th, 6th, 8th, 9th, 11th, 13th, 16th, and 17th holes, the golfer is unlikely to see his ball land in the fairway. A lot of earth would have had to be moved to provide the golfer with perfect visuals and Crump saw no reason to do so. Also, on a course where the better golfer can continually seek an advantage by placing the ball in a particular spot in the wide fairways, the concept of the 9th's dual greens is an interesting solution to creating angles of play on what would otherwise have been a straight hole. Along with the original 8th green, Perry Maxwell also worked on the left 9th green and his back right hole location is a particularly thrilling one to try and get close to, given that a cliff is only few paces over the green. This green was originally a skyline one with nothing behind it but the growth of the trees to stabilize the sandy soil has negated that feature of the hole.

*10th hole, 145 yards;* While a sub-150 yard hole in a windy location like Royal Troon and **Royal North Devon** can tax even the best golfer, rarely do inland courses feature such little gems. Amongst inland courses, the authors can only think of the 9th at **Myopia Hunt Club** and the 7th at **Royal Melbourne (West)** as being of the same calibre and quality as the 10th at Pine Valley. Furthermore, it should be noted that the length and spacing of the one shot holes are perfect at Pine Valley as the good player is likely to hit in something like a 4 iron, 3 wood, 9 iron, and 6 iron respectively into the 3rd, 5th, 10th, and 14th holes.

*11th hole, 390 yards;* This hole would be a showpiece for most courses and yet, it is rarely singled out for praise at Pine Valley. The hole is perfectly routed across the folds in the terrain and the approach shot is up a little valley to an elevated green. A central hazard in the form of a bunker is 40 yards short of the green and is a factor for anyone who didn't find the fairway with their tee ball.

*12th hole, 345 yards;* Crump specifically thought every course should have a drive and pitch and run hole in addition to a drive and pitch hole, and this is an excellent pitch and run hole. The golfer always wants to hit his driver as far down the fairway as possible. From there, the hole turns sharply left, and if the drive is far enough, the golfer is left with a clear view down the length of the green. Exactly how to play the pitch shot can create indecision though as the green is open in front and runs away from the golfer. This hole is relatively level like the 7th but the angle of the green to the fairway and the two and half foot drop from front to back of the green more than creates plenty of strategic interest.

*13th hole, 450 yards;* Though Crump died before this hole was completed, he did hit balls to the spot that the 13th green now occupies and he declared that it would indeed be the site for the 13th green. So while Crump definitely deserves credit for finding the hole, the fact that it turned out so well belongs to Hugh Wilson and his brother who completed building it after Crump's death and the end of WWI. While the 8th at **Pebble Beach** is often cited by many including Jack Nicklaus as their favorite approach shot in golf, the 13th at Pine Valley offers far more options without being any less thrilling.

*14th hole, 185 yards;* Since Crump originally roamed these grounds over 90 years ago, the amount of mature hardwood trees has multiplied dramatically to where each of the holes at Pine Valley is famously isolated from the rest of the course (and the busy world in general). While trees have encroached into the sandy areas around some of the fairways and greens, trees mercifully play next to no roll in the playing strategy of the holes. In the case of the 14th, the trees turn the hole from a visual terror where the green was once on an isolated finger of land into a hole of great beauty, especially in the autumn months. Whether this would please Crump or not seems debatable but there is no doubt that he would approve of the recent selective tree removal that has occurred around this green.

*15th hole, 590 yards;* This hole exemplifies the definition of a classic three shotter in that each shot gets progressively harder and more exacting with the fairway starting off over 60 yards wide but narrowing to less than 20 paces by the time one eventually reaches the green. The 15th was the last hole built by Wilson after Crump's death. A Crump drawing in the clubhouse suggests that he might have been toying around with a bunker arrangement in the fairway, perhaps at the base of the hill that the green is now on. This makes some sense given that seeing an uninterrupted 420 yard stretch of fairway at Pine Valley seems odd. Conversely, the topography is ripe with challenge and such an uninterrupted stretch only adds to the variety of the overall design. Also, Crump was keen for the 15th to play as a distinctly different three shotter to the 7th, and in this regard, Wilson succeeded admirably.

*16th hole, 435 yards;* Another superlative use of angles with the golfer weighing risk/reward scenarios on both his tee ball and approach shot. The immense 11,400 square foot green must surely rank as one of the dozen finest in the game.

*17th hole, 340 yards;* Though Pine Valley has long set an unmatched standard for architecture in the United States, name another famous U.S. course that has a two shotter that measures under 340 yards in its last two holes? **Crystal Downs** is one as is Olympic but that's about it, which is a great pity but it only highlights how revolutionary George Crump truly was and how well he understood the psychology of the game. Like Donald Ross, Crump understood that there must be give and take by the course architect and he allows the golfer a chance to birdie the penultimate hole to break 80..or 90..or 100. Of course, rash tactics that place the greedy golfer above the day's hole location on this sharply pitched green can be the undoing of an otherwise fine round.

*18th hole, 430 yards;* Along with the 2nd, this hole was a particular favorite of Crump's and it is as heroic a finisher as one would expect. All of the playing surfaces are on a grand scale from the height of the elevated tee to the width of the fairway to the expansive 11,000 square foot green. And while the hazards are equally eye-catching, the subtle left to right slope of the fairway and the sloping green are just as likely to create problems for the good golfer as is the cacti that grows in the right greenside bunker!

# *The Design Log for Pine Valley*

Day 1 (July 4, 2001)

Scott Barker, Aaron McBroom, Jorgen Ekroth and myself have agreed to undertake the task of completing a version of Pine Valley for PGA2000. Our hopes are to make this the most complete and accurate real course rendition to date for the platform. Scott and Jorgen are going to concentrate on the libraries and Aaron and myself will be doing the design work.

Day 2

We have requested a copy of the ach file that Mike New had put together to date and if he wouldn't mind if we undertook the task of the design. Knowing Mike he will let us go right ahead.

Day 5

Scott has already done up a preliminary texture set and we have all gushed in wow. I also sent some object files to Scott

Day 6

Mike uploads the ach file and I get my hands on it. It, for the most part has tees and greens marked and not much detail. He also has lines to mark the elevation changes. He was obviously going to use Ken McHale's technique for elevations. Since he has it there I'll give it a shot.

Day 7

E-mailed Ken for some info on the technique and downloaded his pics of Pine Valley from his website

Day 10

I have started laying out the land shapes using the GBC version, the terra server and mapquest images and some overheads of particular holes I have received from certain sources.

Day 21

The first attempt at shape layouts and the completion of the prelim libraries are on the same day. I will download Scott's libraries and use his textures to start with.

Day 30

I have finished the rough elevations using McHale's technique and smoothed them out. The course just doesn't look right. I will touch it up and prepare an alpha version for the team. Just found out that Aaron and Scott won't be able to help out as much as they thought. We also have Jorgen working up some more textures in his spare time from his other projects.

Day 41

Got some feedback from a couple of people and realized that many of the elevations just won't work the way I have them. I flatten the entire plot. I begin the process of land shape detail work and elevation work again going hole by hole.

Day 52

I finished the detail land shapes and the elevation work. It appears to be OK. I will now go through and compare to the numerous photos I have of the course and compare these to what I have. I know I will have changes, as holes 4, 6 and 17 just feel wrong.

Day 70

I just realized that I haven't worked on a course this long before to my knowledge within the designer. I have gone through each hole and have made many changes. I can't believe how bad the work was before the comparison. I had several things I thought were spot on that were way off before the process. Have

started to work with Jorgen on a new library structure. We need a few new textures and a load of objects. I just finished testing Coos Bay and we could use a lot of those objects. In the meantime I will forest with some of the objects to get some ideas on how it looks.

Day 85

Jorgen and I continue talking about the library and working out issues. I continue to refine the course. I am doing a lot of shape detail right now. Blending is not a possibility on this course. We will have to blend slightly in the waste areas, but aside from that it won't work well. As I refine everything I keep finding errors. But I believe I'm starting to work through the details.

Day 95

OK, I start foresting stage 1. This is the stage I just put trees out there to see how they look. I am using the Monterey, Sahalee and Pine Valley libraries for all the trees. I think it looks good, but I know it just won't feel right without the grass. But this is the beta test stage. Grass will grow in the next phase.

Day 100

I have some huge compiling problems. David Lurty says he may be able to help. I will have to upload and wait on him. I'll keep foresting, but wait for him before I compile again.

Day 107

David gets back with me and helps me figure out the problem. We think it is a combination of point count and object proliferation. I went through and optimized everything tonight. I lost some elevations, but can get those on the next time through.

Day 115

I have uploaded the beta test file and am awaiting feedback. I played it online with ADX, Hux and Joe and they seemed to really like it. I played like crap, but I was writing the whole time. I had about 3 pages of notes of things to correct.

Day 119

Jorgen has the new library set up. I downloaded it and it works like a charm. The new textures look great and the objects look great also. Time to start the final phase.

Day 120

Forestring begins and I just wiped the slate entirely clean. No objects on the course. The large pine foresting areas are pretty quick, but the areas between holes are a little more taxing.

Day 123.

Now I have to begin the foresting of the waste areas. After finishing 4 holes I am concerned about the number of objects again. Compiling isn't a problem, but redraws within the game are slow.

Day 135

Joe Habinger set up a sound file for me and I downloaded it tonight. Sounds great.

Day 140

I have gone through and reforested the entire course. I need to take a break for a few days. Then go through hole by hole again until I get it exactly right.

Day 145

Started back in today and will do one hole at a time until they are all done right. Will have to fiddle until I get the feel for how the object blending will work in the waste areas. Also have to redo several of the islands while also doing elevation adjustments based off of feedback from testing

Day 152

Hux helps me out with a splash screen. The work he did looks really good on the prelim. Can't wait until it is finished.

Day 154

Hole 8 is going to be the death of me. I don't know if I will ever get it to look right. I can get the green elevations right but the bunker is wrong. Or vice versa, but can't get them both at the same time. Makes you really appreciate Perry Maxwell right about now.

Day 165

Started on course text today. I think it will be a really good add on to the course.

Day 170

I finally have the course where I think I want it, but redraws are a major problem. I have put in a few sounds but not the entire course. Want to get feedback as well.

Day 173

Have uploaded the course and notified everyone. I still need Jorgen to finish shadows and collisions on objects.

Day 175 (Christmas)

I have started deleting some objects to help with redraw times. I have eliminated about half of the grass objects. I will need to retouch all of the waste areas.

Day 177

Have received a ton of feedback and will start implementing it ASAP. Also got some bad news from Jorgen. He adjusted some stuff in the library and it helps considerably with the redraw problem. If I had only waited to delete those objects, UGH!!!!!!!!!!!!!! More rework. I need to develop a better project plan for full landplot courses, especially real course renditions. I had problems when I did Ballybunion, but didn't encounter anything to the extent I have with Pine Valley.

Day 180

I downloaded the final libraries from Jorgen. They made a huge difference in redraw time. I tested a round on the old course and it fell right in the 25 minute range for a round. Now I just need to go through and add any grasses I deleted in the meantime (in the future I will use a backup, I could kick myself). Requested Mark send me the splashscreen as I will be needing it soon.

Day 181

Received the splashscreen. Looks great. One more problem. The course won't compile. Jorgen has adjusted the shadows in the library. I will try to compile with the new library tomorrow. I added some sounds.

Day 182

Added the final sounds and installed the final library update. The course compiled. I tested the course again and found about 10 things that need fixed. The 8<sup>th</sup> green still looks bad.

Day 184

I finished the laundry list and have tested it again. The 8<sup>th</sup> green looks much better. I think one more day to finish design and one more round to test it. Then touch up the other things to go with the course.

Day 185 (Jan 6, 2002)

The course is done finally. I will upload tomorrow night once I have free time.